

**BMA**  
Management Consulting Inc.

**Operational Review  
Timmins Transit**



**City of Timmins**

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## **Executive Summary**

An analysis was undertaken to benchmark costs, revenues and operations for Transit services. Compared with other municipalities surveyed, Timmins has more hours of operation and an older fleet of vehicles. However, improvements have been made over the past two years to replace the oldest vehicles in the fleet. In addition, adjustments have been made to modify the hours of operation based on ridership. In addition, fares have not been increased in an attempt to increase ridership. In the past two years, ridership has increased after years of decline. However, revenues have not increased to any great extent and are lower than other municipalities surveyed. Timmins also has higher net operating costs on a per regular passenger service. Further analysis is recommended to identify the driving factors in this analysis and to rationalize service levels.

There are many pressures that the Transit operation will face over the next several years including, increased demand for service, increasing insurance costs, an aging fleet of vehicles with insufficient reserves, a vehicle refurbishment/replacement program that has not kept pace with the City's policy.

Timmins has the lowest revenue to cost ratio and the lowest number of passengers per dedicated service in the survey of municipalities for accessible transit service. It is recommended that service levels be reviewed and rationalized as well as the eligibility criteria used for accessible service.

## **Summary of Recommendations**

***That the City develop a comprehensive set of minimum service and financial policies for the consideration of Council to ensure that the existing service levels have been rationalized.***

***That the City introduce a formal performance system similar to that outlined above and that this system provide the analysis annually in the service plan document and outline the planned response to improve compliance with the selected performance targets.***

***That the City undertake the installation of automatic passenger counters on 10% of the fleet to provide detailed information on passenger activity. The approximate cost of the installation is estimated to \$9,000 per vehicle. This will allow data to be collected on all routes during each board period.***

***That the City undertake on a semi-annual basis a passenger survey to provide a basis for fare classification, trip origin destination analysis and passenger profile development.***

***That a financing plan be developed for transit operations to transfer annually funds to the reserves to help finance years that have higher than average replacement needs.***

***There is a need to develop a long-term plan for equipment, vehicles and facilities within the Transit operations to ensure that funds are available based on lifecycle costing. This should be integrated with an overall long-term plan across the Corporation. Once improvements are made in this regard, a review of the maintenance functions should be undertaken to identify any potential savings.***

***The City provides both accessible and conventional service to the urban transit service area***

### **Mandate of Transit**

The mandate of Timmins Transit is to provide a safe reliable, convenient, and efficient public transit service within the Urban Transit Service Area (UTSA).

Conventional and Accessible service is provided. Conventional transit service is defined as regular, scheduled bus service that may travel over a fixed route and stop only at designated locations.

Operation of the Handy-Transit service provides transportation for people with disabilities, with or without mobility aids within the boundaries of the City of Timmins.

### **Review Process**

The purpose of the assignment was to undertake an operational review of the City's current service delivery, assess the adequacy of the services against standard industry norms and establish a basis for productivity improvement. The intent is to plan within the confines of the present staffing compliment and budget.

Similar to other communities of its size, the total daily trips accommodated on the public transit system represent approximately 3% of the total daily trips within the service area. Accordingly, the prime rationale for the operation of transit services is to provide an acceptable level of accessibility for those residents who for reason of age, health or income do not have access to transportation by auto. Aggressive policies to attract significant increases in ridership are not cost effective given the competitive advantage afforded to auto travel. Accordingly, the level of service provided is based primarily on social service principals rather than expanding capacity to meet demand.

These social principals are reflected in the stated mandate for the City's transit system:

*"to provide safe, reliable, convenient and efficient public transit services within the Urban Transit Service Area (UTSA)"*

*A review of internal data as well as benchmarking was undertaken*

### **Consultation With Staff**

A meeting was held with the Transit Superintendent to discuss:

- ◆ Key roles and responsibilities
- ◆ Budgetary challenges
- ◆ Equipment and capital needs
- ◆ Workloads, staffing levels
- ◆ Service levels and how the service is provided
- ◆ Fares and operating expenditures
- ◆ Major projects and priorities

### **Review of Key Documents**

Key documents were reviewed including:

- ◆ Organization Chart
- ◆ 2004 Operating and Capital Budget
- ◆ FIRs
- ◆ Service Plan
- ◆ Fares
- ◆ Reserves
- ◆ CUTA data (Canadian Urban Transit Association)

### **General Approach**

The approach relied heavily on the available information provided by the City related to the organization and reporting organization structure (organization chart with staffing levels), annual operating expenditures, current policies and minimum service standards, performance measurement systems and the description of the annual service planning procedures. The assessment of the adequacy of the transit service delivery procedures was based on similar investigations undertaken by the consultant and the peer review analysis of the City of Timmins transit service with other comparable systems in Ontario.

The approach appropriately involved discussions with the Transit Superintendent to ensure the information was properly interpreted and that the local circumstances affecting service delivery were clearly understood.

**Analysis**

**Staffing**

Transit services (conventional and handy-transit) includes

- ◆ 20 Full-time drivers
- ◆ 2 Full-time Handy-Transit Driver Attendants
- ◆ Part-Time Drivers
- ◆ 3 Dispatchers
- ◆ 4 Mechanics
- ◆ 3 Service Men
- ◆ 1 Body Men
- ◆ 2 Administrative Support Staff
- ◆ 3 Supervisory Staff

The department has three general areas of operations:

- ◆ Operations
- ◆ Maintenance
- ◆ Administration

## Budget

The following table summarizes the total budget/actuals for 2003/2004. As shown below, the taxpayer contribution to support transit operations (conventional and accessible) is approximately \$2.8 million.

*The cost to the taxpayer in Timmins is \$2.8 million for Transit services*

<b>Budget Report By Function</b>			
<b>Account</b>	<b>2003 Budget Values</b>	<b>2003 Actuals</b>	<b>2004 Budget Values</b>
<b>Transit Revenue</b>			
Fares-Regular Service	\$ (859,300)	\$ (837,375)	\$ (855,000)
Bus Passes	\$ (254,000)	\$ (275,894)	\$ (280,000)
Fares-Handicapped	\$ (32,700)	\$ (31,591)	\$ (32,000)
Charter Passenger	\$ (30,000)	\$ (540)	\$ (5,000)
Advertising Revenue	\$ (20,000)	\$ (7,314)	\$ (15,000)
Other Revenue	\$ -	\$ (105)	\$ -
Telephone Commission	\$ (500)	\$ (470)	\$ -
MTO Capital Grant	\$ -	\$ (105,634)	\$ -
<b>Total Revenue</b>	<b>\$ (1,196,500)</b>	<b>\$ (1,258,923)</b>	<b>\$ (1,187,000)</b>
<b>Transit Expenditures</b>			
Transportation	\$ 1,287,500	\$ 1,285,049	\$ 1,194,900
Dispatchers	\$ 243,000	\$ 218,695	\$ 160,000
Mechanical	\$ 705,000	\$ 720,163	\$ 822,600
Servicemen	\$ 147,500	\$ 143,719	\$ 145,900
Transit Buses (grouped)	\$ 665,000	\$ 641,155	\$ 644,400
Bodyshop	\$ 27,700	\$ 35,927	\$ 27,800
Premises and Plant	\$ 306,700	\$ 345,850	\$ 252,300
Bus Shelters	\$ 22,400	\$ 20,333	\$ 22,700
General and Administration	\$ 353,400	\$ 384,769	\$ 410,254
Handicapped Buses General Costs	\$ 231,300	\$ 243,074	\$ 255,200
Handicapped Buses (grouped)	\$ 49,200	\$ 43,703	\$ 37,600
<b>Total Expenditures</b>	<b>\$ 4,038,700</b>	<b>\$ 4,082,437</b>	<b>\$ 3,973,654</b>
<b>Net Expenditures</b>	<b>\$ 2,842,200</b>	<b>\$ 2,823,514</b>	<b>\$ 2,786,654</b>

## Revenues

According to the 2004 budget, 72% of the revenues are from regular service, with an additional 24% generated from monthly passes. Only 4% of the fares are generated from the provision of accessible service, with the remaining 1% from advertising.



