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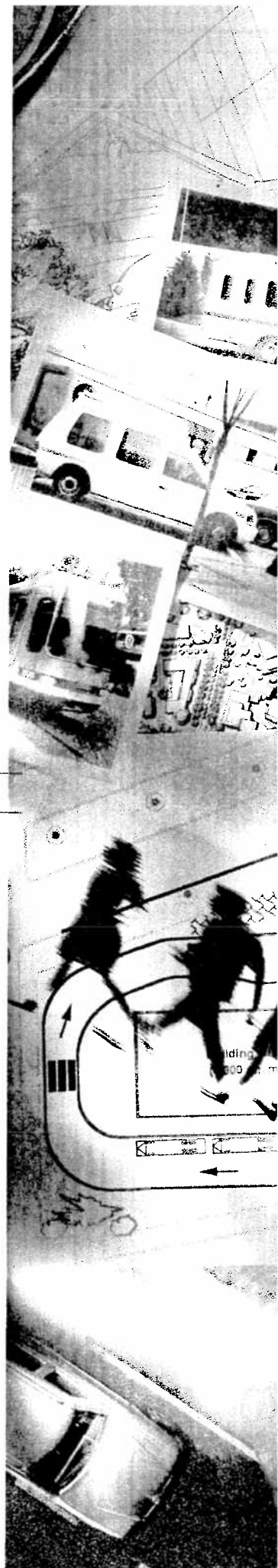
*Ridership Growth Strategy  
and Asset Management Plan*

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***Summary Report***

*March 2006*

*Excellence in  
Transportation  
Planning*



# *City of Greater Sudbury*

## *Ridership Growth Strategy and Asset Management Plan*

### **SUMMARY REPORT**

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<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>Context</b>	<b>2</b>
<b>3</b>	<b>Ridership Growth Strategy</b>	<b>4</b>
3.1	Growth Management Initiatives and Urban Planning	4
3.2	Initiatives to Increase Service Quality and System Capacity	6
3.3	Accessibility Initiatives to Improve Ridership	8
3.4	Price and Fare Media Initiatives	9
3.5	Marketing and Education Initiatives	9
3.6	Evaluation and Performance Measures	10
3.7	Specialized Services (Handi-Transit)	10
3.8	Financial Plan	11
<b>4</b>	<b>Asset Management Plan</b>	<b>14</b>
4.1	Context	14
4.2	Outlook	15
4.3	Inventory	16
4.4	Equipment and Facility Issues	16
4.5	Maintenance Program	17
4.6	Capital Plan	17

# *City of Greater Sudbury*

## *Ridership Growth Strategy and Asset Management Plan*

### **SUMMARY REPORT**

#### **1 INTRODUCTION**

The City of Greater Sudbury has developed this ridership growth strategy and asset management plan to comply with the requirements of the provincial gas tax funding, and to ensure a comprehensive approach to transit development throughout the community.

To meet the requirements of the Provincial submission of a Ridership Growth Strategy and Asset Management Plan document, the City of Greater Sudbury developed a comprehensive service plan to identify the ensure that each remains relevant to our short- and long-term needs. The actions comprising this transit plan are supplemented by the policies and provisions of four other principal documents:

- ~ City of Greater Sudbury, Transportation Study Report, September 2005;
- ~ City of Greater Sudbury, Draft Official Plan, September 2005;
- ~ Official Plan, Transportation Background Study, July 2005; and
- ~ City of Greater Sudbury, Transit Accessibility Plan.

#### **2 CONTEXT**

The City of Greater Sudbury was formed on January 1, 2001. The new City represents the amalgamation of the municipalities which comprised the former Regional Municipality of Sudbury (Sudbury, Capreol, Nickel Centre, Onaping Falls, Rayside-Balfour, Valley East and Walden), as well as several unincorporated townships.

The communities of Greater Sudbury comprise a total population of 150,000 with a transit service area population of approximately 130,000. The former City of Sudbury, where most of the transit services are focussed, makes up about 65 percent of the service area population, or about 85,000 people.

The draft Official Plan for Greater Sudbury offers several important observations about the planning context for transit services and ridership growth potential:

“Greater Sudbury offers a wide range of choice as to where to live. The City does not need to expand its residential communities beyond what is currently planned. The amalgamated City has many communities that have over time developed their own unique character, built form and quality of life - all within reasonable commuting distance to the former City of Sudbury. These serviced communities should be recognized,

supported and allowed to develop further to the limits of existing infrastructure.”

