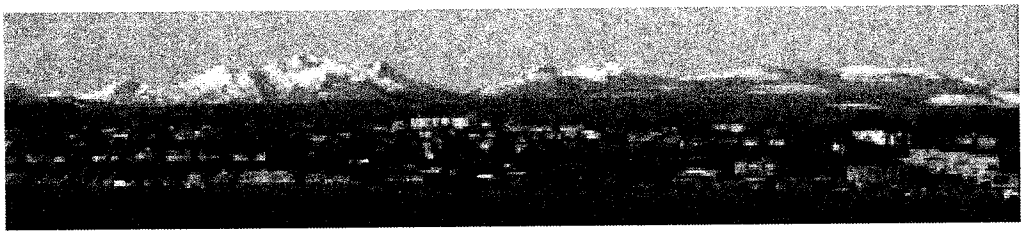
DRAFT
CAMPBELL RIVER TRANSIT SERVICE STRATEGY



District of Campbell River

June 2002

BC Transit

TABLE OF CONTENTS

CAMPBELL RIVER TRANSIT SERVICE STRATEGY - EXECUTIVE SUMMARY

1.0 PLAN OBJECTIVES AND KEY PERFORMANCE INDICATORS

The overall goal for the Campbell River Transit Service Strategy is to guide the development of the transit system so that it can meet the present and future demand for transit service in Campbell River in an effective and affordable manner, and encourage greater transit use in the community. The objectives can be grouped into three broad categories:

Community Objectives

1. *The transit system should be developed to support Local and Regional Community Plans. It should complement and strengthen pedestrian and transit supportive land use patterns that are outlined in these plans.*

2. *The view of the transit's role in the community needs to be broader. While provision of bus service is certainly the primary focus, transit must also be supported by other strategies to reduce automobile use.*

3. *A greater range of transit service types and inter-modal linkages should be encouraged to best serve different markets.*

Passenger Service Objectives

4. *Reduce automobile dependence and encourage current automobile drivers to use transit by providing service quality that is competitive with the private automobile through the following initiatives:*

Financial and Passenger Performance Objectives

5. *Use Key Performance Indicators to monitor system performance and to set specific targets for transit system performance. These targets will ensure that efficient use is made of resources in order to maximize customer service and minimize subsidization. The Key Performance Indictors will measure both financial performance and ridership performance.*

2.0 POPULATION AND LAND USE

Population and land use trends indicate increased demand for transit, but also significant challenges in providing the service:

- Overall population growth is forecast to be about 1.4% annually over the next 20 years.
- Youth (aged 15-24) and older seniors (aged 80 and over) form two key transit markets. A small decline is forecast for the youth market, while the older seniors market will experience rapid growth over the next decade.
- Campbell River's linear but relatively compact urban form is easier to serve and more supportive of transit than in many communities, but there are still challenges.

3.0 REVIEW OF EXISTING TRANSIT SERVICE

A review of the existing transit service, along with historical trends and comparisons with other similar communities, was used to identify key market opportunities and needed changes to the transit service approach.

4.0 SERVICE AND FLEET PLAN

Recommended service changes are outlined in the table below:

Summary of Medium Range Service Options (Annual Impact)

Description of service	Vehicles	Hours	Total Cost* (2002 $)	Net local Cost ** (2002 $)	Estimated Additional Ridership+
Conventional Transit					
Phase 1					
#1 Dogwood – 30 minute service	1	3,160	$214,000	$56,000	63,000
Phase 2					
#2 Alder – 30 minute service	0.5	900	$66,000	$24,000	16,000
#5 Rockland – direct 30 minute service	0.5	1,800	$120,000	$37,000	29,000
#3 Storries Beach & #6 Oyster River consistent hourly service	1	3,150	$213,000	$68,000	50,000
Total Phase 2	2	5,850	$399,000	$129,000	95,000
Phase 3					
#7 Petersen – 2-way 30 minute service	0.5	1,800	$120,000	$37,000	29,000
#4 Campbellton – 30 minute service	0.5	1,800	$120,000	$37,000	29,000
Total Phase 3	1	3,600	$240,000	$74,000	58,000
Phase 4					
Friday evening service	none	360	$22,000	$7,000	4,300
Sunday service	none	1,175	$71,000	$22,000	14,000
Total Phase 4	none	1,535	$93,000	$29,000	18,300
Phase 5					
#1 Dogwood – 15 minute service	1	1,500	$114,000	$36,000	33,000
Total Conventional Transit	**5**	**15,645**	**$1,060,000**	**$324,000**	**267,000**
Custom Transit					
Phase 3					
Increased Taxi Saver	--	--	$14,000	$3,000	3,000
Phase 4					
Increased handyDART service	1	2,400	$112,000	$26,000	8,000
Total Custom Transit	**1**	**2,400**	**$126,000**	**$29,000**	**11,000**

* Operating and vehicle debt service costs

** Local share of costs less projected revenue from the new services

\+ Estimates are for mature ridership. It often takes up to 2 years for mature ridership to develop on a new service. This will impact revenue and net municipal share in the first 2 years of service.

5.0 SUPPORTING STRATEGIES

There are a number of strategies which can be used to support the service plan and improve transit system performance:

- Fare strategies – targeting key market groups and encouraging greater transit ridership primarily through the use of prepaid fare products.
- On-street facilities – developing bus stop signs, benches, shelters, and transit exchanges to provide transit users with a safe, convenient, and comfortable experience.
- Transportation Demand Management (TDM) – strategies which encourage more efficient use of the transportation system, primarily by promoting alternatives to automobile travel at peak times.
- Marketing strategies – used to identify key markets and raise the profile of transit through public information and promotion.

6.0 FORECASTS OF KEY PERFORMANCE INDICATORS

Budget and performance forecasts have been prepared to show the impact of implementing the medium range service options and supporting strategies outlined in the of the Service Strategy.

Cost and Performance Forecasts for the Campbell River Transit System

	2002/03	End of Medium Range Period	
		Forecast 1 Status Quo	Forecast 2 Implementation of the Service Strategy
Budget Summary			
Total Costs	$1,213,000	$1,311,000	$2,324,000
Total Revenue	$425,000	$481,000	$923,000
BCT Share of Costs	$506,000	$548,000	$964,000
District Share of Costs	$263,000	$264,000	$403,000
Performance Summary			
Hours	17,559	17,559	31,932
Ridership	305,000	319,000	612,000
Rides per hour	17.4	18.2	19.2
Cost per ride	$3.98	$4.11	$3.80
Cost recovery	35.0%	36.7%	39.7%

7.0 RECOMMENDATIONS

It is recommended that:

The District of Campbell River approve this plan as a guide for transit service planning and delivery in the region; and

The District of Campbell River approve the following specific recommendations:

Medium Range Service Changes

1. Approve in principle the process outlined in section 4.1 for evaluating new or existing transit services.
2. Approve in principle the medium range service improvements. These will be evaluated as part of the annual budget approval process.

Supporting Strategies

1. Adopt the fare structure guidelines for future tariff changes.
2. Develop an on-street facility plan to establish, upgrade, and maintain on-street facilities.
3. Approve in principle the Transportation Demand Management strategy.
4. Approve in principle the marketing strategy.

CAMPBELL RIVER TRANSIT SERVICE STRATEGY

1.0 PLAN OBJECTIVES AND KEY PERFORMANCE INDICATORS

The Campbell River Transit Service Strategy is a comprehensive and long range plan prepared by BC Transit under the approval of the District of Campbell River. Development of the plan was guided by a committee made up of staff from the District of Campbell River, BC Transit, and the operating company (Watson & Ash Transportation Company). The plan is intended to act as a guide for transit service planning and delivery.

1.1 Objectives

The overall goal for the Campbell River Transit Service Strategy is to guide the development of the Transit System so that it can, in an effective and affordable manner, meet the present and future demand for transit service in Campbell River and encourage greater transit use in the community.

The specific objectives for the Campbell River Transit Service Strategy are outlined below. They can be grouped into three broad categories:

- Community objectives describe how transit relates to other aspects of the community (e.g. closer coordination between land use and transportation planning).
- Passenger service objectives include more frequent, direct, convenient service, and providing a safer and more pleasant environment for the transit user.
- Financial and passenger performance objectives involve setting specific targets for transit system performance.

Community Objectives

2. *The transit system should be developed to support Local and Regional Community Plans. It should complement and strengthen pedestrian and transit supportive land use patterns that are outlined in these plans.*

    - The study will examine the District of Campbell River and Electoral Area "D" of the Comox-Strathcona Regional District to determine those areas where there is current or future demand for transit service. A range of service options should be considered in different markets, depending on the level of demand.
    - Transit service should focus on those areas with transit-supportive land use. This would consist primarily of built-up urban areas with sufficient population densities and the appropriate urban design to support transit.
    - New transit service should focus increasingly on the peak period commuter market, where transit can best compete with the automobile, and where transit can have the greatest impact on land use patterns. Resources spent here would

provide the greatest community benefits including reduced infrastructure and congestion costs, reduced environmental costs, enhanced community development, and improved accessibility.

- The transit system should also provide a basic level of mobility for those who have no alternative means of transportation.

3. *The view of the transit's role in the community needs to be broader. While provision of bus service is certainly the primary focus, transit must also be supported by other strategies to reduce automobile use.*

    - Increase transit ridership through market analysis and the use of strategies such as Transportation Demand Management (TDM) targeted to specific markets.
    - Encourage the development of a more favorable environment for transit by providing closer coordination between land use and transportation planning:
        - incorporate transit-supportive land use guidelines into community and regional plans, and into the rezoning and development approval process.
        - promote land use changes which, over the long term, will favor transit use.

4. *A greater range of transit service types and inter-modal linkages should be encouraged to best serve different markets. This includes better integration between the accessible conventional and custom transit systems as well as with school buses, bikes, ferries and other modes.*

    - Provide greater integration between the custom and conventional transit.
    - Provide a range of transportation options for persons with mobility difficulties including handyDART service, taxi programs, and fully accessible conventional service through the introduction of low floor buses and bus stop improvements.
    - Create stronger interconnections and links between modes of travel, including transit, automobiles, cycling routes, and ferries.
    - Allow for regional travel connections with the private intercity bus service, the Airport, the Quadra Island Ferry Terminal and the Comox Valley Transit System at Oyster River.
    - Reduce duplication and improve travel options through increased integration of public transit and school district busing.
    - Develop a transit fleet consisting of a range of vehicle types, including smaller buses and taxis, which are best suited to the type of service being provided and the environment in which they are operating.

Passenger Service Objectives

5. *Reduce automobile dependence and encourage current automobile drivers to use transit by providing service quality that is competitive with the private automobile through the following initiatives:*

    - Reduce the need for transferring by providing more direct service between major activity centres.
    - Provide more frequent service on existing corridors in order to reduce waiting and transfer times.
    - Provide more peak period commuter service since this represents the largest group of potential choice riders.
    - Examine the need for increased hours of service, including Sunday and evening service.
    - Examine the potential for new service types that better match local markets.
    - Improve fare options for passengers and reduce emphasis on cash based fares by making pass rates more attractive and more competitive with driving costs
    - Make using transit easier, safer, and more comfortable by improving passenger facilities including bus shelters, lighting, information signs, and transit exchanges.
    - Ensure transit routes are within walking distance (400 meters) of most Campbell River Residences and Public Facilities.

Financial and Passenger Performance Objectives

6. *Use Key Performance Indicators to monitor system performance and to set specific targets for transit system performance. These targets will ensure that efficient use is made of resources in order to maximize customer service and minimize subsidization. The Key Performance Indictors will measure both financial performance and ridership performance.*

To some degree, the financial and performance objectives counterbalance the community and passenger service objectives. Future decisions on transit service changes will need to weigh these sometimes competing objectives. Thus, while the financial and performance objectives would exclusively favor services which exceed the target key performance indicators in terms of productivity and cost-effectiveness, service changes which do not strictly meet these criteria may still be considered if they help to achieve key community and passenger performance objectives.

1.2 Key Performance Indicators (KPIs)

As outlined above, objectives may include Key Performance Indicators to monitor transit system performance and to set specific targets.

- KPIs can be used to monitor system performance. Comparisons between budgeted and actual performance for a number of KPIs can be made annually, quarterly, etc.
- KPIs can also be used to set performance targets. For example, five year targets might be set for certain KPIs. The targets would be set by looking at performance for comparable systems and industry leaders.

1-1 Transit System Performance (2001/02)

	Rides/ Hour	Cost per Ride	Cost Recovery
Campbell River	**17.8**	**$3.79**	**38.2%**
Chilliwack	17.2	$3.34	36.2%
Comox Valley	13.2	$5.15	22.5%
Cowichan Valley	13.4	$4.64	20.1%
Penticton	19.0	$3.60	38.7%
Sunshine Coast	25.9	$2.84	40.9%
Vernon/Coldstream	17.0	$4.20	34.7%
Total - Tier 2	**17.5**	**$3.80**	**33.2%**

The table above compares a number of performance indicators for the Campbell River Transit System and systems in other similar-sized communities. Some of the most common KPIs are shown. Rides per hour of service is a measure of transit system productivity. Cost recovery measures total operating revenue as a percentage of total costs. Overall, performance on the Campbell River Transit System is close to the average for this group.

It is important to realize that KPI's only show part of the picture. For example, KPI's do not measure the objectives of "integration of the transit system with other modes of travel" and "reduced automobile dependence". Nonetheless, these are important objectives that are not being measured by using the proposed KPI's. However, many of the objectives are non-quantifiable and are difficult to measure and indicate performance.

2.0 POPULATION AND LAND USE

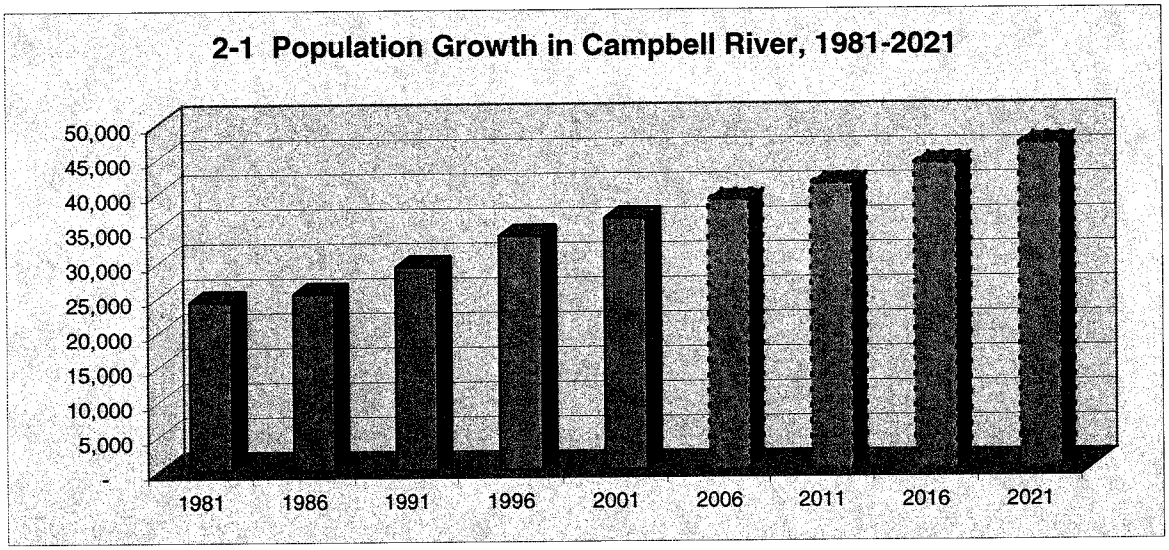
This chapter looks at population distribution and trends, and land use patterns in Campbell River as background to determining patterns of transit demand in the region. Population and land use are key variables affecting transit demand. The distribution of population and other land use patterns can greatly affect transit performance since this will determine the number of potential transit riders along a given route. Changes in the size and characteristics of a population over time result in changes to key markets that can also greatly influence transit use.

2.1 Population Change

General Population Trends

Campbell River's population was estimated at 31,000 in 2001. In addition, a further 5,000 residents live in Electoral Area D of the Comox-Strathcona Regional District, primarily to the south of Campbell River. Campbell River's population increased by 14% between 1991 and 1996, slightly higher than the provincial average. However, this rate of increase has since slowed sharply, with virtually no growth in the community since 1997.

The chart below shows the past and projected population growth in the Campbell River area (including the District of Campbell River and Electoral Area D) between 1981 and 2021. Population growth is forecast to be about 1.4% annually over the next 20 years. This compares with a rate of nearly 3% annually between 1986 and 1996. Both past and future growth rates are slightly higher than the provincial rates for the same periods.



Source: BC Stats

Population Change by Age

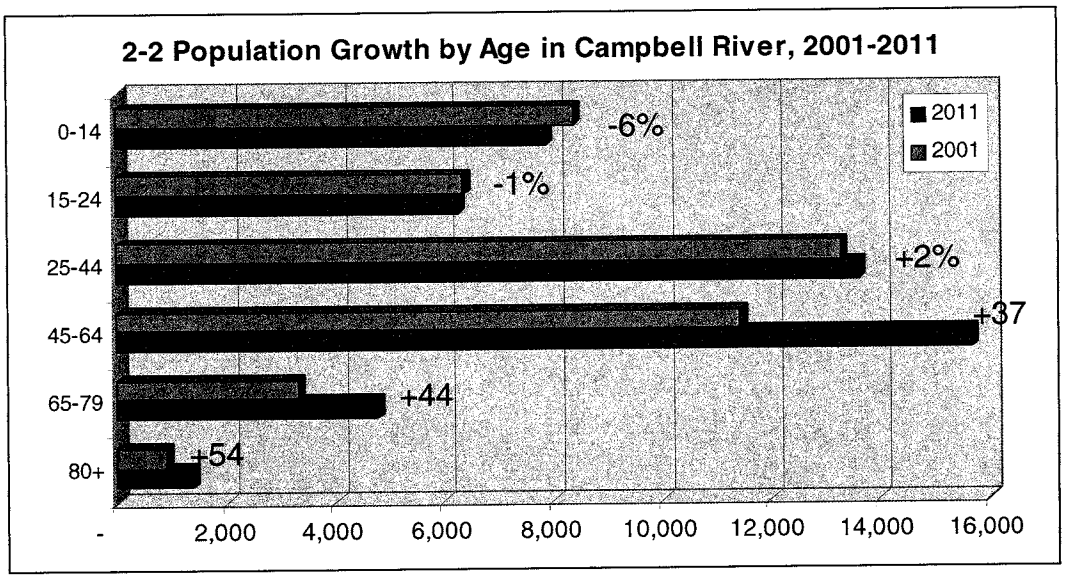
Changes in different population segments will significantly influence transit demand, as propensity to use transit varies significantly with age. The following changes are projected for two key market groups in Campbell River.

