



Transit Future Plan

COMOX VALLEY | 2014

Executive Summary



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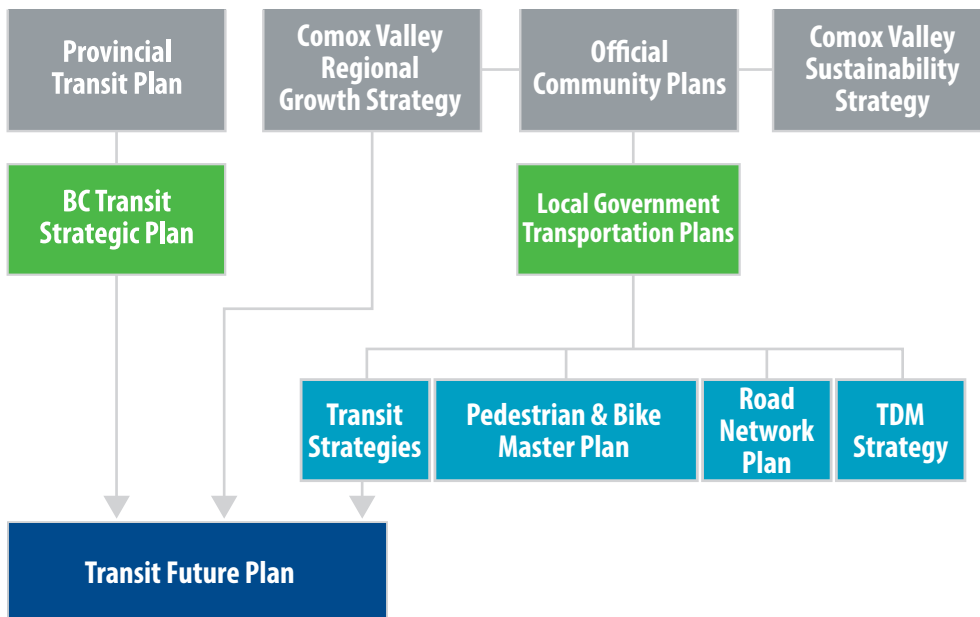
Transit has tremendous potential to contribute to more economically vibrant, livable and sustainable communities. The need to realize this potential in the Comox Valley is increasingly important due to factors such as climate change, population growth, an aging demographic and availability of affordable transportation choices for individuals who do not have access to a private automobile. Projected future growth in the Comox Valley will place increasing pressure on the existing transportation system.

The region has established a policy framework and guidelines to move towards sustainable development of which transit supportive land use is an important aspect.

In addition to these planning initiatives in the Comox Valley, the *BC Provincial Transit Plan* and *BC Transit 2030 Strategic Plan* inform the Transit Future Plan.

The Transit Future Plan builds on the Comox Valley land use and transportation policies and includes an implementation strategy for transit investments. See *Figure 1*. The Transit Future Plan was developed through a participatory planning process involving a stakeholder advisory group and broad community consultation. The Transit Future Plan envisions the Comox Valley transit network 25 years from now and describes the services, infrastructure and investments that are needed to achieve that vision.

Figure 1: Transit Future Plan Framework



Vision and Goals

Vision Statement

“An affordable, efficient and convenient transit network with routes that connect transit users with neighborhoods and other transport modes and contribute to a vibrant and equitable quality of life in the Comox Valley”

Goals

Six transit plan goals have been created to support the achievement of the vision statement. They work towards a vision that encompasses more than simply carrying more transit passengers in the most cost efficient manner. The goals look to getting more people on the bus and making the experience convenient and enjoyable in that they continue to choose transit as their preferred travel mode.

The Comox Valley transit system will:

- Attract new riders and increases ridership
- Direct and align with the region’s key centres
- Integrate with other modes of transportation
- Be efficient and cost effective
- Be safe and accessible
- Be collaborative and customer focused

Ridership Targets

The Transit Future Plan sets a transit mode share target of three per cent (3%) for all trips by 2038, which will require the Comox Valley transit ridership to grow from 626,043 to 2.7 million trips per year. This target aligns with the *Provincial Transit Plan’s* transit mode share target for regional centres in British Columbia.



The Transit Future Plan Network

The Comox Valley Transit Future Plan network includes four distinct layers of transit service to better match transit service to demand. The network is designed to be competitive with automobile travel by improving the directness, reliability and frequency of the transit system. The network focuses on services between neighbourhoods and key centres, connecting these centres with the ferry terminals, train station and airport; supporting opportunities for inter modal connections. The Transit Future Plan may require more customers to transfer from one route to another to complete their journey, with the trade-off that trips will be more frequent and overall travel will be more direct.