## Expenditures

According to the 2003 Financial Information Return (FIR statements) that the City is required to prepare annually, salaries, wages and benefits account for approximately 67% of the operating expenditures (excluding transfers to reserves and inter-functional transfers). Materials comprises the remaining 33% of operating expenditures.

The FIR also includes a summary of the number of full-time, part-time and seasonal employees as well as the total person hours worked. The following table summarizes the results. As shown below, there are more hours worked on a per capita basis in Timmins than any other municipality in its peer group.

Municipality	Full-Time Funded Positions	Part-Time Funded Positions	Seasonal Employees	Total Person Hours Worked	Population	Total Person Hours Worked per capita
Belleville	28.00	2.00	14.00	67,384	45,986	1.47
Cornwall	37.00	5.00		81,445	47,221	1.72
North Bay	40.00	7.00		82,588	54,378	1.52
Stratford	21.00	13.00		51,321	31,129	1.65
Welland	21.00	7.00		55,453	50,307	1.10
Chatham-Kent	2.00	14.00	5	4,820	109,714	0.04
<b>Average</b>	<b>26.71</b>	<b>8.86</b>	<b>6.67</b>	<b>64,377</b>	<b>54,640</b>	<b>1.42</b>
Timmins	38.00	14.00	1.00	107,628	43,742	2.46

A benchmark review for Timmins Transit was conducted using other transit systems in municipalities with a similar service populations, urban characteristics and services as Timmins. The transit systems in Timmins Transit peer group are:

- ◆ Belleville
- ◆ Chatham-Kent
- ◆ Cornwall
- ◆ North Bay
- ◆ Stratford
- ◆ Welland

As will be shown in the benchmarking section of the report, this may reflect differences in the level of service provided in each of the municipalities.

***A number of key industry recognized indicators are available and have been used in the analysis to measure efficiency, effectiveness, service levels, revenues and expenditures***

## **Benchmarking**

A “benchmark study” is typically any type of study which is built around an analysis or comparison of statistical performance measures against control points commonly known as “benchmarks”. Such a study can also be referred to as a performance review or performance comparison study.

The benchmarks themselves can be performance measures or indicators from other comparable organizations, including accepted industry standards, or indicators for the same transit system from past years, including current year targets. Thus, a benchmark study can be a peer group comparison or a historical trend analysis or a combination of the two.

The approach undertaken in this review was to include both information over time within the City of Timmins as well as against other similar service providers.

These types of studies are common in the urban transit industry, as the performance of a transit system is easily quantifiable. They are based on a variety of data related to costs, revenues, resources (vehicle, employees), amount of service provided (hours, kilometres), and utilization (ridership). Performance is measured using performance indicators which are not the data themselves but usually a ratio of two pieces of related data. Performance indicators provide a more meaningful analysis because of the relationship between the two pieces of data which make it up, and the effect one datum has on the other. For example, total annual costs are not as meaningful as “costs per vehicle hour” or “costs per passenger”, where both the hours provided and passengers carried will affect the costs. Another example is “riders per capita” being more meaningful than ridership on its own.

The overall objective is to compare identified performance indicators for the administrative, operations and maintenance functions of Transit with comparable peers. Benchmarking against other municipalities was undertaken on key user fees, expenditures, availability of transit and operations. Within this scope, more specific objectives included:

- ◆ to compare cost for all aspects of the transit operation
- ◆ to identify major areas of differences for Transit compared to the peer group transit systems
- ◆ to review the operations, expenditures and revenues of the operations
- ◆ to better understand the reasons for the differences in services, costs, efficiencies and effectiveness of the operations

*There are many factors that impact the efficiency and effectiveness of*

The analysis undertaken used the most recent financial information (2003 FIRs) as well as the CUTA data (2003). This will provide a foundation to explore further operational issues with respect to Transit operations.

An analysis of operations was undertaken to understand the services provided in Timmins in comparison to other municipalities. This included a comparison of hours of operation, ridership, vehicle kilometres (routes), vehicle utilization and age of fleet.

Revenues were analyzed on a per capita basis, average fare, revenues as a percentage of expenditures and fee schedule. Expenditures were compared on a per capita basis and finally the net operating cost of regular transit service was analyzed.

There are a number of factors that impact the efficiency and effectiveness of the operations including but not limited to the following:

- ◆ Transit ridership
- ◆ Level of transit investment
- ◆ Service levels—routes, hours of operation, length of routes
- ◆ Urban form
- ◆ Density
- ◆ Development patterns
- ◆ Age of fleet
- ◆ Distribution of demand
- ◆ Fuel costs
- ◆ Salary levels
- ◆ Vehicle types

**Operations**

**Service Area**

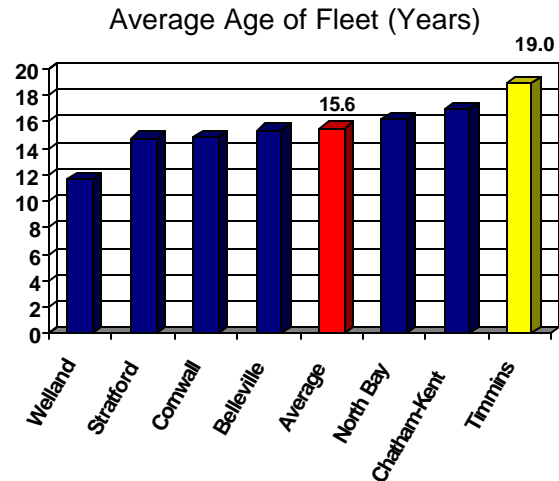
Timmins' service area population is approximately 38,000, below the peer group average of 42,417. The highest service area population in the peer group is Cornwall Transit (48,500) and the smallest service area is Stratford. Timmins' service area population is close to that of the City of Belleville. In terms of service area per square kilometre, Timmins is amongst the lowest in the survey at 24 square kilometers of service area compared to a survey average of 102 (sq.km) and falls between Stratford and Chatham-Kent's service area. The size of the service area impacts the cost of service provided.

Municipality	Service Area Population	Service Area Size Sq. Km.
Belleville	37,000	N/A
Cornwall	48,500	59.50
North Bay	49,000	314.92
Stratford	30,000	18.90
Welland	46,000	86.04
Chatham-Kent	44,000	30.86
<b>Average</b>	<b>42,417</b>	<b>102.04</b>
Timmins	38,000	24.00

**Average Age of Fleet**

The older age of the fleet may be a factor, as will be shown later in the report, for being less cost efficient than the other transit systems within its peer group.

The fleet in Timmins is the oldest in the survey. The comparison of fleet age underlines the need to enhance the rate of vehicle replacement. The desirable target is an average age of 6-7 years. The average of the peer group is approximately 16 years. While not desirable, this is better than the average age of 19 years in Timmins. The average age of the equipment has a direct impact on the spare ratio required, maintenance costs, service reliability and the compliance with accessibility policies.

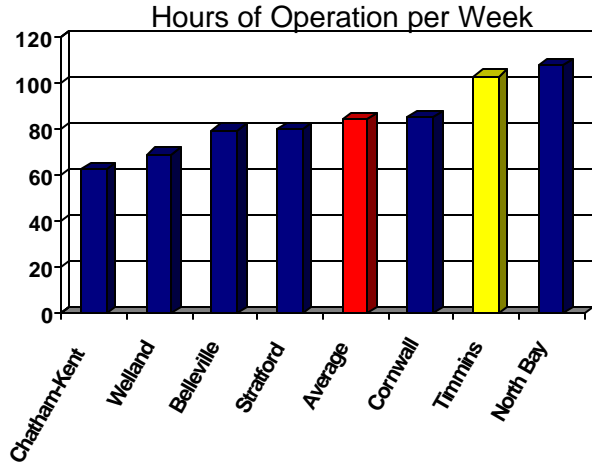


Older fleet tends to increase the cost of operations. The City has made strides in the past several years to address the aging fleet. The approach has been to replace the oldest vehicles in the fleet. In some cases, replacement vehicles are purchased from other municipalities such as GO Transit (Toronto) and Victoria that have been refurbished (with buses originally built as early as 1974). Therefore, while the fleet has changed, given the current practice of replacing some of the existing buses with refurbished buses, the average age would continue to be high.