Older seniors (aged 80+)

Older seniors are among the most dependent on transit of all age groups, and they are particularly dependent on accessible and custom transit services. Although this group is small (representing about 2% of Campbell River's population), it is forecast to experience the fastest rate of population growth among all age groups over the next decade (+54%), resulting in increased demand for accessible conventional and custom transit service. Growth in the older seniors group is expected slow somewhat during after 2011.

Student/young adults (aged 15-24)

This group is highly mobile, and has the highest rate of transit use among all groups. A slight decrease in the size of this group over the next decade is forecast. This means that any growth in transit use in Campbell River among this key demographic group will be dependent on increasing rates of transit use among this group rather than overall growth in the size of the group itself.



Source: BC Stats

The chart above illustrates population growth by age groups over the next decade. Along with older seniors, the other groups to experience above average growth are the 65-79 year old group (+44%) and the 45-64 year old group (+37%). This latter group also shows the largest absolute growth in population as a result of the aging baby boom generation. People aged 45-79 typically have low rates of transit use so, all else being

equal, the relative growth in these groups will tend to dampen the demand for transit. This indicates the need to target these groups and encourage greater transit use.

2.2 Land Use

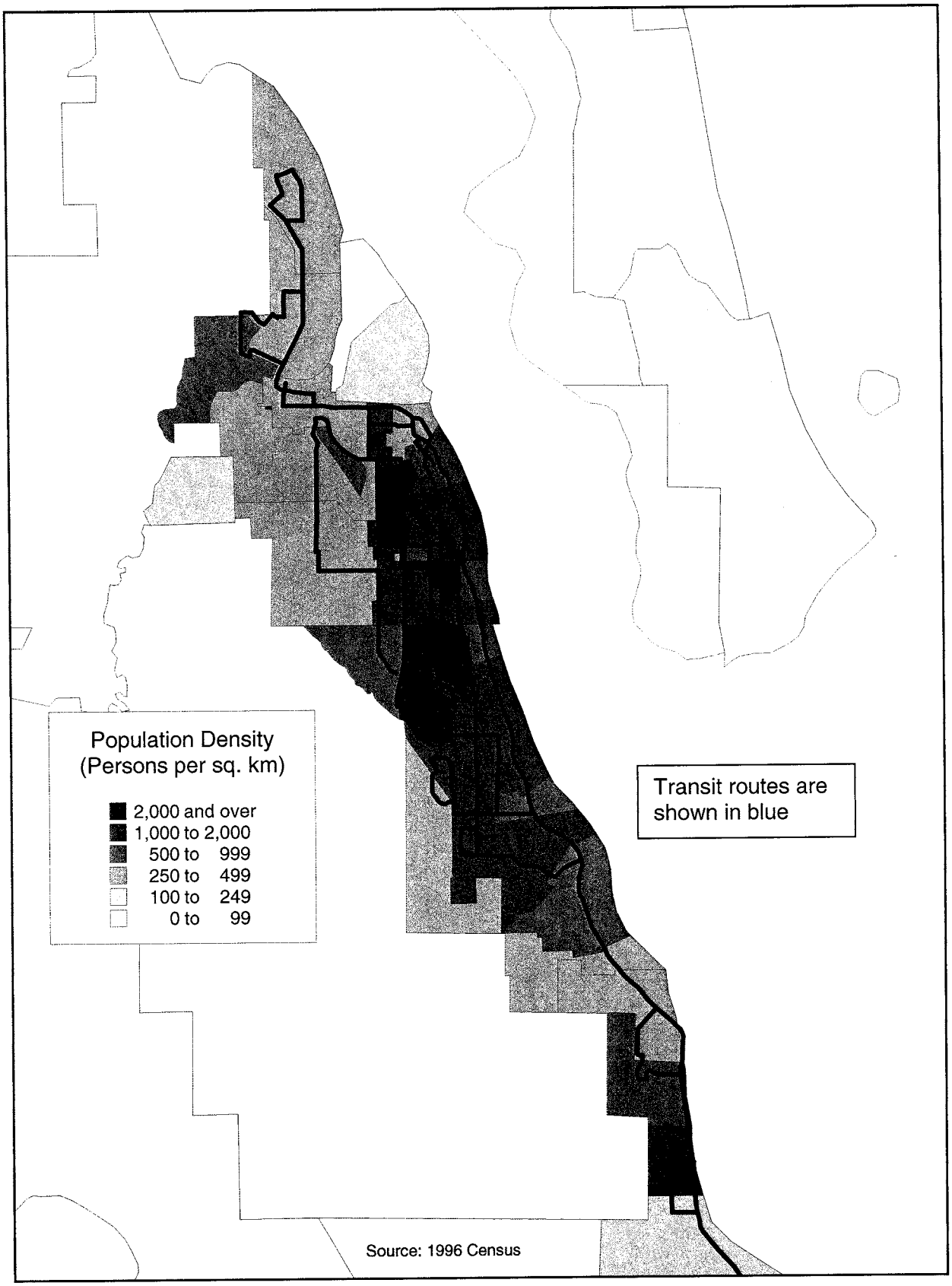
Transit and land use are closely inter-related, so it is useful to examine the land use patterns in the Campbell River area to understand the opportunities and the challenges they present for a successful transit system. In general, transit performs better when densities are higher and when there is a mix of land uses, since this results in a larger number of potential riders along a given route. Greater concentration of employment and other non-residential trip generators is even more important than residential density in encouraging transit use. Even when overall densities in a region are relatively low, transit can be successful if development is concentrated into nodes or corridors rather than scattered throughout the region. The design of a particular development can also make it more transit supportive. Since transit trips typically begin and end on foot, development that is pedestrian-friendly also tends to be transit-friendly. For example, locating a shopping mall close to the street with parking in behind can result in greatly improved access for customers arriving by transit.

Population Distribution

Campbell River's relatively compact urban form is more supportive of transit service than the more dispersed pattern in other communities such as the Comox Valley or the Cowichan Valley. While there are areas in Campbell River that are less densely populated, generally the community is contained as a single urban area, linear in form along the Island Highway, with few outlying pockets of development. This pattern of development is easier to serve with transit, and this does contribute positively to the performance of the Campbell River Transit System.

The accompanying map shows population density in Campbell River. In 1996, 70% of private dwellings in Campbell River were single family structures, so population densities are typically in the low to medium range (between 1000 and 2000 persons/km^2) in most of the built-up area. In the surrounding rural areas, densities are quite low, less than 250 persons/km^2. The self-contained form of the community means that, unlike many other similar-sized communities in B.C., there are few outlying clusters of development separated from the main built-up area by intervening areas of low density. As a very rough guideline (there are numerous other factors involved), a population density of 1000 persons/km^2 is considered the minimum level required to support conventional transit. About 55% of the population in the Campbell River area lives in areas with this level of density or greater. While this is a higher proportion than in many other communities, it does indicate the difficulty in providing transit service in all areas of the community.

2-3 Population Density in Campbell River



Non-residential Development Patterns

As with residential development, the commercial development in Campbell River has a fairly traditional urban form with a strong downtown core. Commercial development is mostly concentrated in downtown, including the adjacent Harbour Mall and Ironwood Mall. There is also some commercial development in some locations along the Island Highway and Dogwood Street. Downtown and these other commercial areas will be major trip generators for work and shopping trips. Other major trip generators include North Island College/Timberline High School, Carihi, recreation facilities, Elk Falls Mill and the hospital.

Transportation System

The transportation system has an obvious impact on transit use. Some of the key features include the following:

- The Island Highway has traditionally been the key transportation corridor in Campbell River. A section of the new Inland Island Highway, bypassing the built up area of Campbell River, was completed in 1997. The final link of the Inland Highway, connecting Campbell River with the Comox Valley, opened in September 2001. This will very likely increase the amount of travel between the two communities, which may also have an impact on the demand for regional transit service.
- Ferry service to Quadra Island operates from a terminal near downtown, with trips every hour between 6:30 AM and 10:30 PM. Crossing time is a short 10 minutes, and commuters form a significant component of travel between Quadra Island and Campbell River.
- The Campbell River Airport is located southwest of the city. The airport is served by two airlines and has 10 scheduled flights per day to Vancouver. There were 86,000 passenger arrivals and departures in 2000, and this number has been increasing by 2-3% annually. Approximately 80-100 people are employed in the airport area.

Land Use Planning

Most of the Campbell River Transit service area is within the District of Campbell River, with a small component in the south end located in an adjacent part of the Regional District of Comox-Strathcona. The District has an Official Community Plan that was completed in 1997. It is expected that development of a new OCP will begin in late 2002. While the current OCP is primarily a land-use document, the District plans to take a broader sustainability approach with its new OCP, including environmental, economic, and social components.

The region does not currently have a Regional Growth Strategy or Growth Management Plan, although there has been some background work in this area. There is some regional cooperation; the District does provide input to the planning processes in adjacent communities. Coordination with adjacent regions, primarily the Comox Valley, will also be important when dealing with the issue of regional travel. In this case, coordination is

made somewhat simpler by the fact that both communities are part of the Comox-Strathcona Regional District.

Local and regional plans can promote policies that will encourage more transit-supportive development. There are several strategies which can be used to reduce dependence on automobiles and promote greater use of alternative transportation modes such as transit; this has been a common theme in many of the growth strategies in other parts of the province developed to date. As noted previously, higher population densities can improve transit performance. However, transit does not require uniformly high densities throughout the region; encouraging the creation of higher-density nodes and corridors in those areas served by transit can be just as effective. Such a land use pattern can be achieved using urban containment boundaries and designating village or town centres where mixed-use, higher density development is encouraged. Transit must also be considered when planning the region's transportation system. For example, road systems should be designed so that bus routes can be developed that will serve neighborhoods in an efficient manner.

The District of Campbell River Official Community Plan includes a section on Transit. With the District developing a new OCP over the next few years, this will provide a good opportunity to develop land use plans that explicitly support the transit plan. Transit-supportive strategies in the current OCP include the following:

- There is an urban residential containment boundary, and residential infill development in existing neighborhoods is being encouraged as the primary means for accommodating new growth. In addition, the District has designated growth areas within the containment boundary, including Quinsam and Jubilee.
- A range of housing types is being encouraged, with an emphasis on increasing the amount of multiple family housing that is being built.
- The District encourages a strong downtown focus. Although there are pockets of non-residential development outside downtown, there are no plans to encourage the development of major regional town centres in Campbell River. Commercial development with a strong pedestrian orientation is being encouraged downtown and in the outlying pockets.
- A recreational greenway system is being developed in Campbell River, and there are opportunities to connect this with the transit system.

There is a specific section on public transit which includes the following points:

- Local area and neighborhood plans will include a transit component and the Regional District will be encouraged to do likewise.
- Higher density and multiple family housing will be encouraged near bus stops to reduce walking distance to transit.
- Subdivision design will take transit requirements into account.
- Major employers will be encouraged to make better use of transit.
- Campbell River will cooperate with the Regional District to develop regional transit service.

The relationship between transit and land use works in both directions, and transit can also help to support many of the goals and objectives outlined in these plans. (Although, admittedly, transit's impact on land use patterns is less in smaller communities such as the Campbell River than it would be in large urban regions.) By providing an alternative to driving, it can help communities to reduce their dependence on automobiles. By focusing transit routes and improving access, it can be used as a tool for encouraging a strong downtown core.

3.0 REVIEW OF EXISTING TRANSIT SERVICE

This chapter examines the existing transit service and patterns of transit demand in Campbell River. It uses historical service level and ridership data, passenger counts, and the results of a recent on-board passenger and a recent public opinion survey.

3.1 Comparison with other Systems

The table below compares the Campbell River Conventional Transit System with other transit systems serving populations of 20,000 to 50,000. Campbell River has the highest level of service among this group in absolute terms and ranks second after Sunshine Coast on a per capita basis. This high level of service can be attributed to both a long history of public transit in Campbell River as well as the city's relatively compact urban form. A comparatively large proportion of the total population in Campbell River is within 400 metres of a transit route (considered to be the maximum distance most people are willing to walk to a bus stop on a regular basis). Campbell River ranks close to the average for productivity (passengers per hour of service), total, and municipal cost per ride, but cost recovery is significantly above the average.

3-1 Comparison of Conventional Transit Performance Measures, 2001/02

	Population Served*	Hours of Service	Revenue Passengers	Rides/ Hour	Total Cost per Ride	Mun. Cost per Ride+	Cost Recovery	Hours/ Capita
Campbell River	**32,800****	**17,856**	**318,300**	**17.8**	**$3.79**	**$0.70**	**38.2%**	**0.54**
Chilliwack	48,000	16,746	287,400	17.2	$3.34	$0.63	36.2%	0.35
Comox Valley	31,200	14,096	186,000	13.2	$5.15	$1.54	22.5%	0.45
Cowichan Valley	34,200	16,794	224,900	13.4	$4.64	$1.70	20.1%	0.49
Penticton	30,500	15,886	302,000	19.0	$3.60	$0.60	38.7%	0.52
Sunshine Coast	22,000	13,458	348,500	25.9	$2.84	$0.47	40.9%	0.61
Vernon/Coldstream	36,300	14,255	243,000	17.0	$4.20	$0.93	34.7%	0.39
Total - Tier 2	**235,000**	**109,092**	**1,910,100**	**17.5**	**$3.80**	**$0.86**	**33.2%**	**0.46**

*Estimate of population within 400 metres of a transit route

**Includes population served in Electoral Area D.

+ This is the District of Campbell River's net cost per passenger.

The second table below compares the Campbell River Custom Transit System with those in similar-sized communities. Campbell River is close to the middle of the group for both service level and ridership. It also falls in the middle in terms of rides per hour and cost per ride, although rides per hour is slightly below the average and total/municipal

cost per ride is slightly above the average. Campbell River does not have a high proportion of group trips to institutions which produce high performance levels in communities such as Vernon.

3-2 Comparison of Custom/Paratransit Performance Measures, 2001/02

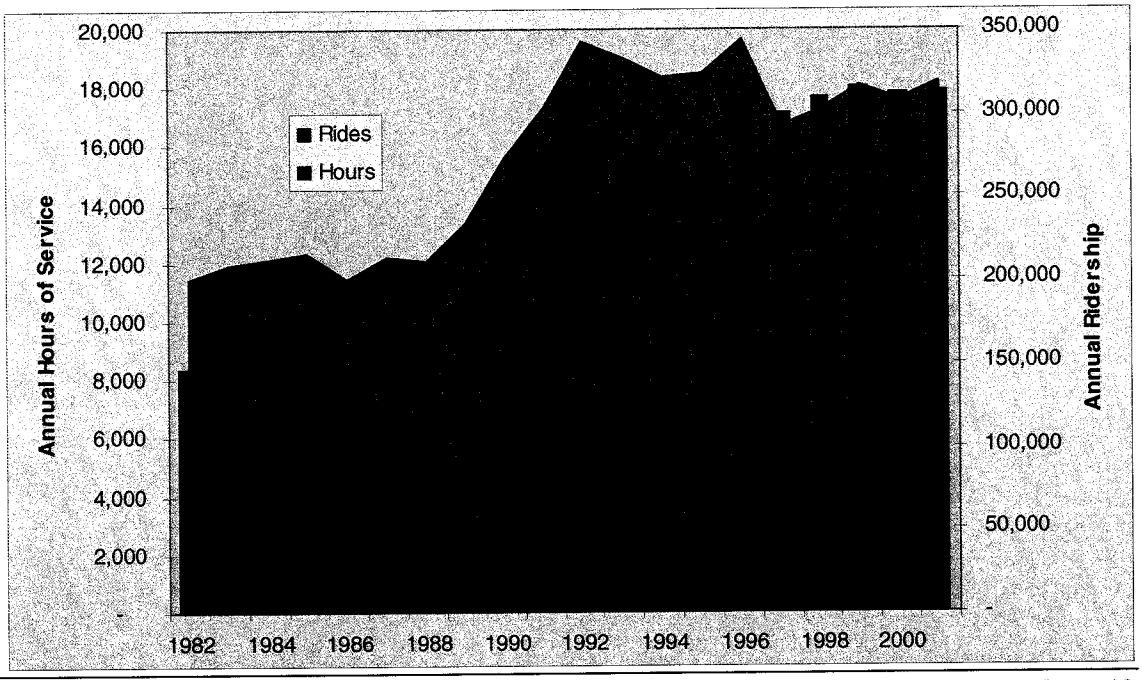
	Municipal Population*	Hours of Service	Revenue Passengers	Rides/ Hour	Total Cost per Ride	Mun. Cost per Ride+
Campbell River	**36,600**	**5,833**	**21,352**	**3.3**	**$13.91**	**$3.66**
Chilliwack	68,300	8,597	37,364	3.5	$12.23	$3.01
Comox Valley	33,500	7,483	26,708	3.2	$14.39	$4.64
Cowichan Valley	33,200	2,264	7,019	2.7	$14.96	$3.22
Penticton	33,100	2,000	7,009	2.6	$13.36	$3.36
Sunshine Coast	28,900	3,824	10,796	2.8	$18.29	$6.27
Vernon	44,600	9,771	60,744	5.3	$8.36	$1.39
Tier 2	**278,200**	**39,772**	**170,992**	**3.7**	**$11.95**	**$3.00**

*Includes entire population of all participating areas
+This is the District of Campbell River's net cost per passenger.

3.2 Historical Trends: Campbell River Conventional Transit

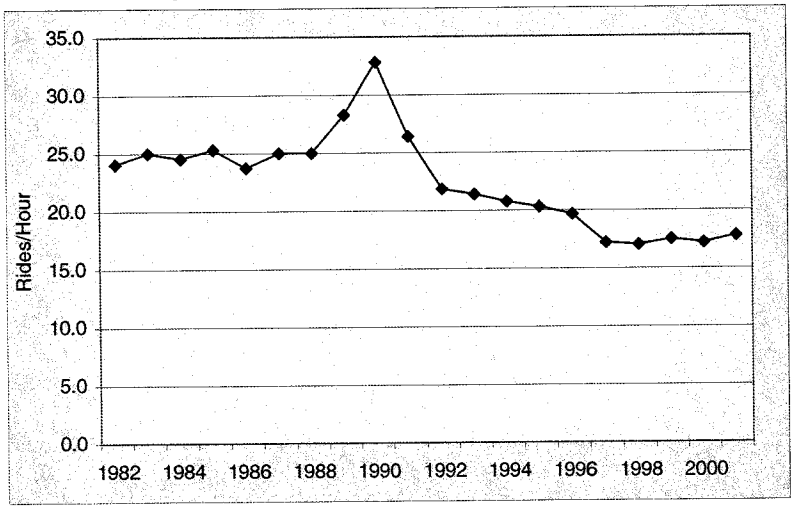
The Campbell River conventional transit system has been in operation since 1982. The chart below illustrates the growth in service levels and ridership since that time. Ridership and service held fairly steady until 1989 when ridership began to significantly increase. In 1991, service levels were almost doubled. Ridership increased further as a result, but not by as much as the service increase. These changes were followed by a second period of relative stability. Service levels increased slightly, but ridership has fluctuated. A mill strike reduced ridership levels in 1997, but since then ridership has steadily increased, and is forecast to reach a new peak of 360,000 in 2000/01.