Frequent Transit Network (FTN)

The Frequent Transit Network (FTN) provides medium-to high-density mixed land use corridors with a convenient, reliable and frequent (30 minutes or better and 15 minute service in the peaks) weekday transit service between 7:00 am and 10:00 pm. The goal of the FTN is to allow customers to spontaneously travel without having to consult a transit schedule. The FTN will carry the majority of the transit system's total ridership, and for this reason it justifies capital investments such as a high level of transit stop amenities, service branding and transit priority measures.

Local Transit Network (LTN)

The Local Transit Network (LTN) is designed to connect neighbourhoods to local destinations and to the FTN. LTN services allow customers to plan a trip to work, school, the local shopping centre or the ferry terminals and Comox Airport by transit. Frequency and vehicle types are selected based on demand with LTN routes sub categorized into either a Ridership or Coverage LTN. In some cases, smaller transit vehicles can be utilized to better match customer demand and operating conditions on local roads.

Ridership Local Transit Network

- Frequency 30 minutes or greater
- Connection to local destinations and FTN

Coverage Local Transit Network

- Frequency 60 minutes or greater
- Connection to local destinations, FTN and interregional networks

Targeted Services

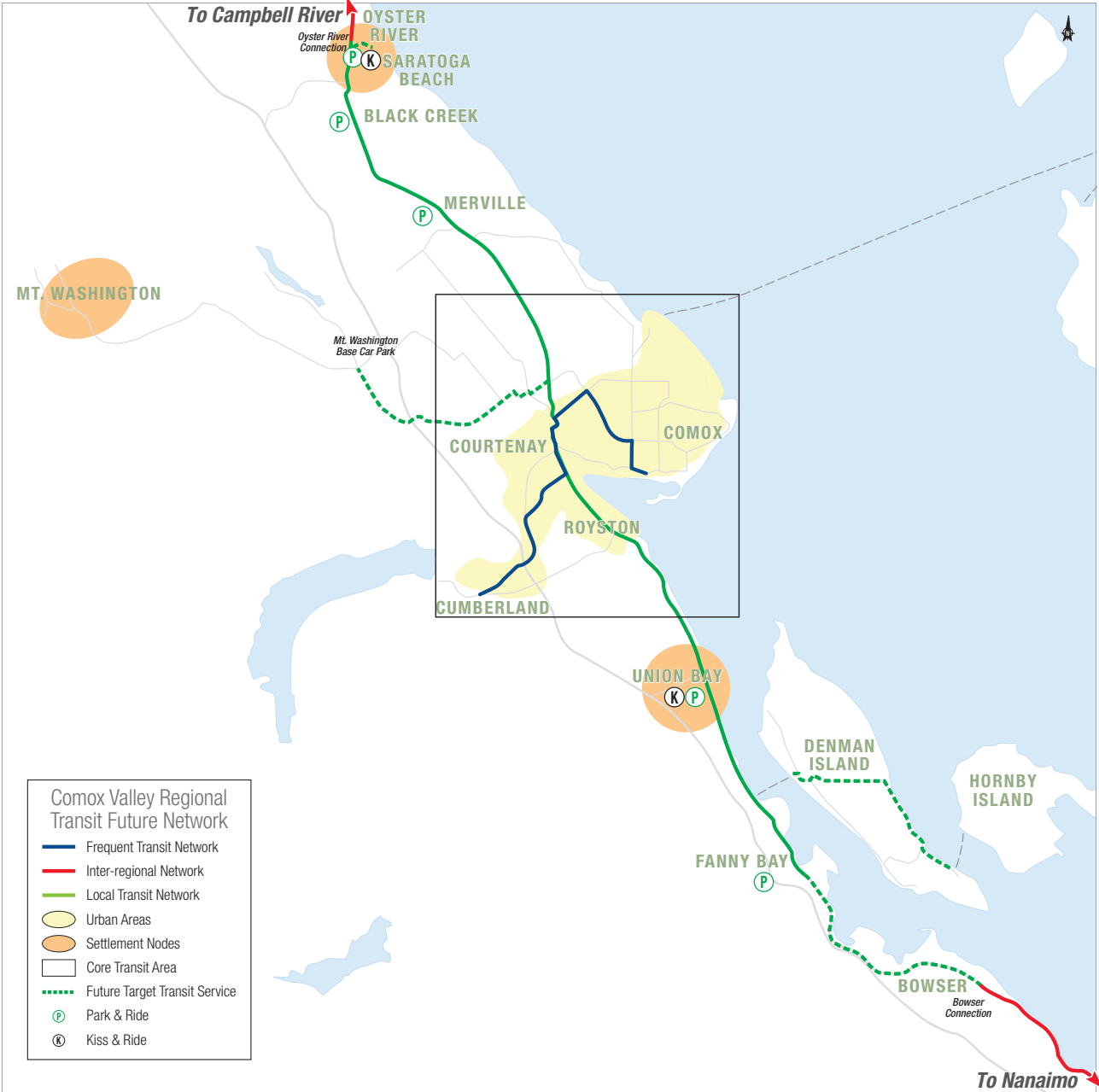
Targeted services are a collection of transit services that do not fit into the frequent or local transit network definition and are more focused on the needs of specific customers. These services include:

