

Appendix C

Sustainable Transportation: An Overview

Imagine being asked to figure out how to change the way people get around in the Greater Toronto and Hamilton Area (GTHA). How would you make public transit a pleasure to use; promote active, healthy alternatives to driving such as walking and cycling; reduce traffic congestion and ease gridlock; cut greenhouse gas emissions from vehicles; and ensure the efficient movement of goods and delivery of services?

That is the task facing Metrolinx, which is on its way to creating a Regional Transportation Plan that will map out how to achieve these goals and how to equip the region with a modern, efficient and integrated transportation system. Metrolinx wants to engage everyone affected by these issues -- local elected officials; urban, suburban and rural residents; commuters; transit riders; truck drivers; motorists; shippers; and others -- to get them thinking about how to improve the state of transportation in the GTHA.

INSERT MAP OF GTHA

In addition to creating many frustrated drivers and transit users, the GTHA's mobility challenges hamper the movement of the goods and services on which we, and our economy, depend. Congestion and delays cost the Ontario economy billions of dollars every year – unacceptable if we are to remain competitive in today's increasingly global economy.

It is clear that the GTHA's transportation system is past its prime and can no longer meet the growing needs of the region's residents and businesses. Once highly regarded, our system is now plagued with congested roads and highways, inconvenient, uncomfortable, unreliable transit and a lack of dedicated bicycle lanes and pathways. It also contributes unacceptable and increasing amounts of greenhouse gases and other pollutants to the atmosphere.

Metrolinx's Regional Transportation Plan is the foundation of the Government of Ontario's response to addressing the region's transportation issues.

Trends & Outlooks – Where We Are and Where We're Headed

With just over six million residents, the GTHA is one of the largest metropolitan areas in North America, and also one of the fastest growing. About half of the people in Ontario and about one-fifth of all Canadians call it home. Estimates show the GTHA reaching 8.6 million people by 2031. That's like taking the entire population of the Greater Vancouver Region and moving it to the GTHA.

The GTHA's transportation systems have not kept pace with this steady growth. Roads, subways, streetcars, buses and commuter rail services are being pushed to their limits. Rapid transit investment and commuter rail construction averaged 135 kilometres per decade from the 1960s to the 1980s. That has all but ground to a halt over the past two decades, with the only significant improvements to rapid transit having been a five-kilometre stretch of subway on Toronto's Sheppard Avenue and some additional GO rail service. The GTHA's transportation system has been starved of the investment necessary to sustain existing services, let alone meet the challenge of rising demand.

SIDEBAR: Over 581 million people travel on the 10 different transit systems every year. The Toronto Transit Commission (TTC) accounts for over 75 per cent of these passengers; GO Transit another 8 per cent (primarily regional travellers); and the other eight local transit systems account for the remaining 15 per cent.

The lack of investment in transit contrasts sharply with what is happening elsewhere in the world. In the United States, most large cities have invested heavily in rapid transit. Madrid, Spain – only slightly smaller than the GTHA – has built more rapid transit facilities during the past decade (88 km) than all of our subway and light rail lines (77 km) combined.

Our transportation system is not only under capacity, it is also out of balance. We rely on cars more than ever, with driving trips growing at three times the rate of transit trips. In the past two decades, the proportion of commuter travel by transit, walking or cycling dropped from 31 per cent to 24 per cent, while vehicle-kilometres driven nearly doubled. And that driving makes very inefficient use of available road space, with each car averaging only about 1.2 passengers.

Where you live often affects your travel choices. Residents of central, denser communities tend to take transit, walk and cycle more often, and their trips are generally shorter. One-third of downtown Toronto trips are made by public transit, one-third by walking or cycling, and one-third by car. In peak periods, public transit use exceeds 70 per cent.

However, outside of the City of Toronto, transit use, walking and cycling drop markedly to less than seven per cent of all trips. Most suburban neighbourhoods were designed on the assumption that the car would be people's primary, or even sole, means of getting around. Winding streets, widely spaced houses, and long distances between homes and stores all make efficient transit service a challenge, but one that must be addressed.

These travel patterns have led to massive traffic congestion across the region, which has not done much for our quality of life, has serious environmental and economic repercussions, and has little hope of improving unless we adjust our thinking about transportation and take action.

SIDEBAR: Our travel patterns have a huge impact on air quality. The Toronto Board of Health recently estimated that, in the city of Toronto alone, air pollution contributed to 440 premature deaths and 1,700 hospitalizations with costs of \$2.2 billion annually.

The GTHA is at a turning point. Years of rapid – and continuing – growth have outpaced the supply of transportation infrastructure. This situation demands serious remedies if we are to maintain the quality of life we expect and deserve.