3-3 Annual Service Hours and Ridership in Campbell River, 1982-2001



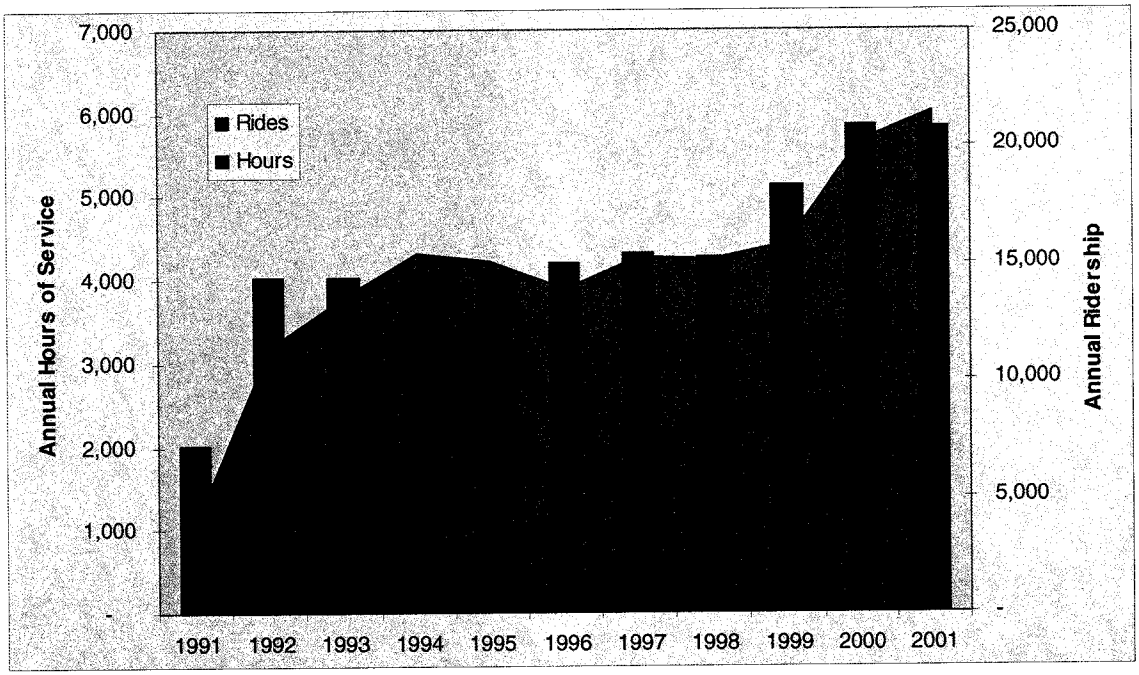
The chart to the right shows the trend in transit system productivity in Campbell River. Productivity, as measured in rides per hour of service, held steady at approximately 25 rides per hour until 1989 when it experienced a sharp increase. Following the service increase in 1991, there was a significant drop in productivity to about 22 rides per hour as the increase in ridership did not match the increased service levels. This typically happens following the introduction of a new service until the ridership becomes established. Productivity experienced a further dip in 1997 as a result of the mill strike. Since that time, productivity has been gradually increasing.

3-4 Ridership Productivity in Campbell River, 1982-2001



The chart below shows the growth in service levels and ridership for the custom service in Campbell River. Following initial growth, service levels and ridership were fairly constant between 1994 and 1998/99. Service levels were increased during 1999/00, and this increase has been matched by increased ridership.

3-5 Custom Transit Service Hours and Ridership in Campbell River, 1991- 2001



3.3 Existing Service

The Campbell River Transit System operates from 6:15 AM to 6:45 PM Monday through Thursday, 6:15 AM to 10:45 PM Fridays and 8:15 AM to 6:45 PM Saturdays. However, there is considerable variation from route to route. All routes start at the Tyee Plaza in downtown Campbell River. The transit system consists of eight regular routes and two special routes. Six of the eight routes are accessible to people with disabilities at all times, while Storries Beach (#3) and Oyster River (#6) are accessible only on their Friday night run. The map on the following page shows the Campbell River Transit System.

Route #1: Dogwood

The Dogwood route travels from downtown to Ironwood Mall, North Island College and Timberline High School via Dogwood. This route also provides service to Campbell River Junior and Senior Secondary Schools, Pinecrest Elementary School and Park, Robson School, as well as neighbourhoods along this corridor. The route operates between 6:45 AM and 6:45 PM Monday through Thursday and to 10:45 PM on Friday. Service is every half hour during peak times and hourly in the midday. On Saturdays, the route runs once an hour between 8:15 and 6:45 PM.

Route #2: Alder

The Alder route provides service from downtown to the Hospital, Southgate School, and Willow Point SportsPlex to Holm Road via Alder Street. Weekday service operates between 6:45 AM and 6:45 PM except for Fridays when service operates until 10:15 PM. The service is every half hour during peak times and hourly in the midday. On Saturday the route operates between 8:15 AM and 6:15 PM. Saturday service is generally every hour.

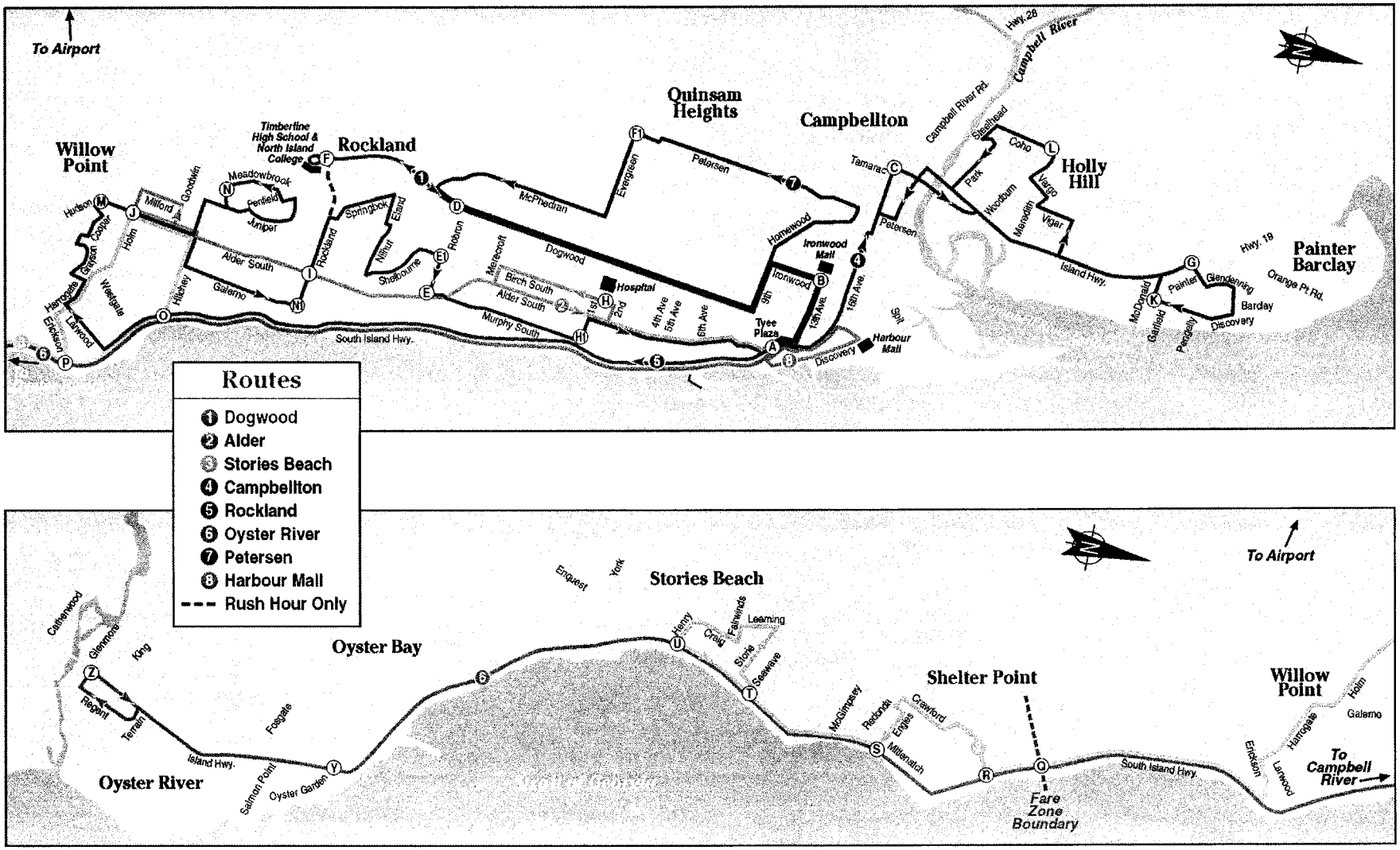
Route #3: Storries Beach

This route provides service from downtown to Willow Point and Storries Beach, via the South Island Highway and returns following the same route. This route crosses the fare zone boundary and provides service to Sequoia Park and neighbourhoods along the coast and highway. The route operates hourly from 6:15 AM to 5:45 PM Monday through Saturday, and until 8:45 PM on Friday evening. Saturday service operates from 8:15 AM to 5:45 PM.

Route #4: Campbellton

This route provides service to the north end of Campbell River via Ironwood Mall, Campbellton, Holly Hills, and Painter Barclay. The route operates from 7:15 AM to 6:45 PM Monday through Friday, with an additional 9:15 PM trip on Fridays. Saturday service is from 8:15 AM to 6:45 PM.

3-6 Campbell River Transit System Route Map



Route #5: Rockland
This route travels from downtown to Willow Point via South Island Highway and returns via Meadowbrook, Rockland and Murphy. This route provides service to Willow Point Park, Southgate School, Timberline High School, and North Island College. This route operates hourly from 7:15 am to 6:00 pm Monday through Thursday and to 7:30 pm on Friday. On Saturday, service is hourly and runs between 9:15 am and 6:00 pm.Route

#6: Oyster River
This route provides service from downtown along the South Island Highway to Willow Point, Storries Beach and Oyster River. One morning and one afternoon trip operate to and from Elk Falls Mill. The Oyster River route operates hourly from 6:15 AM to 6:45 PM Monday through Friday with one evening trip on Friday at 9:45 PM. Saturday service operates from 9:15 AM to 6:45 PM.

Route #7: Petersen
The Peterson route provides service from downtown to Quinsam Heights, Campbellton, and Rockland. The route operates hourly from 6:45 AM to 6:15 PM weekdays, with an additional evening trip on Friday at 8:45 PM. Saturday service operates from 8:45 AM to 6:15 PM.

Route #8: Harbour Mall
This short route provides hourly service from downtown to Harbour Mall. It operates from 8:00 AM until 6:15 PM Monday through Thursday and until 7:45 PM on Friday. Saturday service operates from 10:00 AM to 6:15 PM.

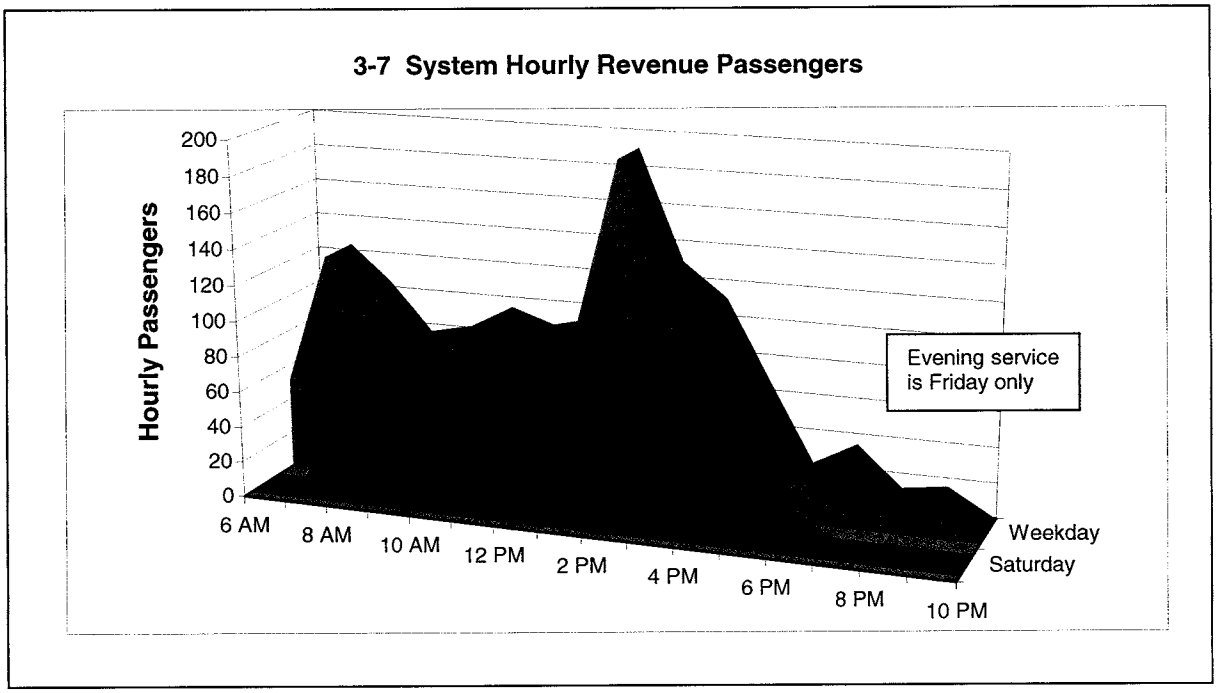
McIvor Lake Summer Service
A limited service between downtown Campbell River and McIvor Lake has been provided for the past two summers. In 2001 the service operated with one round trip each day on Thursdays and Fridays during July and August and carried an average of about 15 passengers per day. The lake is a popular swimming area and the service is aimed primarily at students.

3.4 Trip Profile

This section presents a detailed picture of the current transit system in Campbell River using results from the most recent passenger count (March 2001) and on-board passenger survey (February 2001). Passenger counts are done annually and involve counting every passenger using the transit system for a two-week period. This information is categorized by route, time, day and passenger group. During an on-board passenger survey all passengers using the transit system over a 24-hour period are asked to fill out survey cards on the time, origin, destination and purpose of their trips as well as other information including suggestions for the system. The response rate to the most recent survey (February 2001) was estimated at 25%.

The chart below outlines revenue ridership on a daily and hourly basis for the Campbell River Transit System. The system carries an average of 1,260 revenue passengers each

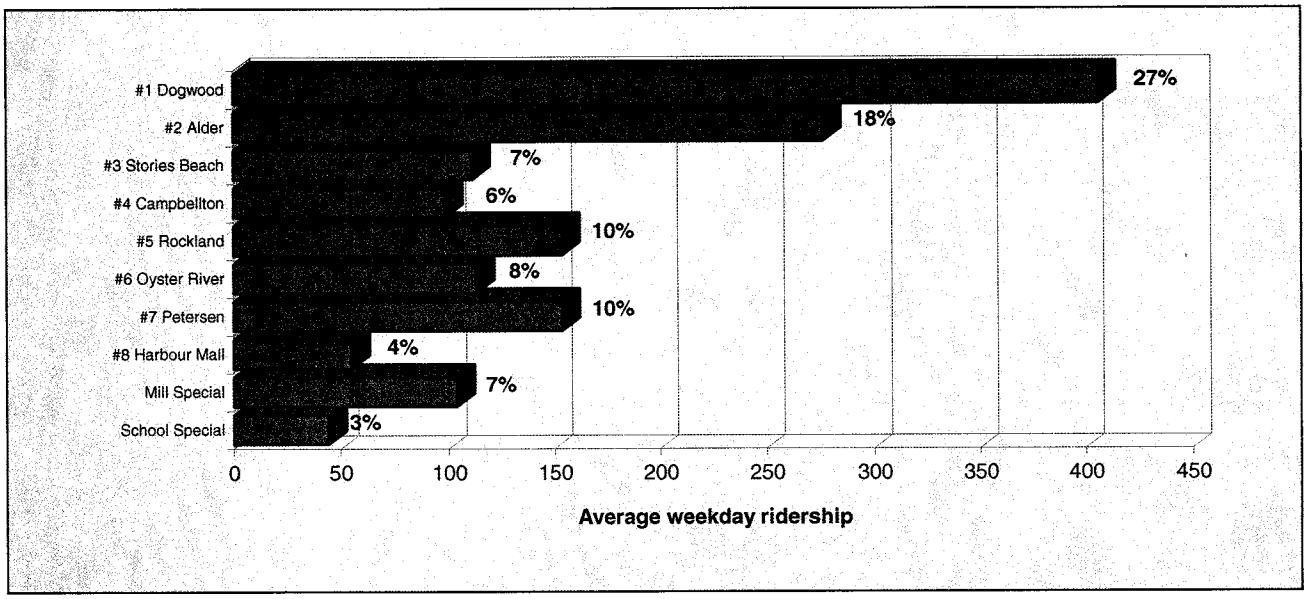
weekday. Saturday ridership is significantly lower averaging approximately 690 revenue passengers. The ridership peaks during both the AM and PM peak periods (6 to 9 AM and 3 to 6 PM) indicates a strong commuter market in Campbell River. In fact, hourly transit ridership in Campbell River actually peaks between 2 and 3 PM (counted as part of the midday period), indicating the importance of school trips. The AM and PM peak periods account for approximately 47% of daily ridership while the midday period (between 9 AM and 3 PM) accounts for around 50%. On Saturdays, ridership is highest during the midday (roughly 63%) and during the PM peak (30%).



Ridership by Route

The chart below displays average weekday ridership by route for the Campbell River Transit System. Nearly half of ridership occurs on two routes. Weekday ridership is highest on route #1 (Dogwood), which accounts for 27% of system ridership. Route #2 (Alder) has the second highest ridership. Despite distinct AM and PM peaks, ridership on the Alder route is much more dispersed than on the Dogwood. Adults and student comprise the majority of users on both the above routes. The #5 Rockland and the #7 Peterson have the next highest levels of weekday ridership. Of the regular routes, #8 Harbour Mall has the lowest weekday ridership. This is due in part to the short distance of the route and the low frequency of service.