- Interregional connections
- School specials
- Paratransit (Community Transit): may include transit services that are demand- responsive or operate with flexible routes and schedules in low ridership areas

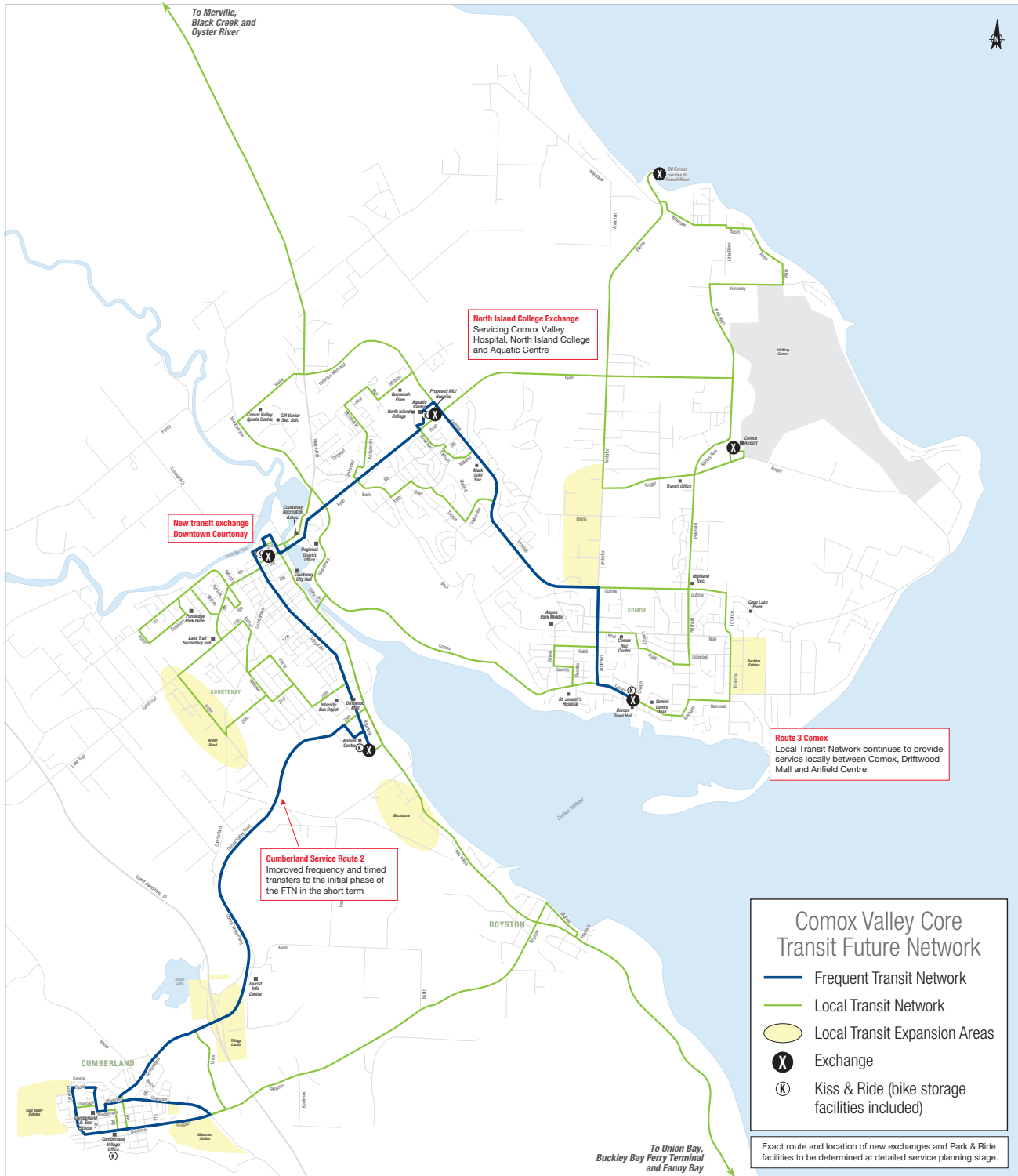
Custom Transit

Custom/handyDART: door-to-door services for customers unable to use conventional service some or all of the time