In preparation for the Regional Transportation Plan, Metrolinx released seven Green Papers in early 2008 on a variety of transportation issues. Key highlights of these papers are presented here. Copies of the papers are available at www.metrolinx.com.

Transportation Demand Management – Using the System Better

Transportation Demand Management (TDM) is about working better with what we have. It is about getting people to rethink whether, why, when, where and how they travel. Consider this: it is much cheaper to avoid a trip, especially at rush hour, than to provide the infrastructure to support it.

Transportation Demand Management starts with raising awareness and building positive attitudes about sustainable transportation choices. We can give people access to better information on transportation alternatives. We can also offer tangible benefits for certain travel choices, such as reducing the relative costs for transit users, while putting in place disincentives for others, such as charging drivers to use the roads.

Some TDM initiatives have already been tested in the GTHA, including Smart Commute, a partnership between Metrolinx and the cities and regions of the GTHA. One of Smart Commute's programs is the on-line Carpool Zone ride-matching service. As the proportion of cars on the road with single drivers has risen from 75 per cent in 1981 to 85 per cent in 2006, we need to adopt measures to reverse that trend, and more aggressively promote, support and reward carpooling.

Another TDM application that could hold great promise for the GTHA is an online transit trip planner, where you could enter your departure time, origin and destination, and have a website display the best transit route. You could also have real-time transit information e-mailed or text-messaged to you informing you exactly when the next train or bus will be arriving, while you are waiting at the stop.

With support from governments and transit operators, employers can play an essential role in TDM. They can provide discounted transit passes, priority

parking for car-poolers, flexible work hours or tele-work opportunities, vanpools, or emergency ride-home programs.

While transportation planning often focuses on increasing the supply of transportation infrastructure, reducing demand through Transportation Demand Management will be a core component of the Metrolinx Regional Transportation Plan.

Get Moving with Active Transportation

Getting around under our own steam – walking, cycling, using a wheelchair, in-line skating – is one of the most overlooked forms of transportation, and one that we need to be more conscious of in our planning efforts.

All forms of active transportation have health benefits, reducing stress and increasing fitness levels. Active transportation is also highly affordable, particularly compared to driving. The more we cycle or walk to our destinations, the less need there is for costly, space-intensive infrastructure.

So why is active transportation not a more popular travel choice? What are the barriers and how can we remove them?

Currently, walking and cycling trips account for just under five per cent of all trips to work and approximately 32 per cent of all trips to school in the GTHA. Yet it is estimated that 17 per cent of daily auto trips in the region are walkable, at less than two kilometres in length, and almost 40 per cent are bikeable, at less than five kilometres. If even a few of these trips could be shifted to walking or cycling we could reduce the number of daily car trips in the region by thousands. To do this, we could adopt new road design standards that require sidewalks and connected bike lanes or trails. We could build a network of bike paths that are separated from roads. We could put in place new urban design standards that make stores and other buildings more easily accessible to cyclists and pedestrians. And we could implement walking or cycling to school campaigns across the region.

When it comes to active transportation, Metrolinx is aiming to promote a shift in how we view – and how our transportation system accommodates – walking, cycling and other active forms of transportation.

Mobility Hubs

Mobility hubs are central locations where different modes of transportation come together, surrounded by complementary development such as shops and services. There are many different types of mobility hubs. They could start with a GO station, subway station or bus depot, or they could be centred around a university, hospital, or other major destination.

Currently, most of these sites offer little more than vast parking lots but they could be so much more. Imagine, for example, if your local GO station and the area around it was turned into a true mobility hub, with frequent local transit access, storage facilities for bikes, heated waiting areas, a café or restaurant, and services like a daycare, grocery store, or post office.

In Bremen, Germany, mobility hubs are strategically located throughout the city with links to trams, buses, car-share, cycling networks and taxis. For added convenience, each hub has an electronic journey planning and ticket kiosk that provides real-time travel information.

San Francisco's Fruitvale Station mobility hub offers an indoor, supervised bike station with free parking for 200 bicycles and a full-service repair facility.

Village de la Gare, a new community outside of Montreal, is a medium-density, low-rise community that is planned to house 15,000 residents around a commuter rail station that runs into Montreal's downtown core. The station offers bicycle parking, car parking and local bus service. Active transportation is promoted with wide sidewalks, narrow streets, bicycle paths and greenery that shields the sidewalks from passing cars. It also incorporates local retail, green space, community facilities and a primary school.

The most successful mobility hubs will be surrounded by a mix of jobs and housing that can encourage commuting in both directions, instead of the mostly one-way flow we see today. This will help to balance load levels on transit vehicles and take advantage of the unused capacity we currently see on many return trips. New public, cultural and institutional buildings could also locate around mobility hubs so that more people can access them by transit or active transportation.

