DEVELOPING SUSTAINABLE TRANSIT OPTIONS FOR SMALL COMMUNITIES

A Summary of Best Practices

Prepared for the Town of Peace River

by the Northern Alberta Development Council (NADC)

Developing Sustainable Transit Options for Small Communities

A SUMMARY OF BEST PRACTICES

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BACKGROUND

Rural areas and small towns across Canada are characterized by a combination of low population densities, large distances within or between communities and limited or no publically available affordable transportation services. Individuals in rural communities with populations under 50,000 have unique travel needs; and the absence of a large, concentrated population shifts the economics under which transit operates.

The following report defines small communities as having a population between 5,000 and 50,000. The report brings together a range of best practices used to develop transit systems in small communities by citing numerous online and academic sources. In addition, the NADC would like to acknowledge the Town of Hinton and the Town of Peace River for providing information on their respective public transit systems.

OPPORTUNITIES AND CHALLENGES

The Canadian Urban Transit Association includes 36 conventional transit systems and 13 specialized transit systems for people with disabilities that serve areas with fewer than 50,000 people. A 2005 CUTA discussion paper identified common opportunities and challenges of public transit in small communities.

A more recent report released by Transport Canada in 2011 echoed many of the recommendations advanced by CUTA and provided increased data on existing public transit services in Canada.

Transit Systems in Smaller Communities: Opportunities[i]

- **They support local businesses by helping commuters get to work, bringing shoppers to stores, supporting dynamic downtown cores, and meeting the needs of festivals and other events.**
- **They offer independence and mobility to people who are non-drivers by choice or necessity — seniors, children, students, workers, low-income families, and even tourists. Persons with disabilities, who may have very limited mobility options, are primary beneficiaries.**
- **They reduce local air pollution, and contribute to local climate change strategies.**

Transit Systems in Smaller Communities: Challenges[ii]

- **Building ridership can be difficult when trip distances are short, parking is inexpensive, and there is no traffic congestion. In addition, land use patterns are often not transit-supportive.**

- **Municipal funding sources are limited, and transit must compete with other basic community needs for funds. Tight budgets also mean fewer staff training opportunities like conferences, where smaller systems can exchange information and learn about best practices.**

- **The ability of smaller systems generally to research and develop innovative solutions is often limited because of very lean management structures**

FINANCIAL PERFORMANCE

As a result of fiscal constraints, public transit systems in smaller communities see the efficient use and recovery of operating funds as a key to sustainability. As a result, many conventional systems in communities under 50,000 deliver service very cost-effectively. In 2003, their average cost per transit service hour was $61, substantially less than the $96 average cost of systems in communities over 400,000 people. Smaller systems also recovered an average of 39% of their operating costs from fares, about the same as the average of all American transit systems[iii].

The following table illustrates financial data from 2011 of transit systems in Canadian communities with populations between 15,000 and 45,000.

Transit System Data Comparisons[iv]

	Leduc, AB	Spruce Grove, AB	Miramichi, NB	Kentville, NS	The Nation, ON	Charlottetown, PEI
Population	25,842	27,790	16,000	42,540	15,000	45,000
Fare Media for Adult	Cash/Ticket/ Pass $5, $4.5, $75	Cash/ Pass $5, $125	Cash/Ticket/ Pass $3, $2.7, $72	Cash/Ticket/ Pass $3.5, $3, $90	Cash/Ticket/ Pass $15, $10, $255	Cash/Ticket/Pass $2.25, $2, $65
Ridership	41,603	84,600	81,001	405,427	106,833	373,374
Total Vehicle Hours	167,821	271,928	330,000	1,600,000	460,000	551,668
Operating Cost	$599,441	$1,000,500	$466,000	$2,564,235	$1,165,982	$1,816,054
Recovery of Cost	24%	42%	57%	37%	57%	44%
Service provided by:	Contracted out	Contracted out	Municipality	Municipality	Contracted out	PPP

PRINCIPLES FOR ACTION

Transport Canada's Report titled 'Improving Travel Options in Small and Rural Communities' suggests communities consider the following principles for action:

Take an Integrated, Strategic Approach[v]

Developing a strategic plan can motivate and guide decision-making. It can also bring together relevant community members to identify collective goals, resources, challenges and opportunities. By following this approach, communities are able to cut across silos of responsibility within municipal governments and bring together government, not for profit and private sector interests.