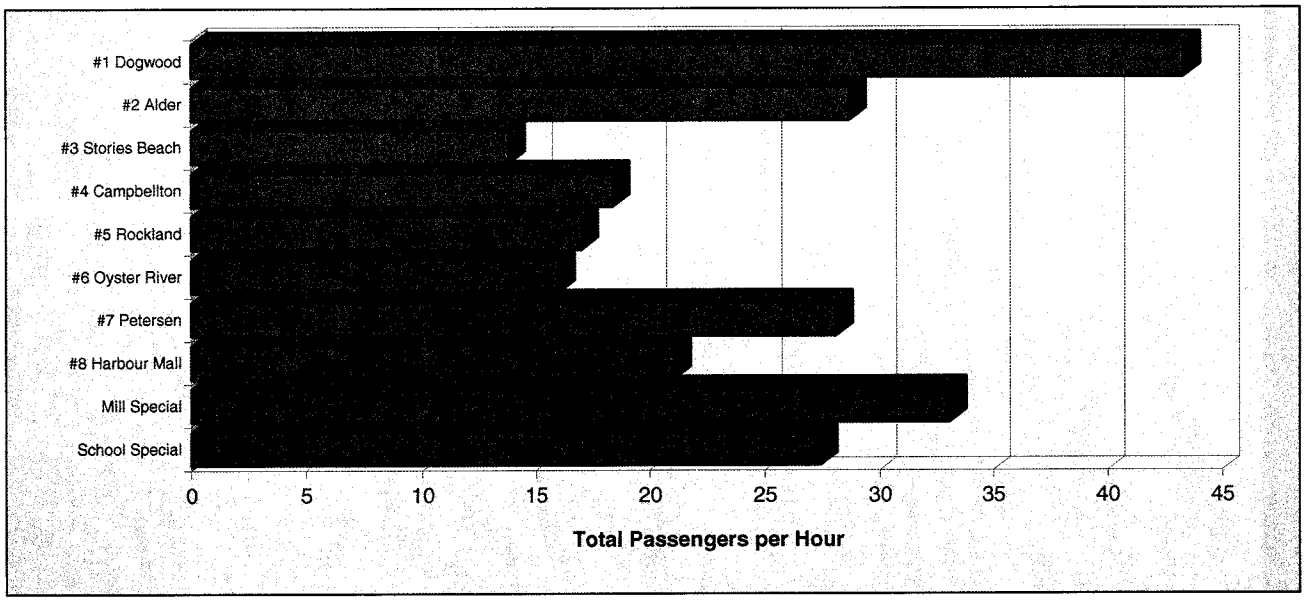
3-8 Weekday Ridership and % of total system ridership by Route



Productivity by day and time

Rides per hour of service is a measure of productivity in the transit system. For the period of the two week count, the system as a whole averaged 24.7 rides per hour on weekdays and 19.9 rides per hour on Saturdays. On weekdays, the system is most productive during the midday period (28 rides/hr) and least productive during Friday evening (14 rides/hr). On Saturdays, midday period is again the most productive while the AM peak period is least productive.

3-9 Weekday Productivity by Route



Productivity by route

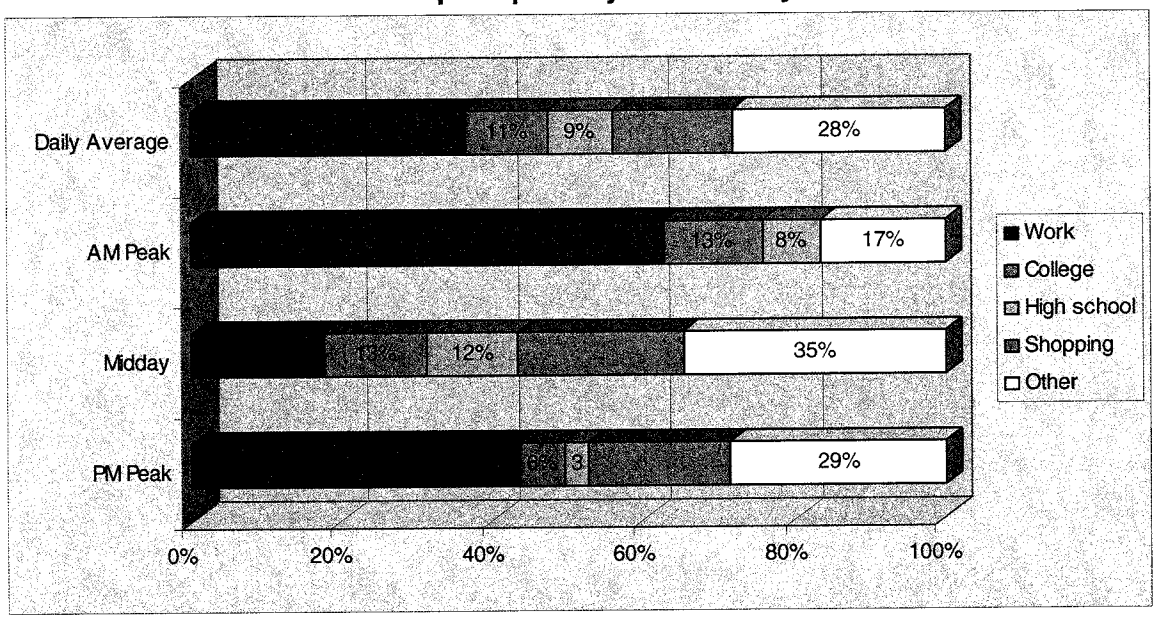
The chart above compares the productivity of each route. The #1 Dogwood has the highest productivity at over 40 rides per hour. This is a very high productivity level for a community in this size range. The #2 Alder, #7 Peterson, and the Mill Special also have above average productivity. The least productive routes are the #3 Storries Beach, #6 Oyster River and #8 Harbour Mall. Long travel distances through lightly populated areas on the #3 and #6 help to explain the low productivity on these routes.

Trip Purpose

The chart below shows trip purpose for trips made on the Campbell River Transit System.

- Work trips make up the largest single component of ridership, about 37% of total trips. This is a relatively high proportion for a community the size of Campbell River and indicates the relative strength of the commuter market. By comparison, work trips account for only 14% of trips on the Comox Valley Transit System.
- College and High School trips make up about 20% of all transit ridership. This is fairly evenly split between college (11%) and high school (9%). School trips make up a somewhat smaller proportion of all transit trips in Campbell River compared with other similar communities.
- Shopping accounts for 16% of trips on the Campbell River Transit System. This is relatively low compared with other communities.
- Other trip purposes make up the remaining 28% of transit trips. This includes medical/dental trips (6%) and social/recreation trips (4%).

3-10 Trip Purpose by Time of Day



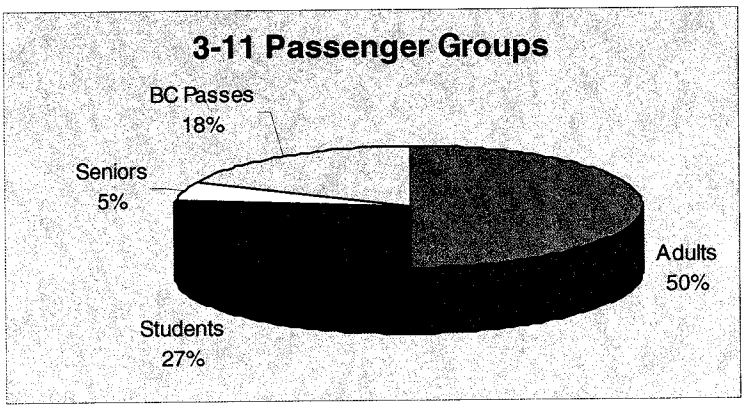
Trip purpose varies considerably by time of day. During the AM peak period, work commuting trips dominate, accounting for 63% of the total. School and college trips

account for a further 21% of AM peak trips. During the midday period, shopping trips form the largest single trip purpose (22%). Another 35% of midday trips are in the "other" category that includes social/recreation and medical/dental trips. Work trips are least important during this time period. The PM peak has the most diverse range of trip purposes, although work trips are the most important.

Origins and Destinations

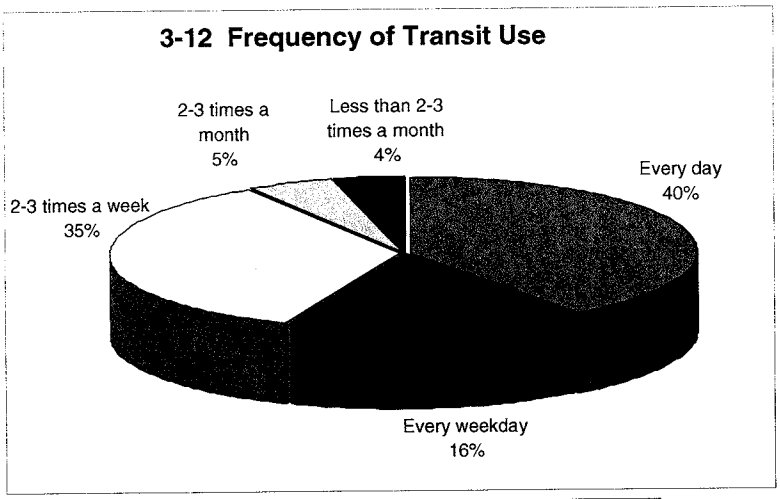
Campbell River's traditional form means that downtown is a strong focus for travel by transit. The downtown exchange accounts for about 18% of both origins and destinations for transit trips. Over half of transit trips have either an origin or a destination in the downtown area (including Ironwood and Harbour Malls). Downtown was also the location for the vast majority of transfers on the Campbell River Transit System: nearly one third of trips involved transfers and 95% of these were made downtown. Outside of the downtown area, the most common origins/destinations are the Rockland and Willow Point neighborhoods in the south end of town, and two key commuter destinations: Elk Falls Mill and Timberline High School/North Island College.

3.5 Passenger Profile



The chart to the right shows transit ridership in Campbell River by passenger group. Adults make up the largest group of riders on the transit system, followed by students. In both cases, these proportions are higher than the average for comparable communities, again indicating the relative importance of school and work commuter trips in Campbell River. Seniors make up a smaller proportion of transit users in Campbell River than in most other communities, in part because seniors make up a relatively small share of the overall population in Campbell River. BC Bus passes (available from the Provincial Government for eligible low-income and disabled persons) account for a higher than average share of ridership in Campbell River.

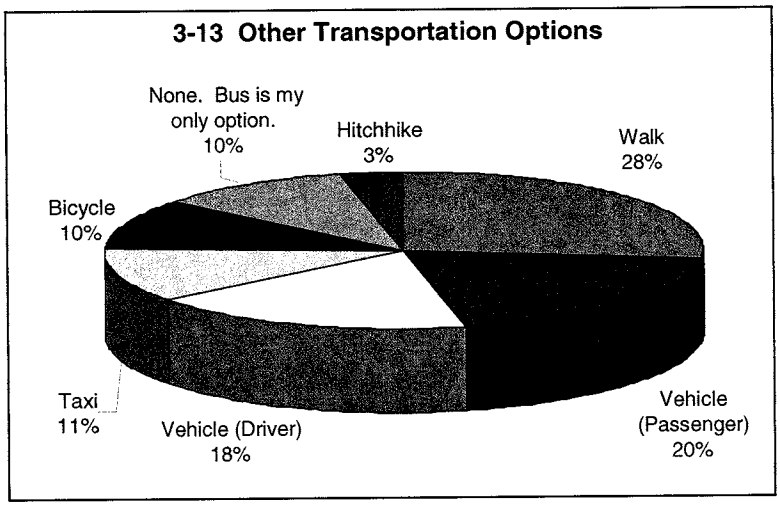
Frequency of Transit Use



As the chart indicates, more than half of transit riders in Campbell River are regular users who take transit every day or every weekday This indicates a relatively strong commuter market of people who take transit to work or school each day. A further 35% of transit riders are occasional users who take

transit 2-3 times per week. Infrequent users (who use the system less than once per week) make up only 9% of all passengers.

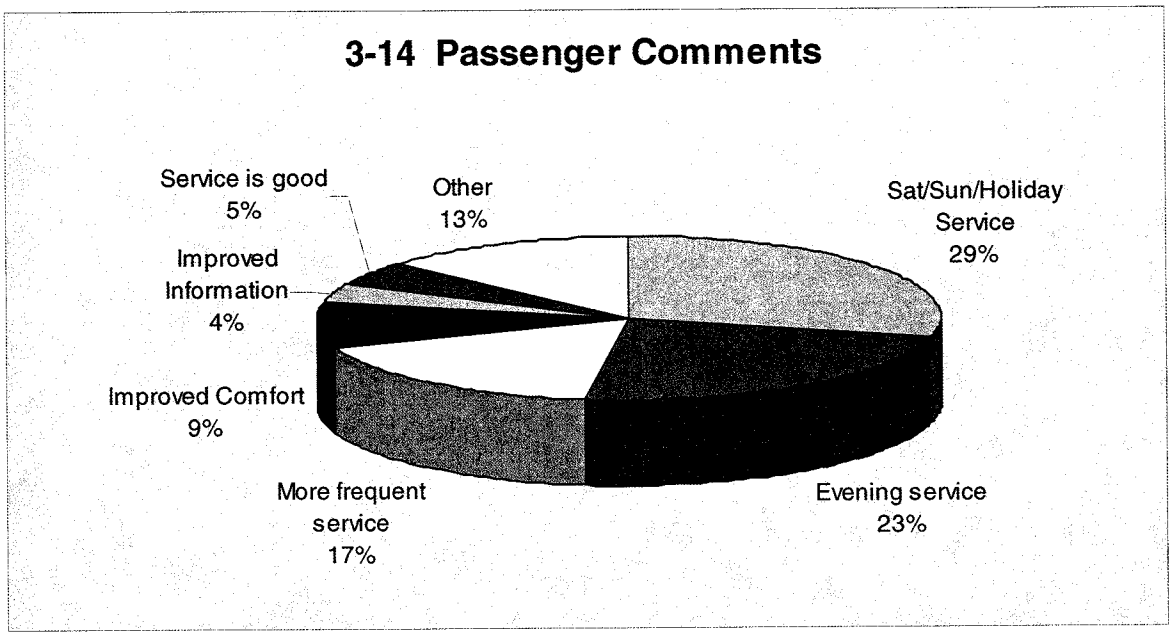
Other Transportation Options



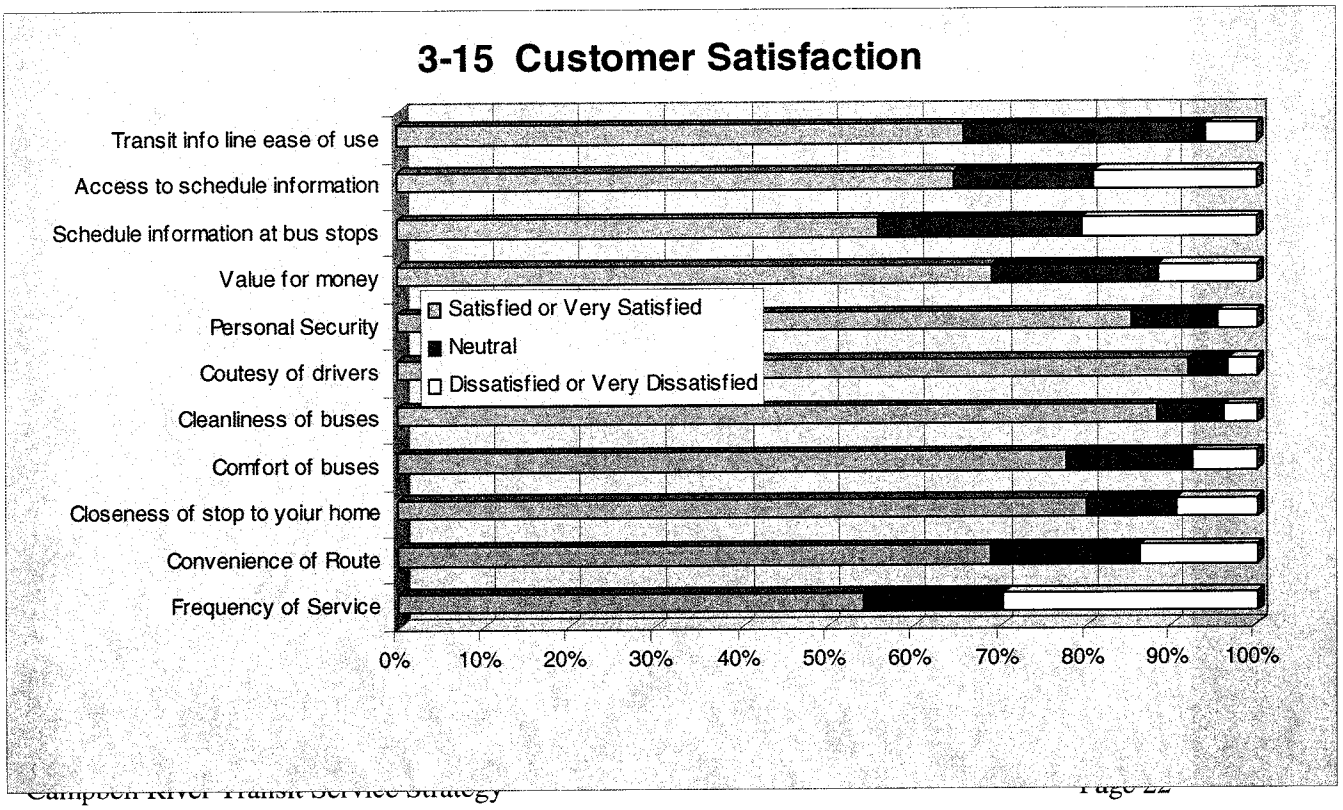
Transit passengers can be divided into two groups depending on the other transportation options that they have available. Those who have no or few other transportation options are termed "transit-dependent". Those who have other options (in particular, the use of a private automobile) but choose to use transit are termed "choice riders". The chart below illustrates the alternative transportation options available to users of the Campbell River Transit System. Only 10% of transit riders reported that they had no alternative to transit; this group represents the core transit dependent group. Those who reported that they would drive as an alternative (18%) represent the core choice rider group. Those reporting other transportation options typically include both transit dependent and choice riders. Walk (28%) and vehicle passenger (20%) were the most common alternatives to transit, accounting for almost half the total. In general, Campbell River appears to have slightly more choice riders and slightly fewer transit dependent riders than other similar sized communities.