For transit service to support ridership growth, this means that Sudbury Transit must focus on its service delivery mechanisms and route structure, as much as overall extent of coverage, to ensure that services continue to meet the needs of Sudbury residents. This is addressed specifically in the route structure elements of the plan

“The community of Sudbury functions as the central urban area and will continue to be a major focus of growth and change. The former City of Sudbury currently provides three quarters of the jobs for residents of the City. This concentration of employment will grow as the service, educational and health sectors of the local economy expand in the future.”

The heart of Greater Sudbury, its most urban place, is and will be the *Downtown*. With the changing role of downtowns, there is a continuing need for appropriate policies and programs to enhance the *Downtown* as a location of government, commerce, cultural and entertainment facilities. Residential development in and around the *Downtown* is needed to support new and expanded facilities and amenities. Town Centres will continue to serve the needs of local communities.

Current transit services are also focussed within the former city, with important links to the commuter areas, which must be enhanced and promoted.

Like Canada as a whole, the population of Greater Sudbury is aging. There will be a substantial increase in the proportion of the population over the age of 54 during the planning period. Decreasing household sizes and changing housing preferences will continue to create demand for new housing units.

Demographic change will affect the nature and extent of transit services, and Sudbury will respond by ensuring the continuing quality of our paratransit service, and ensuring the maximum accessibility of the transit service and community infrastructure.

The existing urban structure is a result of the historical development of industrial uses. Many outlying settlements were established as company towns linked to specific industrial activities, such as mining and rail transportation. Other settlements originated as agricultural service centres that further expanded in a dispersed nature along major roads. Over time, these communities and settlements have developed their own unique character and demographic mix.

Over half of the total population of Greater Sudbury resides in the former City of Sudbury. The former City of Sudbury, as the location of three quarters of the jobs in the Greater City, is the main employment centre. The former City of Sudbury has also been the location of most growth.

The broad pattern of development of the City has been determined by the location of ore bodies, the history of human settlement, the technology of transportation and the

geography of the land. Greater Sudbury consists of a large central urban area surrounded by more than 20 smaller urban and non-urban settlements. While this provides a wide variety of living environments for residents, the dispersed pattern of growth poses challenges for the efficient provision of services and infrastructure, including transit services.

Projecting population change beyond the immediate future is particularly difficult in Northeastern Ontario. Greater Sudbury has made economic development a priority and a strategic plan has charted the way for numerous initiatives. There is optimism that these efforts will yield the necessary employment to fuel population growth.

Whatever the future growth scenario, decreasing household sizes, changing demographics and shifts in housing preferences will continue to create demand for new housing with or without population growth.

### **3 RIDERSHIP GROWTH STRATEGY**

#### **3.1 Growth Management Initiatives and Urban Planning**

##### **3.1.1 Planning Policies**

Despite Sudbury's continued reliance on the automobile, public transit remains a key component of the transportation network. Under amalgamation, transit routes were expanded to outlying areas. In the City's Draft Official Plan, enhancing the public transportation system and encouraging increased transit use are important objectives, particularly within the context of improving air quality and contributing to Kyoto targets.

Sidewalks, bike paths and walking trails need to be fully integrated components of the overall transportation system, providing safe access for pedestrians and cyclists supported by good urban design principles. Opportunities to engage in recreational and leisure activities are also tied to the transportation network.

The Official Plan sets out the following transportation objectives:

- ~ ensure that the existing transportation network is maintained in a state of good repair;
- ~ ensure that the transportation network provides safe, convenient and efficient movement for all people and goods in Greater Sudbury;
- ~ support the expansion of the transportation network as demand justifies and ensure that improvements occur in a safe, efficient, environmentally sound and aesthetically pleasing manner;
- ~ coordinate the development of Greater Sudbury in order to effectively reduce congestion and the associated environmental impacts;
- ~ promote all travel modes, including public transit, walking and cycling;
- ~ provide affordable, convenient and reliable public transit service that enhances mobility and access;
- ~ consider the needs of the physically challenged in the planning and design of all

aspects of the transportation network; and,

- ~ support programs that aim to reduce the environmental impacts of certain modes of transportation.

To achieve the transit ridership objectives envisioned by the community, the Greater Sudbury Official Plan establishes policies that increase the capacity, enhance the attractiveness, and improve the operational efficiency of the public transit routes that serve the City. This includes:

- ~ the improvement of fare collection methods;
- ~ the promotion of public transit use through the introduction of transit passes and other tools;
- ~ development of transportation solutions and fare systems that entice students;
- ~ expansion of surface transit routes as part of new subdivision design and in accordance with locations where intensification occurs;
- ~ the improvement of bus stops with better shelters, route information displays, and bus bay construction; and
- ~ improvements to the public transit system consistent with the *Greater Sudbury Accessibility Plan*.

Details of the specific actions anticipated under these objectives are highlighted in the following sections.