Comox Valley Future Regional Transit Network Map



Comox Valley Future Urban Transit Network Map



Implementation Strategy

Establishing the Transit Future Plan network requires prioritizing transit investments and developing an implementation strategy to transform today's network into the future network.

Short-term Implementation Priorities (0–5 years)	
Short-term Service Improvements	Resources
<p>1 Begin to develop the Frequent Transit Network (FTN)</p> <p>Phase 1: Introduce commuter express limited peak services on Route 3 and 4 Comox. This express (limited stop) service operates between downtown Courtenay and downtown Comox via North Island College.</p> <ul style="list-style-type: none"> • Weekday peak services between 7 a.m. - 9 a.m. and 4 p.m. - 6 p.m. with a 30 minute or better frequency. • Saturday peak services between 8 a.m. - 9 a.m. and 5 p.m. - 6 p.m. with a 30 minute or better frequency. • This phase will use the existing (850) non-peak express hours already in operation on these routes and increase by 500 annual service hours to implement the service improvement. <p>Phase 2: Introduce frequent service between Driftwood Mall, downtown Courtenay, North Island College and downtown Comox. This is the first major step to implement the FTN. Transit services on the existing Route 4 Comox and Route 1 Fitzgerald will be restructured to form the frequent transit route. The likely FTN corridor from Driftwood Mall to downtown Courtenay will be along Fitzgerald Ave, a Community Collector road designated for corridor improvements within the 2014 City of Courtenay 25 Year Vision for Multi-Modal Transportation. This route will also serve Ryan Road, Anderton Road and Comox Ave which are all designated as Arterial Mobility Connectors highly suited to conventional transit vehicle use.</p> <ul style="list-style-type: none"> • Weekday services between 6 a.m. - 10 p.m. with a 15 minute frequency in the peak and 30 to 60 minute frequency at other times. • Saturday services between 8 a.m. - 10 p.m. with a 30 to 60 minute frequency. • Sunday services between 9 a.m.- 6 p.m. with a 60 minute frequency 	<p>Phase 1: One vehicle and 500 additional annual service hours.</p> <p>Phase 2: One vehicle and 4,500 additional annual service hours.</p> <p>Phase 2 will use the existing 7,000 service hours in operation on Route 4 Comox and Route 1 Fitzgerald to implement this service improvement.</p>
<p>2 Realignment of existing Local Transit Route 3 Comox, to compliment the introduction of the Phase 2 of the FTN</p> <p>The introduction of the FTN in Phase 2 will include realignment and schedule adjustments to many of the routes within the network. This provides the opportunity to avoid overlapping of services and the reallocation of existing hours to well performing routes.</p> <p>This realignment primarily serves the Comox community providing Local Transit service through the more densely populated areas and directing service to Driftwood Mall.</p> <ul style="list-style-type: none"> • Weekday and Saturday services 7 a.m.-10.p.m. with a 60 minute frequency • Sunday services 7 a.m.- 9.p.m. with a 60 to 120 minute frequency 	<p>Vehicle requirement unlikely to change.</p> <p>This phase will use the existing 4,285 service hours in operation on Route 3 Comox to implement this service improvement .</p>
<p>3 Improve frequency and structure to Local Transit Route 12 North Valley Connector</p> <p>The proposed realignment will omit the transfer required in downtown Courtenay, giving passengers north of the Comox Valley a one seat journey to the North Island College and new hospital precinct.</p> <p>Service enhancements to include increased frequency Monday to Saturdays, as follows:</p> <ul style="list-style-type: none"> • Increased weekday services with the addition of one trip (340 service hours) • Increased Saturday services with the addition of two morning trips between 9 a.m. and 11 a.m. (130 service hours) • Realignment of Oyster River to downtown Courtenay trips, to travel via North Island College (210 service hours) 	<p>Vehicle requirement unlikely to change, an additional total of 680 annual service hours.</p>