### Hours of Operation

As shown on the following graph, the level of service in terms of hours of operation in Timmins is above the survey average (excludes Sunday service).

Subsequent to the analysis submitted to CUTA in 2003, the City of Timmins elected to stop reduce service by hour earlier a day. This is reflected on the graph.



Source CUTA - 2003

### Days and Hours of Operation

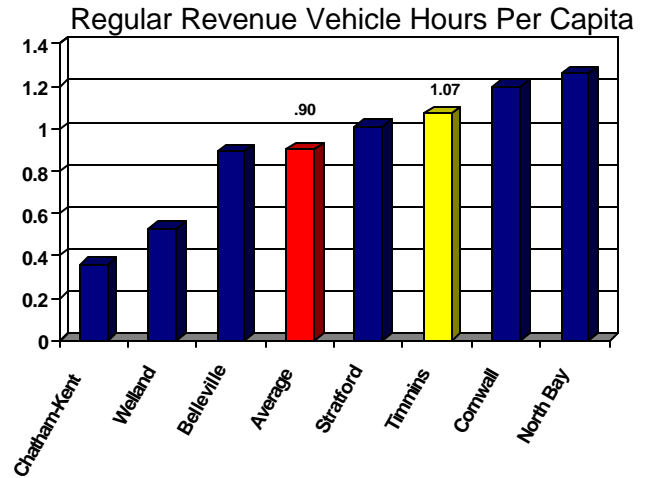
Municipality	Monday - Friday			Saturday		
	Start	End	Hours	Start	End	Hours
Belleville	6:20 AM	10:15 PM	15:55	N/A	N/A	N/A
Cornwall	6:30 AM	11:30 PM	17:00	N/A	N/A	N/A
North Bay	6:15 AM	12:15 AM	18:00	6:30 AM	12:15 AM	17:45
Stratford	6:00 AM	10:00 PM	16:00	N/A	N/A	N/A
Welland	7:00 AM	7:00 PM	12:00	10:00 AM	7:00 PM	9:00
Chatham-Kent	6:15 AM	6:45 PM	12:30	N/A	N/A	N/A
Timmins	6:00 AM	11:30 PM	17:30	6:30 AM	11:30 PM	17:00

The City of Timmins offers a higher level of service, on average, in terms of the hours of operation. Timmins is one of three municipalities in its peer group that offers Saturday service.

North Bay is the only municipality that continues to offer Sunday service. This was tested in Timmins and discontinued due to low ridership.

### Regular Revenue Vehicle Hours Per Capita

A good measure of the amount of service provided is revenue vehicle hours per capita. This indicates that Timmins on a per capita basis has the 3rd highest level of service, behind Cornwall and North Bay.



Source CUTA - 2003

**Service Utilization**

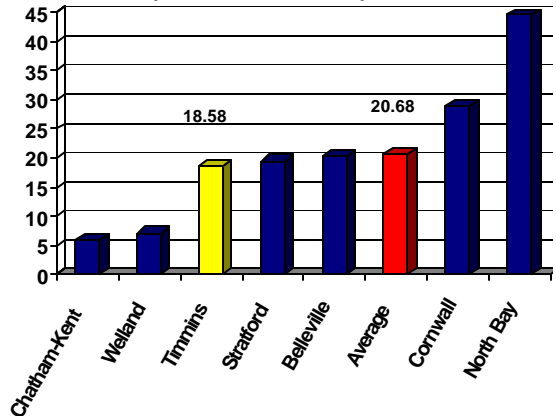
Service utilization is measured through two indicators: regular service passengers per service population and regular service passengers per revenue vehicle hours.

Regular service passenger per serviced population is a good measure of ridership since it takes into account the population of the transit service area. Timmins Transit utilization using this measure is below the average.

As indicated on the graph below (left), Timmins ranks below the survey average in its peer group at 706,000 passengers per year compared with a survey average of 887,000. While there is a high level of service offered in the City of Timmins, as shown earlier in the report in terms of regular revenue vehicle hours per capita, the ridership is low as shown in the calculation of the regular service passenger per vehicle revenue hour.

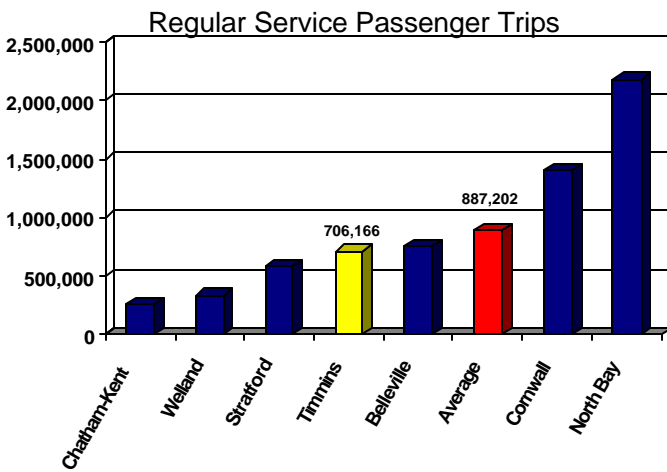
These utilization benchmarks reflect a need to ensure that the existing service provided has been rationalized. These factors will negatively impact the revenue to cost ratio (R/C ratio), with lower revenues due to low ridership and higher costs due to higher service levels.

Regular Service Passenger Trips per Service Population

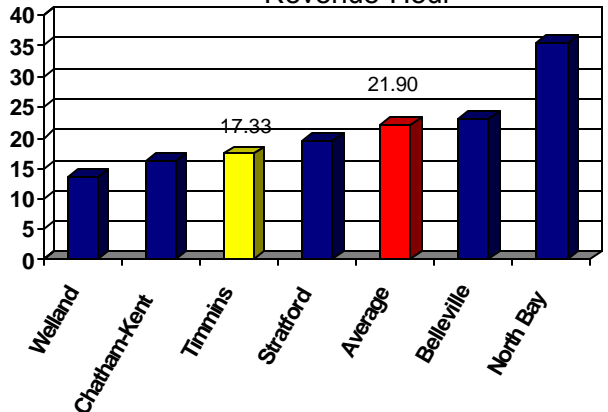


Source CUTA - 2003

**Low service utilization levels in Timmins**



Regular Service Passengers Per Vehicle Revenue Hour





**Conventional Transit Services: Level of Service and Utilization**

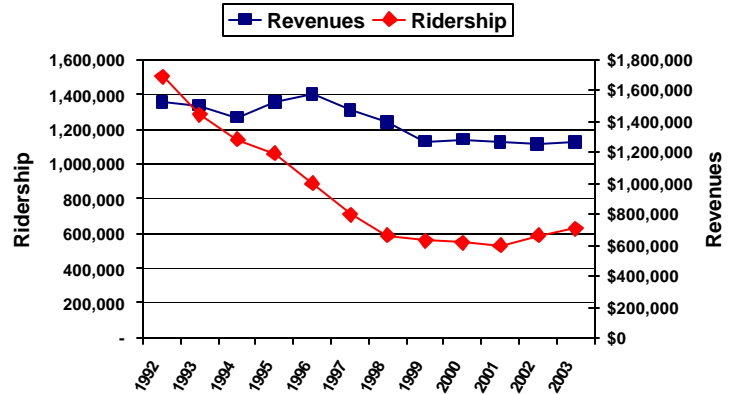
As shown on the graph, ridership declined significantly between 1992 to 2002. According to a staff report prepared in 2002, this decline may be attributed to a number of factors including increased transit fares, a shift to car travel, challenging local economic conditions, a lack of traffic congestion and a shift away from transit use in high schools. However, based on information provided, a sharp increase in the fares in the mid-1990's is likely the main reason for the significant decline in ridership.