### **3.1.2 Transit Service in New Areas**

Services introduced in new areas not previously served will be guaranteed for a minimum 12 months of operation to ensure adequate time for travel patterns to adjust and for 4-season ridership patterns to be accounted. At the end of the 12 months, the service will be assessed against the minimum performance thresholds required for its class of service.

Within this trial period, interim targets are set to ensure that a service that is clearly not capable of meeting the ultimate targets is identified as early as possible. Monitoring at 3, 6 and 9 months is completed to ensure that the new service is trending towards the appropriate standard. Targets for these interim periods are set at 25 percent, 50 percent and 75 percent of the ultimate target, respectively. If the performance at the end of each period has not reached at least 75 percent of the target value, the route should be re-examined to identify potential changes to improve its performance. If the same standard is not met in the next period, the changes should be recommended.

### **3.1.3 Service in New Operating Periods**

Routes that introduce service in new operating periods where routes already exist, or modify the existing route are subject to similar evaluation, but over a shorter 6-month period. If the service change is substantial, staff may recommend a longer trial period at the service introduction stage. Interim targets are established at 2 months and 4 months, with target levels of 33 percent and 66 percent of the ultimate target.

## **3.2 Initiatives to Increase Service Quality and System Capacity**

The following sections summarize the initiatives developed through the comprehensive service review. Details of these initiatives are included in the detailed report.

### **3.2.1 Urban Routes**

Initiatives for the Urban routes include the following:

- ~ Introducing direct Non-Downtown Routes: connecting major origins and destination without directly serving the downtown transit center, to speed travel and reduce transfers. Major focus points include Cambrian College, New Sudbury Center, Millennium Center, Sudbury Regional Hospital and Laurentian University. This will include an overlay (additional) service combining Route 310 and 500, operating directly between Cambrian College and Laurentian University, and serving only New Sudbury Center, Millennium Center and the Sudbury Regional Health Center.
- ~ Restructuring and additions to service in New Sudbury, including streamlining routes, and adding service in the major corridors. Specifically, this would involve elimination of minor diversion on some routes, and the introduction of a new service operating via Kingsway, Barry Downe, LaSalle and Paris (in both directions) to enhance service in these corridors.
- ~ In the long-term, managing the evolution of the system to comprise 4 major corridor routes with high frequency, direct service, supported by local routes and complementary commuter services.

### **3.2.2 Commuter Routes**

Initiatives for the Commuter Routes include the following.

- ~ Supplement service to ensure a consistent block of no fewer than 9 trips per day on each route, comprising 3 inbound AM trip, on midday return trip, 3 outbound PM trips and one outbound evening trip. This basic block of routes should be considered the minimum service requirement for Commuter routes. The trip pattern of 9 trips is required to support service connections, and to ensure that passengers have the necessary travel choices and flexibility to confidently choose transit.
- ~ Configure commuter routes and service levels to be able to provide capacity to support urban routes, where appropriate, within the urban area.

### **3.2.3 TransCab Services**

Greater Sudbury will continue to use TransCab services as a valuable tool for introducing and maintaining service in low demand and remote areas. These services will be carefully considered before being used as a cost-saving measure to convert from an existing fixed route. Performance measures have been developed to identify thresholds for the conversion of TransCab service to fixed-route service (85 percent of the fixed route cost).

### **3.2.4 Evening and Sunday Service**

Through the medium-term, Greater Sudbury will continue to monitor the ridership on evening (After-10) and Sunday service. The medium-term objective is to eliminate the distinct After-10 component, and introduce regular route service during this period.

Greater Sudbury will also investigate partnership opportunities with local businesses that require evening service and are currently funding private options. Entering into service agreements with these companies will help to subsidize late evening service throughout the system, not only benefitting the specific businesses, but the community as a whole.

### **3.2.5 New Community Services**

Greater Sudbury will develop a pilot project to introduce service in the Hanmer area of Valley East, providing local access throughout the community with connections to the commuter service at Hanmer Mall. This service would comprise hourly service with a small bus, and will be monitored closely against the new service standards for new services. Depending on the results of this service, a similar service will be considered for Chelmsford, and other areas of Valley East.

The new monitoring and evaluation standards have established a threshold of local service area populations in the range of 8,000 to 10,000 residents.

### **3.2.6 Route Effectiveness Review**

The comprehensive system review identified several small changes to existing routes to increase efficiency, with the opportunity to reallocate resources to other routes. The review also identified specific routes where service needs to be increased to promote ridership, particularly on student-oriented services. These initiatives include:

- ~ elimination of 1 evening trip on Route 701 – Lively;
- ~ elimination of 1 evening trip on Route 103 – Conistan;
- ~ restructuring of Route 141/142 to a local route connecting at New Sudbury Centre ;
- ~ close monitoring of Route 12 – McKim;
- ~ service frequency increases in major corridors (described in Section 3.2); and
- ~ restructuring to provide more frequent direct service on routes in New Sudbury (described in Section 3.2).