To be successful, mobility hubs also have to deal with parking. Is free parking at GO stations, for example, a disincentive to using local bus service, walking or cycling to the station? Would charging for parking at transit stations drive people away? How can we bring more stores and offices close to our transit stations if they are surrounded by acres of parking lots?

The mobility hub is a key feature of modern, high-functioning, sustainable transportation systems. It is the point of contact not only between transportation networks, but also between these networks and the surrounding city. A system of connected mobility hubs across the GTHA will be the backbone of this region's transportation system.

Moving Goods and Delivering Services

The health of our economy depends on the timely and efficient delivery of goods and services throughout our region. And it is not just businesses that count on efficient deliveries and being able to call on clients. Residents also depend on reliable product delivery and the jobs this creates.

But no one is happy about the noise, traffic and emissions that goods movement creates. Truck traffic in the GTHA is growing far faster than the region's population or employment. And with trucks accounting for about 81 per cent of total freight transport energy use in Canada, reducing energy use and emissions over the longer-term is critical.

The movement of goods and services is nothing if not complex, involving many players and issues. Most goods movement is performed by the private sector, using a mix of public and private infrastructure. It is influenced by broad economic trends, global trade and consumer habits. It involves shippers, receivers, logistics service providers, consumers and government.

Better managing the movement of goods and services is just as important as improving the movement of people. This could include a shift to more energy efficient freight modes, such as railways and waterways; incentives to move goods during off-peak hours; and better collaboration among industry and business to share information and infrastructure in consolidated freight facilities.

In developing the Regional Transportation Plan, Metrolinx will look at helping not only people, but also goods and services, move around, within, and through the region more efficiently.

Roads

Most of us spend a good part of our lives on the road. Today's reality is that most people and goods in the GTHA travel on roads. Subways and GO rail services only carry about five per cent of the GTHA's total daily travel, with the rest of the 12 million-plus daily trips – whether by car, truck, bus, streetcar, bicycle or foot – being made on roads. For the GTHA's rural area, the regional road and highway network is its mobility lifeline.

As much as we rely on roads, driving in the GTHA is becoming more frustrating than ever, with increasing congestion and delays. While there is limited opportunity to build or expand roads, we can improve how existing ones work. There are systems, for instance, that can regulate traffic flow or give people real-time information on delays and congestion. We can redesign roads to accommodate a greater variety of transportation choices and higher capacity modes of travel, and less of an impediment to transit, walking and cycling. We

can give transit vehicles priority. We can also use innovative designs to make them a safer and more pleasant environment for cyclists and pedestrians.

One of the big questions facing transportation planners is how to resolve the competition for space on our roads. Who should get priority? By promoting what is known as “complete streets”, pedestrians, bicyclists, transit riders and drivers can safely co-exist, while enjoying design features such as on-street parking, bus lanes, bike lanes, sidewalk expansion, raised crosswalks, benches, parkettes, speed limit reduction, truck restrictions and more.

Better Transit

The Regional Transportation Plan is our opportunity to transform how we view transit services and how we provide them. And substantial changes are needed.

Over the last 50 years, land use and transportation in the GTHA have largely revolved around the car. Continuing this trend is not sustainable. Achieving sustainable mobility will mean developing significantly stronger, customer-focused transit across the region.

The Regional Transportation Plan will identify and prioritize a long-term transportation network for the GTHA. We are going to need all forms and types of new transit infrastructure. That includes Bus Rapid Transit that allows traditional buses to operate within their own lanes, separate from car traffic, and Light Rail Transit that runs on rail on city streets or in its own corridors. Subway systems will need to be expanded. And the GO commuter rail system will need to be extended to new areas, as well as enhanced in existing areas with additional track capacity and electric locomotives that would permit much faster, more comfortable travel with reduced emissions and noise.

Particular attention will need to be paid to creating inter-regional connections between 905 communities, enhanced service in high-demand areas like Toronto and along the existing GO rail network, better service to socially disadvantaged areas, and key new rapid transit connections to Pearson Airport.

SIDEBAR: Light rail transit or bus rapid transit operating in their own lanes can carry between 5,000 and 15,000 people per hour, compared to a typical freeway lane which can carry approximately 2,000 vehicles per hour.

SIDEBAR: GO Transit estimates that it replaces as many as 1.6 billion vehicle-kilometres of traffic from roads every year.

Improving transit goes beyond just adding new infrastructure. It is also about improving the transit experience. Transit improvements must put users first, keeping their needs for fast, frequent, convenient, comfortable, accessible service top-of-mind.