<p>4</p>	<p>Improve frequency and structure to Local Transit Route 7 Arden</p> <p>Phase 2 of the FTN would provide the opportunity to investigate the restructure of the Route 7 Arden, increase coverage between the Arden Road and Lake Trail Road area, providing additional evening and Saturday services</p> <ul style="list-style-type: none"> • Weekday services 7 a.m. – 10 p.m. with a in the and at all other • Saturday services 7a.m. – 10 p.m. with 60 minute frequency 	<p>One Vehicle required and an additional total of 650 annual service hours.</p>
<p>5</p>	<p>Expand services to Local Transit Route 6 Uplands</p> <p>Increase span and frequency of services. Route 6 is a key Local Transit Route servicing the Uplands to downtown area of Courtenay.</p> <p>Upon completion of the new Comox Valley hospital, it is intended that Route 6 Uplands will be modified to provide direct drop off and pick up at the proposed bus stop to be located at the hospital entrance.</p> <ul style="list-style-type: none"> • Weekday services 7 a.m.–10 p.m. with a 60 minute frequency • Saturday services 7 a.m.–10 p.m. with a 60 minute frequency 	<p>Vehicle requirement unlikely to change. An additional total of 325 annual service hours to include:</p> <p>Increased weekday services (270 service hours)</p> <p>Increased Saturday services (55 service hours)</p>
<p>6</p>	<p>Improve Structure and Frequency to Local Transit Route 2 Cumberland</p> <p>This route will be realigned to achieve the minimum service design standard of 400 metres access to a transit route for Cumberland residents.</p> <p>To improve the directness of service, a Southern Comox Valley Area Service Plan will be also be developed to determine the optimal direct routing for Route 2 Cumberland and Route 10 Royston.</p> <p>Once the FTN is established, the trip schedule for Route 2 Cumberland is to be revised to enable timed transfers of Route 2 at Driftwood Mall. This may result in reallocation of service hours into improved frequency for Route 2 Cumberland to be in accordance with the minimum Service Design Standards for the Comox Valley Local Transit Network including a 30 minute frequency in the peak and 60 minute frequency at all other times.</p>	<p>Vehicle requirement unlikely to change, no additional hours required.</p>

Short-term Infrastructure Improvement

<p>1</p>	<p>Develop a Comox Valley Regional District Frequent Transit Corridor Study</p> <p>This will include the preferred alignment, location and timing of transit priority measures, other key stop locations and existing transport infrastructure capacity assessment to be provided by each municipality.</p> <p>Collaborative exercise between BC Transit, CVRD, MoTI, City of Courtenay, Town of Comox and Village of Cumberland staff.</p>
<p>2</p>	<p>Examine primary exchange improvements at downtown Courtenay and North Island College Precinct</p> <ul style="list-style-type: none"> • Downtown Courtenay requires an exchange that can accommodate six bus pullouts complete with shelters and other customer and bus driver amenities. Ideally the exchange would be located on the perimeter of the downtown and on route to allow cost efficient structure of the services and remove circuitous routing of services through the downtown Courtenay residential streets. • This new exchange is required to coincide with the introduction of the Frequent Transit Network (Phase 2) and the expansion of 4,500 hours within the transit system. • The North Island College Primary Exchange is a key destination point on the Frequent Transit route. This exchange needs to accommodate four bus platforms and still allow for the inclusion of a bus stop at the front door of the new hospital for limited routes to operate by.
<p>3</p>	<p>Continue to improve transit customer facilities</p> <p>Continued improvement and maintenance of transit facilitates and on-street customer amenities are important for the successful operation and future growth of the transit system. Some improvements that have been identified are :</p> <ul style="list-style-type: none"> • Space transit stops along a corridor at appropriate intervals between 300m - 400m. In some locations, transit stops are spaced too closely together leading to slower transit trips and higher transit stop maintenance costs. Corridor transit and transportation projects should include a review of stop locations prior to investing in infrastructure • Invest in on-street customer amenities such as transit shelters, customer information and benches. Bike racks at key stops and pedestrian-oriented lighting at transit stops • Improve universal accessibility of transit stops

Medium and Long-term Implementation Priorities (6–25+ years)