Consider the Triple Bottom Approach[vi]

Instead of the conventional focus on economic bottom lines, rural municipalities are encouraged to consider a 'triple bottom line' which gives equal weight to economic, social and environmental outcomes. Transportation,

as a municipal responsibility having extensive impacts on social and environmental systems in addition to economic effects, is a particularly important area for triple bottom line analysis. Practitioners should view transportation projects as more than line items in a budget— they should weigh the municipal savings and expenses against the benefits and costs to individuals, families, neighbourhoods, businesses and the ecosystem. By doing so, they can better inform decision-makers of the pros and cons of either approving or rejecting an initiative—and decision-makers, in turn, become more accountable to the public.

Balance Supply and Demand[vii]

Communities have been using measures that manage the demand for transportation, rather than simply focusing on the supply. Transportation Demand Management (TDM) is the application of strategies and policies to reduce travel demand of single-occupancy private vehicles. TDM measures influence whether, why, when, where and how people travel. Municipal TDM initiatives can include educational and promotional tools, incentives and disincentives. They include measures like information campaigns, special events, discounted transit fares, public ride-matching services, active and safe routes to school programs for children, workplace-based commuting options programs, and household-based individualized marketing. TDM measures often involve partnerships between municipalities and employers, schools and community organizations. They are typically less costly than infrastructure solutions, but improve the cost-effectiveness of those solutions by increasing their levels of use.

Focus on Priorities[viii]

There are a great many actions that can be taken by smaller communities to improve travel options for different groups of people. Well-designed pilot projects can gain positive media coverage, attract new supporters and overcome opponents' skepticism. When communities focus their initial efforts on a small number of priorities and ensure their success, transit plans gain momentum as well as community buy-in for additional actions. Ultimately, individual communities need to decide whether they would be better off with incremental action that strengthens existing transportation services, or create something new and innovative.

MEETING THE CHALLENGES

There have been several strategies employed by rural and small communities to increase transportation options to enhance the quality of life of their citizens. The following list provides some examples of strategies employed by smaller communities to neutralize the challenges listed on Page 3.

Inter-Municipal Partnerships[ix]

Smaller communities can avoid the challenges associated with starting a new transit system by purchasing services from established urban transit systems in the region. This strategy is less viable for northern Alberta due to the great distances between communities. However, it raises the possibility of regional inter-municipal routes.

Provincial Partnerships[x]

An example of this type of partnership is the Municipal Systems Program, where BC Transit partners with communities across the province (outside Greater Vancouver) to coordinate the delivery of 70 conventional and specialized public transit systems. Municipalities approve service levels and set fares and, in a few cases, operate the service. In most cases, BC Transit contracts for service delivery with a private company or non-profit society. BC Transit capitalizes on specialized skills and economies of scale to provide planning, marketing and contract administration services, and arranges province-wide contracts for vehicle and fuel purchases. About half of each system's operating and amortized capital costs are funded by BC Transit, with the other half funded through fares and local governments.

Market-Oriented Service Planning[xi]

One way that smaller communities maximize ridership and stay ahead of rising costs is to focus on understanding and serving key market segments. Examples include secondary school services that are planned around class hours, or workplace services that meet the needs of shift workers. In 1999 a division of Maple Leaf Foods opened in Brandon, Manitoba, several kilometers outside the urban area. Maple Leaf workers were able to buy bus passes through payroll deduction, and Brandon Transit adjusts schedules as needed to meet unexpected variations in shift times.