### **3.2.7 Technology Options**

In the longer term, Sudbury Transit will explore the opportunities to explore technology options to enhance transit operations and customer service, and increase ridership.

The first step in this area is the development and procurement of a new fare collection technology, as described in the feasibility study. That analysis demonstrates how technology options can contribute to the long-term health of the system, with reasonable cost-recovery periods, relying on only modest ridership gains to result from the introduction of the system.

The same concept will be applied to other technologies, such as transit signal priority, automatic vehicle location and automatic passenger counting. Specific analysis of the feasibility of these options will be the subject of detailed review in them medium-term.

In the short-term, Greater Sudbury will consider stand-alone implementations of transit signal priority at key bottleneck locations particularly exits from:

- ~ Downtown Transit Center;



- ~ New Sudbury Center; and
- ~ Millennium Center.

### **3.3 Accessibility Initiatives to Improve Ridership**

The Greater Sudbury Transit Accessibility Plan describes the process by which Greater Sudbury Transit identifies, reviews and prevents barriers to public access to the Transit system and includes a list of barriers to be addressed and measures which will be undertaken to ensure barrier removal is completed as expeditiously as possible within the resources allocated to Greater Sudbury Transit services. The City's goal is to integrate as many riders as possible on our accessible conventional transit system while providing a parallel system for those citizens who cannot access our highly accessible route system so that we can provide accessible transportation to the more than 95% of the residents of our new city who live within 2 kilometers of our service boundaries.

#### **3.3.1 Vehicles and Equipment**

The City of Sudbury is committed to making its entire transit fleet accessible through the purchase of low-floor accessible buses. All purchases of new equipment include accessible buses, to ensure the increasing accessibility of our fleet, and full accessibility within the life span of the existing fleet.

#### **3.3.2 Transit Services and Facilities**

Greater Sudbury is committed to a variety of actions to improve the accessibility of transit services and facilities, including:

- ~ At all stops:
  - ~ Ensure that snow banks are removed at bus stops and Handi-Trans drop-off points and that the path between the bus stop and the intersection is cleared.
  - ~ Use high contrast colours on bus stop poles.
  - ~ Use high contrast colours on bus stop signage.
  - ~ Locate bus stop poles near sidewalks so that long cane users can detect them.
- ~ At the Transit Centre:
  - ~ Use high contrast, preferably black on white, signage with large, clear print.
  - ~ Hang signs at eye level so that individuals can approach and read the signs.
  - ~ Install tactile Braille signage on platforms.
  - ~ Review bus numbering/naming system for ease of visibility.
  - ~ Ensure consistency of platform assignment.
- ~ For printed material:
  - ~ Review text and layout of schedules for simplicity.

- ~ Print large-print and Braille versions of the schedules.

Greater Sudbury Transit is committed to ensuring that passengers get to their destinations. Information staff are directed to spend whatever time is required with passengers to ensure that they understand the transit schedule and how to reach their destination.

Greater Sudbury Transit provides ridership training for groups and individuals with special needs.

### **3.4 Price and Fare Media Initiatives**

One of the transportation objectives of the Official Plan is to enhance ridership growth through innovative and effective pricing and fare policies, particularly for post-secondary students. This includes several initiatives:

- ~ Development of a U-Pass for all post-secondary students. Sudbury Transit is currently in discussions with university and college staff and students, and supporting the student initiative to introduce a U-Pass. Several of the service initiatives described in the previous section are specifically designed to better service the student market, attract ridership from that market and promote the success of the U-pass initiatives;
- ~ Revisions to the transfer policy to allow unlimited rides for a period of two hours from the time of issue. This will have a positive effect on the image of the system, permit increased mobility among low-income passengers, and increase ridership. Cost of the initiative is minimal
- ~ Revisions to the monthly pass policy to allow transferability. With approximately 3,000 adult monthly pass sales, if approximately 20 percent of these are used for additional off-peak trips twice per week, ridership would increase by approximately 10,000 per month, or 125,000 annually. If 20 percent of these trips are existing trips, the revenue foregone would be approximately \$45,000, or about \$0.35 per new trip.
- ~ With a new fare collection system in place in the next two years, investigate innovative smart-card fare initiatives such as:
  - ~ time-of-day discounts;
  - ~ frequent user discounts;
  - ~ cooperative initiatives with other city services and merchants; and such

### **3.5 Marketing and Education Initiatives**

Greater Sudbury is committed to the effective marketing and promotion of its transit services to ensure awareness of the effectiveness of the service and its environmental, health and mobility benefits. Initiatives include:

- ~ Updating and enhancing the Rider's Guide - The current riders' guide is produced in-house by Sudbury Transit, and is a basic guide to services. However, its presentation of information including both maps and the schedules is difficult to

interpret for the inexperienced rider, who is the intended audience of such a guide. Accessibility features will also be improved.