Since 2001, ridership has been on the incline as a result of changes in fare policies which included a reduction of the monthly passes and some concession fares however total revenues have remained relatively constant.

The following summarizes the average fares in Timmins:

(first half) 2001	\$1.87
(second half) 2001	\$1.71
2002	\$1.63
2003	\$1.58

Ridership and Revenues



Source CUTA - 2003

Another factor impacting the ridership and the revenues was a decision made in 2001 to restore the 30 minute weekday base.

Therefore, although ridership is increasing as a result of increased service levels, which in turn increases expenditures and lower fares, there has been no material increase in revenues.

**Financial Measures**

**Fares**

Timmins offers fare options to its passengers. Based on fare usage and prices divided by ridership, Timmins average fare of \$1.58 is the second highest in the peer group.



Source CUTA - 2003

As shown on the table to the right, with the exception of the seniors monthly pass, the fees for all types of service are average or above average in the City of Timmins.

Municipality	Cash Fares			Monthly Passes		
	Adult	Student	Senior	Adult	Student	Senior
Brantford	\$ 2.00	\$ 2.00	\$ 2.00	\$ 55.00	\$ 40.00	\$ 40.00
Chatham-Kent	\$ 1.75	\$ 1.50	\$ 1.50			
Cobourg	\$ 1.75	\$ 1.75	\$ 1.75	\$ 58.00	\$ 58.00	\$ 58.00
Cornwall	\$ 2.00	\$ 2.00	\$ 2.00	\$ 54.00	\$ 52.00	\$ 26.00
Guelph	\$ 2.00	\$ 2.00	\$ 2.00	\$ 58.00	\$ 52.00	\$ 52.00
North Bay	\$ 2.00	\$ 2.00	\$ 2.00	\$ 75.00	\$ 60.00	\$ 50.00
Oakville	\$ 2.00	\$ 2.00	\$ 2.00	\$ 58.00	\$ 50.00	\$ 40.00
Orillia	\$ 2.00	\$ 1.25	\$ 1.50		\$ 35.00	
Oshawa	\$ 2.00	\$ 1.75	\$ 1.25	\$ 70.00	\$ 62.00	\$ 42.00
Ottawa	\$ 2.60	\$ 2.60	\$ 2.60	\$ 63.00	\$ 51.75	\$ 25.75
Pickering	\$ 1.95	\$ 1.60	\$ 0.90	\$ 65.00	\$ 55.00	\$ 20.00
Sarnia	\$ 2.00	\$ 1.75	\$ 2.00	\$ 60.00	\$ 50.00	\$ 45.00
Sudbury	\$ 2.25	\$ 2.25	\$ 1.75	\$ 66.00	\$ 60.00	\$ 41.00
Thunder Bay	\$ 2.25	\$ 2.25	\$ 2.25	\$ 65.00	\$ 65.00	\$ 65.00
Timmins	\$ 2.00	\$ 1.50	\$ 1.50	\$ 65.00	\$ 50.00	\$ 50.00
Welland	\$ 2.25	\$ 2.25	\$ 2.25	\$ 63.00	\$ 53.50	\$ 47.00
Whitby	\$ 2.00	\$ 1.75	\$ 1.25	\$ 69.00	\$ 60.00	\$ 40.00
Average	\$ 2.05	\$ 1.89	\$ 1.79	\$ 62.93	\$ 53.39	\$ 42.78
Median	\$ 2.00	\$ 2.00	\$ 2.00	\$ 63.00	\$ 52.75	\$ 42.00
Maximum	\$ 2.60	\$ 2.60	\$ 2.60	\$ 75.00	\$ 65.00	\$ 65.00
Minimum	\$ 1.75	\$ 1.25	\$ 0.90	\$ 54.00	\$ 35.00	\$ 20.00

**R/C Ratio**

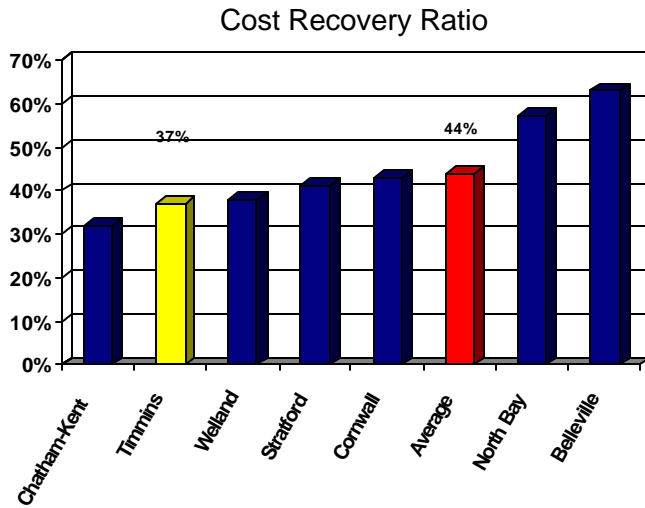
One method of measuring the financial performance of a system is the revenue/cost (R/C) ratio which is a measure of the percentage of operating costs recovered from passenger revenues. For a system of Timmins' size a common target is an R/C ratio of 50%.

In the case of the City of Timmins, revenues generated from user fees offset approximately 37% of the cost of transit service, with the remainder being paid for through the general levy. The average of the peer group is 44%. This indicates that Timmins is not performing very well financially.

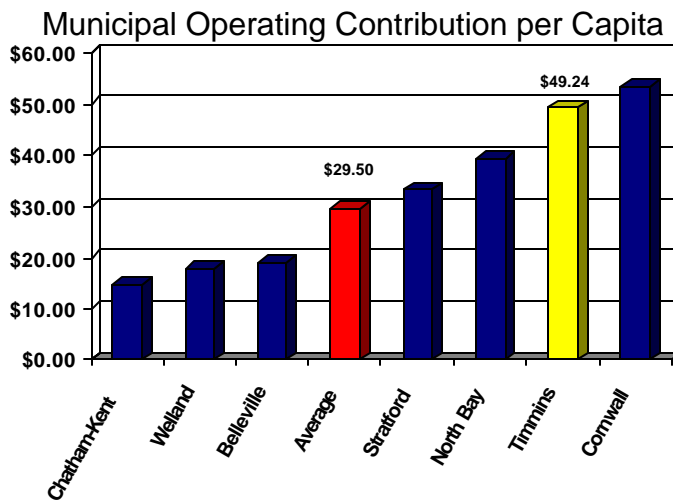
As shown in a report prepared by City staff, the R/C ratio varies greatly across the various routes from a low of 11% to a high of 95% (2001). The R/C ratio in Timmins increased from 35% in 2002 to 37% in 2003, largely as a result of decreased vehicle maintenance expenses.

**Municipal Operating Contribution**

Timmins has one of the highest municipal operating contributions on a per capita basis in its peer group, approximately \$20 higher than the survey average.



**Low cost recovery and high municipal contributions in the City of Timmins**



**Sustainable levels of funding are required**

### Conventional Transit Services: Level of Annual Funding

The provision of a predictable and sustainable level of funding is a critical factor in the operation of a municipal transit service. Constant rationalization of service to meet budgetary limitations represents a barrier to attracting and retaining customers. Annual fluctuations in capital expenditures affect the timely and cost effective replacement of the fleet and the rehabilitation and upgrading of passenger amenities at bus stops. The funding levels for Timmins Transit during the period 1999 to 2003 is summarized below.

Year	Funding/Capita	Bus Hours/ Capita	Operator Hourly Rate
2003	\$49.24	1.07	\$18.78
2002	\$53.65	1.08	\$17.69
2001	\$45.00	0.77	\$17.87
2000	\$38.80	0.86	\$17.34
1999	\$35.80	0.84	\$16.20

The funding per capita has increased 37.5% since 1999, driven by the increased level of service and the increases in costs (operator wage rate used as a proxy for cost escalation). The conclusion is that the funding has been consistent over the past 5 years. From the peer review analysis, it would appear the level of funding to support the transit services in Timmins is higher (\$49.24) than the other selected jurisdictions in the peer group (average of \$29.50).