Flexible Delivery — Conventional Services[xii]

In smaller communities, lower demands may mean that fixed routes and standard 12-meter buses are neither effective nor efficient. More flexible, demand-responsive approaches including dial-a-ride are used by some systems (like Medicine Hat Transit, Alta.) to provide service during off-peak hours, or to serve low-density or rural areas. Other communities partner with taxi companies to provide feeder services in outlying areas (e.g. Welland Transit, Ont.). In Rimouski, Quebec the entire public transit service (known as Taxibus) is delivered using taxis.

Flexible Delivery — Specialized Services[xiii]

Rising operating costs for specialized transit services have led many communities to explore taxis as a means of serving customers with disabilities. In British Columbia, where many smaller communities operate accessible handyDART services in partnership with BC Transit, specialized transit trips can be served using taxis when it is more efficient or effective. Another BC Transit program gives eligible handyDART clients the freedom to call their own taxi, with a 50% fare subsidy.

Marketing[xiv]

Most small transit systems lack the specialized expertise and resources needed to deliver comprehensive marketing strategies. Despite these limitations, many systems are finding ways to effectively communicate with key segments of the transit market. For example, U-Pass programs, which are still most common in large and medium-sized communities (+100,000), have found a foothold in the small city of North Bay, Ontario. In British Columbia, BC Transit actively lends its marketing knowledge to smaller communities through an online community outreach toolkit, and its centralized production of printed and Web-based public information yields higher-quality materials at more affordable prices.

CASE STUDY: HINTON PUBLIC TRANSIT[1]

Overview

In 2007, Hinton's Town Council committed to funding an 18-month pilot public transit project. The pilot project was developed in response to a 2006 Mayor's Task Force that identified transportation and affordable housing as key issues in Hinton. A gap in services was identified for low-income individuals and families who did not fit the criteria for the existing Handibus service. Coupled with the sprawling nature of Hinton's commercial and residential development, many individuals and families were experiencing great difficulty in accessing local employment opportunities and essential services.

The pilot project specifically targeted low-income individuals, youth and seniors to increase their access to local employment, shopping, health and education services as well as recreational activities. The pilot program did not compete with the existing Handibus service as (Hinton Transit's) focus was on *mobile* customers.

[1] All information on Hinton Transit was provided by the Town of Hinton

Passenger surveys conducted by the Town of Hinton indicate that public transit has had the effect of empowering as well as increasing the quality of life of those segments of the community the system intended to serve. Increased mobility has provided individuals and families with the support needed to access employment, medical services, social services, and recreational opportunities. Hinton's public transit system has also helped to strengthen the community by connecting many neighborhoods not previously accessible to those without private transit options.

Additional Notes on Hinton's Transit System

- Hinton's census population in 2011 was 9,640
- The bus operates on a 25km loop which takes 1 hour
- Hours of operation: M-W: 8am-8pm, T-F: 8am-9pm; S: 8am-7pm; no service Sundays and Holidays
- Bus drivers are town staff and buses and maintenance are contracted out
- Staffing complement: 1 part-time supervisor and 2 full-time, 1 part-time and 3 casual drivers

FARE TYPE	RATE
Day pass - unlimited travel by one person in one day	$8 per day
Monthly pass - unlimited travel by one person in one month	$70 per month
One-way cash fare	$3 per ride
Punch card- 12 rides with no expiration date	$30 per card
Quarterly senior pass - unlimited travel for three months (65+)	$50
Transfer tickets are available to passengers having short stops along the route	

2013 Financial Information

- Budget approved $185,000deficit
- Revenue from fares: $65,308
- Total revenue: $76,681
- Total expenses:$262,101
- 2013 Annual ridership: 24,846

The transit program initially received Green Trip funding to build shelters and benches, providing the system with ongoing advertising revenues. In closing, Hinton's experience is indicative of the potential for large towns and small cities in northern Alberta to successfully operate a viable and cost-effective transit service.

CASE STUDY: PEACE RIVER PUBLIC TRANSIT

Overview

In 2005, a pilot transit service consisting of one 16 seat bus was initiated in the Town of Peace River by the Town council with financial assistance from the Persons with Developmental Disabilities Northwest Community Board. The initial contract with Cardinal Coach Lines was to end May 21, 2005 and was extended to December 31st, 2005. A survey of transit users was completed in October 2005. The service was further extended in 2006, 2007 and 2008 to allow for the development of a permanent system[xv].