Medium-term Service Improvements

<p>Evaluate effectiveness of the community bus service operating in the Cape Lazo/Point Holmes and Huband Road/Seal Bay areas.</p> <ul style="list-style-type: none"> • Consider expansion of Community Bus services to other rural areas where appropriate transit density and road design and network exists to allow effective and efficient operation.
<p>Service Improvements Local Transit Route 12 North Valley Connector</p> <ul style="list-style-type: none"> • Improve alignment of route 12 at Oyster River • Expand evening and weekend service
<p>Service Improvements Local Transit Route 3 Comox</p> <ul style="list-style-type: none"> • Expand services on Route 3 Comox to include 30 minute frequency in the peak and investigate increased span of hours
<p>Service Improvements Local Transit Route 10</p> <ul style="list-style-type: none"> • Increasing span of services to 7 a.m. - 10 p.m. Monday to Saturday and increased Sunday service.
<p>Investigate the expansion of Summer Beach Services</p>
<p>Service Improvements to Local Transit Route 2 Cumberland: Improve frequency and span to minimum Service Design Standards set for the Local Transit Network.</p> <ul style="list-style-type: none"> • Monday to Saturday service 7 a.m. to 10 p.m. with a 30 minute frequency in the peak • Sunday 7 a.m. to 9 p.m. with a 60 minute frequency all day
<p>Commence a Community Transit Feasibility Study for Denman and Hornby Islands</p>
<p>Introduce local transit services as required into new development areas</p>
<p>Local Transit Route 11 Little River</p> <p>Investigate splitting route to become 11A and 11B</p> <ul style="list-style-type: none"> • 11A Courtenay to Airport – Improve direct service to Comox Airport from downtown Courtenay expanding transit opportunities to CFB Comox and surrounds. • 11B Comox to Airport – Introduce a direct service to Comox Airport and Powell River Ferry from downtown Comox; focus on service coverage for all communities in this area of the region.
<p>Investigate the realignment and operation of the Comox Valley transit routes to connect with the proposed reinstatement of the E & N rail services at Courtenay train station.</p>

Medium-term Infrastructure Improvements

<p>Examine secondary exchange improvements at downtown Comox and Driftwood Mall/ Anfield Centre</p> <ul style="list-style-type: none"> Downtown Comox requires an exchange that can accommodate minimum two bus pullouts plus layover for 2 buses, (four in total) complete with shelters and other customer amenities. Ideally the exchange would be located close to the centre of town along Comox Ave or in location developed through the Comox downtown revitalization project. Placement of the exchange must ensure for the most efficient operation of the Frequent Transit Network. Anfield/ Driftwood Centre requires a secondary exchange that can accommodate 4 bus pullouts and would act as the key transfer point for targeted and local services connecting riders to the Frequent Transit Network
<p>Examine development of new minor exchange improvements at Oyster River</p> <ul style="list-style-type: none"> To be developed in partnership with the City of Campbell River and the Regional District of Strathcona
<p>Examine the construction of Park & Ride stations at:</p> <ul style="list-style-type: none"> Union Bay Saratoga Beach/Merville/Black Creek Investigate the co-location of the Park & Ride stations with existing commercial facilities

Long-term Service Improvements

<ul style="list-style-type: none"> Investigate service improvements to Local Transit Route 10 Royston - expansion of Sunday services Continue service improvements on the established Frequent Transit Network Investigate Local Transit Route 2 Cumberland to operate as an extension of the Frequent Transit Route now in operation between Driftwood Mall, downtown Courtenay and downtown Comox. Investigate the introduction of a service to the Mount Washington base car park If supported by the feasibility study, explore the implementation of a community bus service on Denman Island connecting Hornby and Denman residents to the Ferry and enabling transfers to mainland transit service at Buckley Bay. Plan for increased Local Transit service in Saratoga Beach and Union Bay Expand the interregional service-Comox to Nanaimo, consider increased regular weekday service Introduce new local transit services as required into new development areas
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Custom Transit Service and Transit Accessibility

Short, Medium and Long term Service Improvements		Timeframe
1	Complete the handyDART pilot project	2014/15
2	Examine the recertification of existing handyDART registrants	2015/16
3	<p>Upon completion of the pilot project examine improvements to the handyDART service in the existing Custom Transit service area</p> <p>The following priorities for service improvements have been identified:</p> <ul style="list-style-type: none"> Service on statutory Holidays Resources: 100 annual service hours, no additional vehicle required Weekday service at peak times Resources: 500 annual service hours, no additional vehicle required Expanded hours of service on weekdays and weekends Resources: 300 annual service hours, no additional vehicle required 	Short-term
4	<p>Expand a travel training program</p> <p>A program should be developed to provide travel training to assist individuals who meet the handyDART eligibility criteria in learning to use conventional and handyDART transit systems. The travel training program would be based on handyDART referrals and outreach to seniors and people with a disability. For example, in Kelowna 95% of training participants have chosen to ride conventional transit following their training.</p>	Medium-term
5	<p>Continue to expand service over time to meet demand</p> <p>Improve handyDART availability to match conventional service area and hours of operation.</p>	Medium- to long-term

Cost of Short Term Implementation Priorities

Preliminary costs have been developed for the short- term service improvement priorities requiring expansion hours. *See Table 1 and 2.* Cost and revenue projections are based on the 2013/14 Annual Operating Agreement (AOA) budget figures, and actual costs and impacts may vary depending on the finalization of service and operating details. Ridership projections are also estimates based on analysis of current ridership trends and expected trends associated with the proposed service change.