Top Wage Rates		
Municipality	Operators	Mechanics
Belleville	\$ 19.05	\$ 19.82
Cornwall	\$ 16.38	\$ 19.42
North Bay	\$ 17.80	
Stratford	\$ 19.04	\$ 21.96
Welland	\$ 19.16	\$ 21.07
Chatham-Kent	N/A	N/A
<b>Average</b>	<b>18.29</b>	<b>\$ 20.57</b>
Timmins	\$ 18.78	\$ 21.81

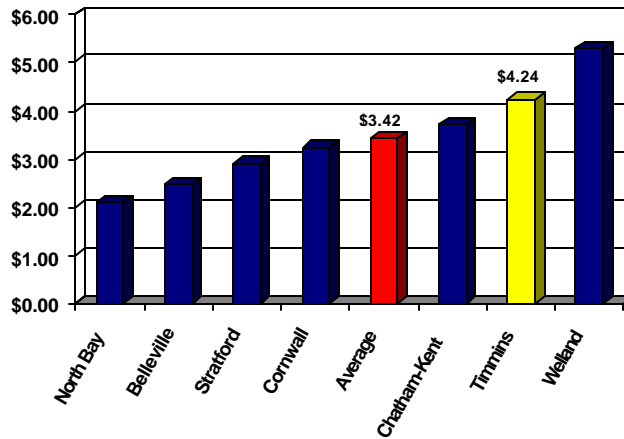
### Salaries Comparison

The main driving factors in the analysis of expenditures are the salaries, wages and benefits. The following table compares the **2003** top wage rates for drivers and mechanics. As shown on the table, the rates in Timmins are above average for both positions. This contributes to higher overall costs.

**Cost Effectiveness**

Cost effectiveness is measured by the total direct operating expenses divided by regular service passenger trips (the cost to operate the service per passenger). As shown on the following chart, the direct operating costs per regular passenger service is high in Timmins compared with the survey average. This is driven by higher levels of service and lower utilization patterns.

Total Direct Operating Expenses per Regular Service Passenger



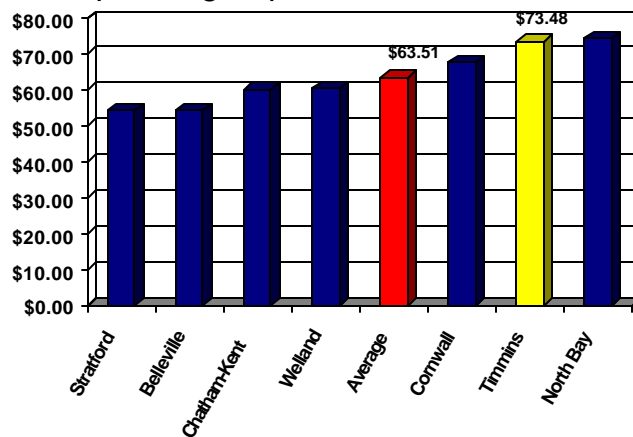
Source CUTA - 2003

*High direct operating costs on a per passenger and a per vehicle hour basis suggest issues with respect to the efficient and effective operation of services*

**Cost Efficiency**

Cost efficiency is a measure of direct operating expenses divided by total vehicle hours. Timmins is the second most expensive service, relative to its peer group.

Total Operating Expenses / Total Vehicle Hours



## Summary of the Benchmarking and Trend Analysis

The following table summarizes the information contained in the benchmarking and trend analysis section of the report.

***Timmins has a higher level of service but lower utilization rates, resulting in a lower level of cost recovery from user fees***

### Operations

- Lower than average service population and service area in square kilometres
- Older average age of fleet but improving to some extent
- Higher hours of operation
- Higher than average regular revenue vehicle hours per capita (service population)

### Utilization Statistics

- Lower regular service passenger trips
- Ridership was declining between 1992-2001 but has since increased
- Lower than average passenger trips per service population
- Lower than average passenger trips per vehicle revenue hour
- Ridership was trending downward for approximately 10 years but has shown an increase since 2001

### Financial Measures

- Higher than average fares but have declined over the past few years
- Lower than average cost recovery ratio from user fees
- Higher than average municipal contribution required to operate the transit service
- Higher than average wage rates
- Higher than average costs per passenger
- Higher operating cost per vehicle hour

*While the number of registrants in Timmins is above average, the usage is below average*

### **Accessible Transit Operations**

The following table illustrates the system characteristics of the specialized systems used in the benchmarking. The Timmins Handy Transit service area population of 38,000 is the second lowest in the peer group. However, Timmins has the third highest number of registrants. The number of registrants on the system does not necessarily reflect the demand for the system, since a number of potentially eligible people could be on a waiting list, or the eligibility criteria or other transportation options could be different between different systems.

<b>Transit System</b>	<b>Population Served</b>	<b>Dedicated Passengers</b>	<b>Non-Dedicated Passengers</b>	<b>Total Passengers</b>	<b>Registrants</b>
<b>Belleville</b>	35,800	9,144	-	9,144	385
<b>Chatham-Kent</b>	44,000	11,400	-	11,400	530
<b>Cornwall</b>	48,000	21,967	3,165	25,132	1,383
<b>North Bay</b>	56,000	34,763	10,050	44,813	1,193
<b>Welland</b>	46,965	16,702	-	16,702	976
<b>Average</b>	46,153	18,795	2,643	21,438	893
<b>Timmins</b>	38,000	13,286	-	13,286	1,039

Source: CUTA 2003

The total number of passenger trips using Handy Transit (13,286) is below the survey average (18,795). This measure is defined by the number of annual trips taken by registered passengers, attendants and companions. While much of this is dependent on the number of registrants, other factors should be taken into consideration. For example, the City of Belleville has only 385 registrants but 9,144 passengers (average # of trips is 24 per registrant) compared with Timmins where the average number of trips per user is only 13.

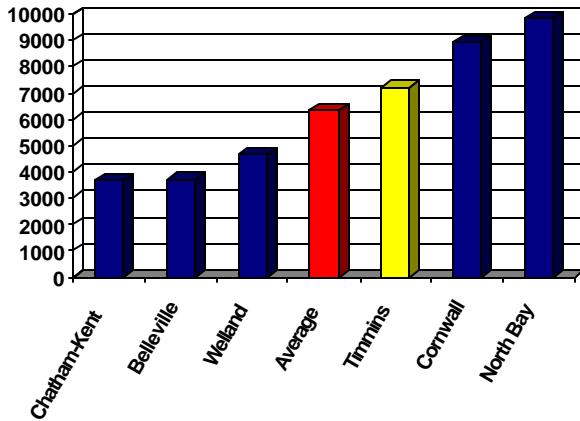
The City of Timmins does not provide any non-dedicated service. Only two of the systems provide this type of service, which is defined as services available to people with disabilities provided by non-exclusive vehicles (i.e. taxis under contract).

There are two basic criteria that determine eligibility on a specialized transit service.

- ◆ Unable to Board—persons physically unable to climb three steps to board a regular transit vehicle; and/or
- ◆ Unable to Use—persons physically unable to walk 175 metres.

North Bay, Timmins and Welland include both criteria to determine passenger eligibility, meaning that a person can qualify if one of these criteria are met. Belleville and Cornwall use only the “Unable to Board” criteria to determine eligibility. Chatham-Kent uses their own criteria for evaluation.

Total Vehicle Hours of Dedicated Service



Hours of Service

The following graph illustrates the annual vehicle hours of dedicated service for the peer group.

Only two of the municipalities in the peer group operate Sunday service; Chatham-Kent and North Bay.