- ~ Provide improved transit information at transit stops, including info-post schedule information, and transit maps at major stops.
- ~ Continuing to support and implement the marketing and promotional activities developed by the Canadian Urban Transit Association to promote ridership.
- ~ Implementing and promoting the fare initiatives described in Section 3.4

## **3.6 Evaluation and Performance Measures**

### **3.6.1 Ridership Growth**

Greater Sudbury will monitor ridership growth under these initiatives against the change in population, to ensure that initiatives are effective. Greater Sudbury has established a minimum performance target of 30 passengers per capita, with medium-term target of 34 passengers per capita representing a 12 percent increase in performance over 2005.

### **3.6.2 Service Effectiveness**

Greater Sudbury has adopted a minimum average performance level of 35 boarding per vehicle per hour, with a target of 40 boardings per hour over the medium term.

### **3.6.3 Financial Performance**

Greater Sudbury does not have a specific financial performance target, but will monitor performance levels in terms of revenue-cost ratio, with a view to continuous improvement in this performance.

## **3.7 Specialized Services (Handi-Transit)**

Handi-Transit services in Greater Sudbury are contracted to third party operator, and managed by Sudbury Transit through effective contract management.

Greater Sudbury's overall objective for the mobility of its residents, as indicated in the Accessibility Plan is to ensure that accessible service is available to 95 percent of the residents in the urban area, through making the regular fixed route system fully accessible.

Specifically for Handi-Transit, Greater Sudbury is committed to providing quality service with sufficient capacity to meet the needs of those that require door-to-door services. Capacity requirements and contractor performance are reviewed on a regular basis, with recommendations to council for adjustments to budget allocations to ensure continued quality service.

As the needs for this service grow with an aging population, Sudbury Transit staff will continue to monitor the contract performance and service delivery specifications, including the nature and type of vehicles provided by the contractor.

### **3.8 Financial Plan**

This financial plan outlines the costs of the initiatives, beginning in 2006, with staged increases of some elements. Sudbury Transit staff will develop specific proposals and financial plans for each of these initiatives, as they are developed.

#### **3.8.1 Operating Costs**

##### EXISTING SERVICES REVIEW

This annual amount represents a savings from current costs reflecting service adjustments proposed from the existing service review, assumed for implementation in 2006.

##### URBAN ROUTES

This annual amount includes the proposal for the north-east service revisions assumed for implementation in 2007 and the direct route proposal, assumed for 2008.

##### COMMUTER ROUTES

This annual amount includes the estimated cost of \$20,000 each for service enhancements to Route 703 and Route 704.

##### NEW SERVICES

This annual amount includes the estimated cost of introducing community-based service in Valley East, initially in the Hanmer area, with a possible future implementation in the Chelmsford area. This service is assumed for implementation in 2008.

##### FREQUENCY INCREASES

This annual amount includes the estimated cost of introducing service increases on major corridors, in support of student ridership as a result of the U-Pass proposal, plus other general service increases. The budget allocation assumes a staged implementation of the proposals with half introduced in each of 2007 and 2008.

##### SMARTCARD SYSTEM

The SmartCard costs included in the operating cost estimates include the amounts projected for Total Cash flow from the detailed Fare Collection Feasibility Study.

##### STAFF INCREASES

This amount includes an annual allowance for salaries and benefits related to a new position of planner/scheduler.

#### **3.8.2 Operating Revenue**

##### TRANSFERABLE PASS

Implementing a transferable adult pass will have a limited effect on transit revenue, estimated at \$45,000 annually.

##### TRANSCAB PREMIUM

Greater Sudbury Council did not approve eliminating the \$2 TransCab premium.

#### REVENUE FROM NEW SERVICES

Revenue from new services is based on proposed implementation dates for new services, and ridership estimates maturing over a period of two years. These estimates are intentionally conservative, and will likely be exceeded, resulting in higher revenue and lower net costs.

#### U-PASS REVENUE

Revenue from the proposed U-Pass program is calculated based on a monthly cost of \$25 per student from all three campuses for the period from September to April each year. This amount is net of the current revenue from student passes, tickets and cash during these months. Implementation for the pass program is dependent on the outcome of student referendums, and may not apply to all 3 schools, but is assumed for implementation in September 2007.

