

7.0 TRANSIT

Public transit presents a significant benefit to a community. Transit offers increased mobility for those unable to drive, mainly physically- and mentally-disabled users and those who are too young or old to obtain a license. Transit is an economical alternative to automobile travel and provides an opportunity for communities to reduce emissions and energy consumption locally and enhance social networks within the community.

While the benefits of transit for the Town of Comox are incontestable, the challenge is to reduce travel time on transit through more direct routing and by creating a more efficient system that favours convenience. Studies indicate that convenience has a higher value to the transit patron than the actual cost of the fare. Future development in Comox is to be based on increased densification and infrastructure that will encourage alternate travel modes including transit. The Town of Comox should work closely with BC Transit to fulfil the necessary criteria for increasing ridership and further development of this mode of transportation. Short-term alternatives will provide a means to appropriate long-term planning for effective and efficient transit in the area that will encourage ridership. See the OCP for details on Transit Oriented Development and other policies to encourage transit.

Based on the Regional Growth Strategy transit makes up just 1% of the mode share in CVRD in 2006 (Regional Growth Strategy p. 48). The goal of the Regional Growth Strategy is to increase this to 2.5% by 2030. In Comox, this goal should be easily achievable. The Town should set goals for transit ridership higher than 2.5%.

7.1 Existing BC Transit Service

Transit for the Town of Comox is cost shared between the Comox Valley Regional District (CVRD) and their municipal members, and BC Transit. Routing and service levels are based on information from BC Transit with final decisions for these parameters made by the CVRD. Currently, transit in the Region (including the Town of Comox and City of Courtenay) is operated by the company Watson and Ash Transportation Co. Ltd.

At present the Town of Comox is serviced by four (4) fixed routes. Route #3 (Comox via Ryan & Lerwick) provides service between south Comox and Courtenay Monday through Saturday. This route travels from Courtenay via Ryan Road and Lerwick Road, through Comox, and then back to Courtenay via Comox Road. Route #4 (Comox via Comox Road) provides service between Courtenay and Comox in the opposite direction. Route #11 (Little River) services north Comox to the BC Ferry terminal (Powell River) and Comox Airport Monday through Saturday. Twice per day Route #11

provides service between the Comox Recreation Centre and North Island College. Route #99 (VMP Connector) provides service twice a day Monday to Friday and connects various elementary, middle and high schools within the Comox Valley.

The current transit system has some major obstacles to overcome before it will be seen as a viable option of travel. BC Transit is developing both short and long-term plans for the Comox Valley Regional District. They expect some minor system improvements to be in place by the Fall of 2011 including an improved schedule and a more direct route between Comox and Courtenay. The CVRD has advised that there was a 6% rider increase in 2010.

Currently the system is considered by user groups to be too slow, too infrequent, and too inconvenient. Buses do not serve the major community centres or link efficiently with other modes of transport including ferry, airport, and train. The existing routes were identified by survey respondents as tedious and inefficient for the needs of the community.

The majority of Comox is within 400m of a transit route; however this service does not necessarily meet the needs of Comox residents as the routes within the system are heavily focused on Courtenay. While North Comox has a bus route (#11) it does not provide service to any other area of Comox. Residents and Airport travellers from Comox are required to travel back to Courtenay and transfer to another bus in order to return to West, Downtown, and Central Comox.

The areas of Comox which do not have transit service include the newer areas of East Comox (Kye Bay), the Butchers Road area, and Pritchard Road between Guthrie Road and Knight Road. See **Figure 14** for existing and proposed transit routes and facilities.

7.2 Proposed Transit Service

While there is reasonable service between Comox and Courtenay there is limited service between the north and south portions of the community. This demand could be characterized as non-commuter demand or errand and airport demand. A route from the Comox Airport via Knight Road to Anderton Road to Comox Avenue (and St. Joseph's Hospital) to Pritchard Road and back to the Airport would provide connectivity within Comox. This route could utilize other buses which have down time during non-commuting times. This route could be timed to connect with the #11 route at the airport and the #3/#4 in downtown and/or Guthrie Road/Pritchard Road to provide exchange opportunities to BC Ferries, Courtenay, the North Island College and the new hospital site.



Figure 14.

Drawn By: RL Date: Mar 31/11 File: 1125



TRANSPORTATION GROUP
 #201-791 Goldstream Ave
 Victoria, BC Canada V9B 2X5
 Tel.: 250 388 9877
 Fax: 250 388 9879
 www.blvdgroup.ca



Transit Route Network

Comox Transportation Study 2011

The Town should work with BC Transit, CVRD, and Watson and Ash to implement this additional service route within the Town. A short term option that could be developed is the use of a shuttle bus service operated by the Town. This shuttle bus could run along the proposed future transit route. Funding for this type of service can be obtained in a variety of ways including funding from the Town budget (instead of increasing funding to transit), hotel taxes, donations from businesses and/or groups and grants. Depending on the amount of funding available the service may or may not be fee based at a nominal rate. On-going funding could be obtained by selling advertising on the side of the shuttle bus.