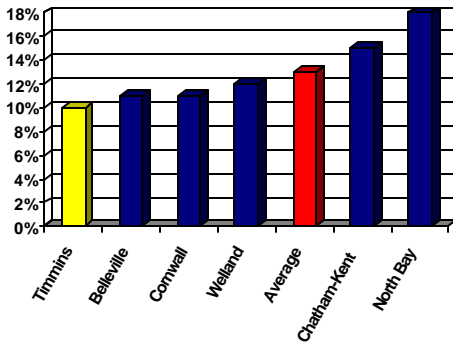
Source CUTA - 2003

Municipality	Monday - Friday			Saturday			Sunday		
	Start	End	Hours	Start	End	Hours	Start	End	Hours
Belleville	8:00 AM	5:00 PM	9.00	10:00 AM	2:00 PM	4.00	N/A	N/A	N/A
Chatham-Kent	8:00 AM	6:00 PM	10.00	8:00 AM	10:00 PM	14.00	9:00 AM	5:00 PM	8.00
Cornwall	6:30 AM	11:30 PM	17.00	7:00 AM	11:30 PM	16.50	N/A	N/A	N/A
North Bay	7:30 AM	11:00 PM	15.50	8:30 AM	11:00 PM	14.50	8:30 AM	6:00 PM	9.50
Welland	7:15 AM	7:00 PM	11.75	10:00 AM	6:00 PM	8.00	N/A	N/A	N/A
Average			12.65			11.40			8.75
Timmins	7:00 AM	6:00 PM	11.00	10:00 AM	6:00 PM	8.00	N/A	N/A	N/A

Note: Timmins also provides Thursday night service until 11:00 pm.



Specialized Transit R/C Ratio



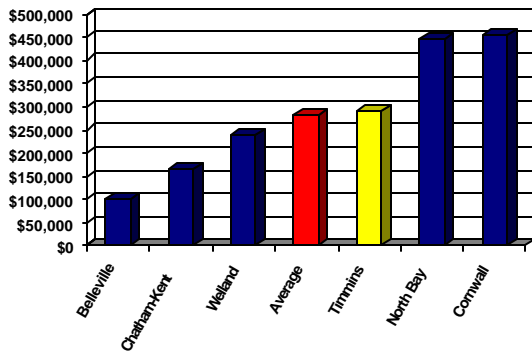
Source CUTA - 2003

**Financial Characteristics**

**Revenue Cost Recovery Ratio**

Financial performance of a system is typically measured by the R/C ratio (revenue/cost ratio). R/C ratio is determined by the total operating revenues divided by the total operating expenses. As shown below, the City of Timmins has the lowest R/C ratio in comparison to its peer group.

Specialized Transit Municipal Contributions

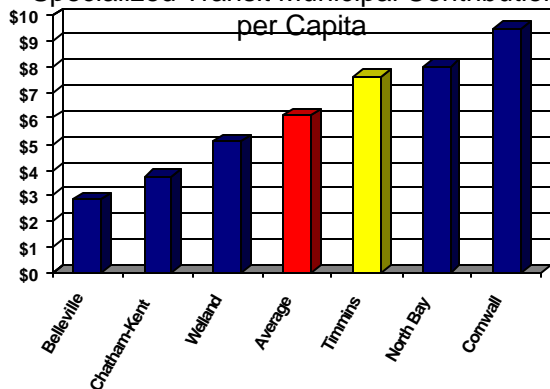


Source CUTA - 2003

**Municipal Contributions**

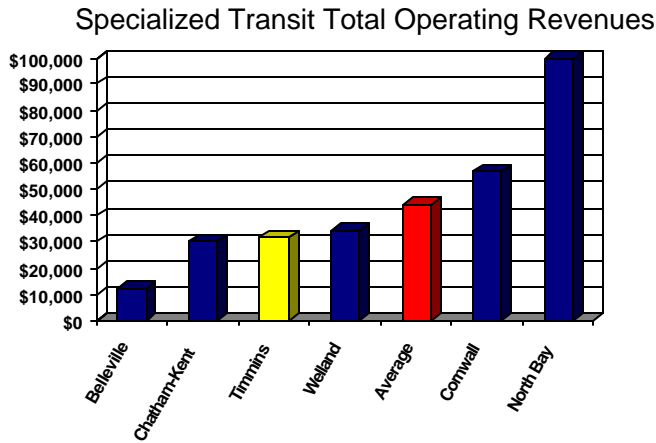
Municipal contributions provided by Timmins to the Handy-Transit service are approximately at the average for the peer group.

Specialized Transit Municipal Contributions per Capita



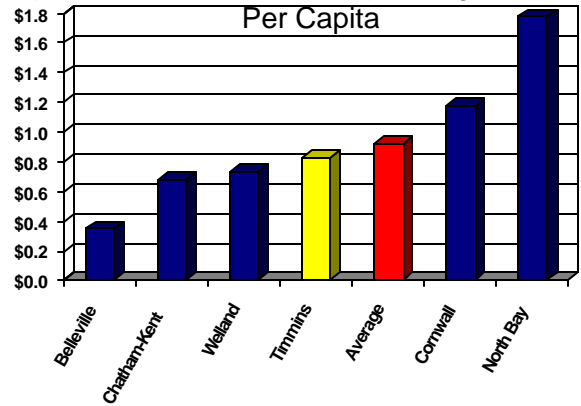
Source CUTA - 2003

**Operating Revenues**



Source CUTA - 2003

Specialized Transit Total Operating Revenues  
Per Capita

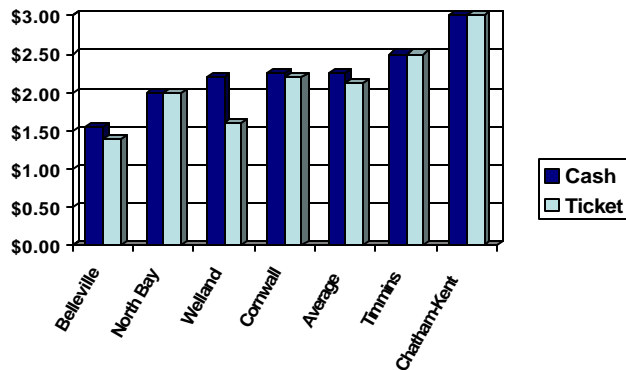


Source CUTA - 2003

Revenues earned by each service are illustrated in the following graph. Timmins Handy-Transit service receives lower than the average for it's peer group.

**Adult Fares**

Special Transit Adult Cash and Ticket Fares



Source CUTA - 2003

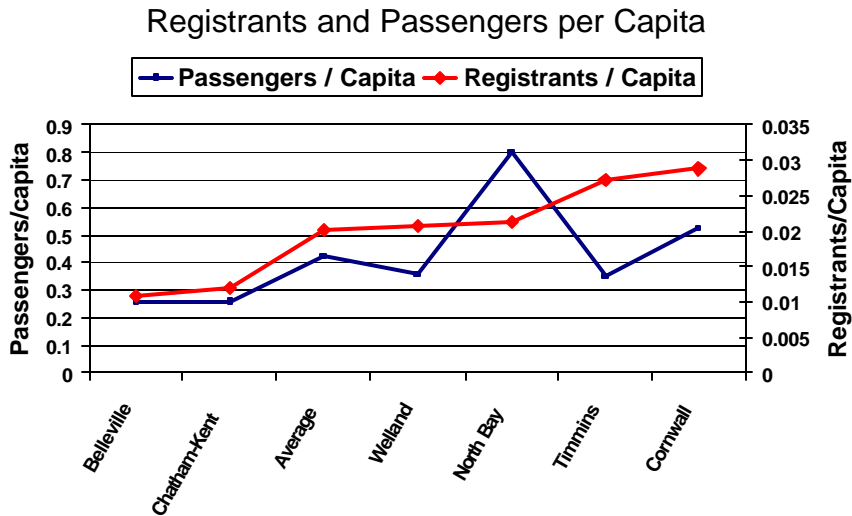
The graph illustrates the adult cash and ticket fares provided by each of the specialized transit systems in Timmin's peer group. In all systems, the cash fare for adults, students, seniors, and children are the same. Belleville, Timmins and Welland have discounted tickets for different passenger types.

Timmin's fares are above the peer group average. Belleville Mobility Bus is the only system to offer a monthly pass to its passengers.