At the request of the Comox Valley Regional District Board of Directors, service implementation priorities and preliminary cost estimates for the total annual net local government share for both the Conventional and Custom Transit short term (5 year) service priorities is limited to expenditure of \$270,000 and to those priorities best positioned to increase ridership and revenue.

Table 1: Short Term Conventional Implementation Priorities & Preliminary Cost Estimates*

	Service Option	Buses**	Estimated Additional Annual; km	Annual Service Hours	Estimated Annual Rides	Estimated Total Revenue	Estimated Annual Total Costs	Estimated Net Local Share of Annual Costs***	BC Transit Estimated Share of Annual Costs****
1	Develop Frequent Transit Route	2	145,800	5,000	125,000	\$113,300	\$487,900	\$172,800	\$201,800
3	Improved Structure and Frequency to Route 12 North Valley Connector	0	19,900	680	10,200	\$9,200	\$57,200	\$21,300	\$26,700
4	Improved Structure and Frequency to Route 7 Arden	1	19,000	650	7,800	\$7,100	\$87,700	\$52,200	\$28,400
5	Expansion Service Route 6 Uplands	0	9,500	325	3,900	\$3,500	\$27,300	\$11,100	\$12,700
	Total	3	194,200	6,655	146,900	\$133,100	\$660,100	\$257,400	\$269,600

*Estimate based on 2013/14 budgets. Final costs may change based on final budgets and confirmation of final operational details

**The vehicle requirements shown here appear feasible but would need to be confirmed by BC Transit's Fleet Standards department closer to the implementation date

*** Net Local Share of Costs represents local share of costs less estimated revenue

****BC Transit share of costs do not include BC Transit share of Vehicle Lease fees

Table 2: Short-term Custom Service Implementation Priorities & Preliminary Cost Estimates*

Service Option	Buses	Annual Service Hours	Estimated Annual Rides	Estimated Total Revenue	Estimated Total Annual Costs	Estimated Net Local Share of Annual Costs***	BC Transit Estimated Share of Annual Costs
Introduce Holiday Services	2	145,800	5,000	125,000	\$113,300	\$487,900	\$172,800
Expanded Weekday Peak Service	0	500	1,500	\$2,800	\$27,700	\$6,500	\$18,400
Expand weekday services at peak times	0	300	900	\$1,700	\$16,600	\$3,800	\$11,100
Total	0	900	2,600	\$4,900	\$46,500	\$10,600	\$31,000

* Estimate based on 2013/14 budgets. Final costs may change based on final budgets and confirmation of final operational details.

** The vehicle requirements shown here appear feasible but would need to be confirmed by BC Transit's Fleet Standards department closer to the implementation date.

*** Net Local Share of Costs represents local share of costs less estimated revenue

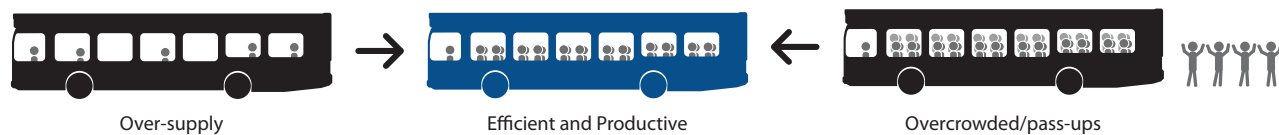
The combined conventional and custom transit estimated total for the Net Local Share of Annual Costs is \$268,000. Proposed new vehicles have been considered as either medium duty or light duty additions to the fleet.

This combined conventional and custom transit estimated total service hour expansion provides an additional 7,555 annual service hours to the Comox Valley Transit System in the short-term.



Service Design Standards and Route Performance Guidelines

As part of the ongoing management of the transit network, service design standards and performance guidelines have been developed as tools to facilitate service planning decisions and measure how well the transit system is progressing towards achieving its goals. Service standards define service levels, the service area and when service should be introduced or reduced to an area. Performance guidelines measure service effectiveness by defining numerical thresholds and targets for the system and its routes and services. The Comox Valley Transit Future Plan establishes conventional transit system targets of 30 rides per service hour and a cost recovery of 35 per cent by the year 2038. These measures are meant to ensure an acceptable level of service quality to the customer, and along with the Transit Future Plan, guide planning decisions and recommendations of BC Transit and the Comox Valley Regional District staff to the decision makers.