The area of East Comox will most likely not have transit service for a significant period of time due to the limited existing and proposed density for this area. (Typically at least seven (7) dwelling units per (gross) acre are needed to support basic bus service.) In the long-term a small, limited community bus route may be able to be added to include transit service in this area.

7.3 Transit Infrastructure

7.3.1 Transit Exchanges

A transit exchange should be located in a central location (downtown) close to amenities easy for non-residents to locate and where a wide sidewalk area exists for persons to wait for buses. A second transit exchange could be located at the Comox Airport once the Comox route is implemented. A third exchange could be located at Guthrie Road/Pritchard Road. However it is unlikely that transit service in the area requires three exchanges and that one central location would be best.

Updated information on bus routes and bus schedules should be added to the exchanges and updated as needed. The Transit Exchanges should include benches, shelters, garbage receptacles, tactile markings, transit information and key destinations for the entire network, as well as driver amenities.

7.3.2 Bus Stop Guidelines

The transit stops within Comox have a mixture of types and facilities. The following photos outline a series of existing transit stops within the Town.

The first bus stop is inaccessible and requires transit users to either wait on the grass or on the street. The second photo has a waiting pad; however without sidewalks or a wheelchair ramp this bus pad is inaccessible for physically challenged individuals.



Example of an Inaccessible Bus Stop



Example of a Bus Pad without Connecting Sidewalks



Example of a Rural Bus Stop with No Street Lighting or Waiting Area

Several bus stops identified have a painted red curb and sign but require transit users to either wait on a lawn or in the parking lane of the road. These stops are inaccessible for those with physical challenges (wheelchairs, scooters) as there is no hard, safe pad for the bus to let wheelchairs on or off the bus. These stops are a safety concern as transit users are being asked to wait within the street and/or walk between parked cars to access the bus. These stops should be upgraded to include a bus pad at a minimum. Until sidewalks are connected to these bus pads the stops will remain inaccessible for wheelchairs (in urban areas), but the safety of the stops will be improved.

The second level of bus stops are those with bus pads. Bus pads provide accessibility for wheelchairs if the bus pad can be accessed by wheelchairs. In rural areas these bus pads can have ramps to provide access to the pedestrian paths or shoulders. In urban areas, these bus pads will need to connect to sidewalks to ensure accessibility. The bus pads should be at least 2.5m by 2.5m to act as a landing area for wheelchairs.



Examples of Bus Stops within Comox

The third level of bus stop includes a waiting area, landing area, bus stop sign/pole, seating, shelters, and lighting. The addition of bicycle lockers or storage at key bus stops will help to encourage cyclists to transit. BC Transit's Transit Stop Installation Checklist and Bus Stop Design Guidelines should be utilized to create consistent, accessible and inviting transit stops. These manuals offer preferred standards for transit stops that could form the basis for the Town of Comox guidelines. The checklist includes issues of site design, connectivity, accessibility, signage and safety. See *Appendix E* for a copy of the Bus Stop Checklist.



Bus Stop on Comox Avenue Downtown



Bus Stops on Comox Avenue at St. Joseph's



Bus Stop on Guthrie Road



Example of a Bus Bay on Guthrie Road

7.3.3 Bus Stop Location and Spacing

Bus stops can be located far-side (of an intersection), near-side, or mid-block. Far-side stops are typically preferred over near-side and mid-block crossings. Near-side stops can block traffic from entering an intersection when a bus is stopped. Mid-block stops can encourage jaywalking, have an increased distance to a crossing location, and provide fewer gaps for buses to merge back into traffic.

Based on the Transit Cooperative Research Program (TCRP) Report 19, 1996 the typical spacing for urban stops is 230m with a range of 150m to 365m and for suburban stops is 300m with a range of 185m to 760m. Spacing's in Comox range from 150m in the Downey Avenue/Aitken Street area to 500m along Comox Avenue, Pritchard Road, and Anderton Road. Along Comox Avenue the Town should work to have the bus stops located within the urban stop range (150m to 365m). The stops along the remainder of the routes should be within the suburban range. There is a balance to locating bus stops, for example: too far apart and people won't use transit; too close and travel time on the bus increases as they have to slow down and stop at each location. Additional proposed bus stops are shown on Figure 14 to illustrate the bus stops required to have transit stops within the recommended urban stop range. No bus stops are proposed to be removed at this time.

Due to Comox's relatively small geographical area 78% of Comox is within 400m of a transit route (excluding the CFB Comox and Comox Airport). However, proximity to a transit route doesn't necessarily translate into high transit use as illustrated in Comox. The actual walking route to the transit stop and the distance of this route can be considerably more than 400m based on the road network and the spacing between bus stops. Ideally the walk to transit should be less than 200m (or less than 3 minutes.)

See **Figure 14** for details on additional proposed transit stops to be implemented over the next 20 years.

7.3.4 Bus Stop Type

There are two types of bus stop that would be appropriate in Comox – curb-side and bus bay. There is currently at least one bus bay within Comox on Guthrie Road. Curb-side stops allow buses to pull up to the curb and load/unload passengers without exiting the through lane. This can impact traffic operations as vehicles have to wait behind the bus; however it is preferred by transit drivers as they don't have to wait to re-enter the flow of traffic.