### **3.8.3 Capital Costs**

Capital elements are derived from the current capital plan, provided by Sudbury Transit for replacement and refurbishing of buses, plus service vehicles and major equipment. This includes a planned replacement of the storage and maintenance facility in 2012. Other amounts have been added, as described in these sections.

#### EXPANSION VEHICLES

Expansion vehicle requirements are based on the vehicle requirements for the services described under Operating Costs, at a unit cost of \$425,000 per vehicle, including farebox and radio.

#### FAREBOXES

Farebox requirements are based on the total capital investment for smartcard systems, as described in Appendix A, with partial investment in 2006 and the remainder in 2007.

#### OTHER ELEMENTS

Other elements include amounts for unspecified improvements in the areas of Terminal upgrade, and ITS technology improvements, assumed for implementation in later years of the plan.

### **3.8.4 Funding Sources**

Funding sources for net costs (excluding farebox revenue) include provincial gas tax allocation, federal funds from Bill C48 "New Deal for Cities" funding, the Ontario Transit Vehicle Program (OTVP) and municipal reserves.

Table 1 shows the net amounts to be funded from reserves after the application of the various federal and provincial funding programs. Although some provincial funding may be applicable to operating costs, all funds are shown here as applicable to capital costs.

**Table 1**  
**Financial Plan Summary**

	2006	2007	2008	2009	2010	5-Year to 2015
<b>Existing Budget Provision (1)</b>	<b>16,500,000</b>	<b>17,700,000</b>	<b>18,500,000</b>	<b>19,750,000</b>	<b>21,000,000</b>	<b>125,485,000</b>
<b>Incremental Budget Provision(2):</b>						
<b>Existing Service Review</b>	(45,000)	(45,000)	(45,000)	(45,000)	(45,000)	(225,000)
<b>Urban Routes</b>	-	1,200,000	1,750,000	1,750,000	1,750,000	8,750,000
<b>Commuter Routes</b>	40,000	40,000	40,000	40,000	40,000	200,000
<b>New Service</b>	-	-	275,000	275,000	275,000	1,375,000
<b>TransCab Contract Additions</b>	-	25,000	30,000	35,000	40,000	200,000
<b>Frequency Increases</b>	-	180,000	360,000	360,000	360,000	1,800,000
<b>Smartcard System (3)</b>	-	(5,000)	127,750	172,000	132,500	625,000
<b>Staff Increases</b>	30,000	60,000	60,000	60,000	60,000	300,000
<b>Incremental Operating Cost</b>	<b>25,000</b>	<b>1,455,000</b>	<b>2,597,750</b>	<b>2,647,000</b>	<b>2,612,500</b>	<b>13,025,000</b>
<b>Total Gross Operating Provision</b>	<b>16,525,000</b>	<b>19,155,000</b>	<b>21,097,750</b>	<b>22,397,000</b>	<b>23,612,500</b>	<b>138,510,000</b>
<b>Less:</b>						
<b>Operating revenue</b>						
Budgeted Revenue (1)	6,790,000	6,828,000	7,000,000	7,100,000	7,250,000	43,321,000
Transferable Pass	(45,000)	(45,000)	(45,000)	(45,000)	(45,000)	(225,000)
TransCab Premium	-	-	-	-	-	-
New TransCab Ridership	-	-	-	-	-	-
Revenue from New Service (4)	14,000	499,000	1,078,000	1,400,000	1,455,000	8,694,000
Upass(5)	-	375,000	700,000	750,000	800,000	4,750,000
<b>Net Operating Revenue</b>	<b>6,759,000</b>	<b>7,657,000</b>	<b>8,733,000</b>	<b>9,205,000</b>	<b>9,460,000</b>	<b>56,540,000</b>
<b>Net Operating Costs</b>	<b>9,766,000</b>	<b>11,498,000</b>	<b>12,364,750</b>	<b>13,192,000</b>	<b>14,152,500</b>	<b>81,970,000</b>
<b>Performance Measures</b>						
Projected Ridership	4,253,000	4,763,000	5,453,000	5,738,000	5,876,000	35,109,000
Projected R/C	0.41	0.40	0.41	0.41	0.40	0.41
Projected Boardings per Vehicle hour	34	37	41	43	44	216
Projected Ridership per capita	26.9	30.0	34.1	35.8	36.4	43.5
<b>Capital Costs</b>						
Expansion	-	2,400,000	2,400,000	1,200,000	1,200,000	-
Replacement (6)	3,675,000	2,600,000	2,600,000	2,500,000	2,500,000	10,450,000
Refurbishing(6)	270,000	187,500	187,500	-	150,000	1,050,000
Fareboxes(7)	1,327,000	1,000,000	-	-	-	-
Service Vehicles (6)	50,000	-	50,000	-	50,000	-
Vehicle Hoists	80,000	-	-	-	160,000	-
Wash Rack/Cleaning System (6)	-	150,000	-	-	-	-
New garage -2012 (8)	-	-	-	-	100,000	9,000,000
Shelters(9)	10,000	10,000	10,000	10,000	10,000	50,000
Terminal Upgrade(9)	-	-	250,000	-	-	-
ITS systems(9)	-	-	-	500,000	500,000	-
<b>Total Capital Costs</b>	<b>5,412,000</b>	<b>6,347,500</b>	<b>5,497,500</b>	<b>4,210,000</b>	<b>4,670,000</b>	<b>20,550,000</b>
<b>Transit Funding Sources</b>						
Provincial Gas Tax Allocation (10)	(2,200,367)	(2,708,144)	(2,708,144)	(2,708,144)	(2,708,144)	(13,540,720)
Federal C48 funds	(675,000)	(675,000)	-	-	-	-
OTVP Capital Subsidy (11)	(1,102,500)	(780,000)	(780,000)	(750,000)	(750,000)	(3,135,000)
<b>Net Capital Offsets excluding reserves)</b>	<b>(3,977,867)</b>	<b>(4,163,144)</b>	<b>(3,488,144)</b>	<b>(3,458,144)</b>	<b>(3,458,144)</b>	<b>(16,675,720)</b>
<b>Net Capital Cost to be funded from reserves</b>	<b>1,434,133</b>	<b>2,184,356</b>	<b>2,009,356</b>	<b>751,856</b>	<b>1,211,856</b>	<b>3,874,280</b>