Passenger Comments

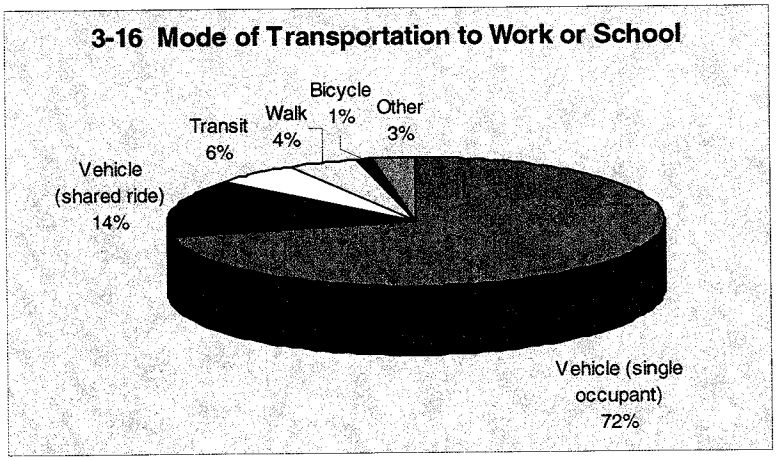
In the on board survey, passengers were asked to suggest how the Campbell River Transit System could be improved. Customer satisfaction among current users is obviously an important issue. (The public opinion survey, discussed in the next section, asked non-users about their impressions of the transit system and how it could be improved.) Among current users, requests for extended hours of service were most frequent, accounting for more than half of all comments. These requests included the introduction of Sunday and holiday, and more Saturday service (29%) and increased evening service (23%). More frequent service was requested by 17% of respondents; this is lower than in most similar communities and likely reflects the relatively high level of service already in place in Campbell River. Other frequent comments related to improved passenger comfort on buses and at stops and transit exchanges, and improved passenger information.



The on-board survey also asked about overall satisfaction with the current transit service, and with various aspects of the service. Overall, about 72% of respondents were satisfied or very satisfied with the present service. The chart below summarizes the responses for different aspects of the service. Customer satisfaction was highest for driver courtesy, closely followed by bus cleanliness and personal security. Satisfaction was lowest for frequency of service and for transit information at bus stops. However, it should be noted that even for these lowest ranked areas, the number of respondents who were satisfied or very satisfied significantly outnumbered those who were dissatisfied or very dissatisfied.



3.6 Public Opinion Survey



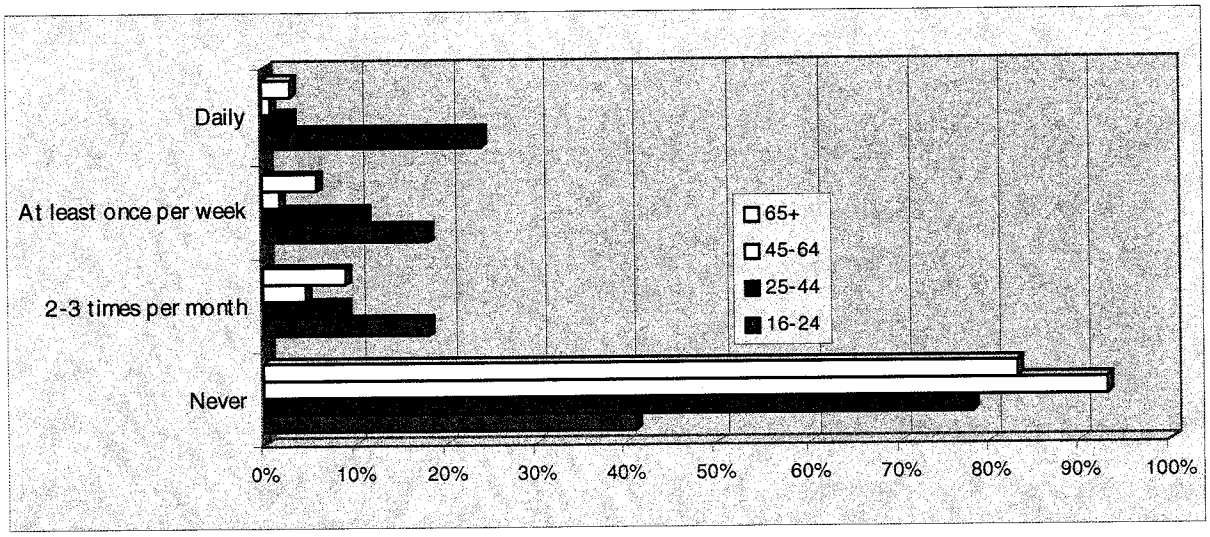
This section examines the results of a telephone survey on transit use and attitudes in Campbell River. This survey is intended to complement the on-board passenger survey by investigating attitudes about the transit system in the community at large, including both transit riders and non-riders. Survey respondents were asked to provide socio-economic and demographic information as well as their attitudes toward transit, awareness of the local transit system, and current transportation habits. The survey was conducted by Groundworks Strategic Marketing Group in April 2000, and formed part of a larger survey of seven mid-sized communities throughout the province. In Campbell River, the survey consisted of 300 telephone interviews and two in-depth interviews with members of the Campbell River Transit Advisory Committee.

Current Travel Habits

The chart to the right shows the mode of transportation to work or school in Campbell River. Private vehicles account for a dominant 86% of commuter trips, with the large majority of these made in single occupant vehicles. Transit accounts for 6% of school and work trips. While the transit share is relatively small, it is greater in Campbell River than in other similar sized communities in B.C. (The 1996 Census, looking just at work trips, found 2.8% of Campbell River residents used transit to get to work, and again this was found to be higher than other communities in B.C., with the exception of Vancouver, Victoria, and Whistler.) Although less than 3% of all respondents used transit on a daily basis, this represents the highest proportion of the 7 communities surveyed. About 15% of respondents in Campbell River had taken the bus in the last week and 20% had used it in the past three months.

As discussed previously, age is an important indicator of transit use. The chart below shows that there is significant variation among age groups in their degree of transit use. In general, transit use decreases with age up to age 65, then begins to increase.

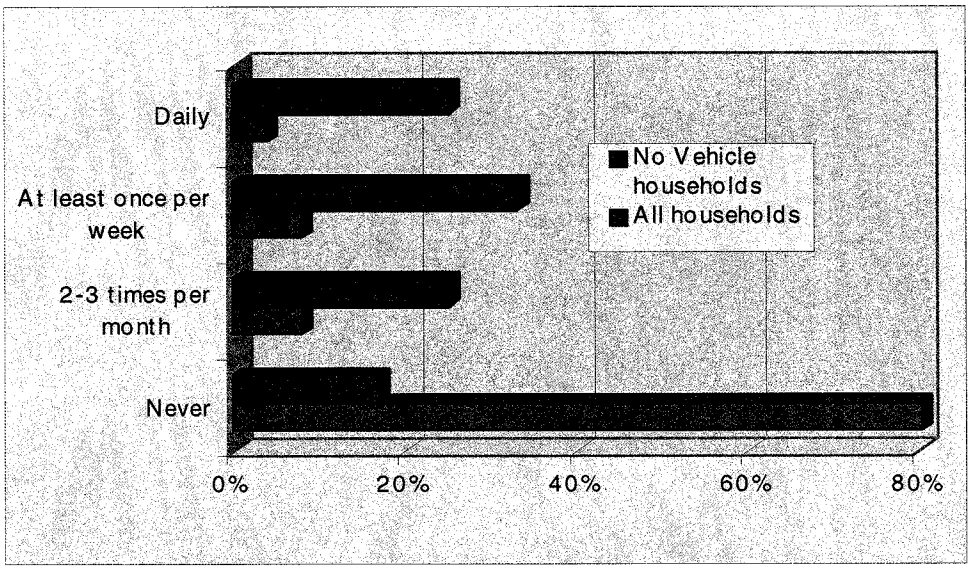
3-17 Frequency of Transit Use by Age



- Those aged 16-24 are the most frequent transit users; 59% of this group had used the transit system in the past 3 months and 24% use transit every day. Students make up 68% of this group. This group, as discussed earlier, is an important market for transit to further penetrate.
- Those aged 25-44, who make up the largest group numerically in Campbell River, use transit less frequently than younger adults. Only 22% of this group had used transit in the past three months and 3% use transit on a daily basis. This group represents the key transit commuter market.
- Those aged 45-64 are the least frequent transit users; only 7% of this group had used the transit system in the past three months and less than 1% use transit daily. This will be the most difficult group to encourage to use transit.
- Those aged 65 and over had slightly higher transit use than the 45-64 year olds; 17% of seniors had used a transit bus in the past 3 months and 3% use transit daily. This is still the second lowest rate of transit use among all age groups. Other studies have found that transit use doesn't really begin to rise sharply until people reach 80 years old.

Availability of a vehicle is a critical factor that determines whether someone is dependent on transit or whether they are a choice rider. The telephone survey found that vehicle ownership patterns in Campbell River are fairly typical of other communities in B.C.: 92% of households have at least one vehicle available while 60% have 2 or more. Transit use was found to be much greater for those 8% of households with no vehicles. Among residents of these households, 25% use transit on a daily basis compared with 4% for all households. Perhaps it is surprising that transit use is not even greater among no-vehicle households, an indication that even for this market transit could do a better job.

3-18 Frequency of Transit Use by Vehicle Availability

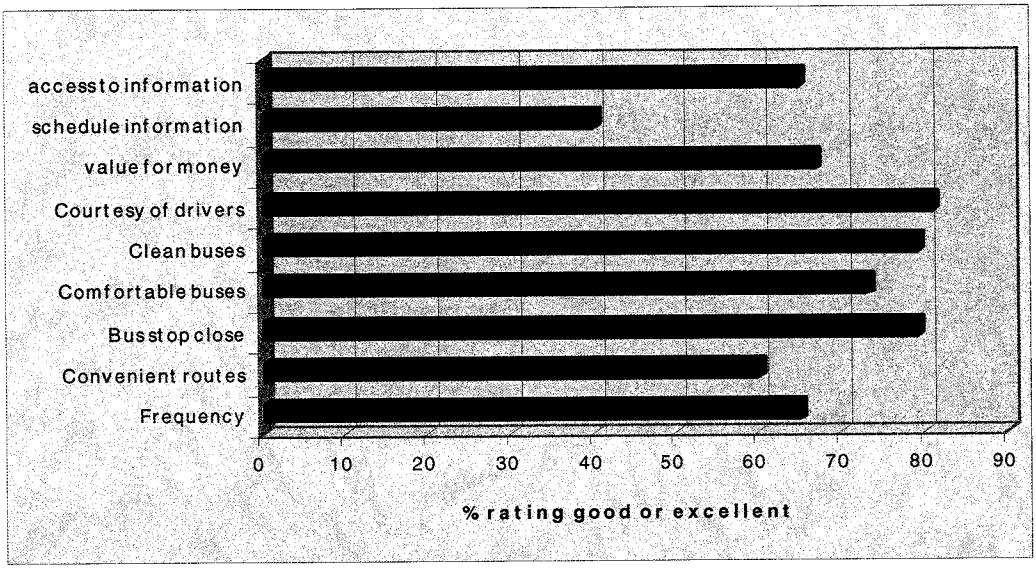


Attitudes Towards Transit

When asked why they don't use transit more, the most common response from Campbell River residents was that they preferred to drive their own vehicle (46%), which is significantly higher than in other communities surveyed. In addition, a higher proportion of Campbell River residents answered that they needed their vehicle for work or to carry things (10%). A number of residents also cited limitations of the transit service including, infrequent service (12%), schedules (10%), length of trips (9%) and doesn't run late enough (9%). In particular, those who used transit 1-3 times a week reported infrequent bus service as a barrier to use (35% vs. 12% overall).

Respondents were also asked to rate different components of the transit system. In general, Campbell River residents were more satisfied in most areas than residents of the other communities surveyed. As illustrated by the chart below, the highest positive ratings were for driver courtesy (81% rated this good or excellent), closeness of bus stops (79%), and cleanliness of buses (79%). The lowest rating was for availability of schedule information (40%). Regular transit users were more likely to rate the transit system higher in most areas, especially for driver courtesy, bus cleanliness, and personal security (the same three areas rated highest in the on-board survey). This suggests that changing attitudes in these areas may be helpful in encouraging current non-riders to take transit. Regular transit users gave lower ratings than non-riders for frequency of service and value for money.

3-19 Rating Key Aspects of the Transit System



Conclusions

The survey results support many of the conclusions made previously using on-board passenger surveys and ridership counts. In addition, they provide a wider picture of the travel habits and attitudes toward transit in the general population of Campbell River. Key findings from the survey include the following:

- Although transit use in Campbell River is higher than in other comparable communities, only 4% of respondents use transit on a daily basis, and 80% have not used transit in the past three months.
- Transit use generally declines with age, although use begins to increase again after age 65.
- Attitudes towards transit are generally positive, although non-users have a somewhat more unfavorable view of transit than users do.

3.7 Stakeholder Meetings

As part of the Service Strategy process, BC Transit and District staff met with key stakeholder groups in April 2001. Some groups who were unable to attend the meetings were later contacted by phone. These meetings and discussions form an important source of public input into the planning process. The groups involved included advocacy groups and organizations for seniors and persons with disabilities, the youth advisory committee, North Island College, native bands, the Chamber of Commerce, and business improvement associations. Some of the key points are summarized below:

- Seniors and persons with disabilities were concerned about accessible vehicles and bus stops. They were also concerned about safety issues at bus stops.
- The business groups were interested in promoting the transit system for tourists. They were also supportive of regional transit links to the Comox Valley and elsewhere.

- Student groups suggested greater promotion and education about using the transit system for students. A campaign to promote transit at North Island College was also suggested as a means of addressing the lack of parking on campus.
- The need for increased evening and weekend service was noted by several groups, and this was the most frequently requested service improvement. Evening service would serve workers, students with evening classes, and movie-goers.
- Several groups mentioned the need for faster and more direct service connections between the south end of Campbell River and both downtown and North Island College.
- Improvements to bus stops and shelters were mentioned by several groups, particularly at the downtown (Tyee Plaza) exchange and along the highway.

4.0 SERVICE AND FLEET PLAN

This chapter outlines options for transit service improvements in Campbell River, covering both the conventional and the custom transit components. The first section outlines specific improvements planned for implementation in the medium range period, covering approximately the next 5 years. These improvements are organized into five phases. The long range period, from 6 to 10 years in the future (2007-11), looks at overall service level requirements based on the growth forecast in key transit markets.

This chapter also includes the fleet plan, which outlines the timing and costs for replacement vehicles and for the expansion vehicles required to support the proposed service increases.

The service proposals are based on the examination of population and land use trends, and the review of the existing transit service outlined above. The proposals also take into account public input through the on-board passenger surveys, public opinion surveys, meetings with key stakeholder groups, and comments from passengers and the general pubic which are received by the operating company on an on-going basis.

4.1 Process and Criteria for Evaluating Service Changes

Typically there are many competing proposals for service expansion in a transit system. This section outlines a process for prioritizing transit services in order to determine which new services should be implemented and the order in which this should take place. When there is a need to reduce transit service due to funding or other constraints, this same process can also be used to determine which existing services should be reduced or eliminated.

In order to prioritize transit services, their ability to meet a range of objectives must be assessed. As outlined in section 1.1, these objectives can be grouped into three main groups: financial and passenger performance measures, community objectives, and passenger service objectives. While the first group is quite easy to quantify, the other factors are more difficult. For this reason, the prioritization process is not a fully quantifiable; rather, it is a combination of forecasting or measuring specific performance indicators, and balancing this against the need to meet other objectives.

Productivity (rides per hour of service) is the key performance measure used to prioritize transit services. For new services, productivity is based on forecasts of mature ridership, since it often takes up to two years for ridership to become fully established. Ideally, any new service should have a mature productivity that is at least as high as the system average. Conversely, service reductions should target those services where productivity is below the system average. As a result, the service change – whether an increase or decrease in service – should result in an improvement in the overall system productivity. There are exceptions to this rule, which will be discussed below.

While rides per hour measures passenger performance, cost recovery and cost per ride are commonly used financial performance measures which incorporate the cost of providing the service. Generally, highly productive services will have a low cost per ride. However, some marginally productive services may be deemed viable or not depending on the cost of providing these services, and thus the cost per ride. Cost recovery and cost per ride are useful secondary performance measures to use in prioritizing existing or proposed services.

The passenger and financial performance measures need to be balanced against community and passenger service objectives when evaluating transit services. These objectives were outlined in section 1.1. Some specific criteria arising from these objectives, which should be considered when evaluating a transit service, include the following:

- The service provides basic mobility to a transit-dependent market or group. This is a key objective which might override performance when evaluating transit services.
- The service targets a key transit market, such as post-secondary students. Service aimed at these markets may form part of a larger strategy to encourage transit ridership in these targeted groups.
- The service supports a local or senior government strategy. The existence of such a service may lead to savings in other areas of public expenditure which partly or fully offset the cost of the service itself.
- There is strong public/community demand for the service.
- The service has a significant impact on overall passenger service. For example, one trip may impact the ability of passengers to make a connecting trip.

If a proposed service meets one of these criteria, then it might be considered for implementation even if the performance is below the system average. Similarly, an existing service being considered for reduction/elimination might be maintained if it meets one of these criteria even if performance is below average. These criteria could be converted to a quantitative score; however, this is not recommended since it is very difficult to develop a fair scoring system that takes all impacts into consideration. This step in the process requires some judgement to be used in determining how the different factors should be weighted.

In summary, a number of transit services (either proposed new services or candidates for reduction/elimination) can be prioritized based on performance and ability to meet community and passenger service objectives. The first step is to measure or forecast performance indicators for each of the transit services. The services can then be ranked for each of the performance indicators, and also compared with the system average for each indicator. Relevant community and passenger service objectives are then considered for each of the transit services. Services which have below average performance and do not meet any of the key objectives can be eliminated, while those with high performance that meet key objectives should be given the highest priority. Prioritizing the remaining services requires more qualitative analysis.

4.2 Medium Range Service Improvements

These are specific service improvements that are proposed for implementation during the medium range period, covering approximately the next 5 years. These service improvements have been prioritized into five phases. The exact timing for implementation of each phase will depend on transit system performance, local economic conditions, demographic trends, and community priorities. Implementation of each phase will also be subject to approval by both the District of Campbell River and the Province.