Bus bays are bays or recessed areas that allow buses to exit the through-traffic flow to load/unload passengers. Bus bays should be used where significant bus layovers are expected, where poor sight distances to a stopped bus exist, where there is signal priority and where the right turn lane is used for bus queue jumping.

There are bus stops that are located outside of Comox's boundary that should be upgraded by the Comox Valley Regional District to help facilitate rural residents accessing Comox.

7.3.5 Transit Priority

Transit priority techniques are used to provide priority to public transit at intersections with traffic signals. If transit takes longer than regular vehicle travel there is less incentive to utilize transit. Therefore if buses are given priority through signals, providing a time savings benefit there is more incentive to take the bus. Examples of transit priority include transit priority signals and extension of green time. Transit priority or queue jumpers work by giving transit a separate lane with loops set for transit vehicles only at a traffic signal and the priority to head through the signal before other vehicles. This allows transit to be at the front of a queue rather than within a queue. Green time extension works by the transit vehicle transmitting its location (by radio or gps) in proximity to the signal and the signal extending the green portion of the signal to allow transit through the signal without stopping.

Both transit priority techniques require an investment in infrastructure including additional lanes at intersections and/or signal pole relocation and new signal heads for the queue jumpers, and hardware in the controllers and buses for extension of the green. This type of priority technique would be difficult, based on limited available right-of-way at intersections. It is not expected that transit priority will be necessary in Comox within the next 20 years as delays and congestion at signals within Comox are not expected. Therefore the benefits of implementing transit priority infrastructure are outweighed by the significant costs to implement.

7.3.6 Land Use Planning

The traditional rule of thumb is that transit users are willing to walk four-hundred (400) metres to access transit. The Town's OCP (2011) is based on this principle, encouraging density within four-hundred (400) metres of a transit route. Increased density, combined with varied land uses, is the key concept in creating a built environment that is supportive of transit. As noted most residents already fall in the 400m access to transit however the population is not dense enough to increase frequency of service and there are limited bus stops which increase walking distance to a transit stop.

7.3.7 Intermodal Integration

The Comox Valley Regional District has indicated that the region has a disproportionate high cycling/walking population and low transit use. Transit users begin and end every trip by walking and/or cycling. By improving the pedestrian realm, users will be encouraged to use transit with greater frequency. Appropriate pedestrian infrastructure is therefore essential to the success of transit. Bicycle use can also extend the geographic extent of transit's range. Appropriate bicycle routes, combined with on-board bicycle racks, are essential to an effective transit service. At the exchange location and other key locations the provision of bicycle lockers within a short distance (100m) of the stop allows cyclists to utilize transit without having to worry about their bicycle.

7.3.8 Park & Rides

Park & Rides are public parking facilities that permit a user to park their vehicle in order to access another travel mode, most often carpooling, public transit, or cycling. Park & Rides are most often used by commuters who park their vehicle at the beginning of the day and return at day's end. Park & Rides can be effective for rural commuters between Comox, Courtenay, and the other areas within the Comox Valley Regional District by allowing a user to park in Comox and then take the bus to Courtenay. Park & Rides should have easy access to the arterial network, transit route(s) and stop(s), and the pedestrian and bicycle network to permit various types of users to park their vehicle and utilize an alternative mode. The demand for a Park & Ride is expected to occur in the long term on a small scale. It is recommended that a Park & Ride be located within the vicinity of Guthrie Road/Pritchard Road to provide a connection to transit for the East Comox neighbourhood, the south part of North Comox and CVRD Area B. The desire for a future Park & Ride should be identified in the OCP to avoid lost opportunity for a Park & Ride in Comox.

Park & Ride should be developed to meet specific criteria, ensuring the convenience, safety and comfort of its users. The following design criteria are suggested:

- Park & Rides should be oriented to allow for natural surveillance by near-by homes, schools or businesses, decreasing opportunities for vehicle theft and increasing user security

- Park & Rides should incorporate user amenities, such as shelters, benches and landscaping, as well as lighting to improve evening safety
- Park & Rides should include bicycle parking to encourage cycling to/from the facility. Both Class I and Class II spaces should be provided where possible
- Park & Rides should provide users with information on the available travel modes, and include schedules and route maps where available

7.4 Transit Recommendations

- Work with BC Transit to develop and implement a transit route within Comox between the Airport, downtown, and St. Joseph's Hospital. This may include providing additional funding.
- Review opportunity to implement a shuttle service in the short term until BC Transit can implement the proposed additional route. This includes identifying funding sources
- Implement a program to obtain advertising money for space on bus shelters
- Develop bus stop guidelines to provide consistent, recognisable, accessible stops
- Consider implementing bicycle lockers at key transit stops for those who wish to cycle to the bus stop at one end only
- Work with BC Transit to ensure that all buses have bicycle racks
- Develop up to at least one and consider three transit exchanges
- Provide park and ride facilities in key areas of commuting such as Guthrie Road/Pritchard Road, the Airport, and downtown