**Notes:**

1. Based on 2005 actual and 2006 budget. Future years based on similar increase
2. All amounts carried forward to future years from first year of implementation
3. Based on Financial Analysis (Total Cash Flow) from Gooderham study
4. New service revenue based on reduced initial ridership, increasing over 2 years
5. Based on September 2007 implementation, \$25 per student monthly, September-April
6. Based on current capital plan
7. Based on total capital cost from Gooderham study
8. Initial design cost allowance for new garage
9. Future allowance for unspecified improvements
10. 2008 and beyond based on 2007 amount
11. Provincial subsidy up to 33 percent available. Estimates based on 30 percent of vehicle replacement costs

## 4 ASSET MANAGEMENT PLAN

This section presents the Asset Management Plan, supported by additional material included in the separate Technical Appendix, attached to the detailed report. The provisions of this plan have been incorporated into the Financial Plan described in Section 3.

### 4.1 Context

Sudbury Transit currently maintains a fleet of 54 vehicles, operating approximately 3.5 million kilometres and approximately 150,000 vehicle-hours annually, for an average speed of approximately 23 kph.

Sudbury Transit serves the communities of Greater Sudbury, with a service area population of approximately 130,000. A significant factor is the size of the service area, covering a total of more than 3600 square kilometres. Commuter service operated by Sudbury Transit connects the small urban communities throughout the service area to the main urban center of Sudbury. Services in Greater Sudbury are also affected by the topography of the region, resulting in a considerable variability in grades and limited travel route options. Weather impacts during cold winter months are also a factor affecting operating and maintenance costs.

Municipal objectives for transit in Greater Sudbury are reflected in the draft Official Plan and the recently completed Transportation Master Plan.

- ~ the improvement of fare collection methods;
- ~ the promotion of public transit use through the introduction of transit passes and other tools;
- ~ development of transportation solutions and fare systems that entice students;
- ~ expansion of surface transit routes as part of new subdivision design and in accordance with locations where intensification occurs;
- ~ the improvement of bus stops with better shelters, route information displays, and bus bay construction; and
- ~ improvements to the public transit system consistent with the Greater Sudbury Accessibility Plan.

Transportation Master Plan objectives include:

- ~ ensure that the existing transportation network is maintained in a state of good repair;
- ~ ensure that the transportation network provides safe, convenient and efficient movement for all people and goods in Greater Sudbury;
- ~ support the expansion of the transportation network as demand justifies and
- ~ ensure that improvements occur in a safe, efficient, environmentally sound and aesthetically pleasing manner;

- ~ coordinate the development of Greater Sudbury in order to effectively reduce congestion and the associated environmental impacts;
- ~ promote all travel modes, including public transit, walking and cycling;
- ~ provide affordable, convenient and reliable public transit service that enhances mobility and access;
- ~ consider the needs of the physically challenged in the planning and design of all aspects of the transportation network; and,
- ~ support programs that aim to reduce the environmental impacts of certain modes of transportation.