In 2008, a request for proposal was issued in Peace River. Peace River Town Council approved a 5-year contract, with the option for a 2-year renewal. Based on ridership numbers in Peace River between 2006 and 2011, the service averaged approximately 10,871 rides per year (53 rides per day)[xvi]. The actual revenues and operating expenses for the Peace River transit service between 2009 and 2011 (see table below) were within range of the estimates provided in 2008 however revenues were considerably lower than anticipated.

Peace River Transit Annual Operating Expenses, 2008 - 2011

	2008 (estimated $ cost if run by town - including amortization of capital expenses over four years)	2008 (estimated $ cost if run by contractor)	2009 (actual $)	2010 (actual $)	2011 (estimated $)[xvii]
Annual Operating Expense	206,444	180,492	189,347	193,709	197,788
Annual Revenues	30,000	30,000	23,824	20,119	23,184
Deficit	176,444	150,492	165,523	173,590	174,604

The service ended in early 2011. High costs were cited as one of the main factors in the cancellation of the service.

Summary of 2005 Survey Results[xviii]

Although only 2% of the town's population used transit on a regular basis in 2005, up to 38% of the lowest (and apparently growing) income groups used it. It was also found that the service increased the mobility of transit users by a reported 61% and reduced reliance on personal vehicles by 45%. Moreover, 40% of those riders used it for work, and 53% used it for shopping.

Challenges[xix]

- Route and Route Time:
    - Determining adequate community coverage schedules
    - The full service loop was very long (1 hour, 17 minutes)
    - Finding safe places to stop that did not interfere with traffic and the length of the route
- Driver Challenges:
    - Bus unduly detained as a result of drivers being late for their shift
    - Drivers giving free rides/going off-route
- System Challenges:
    - Wheel chair accessibility was planned but unavailable at the time
    - Strollers were difficult to load and store on the bus
    - The bus was reaching capacity at peak times

The survey suggested that users of the transit service enjoyed increased mobility within Peace River enhancing access to employment, shopping, recreation, and medical services. It is also noted that rates of transit use declined as the income level of users increased and there were higher percentages of female riders as opposed to males in most categories.

CASE SYUDY: PEACE RIVER TAXI-PASS PROGRAM[xx]

Overview

The Peace River Taxi-Pass Program is meant to serve clients who meet at least one of the following criteria[xxi]:

- A registered student at Northern Lakes College
- A combined family income level below $25,000
- An individual Income Level below $15,000
- Seniors – over the age of 65 years

- Assured Income for the Severely Handicapped (AISH) recipients
- A client of the Peace River Regional Women's Shelter – purchased through the Women's Shelter
- A medical disability (must provide a note from a physician)

Approved applicants are provided with a plastic Taxi Card that allows the purchaser up to 40 tickets every four weeks. Individual booklets of 20 tickets are priced at $15.00. There are three taxi companies in Peace River who currently honor taxi passes.

In 2012, the cost to the town of Peace River to operate the service was $98,167 with total revenues of $11,224. A total deficit of $86,943 was funded by rate payers in Peace River in 2012. In 2013, the total cost of the service increased to $146,109 with revenues also increasing to $14, 098. A total deficit of $132,011 was funded by rate payers in Peace River in 2013.

Community feedback from the program has identified a number of concerns about the service including the affordability of the service, access for disabled individuals, stringent application criteria and the overall complexity of the ticket system. Much of the community's feedback was in the form of recommendations aimed at getting more individuals and groups to qualify for the service.

The service saw over 13,801 rides in 2012 and 20,589 rides in 2013. However, in 2012 there were only 149 individual clients of the service (there are no figures showing the number of individual clients in 2013). Regardless, the large increase in ridership indicates that there remains a steady need for public transportation options in Peace River and a growing awareness of existing services amongst the public. Both of these facts are highly favorable to the future development of sustainable transit services in Peace River.