Phase 1:

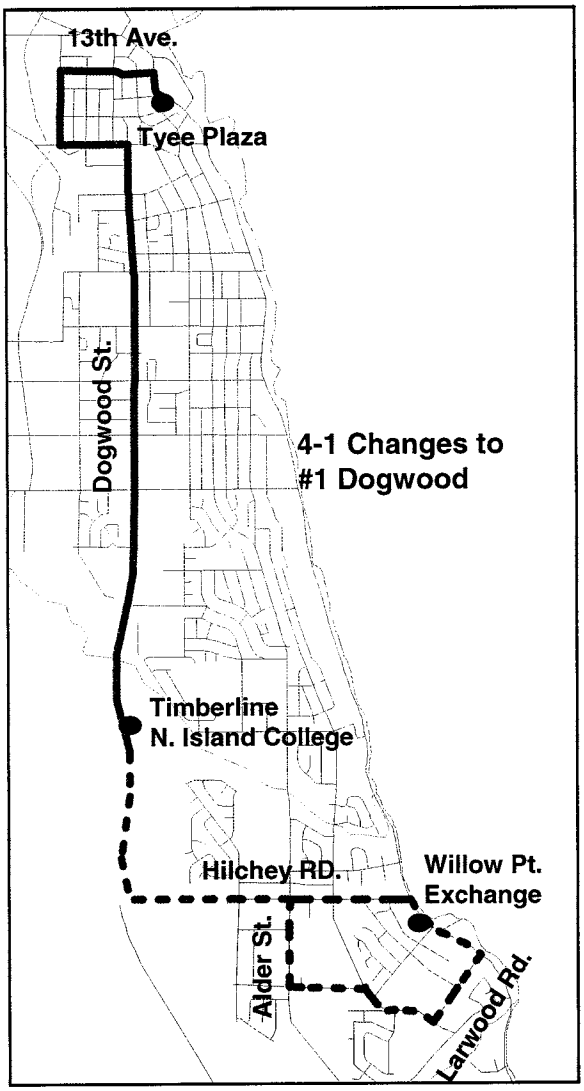
#1 Dogwood – 30 minute service

Annual Impact:

Service hours: 3,160	Total cost: $214,000
Additional in-service vehicles: 1	Net local cost: $56,000
Additional ridership: 63,000	

The Dogwood is the busiest route in the system, accounting for 30% of total system ridership, and it serves an important corridor with several key destinations, including Timberline High School/North Island College. The route is also the most productive in the system, carrying 40 passengers per hour of service.

It is proposed to increase service on the #1 Dogwood to every 30 minutes throughout the day. Currently service is hourly between 10 AM and 3 PM. The route would also be extended from its current terminus at Timberline High School/North Island College to provide a more direct link with the Willow Point neighborhood. This is part of a larger restructuring in the Willow Point service involving routing changes to the #2 Alder, #3 Storries Beach, and #5 Rockland, in addition to the #1 Dogwood. The new Dogwood routing would follow the loop currently being provided by the #3 Storries Beach route: Hilchey, the Island Highway, Larwood, Harrogate, Holm, and Milford (see the map to the right). A new exchange would be located on the Island Highway



between Westgate and Larwood. This will allow passengers travelling from Oyster River and Storries Beach to transfer onto the Dogwood, providing more direct access to Timberline High School/North Island College and other major destinations along the Dogwood Corridor.

The service would be provided with an additional vehicle operating 10 hours per day, six days per week. This would require 3,160 annual hours of service with a total cost forecast at $214,000. Ridership is forecast to be 63,000 annually. College and high school students form a key market on this route, as well as Willow Point and Storries Beach/Oyster River residents who will now be able to use the route for direct access to the Dogwood corridor. The #1 Dogwood is an important commuter route.

Custom Transit Service

As was noted earlier, the rides per hour of service for Campbell River Custom Transit is below the average for other similar sized systems. With the exception of the service to the Homalco Indian Reserve, which is provided using a custom transit vehicle, there has been little growth in demand for custom transit service in Campbell River over the past several years. The recent introduction of accessible conventional transit service will also help to meet demand that might otherwise be directed towards custom transit. For these reasons, no expansion of custom transit service is planned in Phase 1. However, strategies to encourage more efficient use of the existing service will be examined. This includes technological enhancements to improve scheduling and dispatching efficiency. This may also include the development of "service routes" – regularly scheduled handyDART routes along heavily used corridors. handyDART clients travelling along this corridor would be encouraged to book their trips during the times the service routes operate, thereby increasing the amount of ride sharing and thus improving the efficiency of the system.

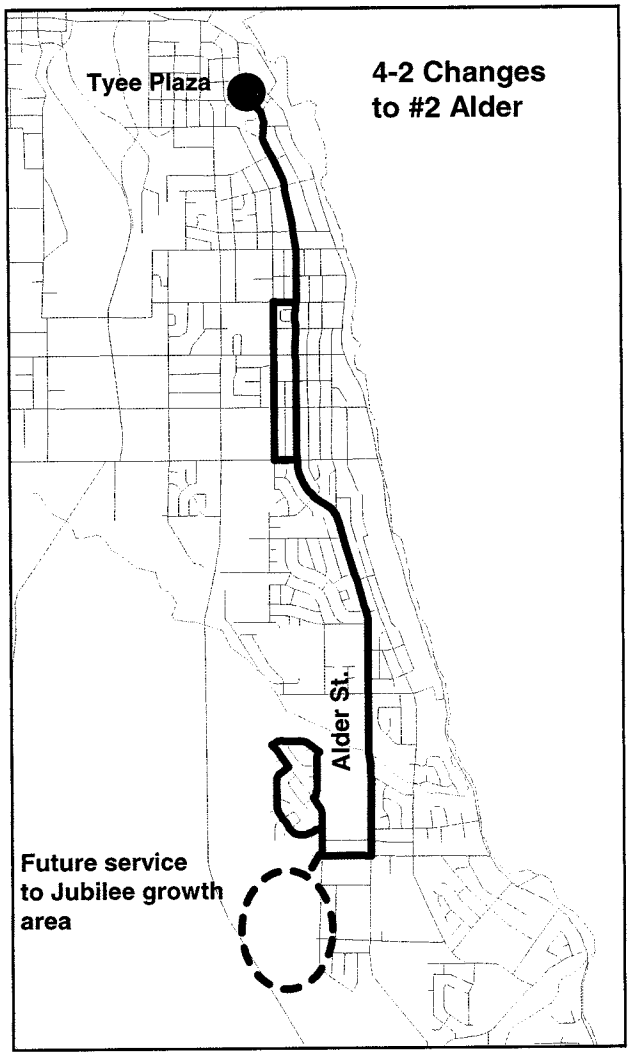
Phase 2:

#2 Alder – 30 minute service

Annual Impact:
Service hours: 900
Additional in-service vehicles: 0.5
Additional ridership: 16,000

Total cost: $66,000
Net local cost: $24,000

The Alder route is the second busiest in the system, after the #1 Dogwood, and it also has above average passenger productivity. It is proposed to increase service on the #2 Alder to every 30 minutes throughout the day. Currently service is hourly between 10 AM and 3 PM. Routing adjustments will also be made at the south end of the Alder route. The route would turn at Hilchey and terminate with the Juniper/Meadowbrook loop that is currently provided by the #5 Rockland (see map to the right).



The Jubilee area, to the west of Willow Point, has been designated as a growth area by the District. As this area develops, the potential for alternating the #2 Alder between the Juniper/Meadowbrook loop and a new loop through the Jubilee area will be investigated. This would allow for hourly service frequencies to both these areas throughout the day, the same level of service that the Juniper/Meadowbrook area currently enjoys.

This additional service would be provided with one bus operating 3 hours per day, six days per week. This would require 900 hours of service annually at a cost of $66,000. One additional vehicle would be required to provide this service and the expanded #5 Rockland service. Annual ridership is forecast to be 16,000.

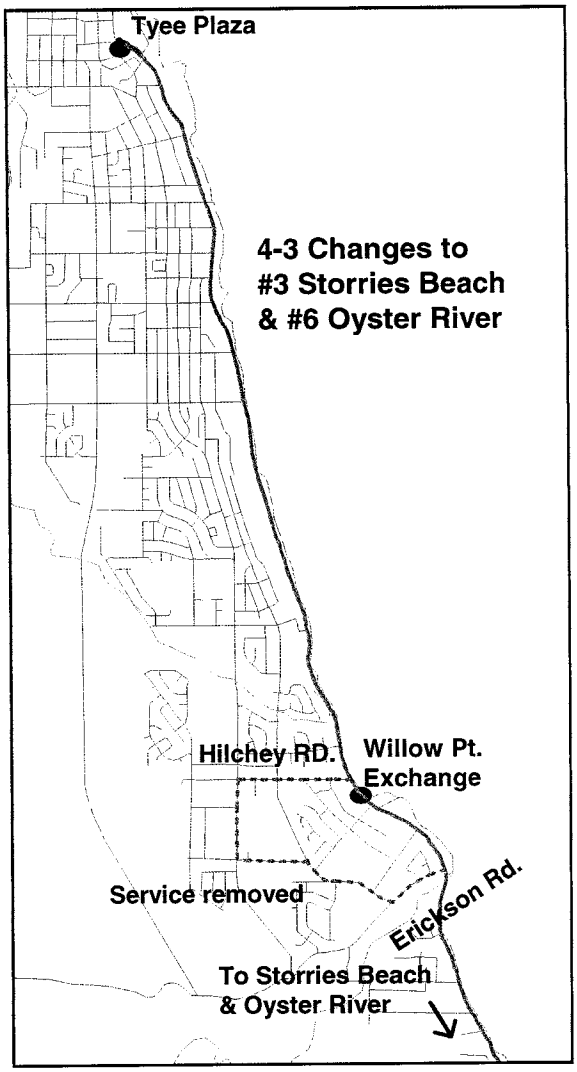
#3 Storries Beach & #6 Oyster River – consistent hourly service

Annual Impact:
Service hours: 3,150
Additional in-service vehicles: 1
Additional ridership: 50,000

Total cost: $213,000
Net local cost: $68,000

Service to Storries Beach and Oyster River is currently quite limited, and there are gaps of up to 3 hours between trips. It is proposed to increase frequencies on both routes to consistently hourly service throughout the day. In addition, the Willow Point section of the Storries Beach route is being deleted (to be provided by an extension of the #1 Dogwood route, as discussed above), so that passengers can travel directly from Storries Beach to downtown without having to divert into Willow Point. Also as noted above, a timed transfer point in Willow Point, will provide passengers from Storries Beach and Oyster River with direct access to the Willow Point neighborhood and to other destinations along Dogwood, including Timberline High School/North Island College. It will also allow passengers from the Willow Point area to transfer on to the #3/#6, which would provide direct service to downtown on a combined 30 minute frequency.

This service will be provided with one bus operating 10 hours per day. This will require 3,150 annual hours of service and an additional vehicle. Total cost for the service is $213,000 and ridership is forecast at 50,000 annually.

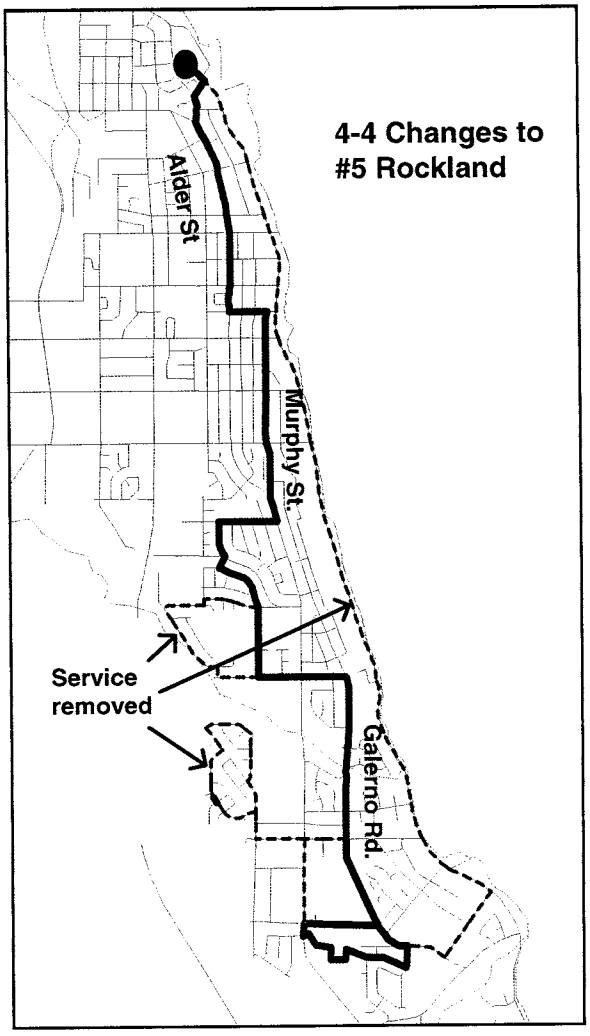


#5 Rockland – direct service every 30 minutes

Annual Impact:
Service hours: 1,800
Additional in-service vehicles: 0.5
Additional ridership: 29,000

Total cost: $120,000
Net local cost: $37,000

Currently, the #5 Rockland forms a long one-way loop, travelling south on the Island Highway then returning north via a circuitous routing through several neighborhoods. This can be quite slow and inconvenient for passengers. As part of the restructuring of Willow Point service, the large one-way loop would be replaced by more direct, two-way service along most of the route, and a small loop (via Grayson, Cooper, Alder, and Holm) at the south end of the route in Willow Point (see map to the right). It is also proposed to increase Rockland service to every 30 minutes in each direction throughout the day. Currently, service is hourly.



This service would be provided by one bus operating 6 hours each day, 6 days per week. This would require a total of 1,800 annual hours of service and cost $120,000. One additional vehicle will be required to provide this service and the expanded #2 Alder service. Annual ridership is forecast at 29,000.

Implementation Schedule:

The Phase 1 & 2 service improvements will require 3 vehicles and about 9,000 annual hours. This is a substantial increase over the existing service levels, and it is proposed that the improvements be implemented over two or more years. The extension and improvements to the #1 Dogwood is the priority, and it is proposed that this be implemented in Phase 1. Because of the extension of the Dogwood is an integral component of the route restructuring in the Willow Point area, it is also proposed that this restructuring be implemented in Phase 1 (but not including the service frequency improvements on these other routes). Service frequencies on the #2 Alder, #3 Storries

Beach, #5 Rockland, and #6 Oyster River, for which the additional hours and vehicles are required, would be implemented in Phase 2.

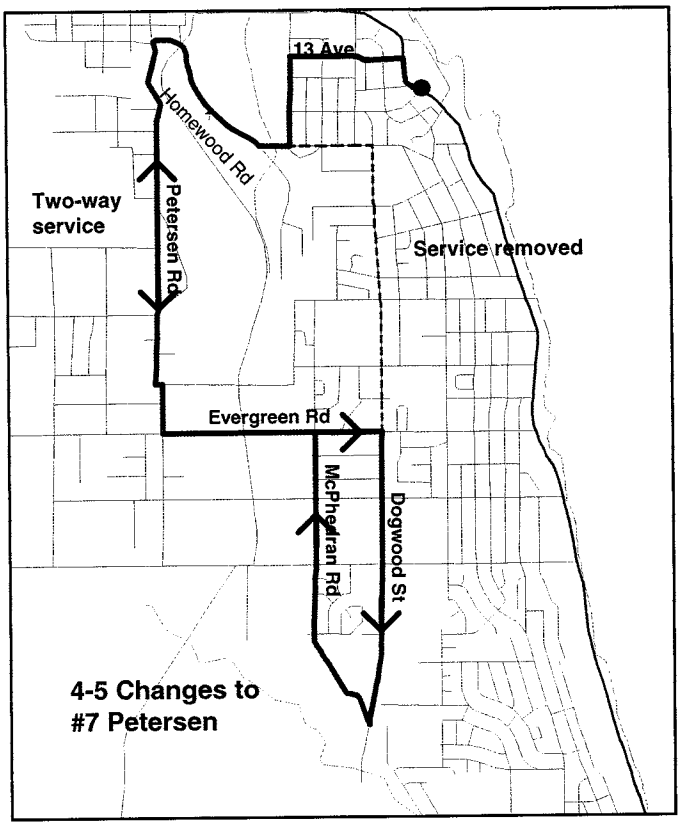
Phase 3:

#7 Petersen – 30 minute 2-way service

Annual Impact:
Service hours: 1,800
Additional in-service vehicles: 0.5
Additional ridership: 29,000

Total cost: $120,000
Net local cost: $37,000

Currently the #7 Petersen operates on a large one-way loop for much of its length. It is proposed to delete part of the loop that travels on Dogwood St. (service on the #1 Dogwood is being increased) and provide two-directional service on the remainder of the route. This will enhance transit service along Peterson Road, which is anticipated to be a major residential growth area for Campbell River. There would still be a small loop via Evergreen, Dogwood, and McPhedran (see the map to the right). Two-way service is more direct and convenient for passengers, since currently some passengers would have to travel around the whole loop even if they are heading downtown. Service would also be increased to every 30 minutes from the current hourly service.



This service could be provided with one additional bus operating 6 hours per day, 6 days per week. This would require 1,800 annual hours of service. One additional new vehicle would be required to provide this service and the expanded #4 Campbellton service. Total cost for the service is forecast at $120,000 annually while annual ridership is projected to be 29,000.

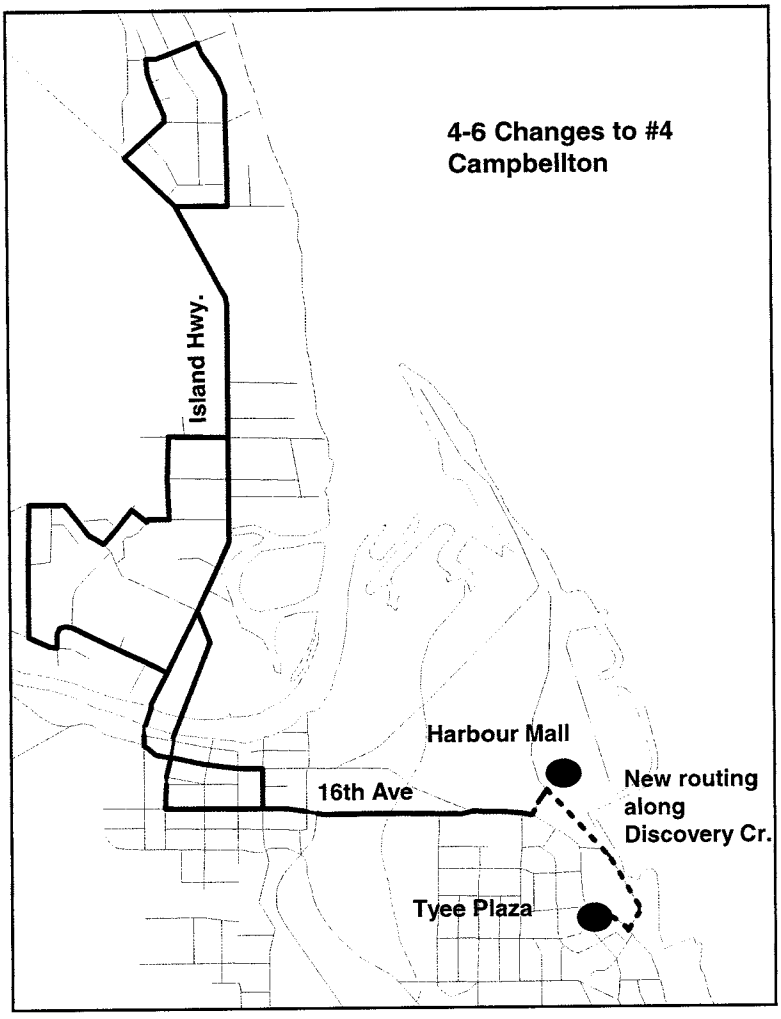
#4 Campbellton – 30 minute service

Annual Impact:
Service hours: 1,800
Additional in-service vehicles: 0.5
Additional ridership: 29,000

Total cost: $120,000
Net local cost: $37,000

It is proposed to double service on the #4 Campbellton from its current 60 minute frequency to every 30 minutes throughout the day. Residential growth in this area will lead to increasing demand for this service. The routing will also be adjusted to provide service into the Harbour Mall, replacing the current Harbour Mall shuttle.