### Operating Performance Indicators

The following chart illustrates the registrants and passengers per capita in each of the systems. Registrants per capita measures the number of eligible people that could use the system in each municipality. This is not indicative of the number of people with disabilities in each municipality, since eligibility criteria and the other transportation choices offered in each municipality could be different. Timmins has the second highest number of registrants per capita in the peer group.

*While the registrants per capita are higher in Timmins than the majority of other municipalities surveyed, the ridership is not proportional to this*



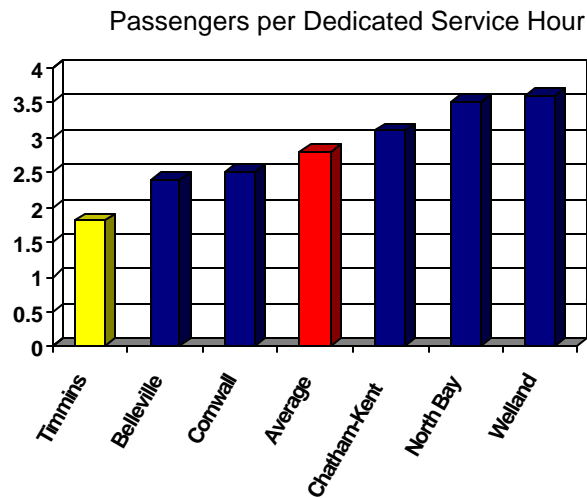
Source CUTA - 2003

Passengers per capita measures the number of passenger trips per capita made on the system. Timmins is below the average for the peer group in terms of utilization rates (passengers/capita).

### Passengers per Dedicated Service Hour

Another performance measure is passengers per dedicated service hour. This measures the utilization of the system based on the hours of service provided. However, this does not provide any indication of the convenience of the system, since a highly utilized system may also mean that a number of passengers are not getting the trips they want or have to wait long hours to get a return trip.

The number of passengers per dedicated service hour for Timmins's is the lowest in the group.



Source CUTA - 2003

This is interesting given that hours of operation and number of registrants is higher than average in Timmins. Timmins also has the same number of accessible vehicles as the City of North Bay, but significantly lower passengers per dedicated service hour.

Transit System	# of accessible vehicles	Average Capacity Per Vehicle (Wheelchair)	Average Capacity Per Vehicle (Ambulatory)
Belleville	2	3	4
Chatham-Kent	3	5	4
Cornwall	7	3	14
North Bay	5	5	7
Welland	2	4	10
<b>Average</b>	3.8	4.0	7.8
<b>Timmins</b>	5	4	6

***There is a need to develop a comprehensive set of minimum service standards and financial policies***

**Next Steps—Recommendations**

***Minimum Service and Financial Policies***

**Best Practices**

To provide a basic level of accessibility, the City should define what is acceptable in terms of minimum service frequencies, hours of service, walking distances to bus stops, passenger amenities, travel time and cost recovery. The following set of minimum standards was developed to provide an initial basis for discussion.

- ◆ coverage (walking distance) – in combination with local urban transit services, provide service within 400m of 90% of the population within the USTA;
- ◆ provide a minimum of 30 minute service during the am and pm peak periods and 60 minute service during the remaining hours of operation Monday to Saturday excluding holidays and Sundays;
- ◆ increase level of service (hours of operation and/or frequency) where warranted by demand;
- ◆ marginal cost recovery for route segment must exceed 30% within 12 months of introduction; and
- ◆ wholly allocated cost recovery target for the bus network set at 50 % of total operating costs

The above service policies and standards are comprehensive and are quite consistent with other similar communities in Ontario. Policies typically address such issues as area of service, coverage (walking distance to bus stop), days, hours and frequency of service, schedule adherence, bus stop spacing, shelter locations, lading standards and vehicle replacement.

**Current Practice**

In reviewing the material provided, there does not appear to be a comprehensive set of service standards and cost recovery policies available.

***Recommendations***

*That the City develop a comprehensive set of minimum service and financial policies for the consideration of Council to ensure that the existing service levels have been rationalized.*

***Performance monitoring is needed to determine whether goals and standards are being met***

### ***Performance Monitoring System Development***

#### **Best Practices**

An essential feature of any transit plan is the accompanying monitoring program. This is required to determine whether the goals and standards are being met and to provide a feedback loop that will lead to adjustments in the individual implementation programs in light of actual experience. In general, a performance management system can be broken into the following components:

- ◆ what characteristics of performance are being measured,
- ◆ how will the characteristics be measured,
- ◆ how often will the performance be measured; and
- ◆ who will the results of the analysis be reported to.

In the development of the performance management procedures, emphasis has been placed on the measurement of the internal performance of the organization and the examination of trends over a period of time.

The performance management system requires current data in the appropriate format to support the system. These systems take the form of automatic passenger counting equipment, origin-destination surveys and automatic vehicle location and communication networks. In addition, there are staffing implications related to the collection, analysis and documentation of the information in a timely manner. A possible set of measurement units, frequency of measurement and the performance targets are summarized in table on the next page and discussed in the remainder of this section of the report.

<b>Service Quality Measures</b>			
<b>Factor</b>	<b>Indicator</b>	<b>Measurement</b>	<b>Annual Target</b>
schedule adherence (0 minutes early and 3 minutes late)	% on-time performance	each board period	>90%
actual/scheduled service	% runs filled	daily	<99.5%
service interruptions	road calls/ M kms	daily	<150
customer contacts	annual comments per M passengers	each board period	<200
safety	passenger injuries per M kms	annually	<0.5
<b>Service Efficiency</b>			
<b>Indicator</b>	<b>Measurement</b>	<b>Frequency</b>	<b>Annual Target</b>
scheduling	platform/total paid hours	each board period	0.80
equipment spare ratio	ratio of maintenance spares to peak service requirement	annually	0.20
absenteeism	% absenteeism	annually	4%

***Schedule adherence should be tracked***

### Schedule Adherence

Within the urban transit industry, the “on time” window is defined as 0 minutes early and 3 minutes late with an “on time” target of 90%. From the literature, service reliability is the key characteristic that attracts ridership and accordingly schedule adherence is a critical aspect of system performance.

### Actual Service vs. Scheduled Service

In the transit industry, service cancellations are to be avoided if at all possible. However, lack of equipment, operator shortages and roadway emergencies do occur. It is vital that these situations be documented thoroughly in order to implement corrective action. Clearly, there is a relationship of this performance indicator with the vehicle spare ratio for maintenance, operational spare ratio, operator cover assignment and employee absenteeism. The target of 99.5% has been derived from the experience reported by the urban transit industry. Also, the standard may vary depending on the level of service provided. In other words, the compliance should be a function of the frequency of service.

### Service Interruptions

This factor is intended to provide an assessment of the vehicle reliability and a measure of the effectiveness of the vehicle maintenance and inspection programs. In addition, the indicator provides an indication of vehicle performance by type and age. The suggested performance target has been derived from the data available from the urban transit industry.

### Customer Contacts

Timmins Transit keeps continuous records of the number of customer contacts. These should be tracked on an ongoing basis to record the number of complaints and compliments as well as the nature of the comments:

- ◆ *schedule adherence*
- ◆ *fares/fare disputes*
- ◆ *operator conduct*
- ◆ *vehicle cleanliness*
- ◆ *information*
- ◆ *frequency/hours of operation*
- ◆ *service coverage*



### Passenger Safety

Passenger safety and security is a significant issue and accordingly is a focus in the development of the performance monitoring and assessment system. The analysis of the passenger injury data provides a sound feedback loop to the operator training programs, vehicle equipment specifications and inspection procedures.

### Scheduling Efficiency

The service design is driven by both the minimum service policies and the passenger demand. Once the service design is complete, the efficiency in vehicle blocking, runcutting and operator assignment procedures is a function of the capabilities of the scheduling system to optimize the operator requirements within the constraints of the collective agreement and legislation governing its operations. Over the past number of years, changes to the collective agreement both in terms of compensation and working rules has served to increase costs by limiting the flexibility involved in the scheduling process. This situation is not unique to Timmins Transit but is consistent with the experience across the transit industry.