CONSIDERATIONS FOR FUTURE TRANSIT DEVELOPMENT

In smaller communities, economic viability is a critical test for a public transit service. A minimum density of demand (hourly passengers per bus) is required for transit to be cost effective - but sprawling, unfocused land uses with highly dispersed origins and destinations make this difficult. Only when clusters of trips share a common start or end point (and preferably both) is bus transit likely to be truly viable. From a land use perspective, bus transit needs concentrations of residential land uses, workplaces, schools, medical and retail destinations[xxii].

Population growth in northern Alberta provides opportunities for communities to consider public transportation options which would have the effect of enhancing both residents' quality of life and the sustainability of local businesses. Between 2006 and 2011, there has been significant population growth in communities like Cold Lake (15%), Peace River (7%), Bonnyville (7%) and Whitecourt (7%)[xxiii]. It is reasonable to assume that the numbers of individuals in these communities who would benefit the most from public transit; one-parent households, low-income wage earners, Temporary Foreign Workers, seniors and youth have also increased at comparable rates.

An efficient and well-thought out system with functional supporting infrastructure would increase the likelihood of northern residents 'buying- in' to local transit services. Challenges like building ridership can be addressed through the innovative implementation of bus pass systems and the marketing of incentives. Individuals can claim federal tax credit for public transit passes for monthly, annual and shorter interval (5-day) public transit passes. Also, with a pass system, employers may be more inclined to subsidize transit for staff thereby increasing ridership. Partnerships are important factors to consider in the development of a sustainable transit service and public awareness is a key contributor to increasing transit use.

A possible strategy for increasing system efficiency during peak hours could be the addition of a part-time driver. During peak hours, a second bus driven by a part-time driver, could service a portion of the route up to a transfer point with the remainder of the route being serviced by the full-time driver. This would increase the frequency of service at each bus stop throughout the route as well as overall transit capacity.

In reality, many communities are unable to reach a minimum density of demand to bear the cost of busses. Shared taxi systems, common throughout the developing world could be an option for communities in

northern Alberta since they are intended to service smaller batches of passengers where it is not possible to establish a bus service. Shared taxi systems employ vehicles for hire which are typically smaller than buses and usually take passengers on a fixed or semi-fixed route without timetables, often only departing when all seats are filled. They may stop anywhere to pick up or drop off passengers.

Rimouski's Taxibus[2] functions as a shared taxi service which operates on both fixed and variable routes serving residents on the outskirts of the city and areas with lower population density. The level of service offered for each region it services is based on its population density and the distance that must be covered to stay on schedule. In addition to being a scheduled service accepting several independent passengers on any given trip, Taxibus also functions as an 'on demand' service where residents can call in advance for reservations.[xxiv]

The evidence from around the globe shows that these systems are very effective in bringing riders from areas of low population densities to urban cores. A shared taxi system could be an affordable option for communities in northern Alberta that are characterized by sprawling and unconnected populations needing access to centralized services as well as peripheral industrial and business districts.

Communities need to engage in a range of techniques for assessing the need and projecting the use of local transit systems. A survey of residents should be conducted to determine if, when and why they would use public transit, and at what cost. A strong business case needs to be made for local transit development. Collaboration enables local transit. The local business community, education institutions, recreation facilities, healthcare practitioners and other service providers are invaluable partners in developing a detailed understanding of local residents' transportation patterns. The information generated through collaboration with local stakeholders is essential to determining routes and schedules.