This service would be provided with one vehicle operating 6 hours per day, 6 days per week. This would require 1,800 hours of service annually and cost $120,000. One additional new vehicle would be required to provide this service and the expanded #7 Petersen service. Annual ridership is forecast to be 29,000.



Increased Taxi Programs

Annual Impact:
Service hours: none
Additional in-service vehicles: none
Additional ridership: 3,000

Total cost: $14,000
Net local cost: $3,000

Taxi supplement allows handyDART trips to be dispatched to a taxi when the regular handyDART vehicle is fully booked. Taxi saver allows registered handyDART users to purchase taxi coupons at 50% of the actual cost. Passengers can then book trips directly with the taxi company. This is particularly useful for evening and weekend trips when the regular handyDART service may not be operating. These taxi programs provide increased flexibility to handyDART passengers and can be provided at a relatively low cost per trip. Both of these programs are currently in use in Campbell River and use has been increasing. Currently, about 100 passengers per month use taxi supplement and about 70 passengers per month use taxi saver.

It is proposed that funding for these programs will be increased during this period to help meet demand for custom transit trips. An increase of $4,000 is proposed for the taxi supplement program (a 20-25% increase from current levels) in order to meet the growing demand. For the taxi saver program, an additional $20,000 (more than double the current level) is proposed. Experience in other communities has shown that demand for the taxi saver program often experiences sharp growth 2-3 years after implementation as potential riders become familiar with the program. Annual ridership for increased taxi programs is estimated 3,000.

Phase 4:

Friday evening service

Annual Impact:
Service hours: 360
Additional in-service vehicles: none
Additional ridership: 4,300

Total cost: $22,000
Net local cost: $7,000

Evening service was the second most frequently requested improvement in the most recent on-board survey. Currently, Friday evening service is hourly on the #1 Dogwood and #2 Alder, but very limited on all other routes (one trip each). It is proposed to increase Friday evening service to hourly on these other routes. The youth market is key for this service, primarily for social/recreational trips such as travel to the movie theatres. This service can be provided with 2 buses operating 3-4 hours each Friday evening. This

would require an additional 360 hours annually and cost $22,000. Ridership is forecast to be 4,300 annually.

The response to this increased service will be monitored and the addition of evening service on other nights may be considered. Reliability is a key factor when encouraging people to use transit on a regular basis, and this means that at least a base level of transit service should be available throughout the day and evening. A transit system that shuts down at 6 pm will have more difficulty in attracting choice riders to become more reliant on transit. The increasing number of evening classes at North Island College is one factor driving the demand for this service.

Sunday service

Annual Impact:
Service hours: 1,175
Additional in-service vehicles: none
Additional ridership: 14,000

Total cost: $71,000
Net local cost: $22,000

Sunday and statutory holiday service was the most frequently requested improvement in the latest on-board passenger survey. As discussed above for evening service, it is important that at least some level of service be available every day in order for potential customers to view transit as a reliable option. Key markets for Sunday service would include shoppers, service industry workers, and people attending church.

The system would operate at a lower level of service on Sundays compared with other days. Service would be hourly on the #1 Dogwood, #2 Alder, #4 Campbellton, and #7 Petersen, while it would be every 90 minutes on the #3 Storries Beach, #5 Rockland, and the #6 Oyster River. Service would be provided by 3 buses each operating approximately 7 hours (10 AM to 5 PM) but no additional vehicles would be required.. This would require 1,175 annual hours of service. Total cost for the service is forecast to be $71,000 annually. Ridership is forecast at 14,000 annually. Sunday service typically has lower productivity than other days of the week.

Increased handyDART service

Annual Impact:
Service hours: 2,400
Additional in-service vehicles: 1
Additional ridership: 8,000

Total cost: $112,000
Net local cost: $26,000

It is likely that some additional handyDART service will be required before the end of this period. Rapid growth in the elderly population will be a key factor, as will the trend for the elderly and disabled to increasingly live out in the community.

This service would be provided with one additional vehicle operating approximately 8 hours per day, 6 days per week. This proposal represents a roughly 40% increase in custom transit service in Campbell River, so it may be phased in over two years (i.e. adding 4 hours of service per day in the first year). The total annual cost for the service would be $112,000. Ridership is forecast at 8,000 annually.

Phase 5:

#1 Dogwood – 15 minute commuter service

Annual Impact:

Service hours: 1,500	Total cost: $114,000
Additional in-service vehicles: 1	Net local cost: $36,000
Additional ridership: 33,000	

By the end of the medium range period, the commuter market should have developed to the point where a more frequent commuter service can be supported. It is proposed to increase the #1 Dogwood service to every 15 minutes during peak periods. As noted above, the #1 Dogwood is busiest route in the system, and it serves several key destinations, including Timberline High School/North Island College. This service would be aimed at the work and school commuter market, providing increased flexibility of travel times in order to encourage choice riders to use the system. Improved service frequency was rated in surveys of both users and non-users as a key improvement needed for the transit system.

The service would be provided with one bus operating 6 hours each weekday. Being a peak period service, it would require an additional vehicle. The total annual cost for the service would be $114,000. Peak period commuter service tends to have high productivity, and this service is forecast to carry an additional 33,000 passengers annually.

Medium Range Transit Service Issues

In addition to the specific service options outlined above, there are also some issues that will need to be addressed during this period:

- *Regional service* – Linkages between communities are becoming increasingly important up and down the East Vancouver Island corridor. The new Inland Island Highway, which allows for faster and easier travel between communities, will further enhance these linkages. For Campbell River, these linkages are primarily with the Comox Valley. Addressing the need for transit service between Campbell River and the Comox Valley will likely be an issue during the medium range period. Currently, transit service from Campbell River goes as far south as Oyster River, and transit service may be extended north from the Comox Valley to Oyster River in the next several years, meaning that a link between the two systems would be possible.

However, enhanced direct service would likely be required in order to attract a commuter market. Ridesharing is another option for regional travel as will be discussed in section 5.3 below.

- *College service* – Post secondary students form a key market for transit, and increased focus on North Island College will be an important strategy during this period. North Island College currently has 1200 academic students and 2000 continuing education students, and projects increases of 10% annually over the next 5 years. Targeting this market will involve both improved service to the campus (addressed in part by the improved #1 Dogwood service) and some of the supporting strategies discussed in the following section (including TDM strategies, fare strategies, and targeted marketing campaigns).
- *Ferry service* – There is hourly ferry service between downtown Campbell River and Quadra Island. The short ferry trip (about 10 minutes) means that there is a significant amount of commuting on this route. The ferry terminal can be accessed via a short walk from the main transit exchange at Tyee Plaza. The timing works well for passengers travelling to the ferry terminal: buses arrive at Tyee Plaza at 12-13 minutes past each hour and the ferry leaves on the half hour. Timing is more of an issue in the other direction: the ferry is scheduled to arrive in Campbell River at 10 minutes after the hour, while the transit routes leave the exchange at 15 minutes after the hour. This connection could be made if the ferries arrived on schedule, but frequently this is not the case. Further discussion with BC Ferries on this issue should be pursued. Planned transit service frequency improvements will also help to address this issue by reducing the waiting time for the next bus. In particular, the introduction of 15-minute service on the #1 Dogwood will more or less eliminate the need for an timed connection since the wait would never be longer than 15 minutes.
- *Cape Mudge Indian Band service* – During the stakeholder meetings, the Cape Mudge Indian Band expressed interest in transit service to their reserve in the Campbellton area. It is recommended that further action on this request should follow a process similar to that which led to the introduction of the Homalco service, with a formal request from the Band leading to a separate feasibility study.

Summary of Medium Range Transit Service Options

The table below summarizes the medium range service enhancements proposed for Campbell River Transit System. The exact phasing and implementation of these services will be determined following more detailed market research and planning, and through the annual budget approval process.

4-7 Summary of Medium Range Service Options (Annual Impact)

Description of service	Vehicles	Hours	Total Cost* (2002 $)	Net local Cost ** (2002 $)	Estimated Additional Ridership+
Conventional Transit					
Phase 1					
#1 Dogwood – 30 minute service	1	3,160	$214,000	$56,000	63,000
Phase 2					
#2 Alder – 30 minute service	0.5	900	$66,000	$24,000	16,000
#5 Rockland – direct 30 minute service	0.5	1,800	$120,000	$37,000	29,000
#3 Storries Beach & #6 Oyster River consistent hourly service	1	3,150	$213,000	$68,000	50,000
Total Phase 2	2	5,850	$399,000	$129,000	95,000
Phase 3					
#7 Petersen – 2-way 30 minute service	0.5	1,800	$120,000	$37,000	29,000
#4 Campbellton – 30 minute service	0.5	1,800	$120,000	$37,000	29,000
Total Phase 3	1	3,600	$240,000	$74,000	58,000
Phase 4					
Friday evening service	none	360	$22,000	$7,000	4,300
Sunday service	none	1,175	$71,000	$22,000	14,000
Total Phase 4	none	1,535	$93,000	$29,000	18,300
Phase 5					
#1 Dogwood – 15 minute service	1	1,500	$114,000	$36,000	33,000
Total Conventional Transit	**5**	**15,645**	**$1,060,000**	**$324,000**	**267,000**
Custom Transit					
Phase 3					
Increased Taxi Saver	--	--	$14,000	$3,000	3,000
Phase 4					
Increased handyDART service	1	2,400	$112,000	$26,000	8,000
Total Custom Transit	**1**	**2,400**	**$126,000**	**$29,000**	**11,000**

* Operating and vehicle debt service costs

** Local share of costs less projected revenue from the new services

\+ Estimates are for mature ridership. It often takes up to 2 years for mature ridership to develop on a new service. This will impact revenue and net municipal share in the first 2 years of service.

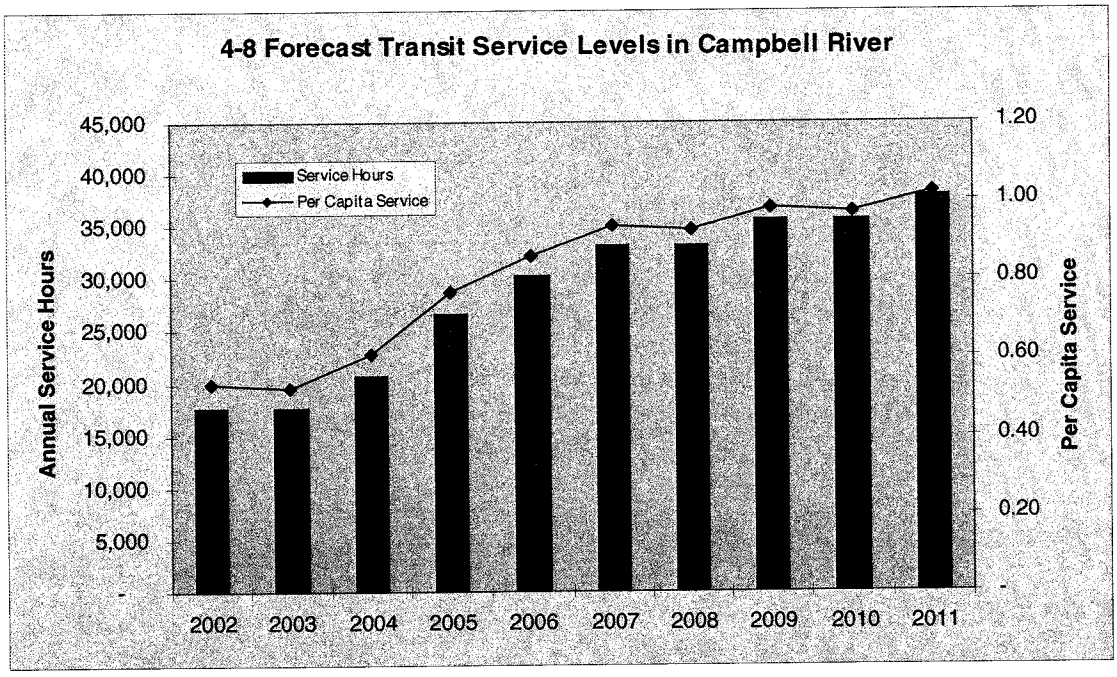
4.3 Long Range Service Forecast (2001-2011)

This section of the Plan looks at transit service levels over the longer range (covering the period from approximately five to ten years in the future). Planning for this period is generally quite conceptual in nature, evaluating future service requirements based on long-range demographic and land-use changes. This evaluation enables future expenses to be planned for, which is particularly important in the case of major capital costs such as new vehicles.

Transit Service Requirements

Service hours per capita is a measure of the level of service being provided, and this can be used as a guide to estimate future transit service requirements. Currently, there is about 0.5 hours of transit service per capita in Campbell River. Although this is slightly higher than the service level in most other similar-sized communities in B.C., it is only about half the level of benchmark systems from across Canada.

Based on implementation of the service changes outlined Phases 1 to 5, per capita service levels would increase to just over 0.9 hours by 2006 (the exact timing for implementation may vary from this). Long range requirements for transit service have been forecast based on the assumption that the service level will increase to about 1.0 hours per capita and maintain that level through to the end of the period. Thus, increases in service levels beyond 2006 are largely tied to population growth in the region. Unlike many other communities in B.C., a high proportion of the population in the Campbell River area is already served by transit (nearly 90% of the population lives within 400 metres of a bus route), so expansion of the service coverage will not be a major trend except in newly developing neighborhoods. The chart below shows the forecast increase in overall and per capita service levels for the Campbell River Transit System over the next decade.



4.4 Fleet Plan

Conventional Transit Vehicle Plan

If all the medium range service enhancements outlined above are implemented, the total conventional fleet would increase from 9 to 14 vehicles by the end of the medium range period. One replacement vehicle will also be required during this period. Total capital costs and the annual budget impact for these 5 expansion and 1 replacement vehicles are outlined in the table below. Low floor accessible vehicles account for 7 of the 9 existing vehicles in the conventional fleet, and all additional vehicles will be accessible.

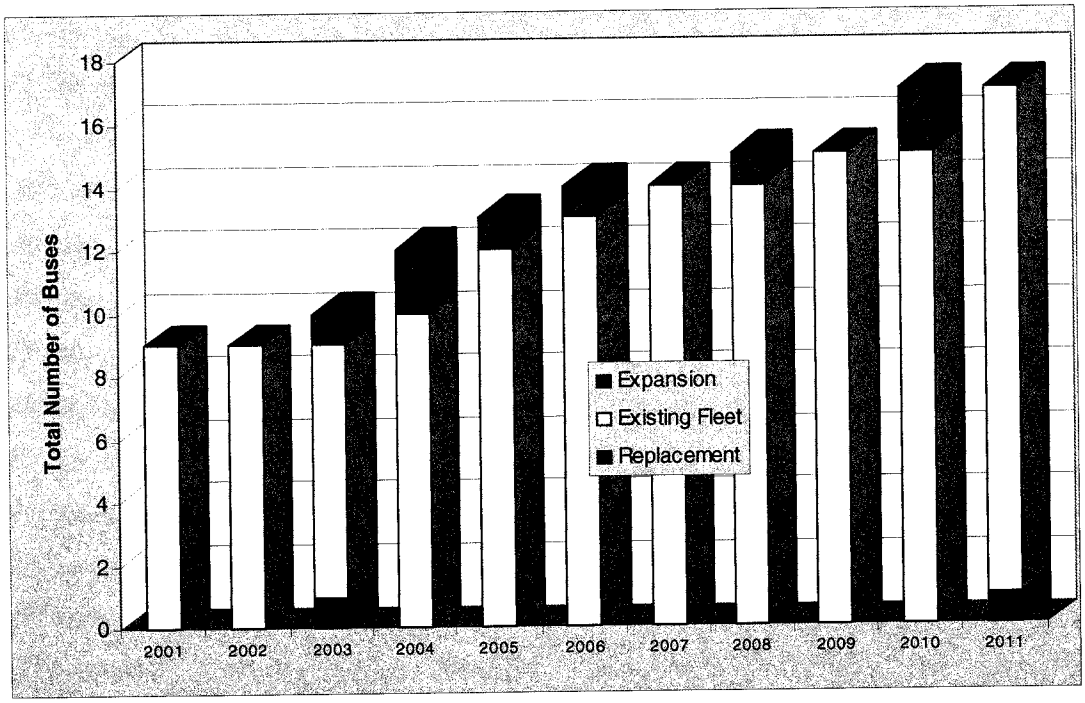
4-9 Vehicles Required for Conventional Transit in the Medium Range Period

	Number Required	Total Capital Cost	Total Annual Budget Impact*
Replacement vehicles	1	$465,000	$45,500
Expansion vehicles	5	$2,325,000	$227,500
Total vehicles	**6**	**$2,790,000**	**$273,000**

*These costs have already been included in Table 4-7

The chart below outlines the replacement and expansion vehicles that will be required in the conventional transit fleet over the next ten years. The projected increase to 17 vehicles by 2011 is based on the forecast transit service levels that were outlined previously as well as the increased requirement for spare vehicles as the fleet grows. The exact timing for expansion vehicles may vary depending on local conditions. Requirements for vehicle replacements are based on an 20 year life span.

4-10 Conventional Transit Vehicle Fleet in Campbell River, 2002-2011



Custom Transit Vehicle Plan

The custom transit fleet is forecast to grow from 3 to 4 vehicles during medium range period. One replacement vehicle will also be required during this period. Total capital costs and the annual budget impact are outlined below.