To provide a cursory assessment of the current performance, the ratio of vehicle revenue hours of service to operator paid hours was compared with selected urban transit systems.

### Equipment Spare Ratio

The suggested vehicle spare ratio for the operations is 20%. This is based on accepted industry standards for a fleet size of Timmins Transit. However, it is recognized that achieving this target is directly linked to the age of the fleet and the current parts inventory procedures. The suggested fleet renewal target is discussed in the next section.

### Absenteeism

A reasonable target is 4% and the improvement can have a dramatic effect on service costs. Absenteeism should be monitored on an ongoing basis to monitor trends and to ensure that absenteeism is at or below the target.

**Current Practice**

Although not provided in the data assembled, it is likely this information is available or can be assembled without staffing or cost implications.

**Recommendations**

***That the City introduce a formal performance system similar to that outlined above and that this system provide the analysis annually in the service plan document and outline the planned response to improve compliance with the selected performance targets.***

***Formalize the annual service planning procedures and allow an opportunity for staff and public consultation***

**Annual Service Planning Procedures**

**Best Practice**

Transit planning for conventional service is a continuous process that functions on an annual cycle generally, which also relates the planning process to the daily operation. It has feedback loops to engage operational staff and the public. It integrates the results of the monitoring program to develop long-term plan changes.

The comments from operational staff should be compiled throughout the year through various processes that encourage front line personnel to make suggestions about service improvements. Drivers and maintenance personnel can provide comments through a formal suggestion card system and through meetings with their supervisors. Service supervisors should be encouraged to make service improvement suggestions as part of their service incident and monitoring reports. Public comments should be compiled from suggestions made in letters and telephone calls.

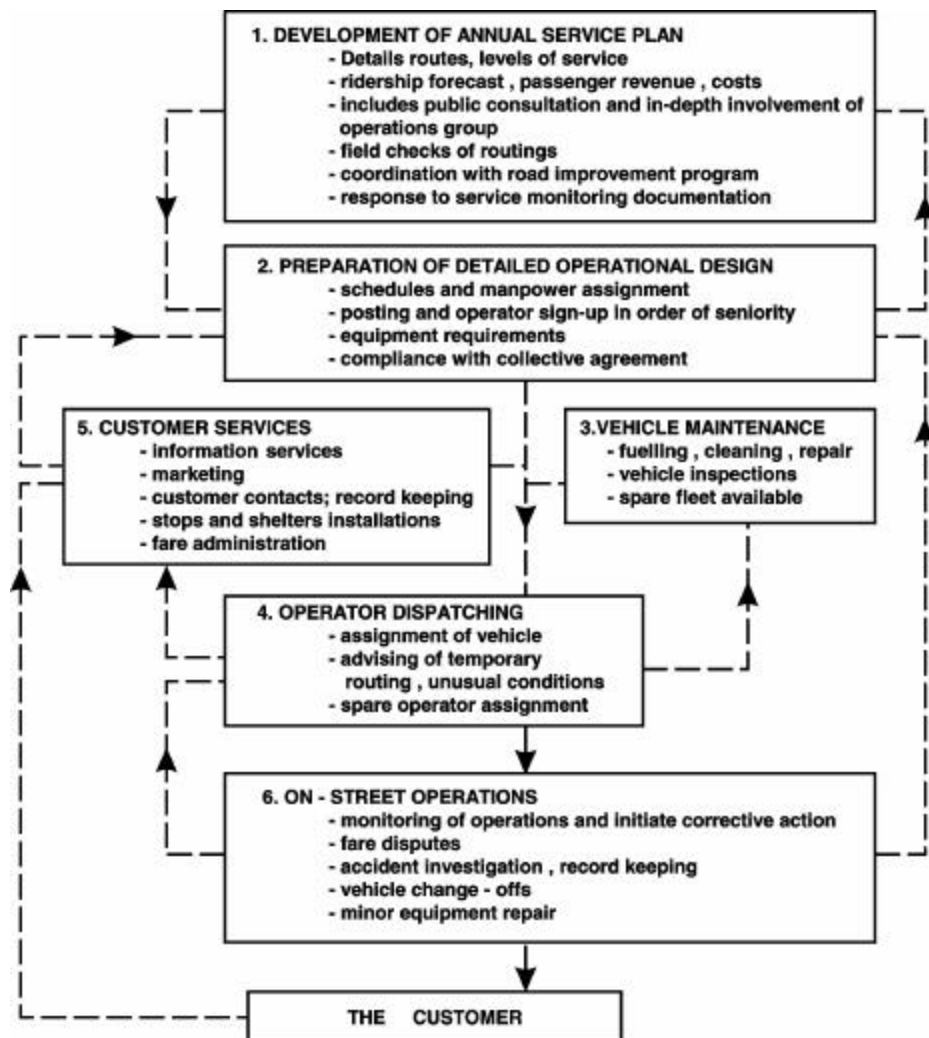
A formal report should be prepared in the July / August period each year that documents each of the public and operational staff service suggestions and its disposition and the reasons for the course of action being adopted.

The monitoring program results will show where the system needs to change to meet one or more of the service standards and the modal split targets. Potential service improvements to address these issues will be developed from the operational staff and public comments and from an annual review of the long-term plan. An annual service plan proposal will be developed within the framework of the Five Year Plan and the Long Term Plan for public comment in September / October period.

Details of the annual service changes will be distributed on the buses in a “take-one” format and in local newspaper advertisements and public and staff comments will be invited by a specified cut-off date in late fall. These preliminary service change proposals will also be used to provide input to the appropriate budget.

After Council has approved the budget and based on a review of the public and staff comments, and the monitoring results from the fourth quarter, the final service change proposals will be provided for approval early in each year. The approved plan will then be detailed for implementation in either June or September and the service planning cycle will then begin again.

Implementing this procedure will require time. The preparation and approval of a 5-year plan to guide the incremental development of annual plans is necessary to co-ordinate the acquisition of equipment, the introduction of data collection systems and the hiring and training of operators and support staff.



**Current Procedures**

From a review of the 2002 Service Plan document, the current annual service planning procedures are quite consistent with best practices. However, as noted in the document, there is a lack of sound detailed information regarding passenger activity to allow an in-depth examination of the possible rationalization of services and the prediction of the implications of these service changes.

In addition, in order to provide predictability in the support for the operation, there is a requirement for the preparation of a 5-year plan to allow the staged introduction of service modifications and vehicle acquisition. This longer term plan appears to be lacking.

**Recommendations**

***That the City undertake the installation of automatic passenger counters on 10% of the fleet to provide detailed information on passenger activity. The approximate cost of the installation is estimated to \$9,000 per vehicle. This will allow data to be collected on all routes during each board period.***

***That the City undertaken on a semi-annual basis a passenger survey to provide a basis for fare classification, trip origin destination analysis and passenger profile development.***

### **Vehicles and Equipment Replacement**

The current approach to capital budgeting is on a Corporate basis. There is currently no long-term vehicle and equipment replacement schedule for transit vehicles which has resulted in the deferral of replacements from time to time and an older than average fleet age.

With no reserves currently available, and no budgeted transfers to reserves, Transit must compete against other Corporate priorities and as a result this compromises the effective management of operations. Deferrals of replacements can have a direct impact on the cost of maintenance. Maintenance costs appear to be high compared to other municipalities.

#### ***Recommendations***

***That a financing plan be developed for transit operations to transfer annually funds to the reserves to help finance years that have higher than average replacement needs.***

***There is a need to develop a long-term plan for equipment, vehicles and facilities within the Transit operations to ensure that funds are available based on lifecycle costing. This should be integrated with an overall long-term plan across the Corporation. Once improvements are made in this regard, a review of the maintenance functions should be undertaken to identify any potential savings.***

**Technology Issues**

The City currently uses Mainstar Fleet Manager for equipment costing of trucks, equipment, buss fleet and service vehicles, with integrated PetroVend gasoline pump fuel usage.