Moving Forward

Funding the Plan

Meeting the mode share and ridership targets of this plan will require capital and operating investments in the transit system over the next 25 years. Annual operating costs are based on conventional service hours that are projected to increase from the existing 28,019 hours in 2013/14 to approximately 80,000 hours by 2038. The plan also calls for capital investments that include:

- Expanding the transit fleet from the existing 20 vehicles to 48 vehicles
- New transit exchanges at downtown Courtenay and Comox
- New transit exchange at the North Island College
- Improvements to customer amenities at transit stops and transit priority measures as required

Given the level of transit investment anticipated over the coming decades, the way in which transit is funded needs to be reviewed. BC Transit and its funding partners will need to work together to achieve stable and predictable funding sources beyond the existing funding mechanisms.

Budget Development Process

The Comox Valley Transit Future Plan Implementation Strategy section establishes milestones over the next 25 years which strategically guide the system from where it is today to the Transit Future network vision.

The Transit Future Plan implementation strategies are also dependent on allocation of available provincial transit expansion funding between all regional transit systems as determined through BC Transit's Transit Improvement Program (TIP). The TIP's process informs the three year service expansion initiative letters sent out annually (April) to local governments in order to confirm the council/boards intent to commit to the expansion and to align the local budget accordingly. Upon Local Government confirmation, the expansion budget is included into BC Transit's annual Service Plans to the Province to secure the operational and capital budget necessary to implement service changes.

Figure 2 provides the indicative timing of budget and planning processes for future CVRD service improvements to occur. This includes alignment of detailed route level performance assessment, service change recommendations, Provincial and CVRD budget processes, and detailed service planning to implementation phase.

A detailed route level performance assessment against the Comox Valley performance guidelines and targets will seek to provide service efficiencies where apparent as part of any proposed service expansion, whereby ensuring appropriate allocation of the existing operational budget and the proposed expansion budget.

Since provincial funding for transit is confirmed on an annual basis, implementation of any service or infrastructure option requiring expansion is dependent on BC Transit's fiscal year budget, normally confirmed in mid-February/ March each year.

Once local and provincial funding has been approved the local government approves a service option or combination of options for implementation – and an Implementation Agreement Memorandum of Understanding (MOU) will be developed for signature by all required parties including BC Transit. This MOU outlines the service changes to be developed for implementation and the roles and timeline for implementation.

Figure 2: Budget and Service Planning Implementation Process

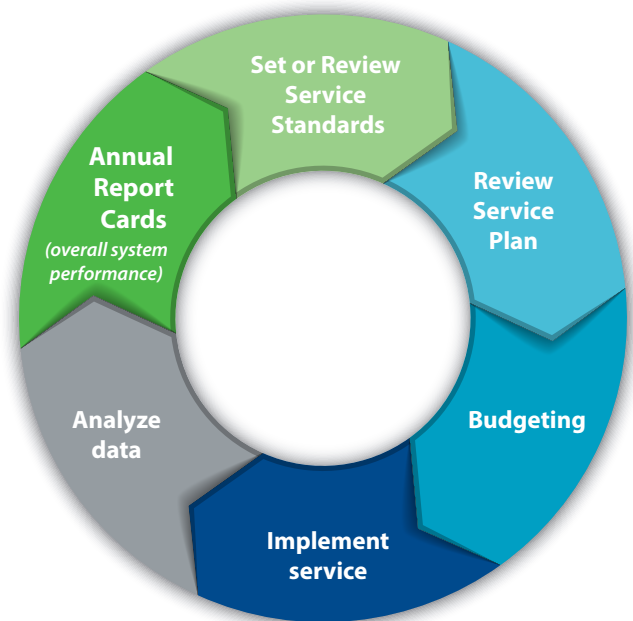


Keys to Success

To guide the plan from vision to reality will require an on-going dialogue between the Province, BC Transit and the Comox Valley on transportation policy, funding and the connection between land use and transit planning.

The Transit Future Plan builds upon previous plans (the Official Community Plans, Transportation Plans) and will be used to communicate the vision and direction for transit in the Comox Valley.

Other steps required to ensure the success of the plan include integrating the transit strategy into other municipal projects, supporting travel demand management measures, transit oriented development and transit supportive land use practices.





520 Gorge Road East Victoria BC V8W 2P3
www.bctransit.com