Effective transit services and infrastructure supported by a well-maintained fleet, equipment and infrastructure, contribute to each of these objectives.

## 4.2 Outlook

As a resource-based economy, the Greater Sudbury community is subject to variations in commodity prices and world markets for mining products. In recent years, the population has been fairly stable, but transit ridership has been steadily increasing, with additional resources necessary to meet growing demands.

Despite a stable population, internal redistribution of population is still occurring with growth in the outlying communities tending to increase overall travel distances and further tax transit reserves.

Based on the service plan and fare technology review conducted in parallel with this asset management plan, Sudbury Transit's outlook is based on the following assumptions:

- ~ stable, slowly increasing population and employment base;
- ~ increase in service employment, particularly related to health, education and communications;
- ~ increasing fleet requirements to meet increasing ridership per capita performance (target increase of 12 percent);
- ~ introduction of smart-card based fare collection technology in the short-term;
- ~ replacement of aging garage facility in medium-term;
- ~ enhancements to downtown terminal facility in short- and medium-term;
- ~ opportunities for improved communication tools in medium-term, including CAD/AVL, transit signal priority, and automated passenger centers.

Technical assumptions built into the analysis include:

- ~ vehicle-life of 18 years for all vehicles purchased before 1995;
- ~ vehicle-life of 15 years for all newer vehicles;



- ~ spare ratio of 20 percent to meet all service requirements, including replacement of service vehicles, regular maintenance, major maintenance and rebuild/refurbish requirements;
- ~ in-house support for all maintenance functions; and
- ~ low-floor accessibility required for all new purchases.

### **4.3 Inventory**

The detailed Appendix includes the current inventory of transit and service vehicles maintained by Sudbury Transit. With the recent purchase of three new NovaBus vehicles, the current transit fleet is 54 vehicles, with a maximum age of 18 (3 vehicles) and an average age of 10.4. Based on an 18-year life, the average is slightly high (35 of 54 vehicles are older than 9 years) but based on a target of 15 years, the average is about 38 percent above the target average.

Sudbury also uses 2 vans, 4 service trucks and one car to support operations and maintenance.

Major equipment in the shop comprises:

- ~ five hoists valued at approximately \$80,000 each;
- ~ 2 replaced in 2004,
- ~ 1 scheduled for replacement in 2006,
- ~ 2 scheduled for replacement in 2010;
- ~ one wash rack, valued at approximately \$125,000 new and scheduled for replacement in 2007;
- ~ interior cleaning vacuum system, valued at approximately \$30,000 and requiring replacement in the short-term;
- ~ Municipal Fleet Management Information System software for maintenance management, provided by MTO. This software continues to meet Sudbury Transit's needs, but is assessed to have no current value; and
- ~ diagnostic equipment, associated with each particular vehicle technology. Sudbury Transit includes provisions for required equipment with its vehicle tenders.

### **4.4 Equipment and Facility Issues**

Sudbury Transit's maintenance and storage facility is approaching its useful life, and will require replacement in 2012 or 2013. Capital plans prepared by ST include a budgeted amount of \$9 million for a new facility within this period. Based on the replacement timeframe for some of the portable or relocatable equipment, some equipment may be usable in the new facility, but it has been assessed that most major equipment will be replaced within this timeframe, including fleet management software, currently under investigation by the Public Works Department.

Hoists scheduled for replacement in 2006 and 2010 may be the new cartridge style, in which case they could be relocated to the new facility.

#### **4.5 Maintenance Program**

Sudbury Transit has an effective, comprehensive maintenance program, slightly hampered by the age of some vehicles that require additional attention (30 percent of the fleet is 15 years or older) and the low spare ratio, which limits scheduling flexibility for maintenance programs.

Sudbury Transit has a commitment to delivery of 100 percent of scheduled service, while meeting all provincial and legislation requirements for safety inspections.

Sudbury Transit currently tracks a wide variety of performance measures to monitor the effectiveness of its programs, as well as contributing to preventative maintenance identification, including:

- ~ fuel consumption per vehicle, per kilometer; and
- ~ operating cost per vehicle, per kilometer.

#### **4.6 Capital Plan**

The capital plan required to support this asset management plan is detailed in Section 3.

The capital program is defined to meet the needs of Sudbury Transit in:

- ~ accommodating projected and potential ridership growth;
- ~ achieving and maintaining an effective spare ratio to ensure service reliability and optimum preventative maintenance capacity;
- ~ achieving and maintaining an average age of not more than 9 years, with a target of 7.5 years, ensuring comfortable, attractive, safe and reliable vehicles to promote ridership growth;
- ~ maintaining effective maintenance and service facility, accommodating all required functions in-house; and
- ~ meeting all required environmental, safety and accessibility standards.