4-11 Vehicles Required for Custom Transit System in the Medium Range Period

	Number Required	Total Capital Cost	Total Annual Budget Impact*
Replacement vehicles	1	$116,000	$20,000
Expansion vehicles	1	$116,000	$20,000
Total vehicles	**2**	**$232,000**	**$40,000**

*These costs have already been included in Table 4-7

5.0 SUPPORTING STRATEGIES

The service plan is only one element (although a critical one) of a successful transit system. Other elements such as fares and on-street facilities must also be considered as part of the overall approach to transit. In addition, there are supporting strategies which can be used to improve transit system performance. Marketing and transportation demand management (TDM) strategies can be a very effective means of promoting greater transit use and thus improving transit performance. There are other strategies which can be used to improve the effectiveness of custom transit service. All these supporting strategies, which are detailed below, form a key element of the Transit Service Strategy.

5.1 Fare Strategies

There are a number of strategies which can be used when setting fares to encourage greater ridership, target specific market groups, and meet cost recovery targets. In order to accomplish this, a package of strategies is required to address pricing, fare products, and improved convenience for passengers. These strategies are somewhat different for conventional and custom transit.

Conventional Transit Fare Strategy

The use of prepaid fares, particularly passes, is a key component of the conventional transit fare strategy. Monthly passes are sold at a discount, compared with the price of individual cash fares, giving commuters and other regular transit users a price break and encouraging more frequent transit use. High school and post secondary students represent critical markets that can be targeted with further discounts using special monthly or semester passes. Seniors may be another target market.

Advantages of Prepaid Fares:

Prepaid fares currently account for about 40% of transit ridership in Campbell River. This is lower than in many other communities. Use of prepaid fares should be encouraged since it provides a number of advantages for both passengers and the transit system:

- ease of use for passengers, since exact change is not required each time the passenger boards the bus;
- there are no direct, out of pocket costs to use the bus which puts transit on more equal footing with the private automobile;
- regular users receive a price break which encourages commuter travel on transit;
- since prepaid fares are paid up front, they encourage passengers who typically buy passes for commuting, to use transit for other non-commuting trips as well

Discounting Prepaid Fares

Use of prepaid fares can be encouraged by discounting the cost compared with the equivalent cash fare. Books of 10 tickets are typically sold for the price of 9 cash fares.

Monthly passes should also be priced to provide regular users with a discount. A typical commuter makes an average of 36 trips per month, so pricing monthly passes at less than 36 times the cash fare provides an incentive for using the pass. Other non-commuting trips made during the month result in no extra cost to the pass holder, providing a further incentive. This can have very positive impacts on ridership.

Fare Structure Guidelines:

Fare structure guidelines can be used to set fares. The guidelines have been based on increasing ridership among target market groups including adult commuters, students, and seniors. These guidelines use the adult cash fare as a base and relate all other fare types to this using a series of ratios:

1. Student and senior cash fares are set at approximately 80% of the adult cash fare.
2. Monthly passes are set at a maximum of 30 times the single cash fare.
3. Monthly passes for college students are set at 80% of the adult monthly pass price
4. Semester passes for college students are set at 80% of the cost of 4 monthly passes.
5. Day passes are set at 2.5 times the single cash fare

Fares for the Campbell River Transit System have already been set using these guidelines, as shown in the table below. These ratios should be maintained with any future fare increases.

5-1 Current Fares in Campbell River

	1 zone	2 zones
Cash Fares		
Adult	$1.75	$2.00
Student/Senior	$1.50	$1.75
Monthly Passes		
Adult	$45	$56
Senior	$35	$43
Student	$30	$37
College Student	$35	$43
Semester Pass (4 months)		
College Student	$112	$138
Day Pass		
Adult	$4.00	
Student/Senior	$3.00	
Tickets	**books of 10**	**books of 10**
Adult	$14.75	$17.00
Student/Senior	$12.75	$14.75

Currently, there are two fare zones in Campbell River, with the Storries Beach and Oyster River areas in the second zone. Elimination of the second zone should be considered. This would make the fare system simpler for passengers and help to encourage greater

ridership in the current zone 2 area. Currently this second fare zone accounts for only about 15% of ridership, with monthly pass sales being particularly low. It is expected that the resulting increase in ridership would at least partly offset any reduction in revenue as a result of the lower fares.

Custom Fare Strategy

Transit fares can also be set strategically for custom (handyDART) systems, in order to achieve the Regional District's objectives and other desired goals. These include:

- encouraging passengers to use accessible conventional transit
- providing convenience to passengers
- optimizing administrative efficiency
- providing equitable pricing compared with conventional transit

The cash fare for custom transit is typically set 15-30% higher than the conventional transit cash fare. Reasons for the higher cost include the premium level of service provided (door-to-door) and the higher public subsidy per passenger compared with conventional transit.

Prepaid fares should also be encouraged for custom transit. The primary goal in this case is to increase convenience for passengers. The convenience of prepaid fares is particularly attractive for custom transit, as many users have difficulty dealing with cash, and this would also reduce dwell times at stops. The use of prepaid fares also increases administrative efficiency. Discounting of prepaid fares is not as critical for custom transit since passenger convenience is the primary goal rather than encouraging greater ridership.

A primary goal of the custom fare strategy is to encourage greater use of accessible conventional service. To achieve this, handyDART passengers should be able to transfer onto conventional service without having to pay an additional fare. Passengers transferring from the conventional service to handyDART would have to pay one custom fare for the entire trip. As a further encouragement to use conventional transit, some systems allow registered handyDART passengers to use conventional transit at no charge. The argument is that the subsidy per passenger in this case is still lower than the per passenger subsidy on handyDART.

Custom Fare Structure Guidelines

1. Cash fares are set at approximately 15% higher than the conventional transit adult cash fare.
2. Tickets (books of 5) are sold for the cost of 5 cash fares.

Outlets for Prepaid Fares

In order to encourage greater use of prepaid fares, they should be convenient to purchase. This means that they should be available for purchase at a variety of outlets including

municipal run facilities, corner stores, pharmacies, postal/lottery outlets, banks, and colleges. The guideline for the number of outlets in a community is a minimum of 2.5 outlets per 10,000 people. In Campbell River, this translates into about 8 outlets. Currently prepaid fares are only available at the Municipal Hall and 5 other locations around town. Increasing the number of outlets is recommended.

5.2 On-street Facilities

On-street facilities form a critical component of the transit system. They are highly visible and are usually the first points of contact that people have with the system. For the general public, on-street facilities form a key part of the overall image of the transit system, and the community's level of commitment and support for transit.

On-street facilities include bus stop signs, benches, shelters, and transit exchanges. Good facilities help to make the overall experience of using transit safer, more convenient, and more comfortable. By doing so, good facilities can encourage greater use of the transit system.

Bus stops and shelters

Bus stops and shelters in Campbell River are generally in fairly good condition. However, a program should be undertaken to identify and upgrade those stops where improvements are required. For example, there are still numerous stops on major corridors where the curb has not been painted red. There are also stops where the level of use warrants a bench and shelter. Improved schedule and route information should also be provided at key stops. In this replacement program, priority would be given to those stops where safety may be an issue as well as those with high use due to their location near major activity centres or key destinations. For example, improved facilities are required for Timberline High School/North Island College, including a bench, shelter, and schedule information.

Improving accessibility at bus stops for passengers with mobility disabilities also needs to be addressed. Currently, about 60% of bus stops in Campbell River are designated as accessible. Additional stops should be made accessible, where possible, in order to improve access and convenience for those with mobility disabilities. Currently, the Storries Beach and Oyster River routes are the only ones that have not been designated as accessible service, and the stops along the highway are not accessible. However, when accessible service begins on these routes the bus stops will likely require upgrading.

Exchanges

The transit exchange at Tyee Plaza in downtown Campbell River is the focal point of the system, where many transit users begin or end their trips. However, this exchange requires updating and cleaning as well as safety and operational improvements. The exchange has become quite run down. Safety improvements, including improved lighting and visibility, were recommended during the stakeholder meetings. Functional changes to the exchange are required to increase capacity as service frequencies are increased, and

improve the overall operation. Given the importance of the Tyee Plaza exchange, these improvements would benefit the entire transit system. A small new exchange will also be required in Willow Point for the transfers between the Dogwood and the south end routes. This exchange should include a bench, shelter, and transit information.

5.3 TDM Strategy

Transportation Demand Management (TDM) measures are used to encourage people to make more efficient use of the transportation system. This is achieved by reducing the number of trips, shifting the time of travel, and shifting the demand to other modes of travel by making these other modes more attractive relative to the automobile. By encouraging greater transit ridership, TDM could be a very effective means of improving transit performance in Campbell River. Promotion of TDM is a key way that transit can broaden its role in the region's transportation system, which is one of the community objectives of the Service Strategy.

While TDM measures can play a key role in reducing dependence on single occupant private vehicles, it can often be difficult to organize. TDM can involve a large number of players including different levels of government and government agencies, along with institutions, major employers, and major property owners. There are no clearly defined roles concerning which of these groups provides the different components of a TDM strategy and who pays for these components. This will require discussion among these groups to determine how the various strategies will be administered. Although many TDM strategies can be implemented with little or no cost, the issue of funding for those strategies, where it is required, must also be addressed. Funding should be pursued with a number of public and private sector groups in the region with an interest in efficient transportation system use.

Inventory of Common TDM Measures

TDM measures can either be punitive "sticks" that discourage automobile use or "carrots" which encourage use of alternative transportation modes. Examples of common TDM measures are listed in the table below.

5-2 Transportation Demand Management Measures

HOV Priority Measures	***Facilities to encourage the use of high occupancy vehicles***
Signal priority measures	Priority for transit vehicles at signalized intersections.
Queue jumper lanes	Allow HOV's to bypass congestion at traffic bottlenecks.
Ridesharing	***Measures to increase average vehicle occupancy***
Car pools	Ridesharing in private vehicles.
Van pools	Ridesharing in van provided by employer or agency.
Intermodal Trips	***Provide flexibility to use transit for part of trip***
Park-and-Ride	People drive and park at transit stops at key feeder locations.
Bike-and-Ride	People cycle to transit stops provided with bicycle storage.

Parking Management	***Measures to manage supply and demand for parking***
Increased parking costs	Reduce current subsidy for parking and apply to other modes.
Preferential parking for HOV's	Reserve the most desirable parking spaces for car and van pools.
Promotion of Cycling	***Measures to promote cycling as an alternative to driving***
Bicycle facilities at destination	Provide secure storage, showers, and changing facilities.
Bicycle racks on buses	Gives cyclists the choice of taking bikes on the bus.
Employer Programs	***Measures administrated by employers or institutions***
Employee Transportation Administrator	Coordinates all TDM programs to reduce single occupant vehicle trips to the work site or institution.
Employee transportation allowance	Employer provides transportation allowance (for any mode) to all employees to replace free parking.
Employer bus passes	Annual bus passes purchased through payroll deduction.
Guaranteed ride home	Employee is guaranteed a ride home when leaving early or late.
Flexible work hours	Allows employees to adjust schedule to car pool or transit.
Telecommuting	Allows employees to work at home one or more days per week.

TDM Measures for Campbell River

Not all TDM measures are suitable for Campbell River. For example, many strategies such as HOV lanes require a high level of traffic congestion in the region as an incentive for drivers to abandon their cars. Currently, there is relatively little traffic congestion in Campbell River. Some of the measures which are most likely to succeed under the conditions in Campbell River are outlined below. Some of these measures, as indicated, will become more viable as the transit system develops in Campbell River.

Promotion of cycling - Campbell River is well-suited to the promotion of cycling, given the climate and geography. This can be accomplished by providing cyclists with the proper facilities including safe and convenient cycling routes, secure storage areas, showers, and changing rooms at their destinations. Providing bicycle storage facilities at major transit exchanges and equipping all transit vehicles with bike racks can encourage greater integration of transit and cycling. This strategy should be coordinated with the development of cycling trails in Campbell River.

Van pool programs – Van pools would be a good option for longer distance commuters in the Campbell River area, particularly those living in areas where populations densities are not sufficient to warrant transit service or those travelling to work places outside the transit service area. For example, vanpools might be a good option for those who commute between Campbell River and the Comox Valley.

BC Transit has recently taken over the administration of the Provincial Van Pool Program outside of Greater Vancouver. Vanpools are operated as a three way partnership:

- BC Transit oversees the program and establishes policies on fares, maintenance standards, and reporting. It develops marketing materials and supports local marketing efforts. BC Transit also monitors the performance of the program.
- The Jack Bell Foundation administers the vanpools on a daily basis, including monitoring usage of the vans, collecting fares, and ensuring vehicles are maintained. It will match potential riders and maintain the ridematching software and database. It is also responsible for creating new vanpools, including acquiring new vehicles, calculating fares, providing training, and ensuring required agreements are in place.
- Local governments are responsible for integrating the vanpool program into their local TDM programs, providing support to Jack Bell Foundation in identifying vanpooling opportunities and providing incentives for vanpools. Local government may also choose to subsidize vanpool fares.

Vans would be provided to groups of 8 commuters, with each passenger paying a flat monthly fee based on distance travelled which is used to cover the operating expenses. The driver rides free. Currently, there are no formal vanpools in the Campbell River area, but the Jack Bell Foundation does have a mandate to expand the program throughout the province.

Employer/Institution Programs - Employer/institution programs use TDM strategies to promote alternatives to driving to specific employment locations or institutions. These strategies are developed and implemented by the employer or institution at the site. The first step would be to designate an Employee Transportation Administrator (ETA) to develop a trip reduction plan to reduce the number of single occupant vehicles generated at the site. BC Transit has developed a certification program for ETA's which has been held in several communities throughout the province. Potential locations for employer/institution programs in Campbell River might include the Elk Falls Mill or North Island College.

5.4 Marketing Strategies

In meetings with transit stakeholders, marketing was identified as a key strategy and an area that needs more initiative, particularly at the local level. Marketing strategies can be used to identify and target key transit markets, and raise the profile of transit in the region through enhanced public information and promotion. The components of a Marketing Strategy would include market research, public information, education, public awareness and promotions.

Market Research:

This is a critical component of the marketing strategy that involves gathering information about the market. This information is used to determine who rides the system, how the system is being used, and what can be done to make the system more attractive for non-users. Market research is required to determine how best to position other components of the marketing strategy.

The sources used to gather market information include the following:

- Passenger counts – currently done on an on-going basis.
- On board passenger surveys – done every 2-3 years; last survey in February 2001.
- Consumer attitude surveys – done in April 2000
- Stakeholder meetings – done April 2001 as part of the Transit Service Strategy process.

Public Information:

This is information required to allow the public to use the transit system. Lack of knowledge about the system and about how to use the system is often a major barrier that prevents people from using transit, a barrier which public information can help to overcome. Public information is a non-discretionary component of the marketing strategy that must be developed and maintained on an on-going basis. Components of public information include:

- Riders guides – which provide route, schedule, and other information
- Signage for bus stops, kiosks, bus interiors
- Telephone information
- Telephone directory advertisement
- Website

Education:

This involves telling the public about the community benefits of transit, including environmental and accessibility issues. It is aimed at raising awareness about these issues and changing attitudes so that people are more likely to support and to use transit. The "Go Green" campaign, which has been used in various parts of the province, is an example of this. Educational programs for students, providing kids with an opportunity to learn how to use the transit system, were recommended during the stakeholder interviews.

Special promotions:

These promotions are used to raise local awareness of the transit system. These can take the form of special events or on-going campaigns. Partnerships with public or private groups can be important in these types of promotions. For example, North Island College is interested in running a joint campaign to encourage students to take transit to the campus in order to address the lack of parking.

Other examples of special promotions include the following:

- Anniversaries and ridership milestones can be celebrated with special events that involve the public in order to raise awareness.
- Special fare discount promotions such as 2 for 1 Tuesdays or weekend family passes can be used to encourage new users to try out the system.
- Holiday promotions such as Santa bus and free New Years Eve service can also encourage new users.

- The McGruff safety program is a partnership with the RCMP.

6.0 FORECASTS OF KEY PERFORMANCE INDICATORS

Budget and performance forecasts have been prepared to show the impact of implementing the medium range service options and supporting strategies outlined in the of the Service Strategy. Although Forecast 2 assumes implementation of all the service enhancements outlined in the medium range section of the service plan, decisions on phasing and implementation of individual service enhancements will be determined through the annual budget development process based on the Service Strategy objectives.

Table 6-1 below compares financial and performance measures for conventional transit in the current year (2002/03) with two forecasts for the end of the medium range period. The first is a status quo forecast which assumes no additional service improvements during this period, while the second forecast assumes full implementation of the Service Strategy.

6-1 Cost and Performance Forecasts for the Campbell River Transit System

	2002/03	End of Medium Range Period	
		Forecast 1 Status Quo	Forecast 2 Implementation of the Service Strategy
Budget Summary			
Total Costs	$1,213,000	$1,311,000	$2,324,000
Total Revenue	$425,000	$481,000	$923,000
BCT Share of Costs	$506,000	$548,000	$964,000
District Share of Costs	$263,000	$264,000	$403,000
Performance Summary			
Hours	17,559	17,559	31,932
Ridership	305,000	319,000	612,000
Rides per hour	17.4	18.2	19.2
Cost per ride	$3.98	$4.11	$3.80
Cost recovery	35.0%	36.7%	39.7%

Forecast 1 is the status quo scenario. Total hours of service would remain at 2002/03 levels. As a result of population growth, per capita service levels would decrease from 0.55 to 0.50 over the period. Without increased service or the implementation of supporting strategies, growth in ridership would be modest (based on population growth), resulting in a productivity of 18.2 rides per hour by the end of the period. Although total costs are lower than under the Service Strategy implementation scenario, ridership is only half as much and the cost per ride is higher.

Forecast 2 assumes full implementation of the Service Strategy, including the service enhancements and the supporting strategies. Total hours of service would increase from just under 18,000 hours to nearly 32,000 hours and per capita service levels would

increase to 0.95. Ridership is forecast to double over the period as a result of the increased service, the implementation of supporting strategies that encourage greater transit use, and population growth. Productivity would increase from 17.4 rides per hour currently to 19.2 by the end of the period while the cost per ride would actually decrease from $3.98 to $3.80.

7.0 RECOMMENDATIONS

It is recommended that:

The District of Campbell River approve this plan as a guide for transit service planning and delivery in the region; and

The District of Campbell River approve the following specific recommendations:

Medium Range Service Changes

3. Approve in principle the process outlined in section 4.1 for evaluating new or existing transit services.
4. Approve in principle the medium range service improvements. These will be evaluated as part of the annual budget approval process.

Supporting Strategies

5. Adopt the fare structure guidelines for future tariff changes.
6. Develop an on-street facility plan to establish, upgrade, and maintain on-street facilities.
7. Approve in principle the Transportation Demand Management strategy.
8. Approve in principle the marketing strategy.