[2] For more information on Rimouski's Taxibus, got to Société des Transports de Rimouski, Rimouskibus, Ville de Rimouski http://www.ville.rimouski.qc.ca/en/citoyens/nav/circulation/Rimouskibus.html?iddoc=188156

ADDITIONAL RESOURCES AND RECOMMENDED READING

1. Transit Cooperative Research Program (TCRP), Report 101: Toolkit for Rural Community Coordinated Transportation Services, 2004 http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_101.pdf
2. Improving Options With Transportation Demand Management (TDM), Federation of Canadian Municipalities, 2008 http://www.fcm.ca/Documents/tools/GMF/Improving_Travel_Options_with_Transportation_Demand_Management_EN.pdf
3. Smart Growth: A Primer, Smart Growth BC, 2000 http://smartgrowth.bc.ca/
4. Strategies for Implementing Transit Priority, Transport Canada, 2005 https://www.fcm.ca/Documents/reports/Infraguide/Strategies_for_Implementing_Transit_Priority_EN.pdf
5. Online Marketing Resource Centre, BC Transit, http://www.bctransit.com/marketing/
6. Marketing Transit in Canada: Meeting the Ridership Challenge, Canadian Urban Transit Association (CUTA), 2005 http://www.cutaactu.ca/en/publicationsandresearch/resources/IssuePaperNo.14_MarketingTransitinCanada_MeetingtheRidershipChallenge.pdf
7. Transit Cooperative Research Program (TCRP), Synthesis 94: Innovative Rural Transit Services, 2011 http://www.nap.edu/catalog.php?record_id=14605
8. Improving Travel Options in Small and Rural Communities, Transport Canada, 2009 http://www.fcm.ca/Documents/tools/GMF/Transport_Canada/ImprovingTravelSmallRural_EN.pdf
9. Public Transit in Small Communities, Canadian Urban Transit Association (CUTA), 2005 http://www.cutaactu.ca/en/publicationsandresearch/resources/IssuePaperNo.11_PublicTransitandSmallCommunities.pdf
10. Taxi Share Programs in Canada and Abroad, Transport Canada, 2011 http://www.tc.gc.ca/media/documents/programs/cs103e.pdf

BIBLIOGRAPHY

[i] Public Transit and Small Communities, CUTA, 2005. Page 1
http://www.cutaactu.ca/en/publicationsandresearch/resources/IssuePaperNo.11_PublicTransitandSmallCommunities.pdf

[ii] *Ibid*

[iii] *Ibid*, Page 2

[iv] Canadian Transit Fact Book – 2012 Operating Data, Transit Cooperative Research Program (TCRP), 2012

[v] Improving Travel Options in Small and Rural Communities, Transport Canada, 2011. Page 7
http://www.fcm.ca/Documents/tools/GMF/Transport_Canada/ImprovingTravelSmallRural_EN.pdf

[vi] *Ibid*

[vii] *Ibid*, Page 8

[viii] *Ibid*

[ix] Public Transit and Small Communities, CUTA, 2005. Page 2
http://www.cutaactu.ca/en/publicationsandresearch/resources/IssuePaperNo.11_PublicTransitandSmallCommunities.pdf

[x] *Ibid*, Page 3

[xi] *Ibid*

[xii] *Ibid*

[xiii] Public Transit and Small Communities, CUTA, 2005. Page 3
http://www.cutaactu.ca/en/publicationsandresearch/resources/IssuePaperNo.11_PublicTransitandSmallCommunities.pdf

[xiv] *Ibid*

[xv] Peace River Transit Service Overview, Town of Peace River, 2011

[xvi] Combined Transit Stats 2005-2011, Town of Peace River, 2011

[xvii] Based on 3 months of operation in early 2011prior to the system's cancellation. Costs are extrapolated by multiplying the data from the 3 months by 4.

[xviii] Peace River Transit Pilot Project Survey Final Report, NADC, 2005. Page 5

[xix] *Ibid*, Page 11

[xx] Peace River Taxi-Pass Program Review, 2007-2011

[xxi] Peace River General Taxi-Pass Program Information, 2013

[xxii] Improving Travel Options in Small and Rural Communities, Transport Canada, 2011. Page 25
http://www.fcm.ca/Documents/tools/GMF/Transport_Canada/ImprovingTravelSmallRural_EN.pdf

[xxiii] Statscan Community Profile, 2006/2011 Census

[xxiv] Société des Transports de Rimouski, Rimouskibus, Ville de Rimouski
http://www.ville.rimouski.qc.ca/en/citoyens/nav/circulation/Rimouskibus.html?iddoc=188156