A recent Ipsos Reid poll conducted for Metrolinx found that 79 per cent of transit users and 50 per cent of drivers in the GTHA would, or likely would, take transit more often if service were improved. Service improvements such as greater comfort and safety, enhanced speed and reliability, integrated and simplified fare payment, less crowding, seamless integration at every transfer, and accurate, real-time travel information would be welcomed by current and potential users.

The GTHA needs to – and can – recapture its past reputation as a leader in public transit. Although challenging, it is an achievable goal.

Your input is essential to making the Regional Transportation Plan a success. What would entice you to use transit or active transportation more often? What would lead you to choose more sustainable ways to travel? What do you think should take top priority? What parts of the transportation system are most in need of investment?

Now is the time to provide input and make a difference. You can help get people moving and get transportation in the GTHA back on the right track.

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SIDEBARS

What is Metrolinx?

In 2006, provincial legislation created the Greater Toronto Transportation Authority (GTTA) with a mandate to plan and coordinate transportation in the Greater Toronto and Hamilton Area. In December 2007, the GTTA became Metrolinx. The Board of Directors of Metrolinx comprises 11 members who represent the province, and the cities and regional municipalities across the GTHA.

The Investment Strategy: Unprecedented Reinvestment

Even the best-conceived plans cannot be implemented without adequate funding. And transforming transportation systems calls for significant investment. So, in addition to creating a comprehensive Regional Transportation Plan, Metrolinx will develop an Investment Strategy to identify potential financial tools and revenue sources for the initiatives and priorities set out in the Plan. All options will be considered, including government funding; private sector investment; user fees such as parking fees, road pricing and tolling; and transit fares. As a sustainable financing plan for implementation, this strategy will include a life-cycle approach to expansion, optimization, renewal and operations. Through sufficient, reliable and dedicated funding sources, it will turn the Regional Transportation Plan into a reality.

Building the Regional Transportation Plan

Throughout the first few months of 2008, Metrolinx released – and sought feedback on – seven Green Papers that outline issues and possible solutions related to different aspects of transportation: Towards Sustainable Transportation; Mobility Hubs; Active Transportation; Transportation Demand Management; Moving Goods and Delivering Services; Roads and Highways; and Transit.

Metrolinx then released two White Papers for discussion. They begin to integrate and synthesize the issues from the Green Papers into concepts for a Regional Transportation Plan.

The next step will be a Draft Regional Transportation Plan to be released in June, followed by a final plan to be released in the fall.

All of these documents, and information on how to get involved, is available on the Metrolinx website at www.metrolinx.com.

The Presto Fare Card

The GTHA has followed the lead of other cities around the world in adopting the use of Smart Cards for transit. Metrolinx will be responsible for the system that will allow riders to move across the GTHA with a single fare card by the year 2010. The **Presto Fare Card** was introduced in the summer of 2007 on four Mississauga bus routes, two stations on the GO Transit Milton line, and at Union Station for both GO Transit and the TTC. Smart cards, such as the Presto card, the Oyster card in London, U.K., the Octopus card in Hong Kong, and New York City's MetroCard make the need for tickets, tokens and cash a thing of the past. Users can easily "top them up" as required. They make it easier to transfer, and faster to board buses and trains. In many jurisdictions, Smart Card holders are offered discounts at stores and attractions, and regular users can be offered loyalty rewards.

Have a Say! Help Shape the GTHA's Transportation Future

Whether we walk to the corner store, take transit to work, cycle to school or rely on the movement of goods for our business, we all have opinions on how the GTHA's transportation system is performing. Many of us have thoughts on how it could do better. Whatever your views are on transportation, Metrolinx wants to hear from you as it develops a Regional Transportation Plan for the GTHA. The more people who provide input and ideas, the more inclusive and effective the plan will be. Please visit www.metrolinx.com to participate in our online public consultation or contact us at 416-874-5900 to find out how you can get involved.

MoveOntario 2020

The \$17.5 billion MoveOntario 2020 project announced in June 2007 is the provincial government's largest-ever commitment for rapid transit expansion. It includes 52 rapid transit projects and 902 kilometres of new or improved rapid transit for the region that will result in 800 million new transit trips per year. The province of Ontario will provide 65 per cent of the cost — \$11.5 billion — and will seek the remaining funding from the federal government. Metrolinx, through the Regional Transportation Plan, will prioritize, integrate and coordinate these projects.

Planning for Long-term Growth

Ontario's *Growth Plan for the Greater Golden Horseshoe* was released in June 2006. It sets out a 25-year vision and plan to accommodate the expected growth in the region. It is designed to support economic prosperity, protect the environment and help communities achieve a high quality of life. The Growth Plan calls for the creation of more compact and complete communities, with a strong emphasis on transit and pedestrian friendly design. The Metrolinx Regional Transportation Plan will help support and implement the Growth Plan vision. Together, the Growth Plan and the Regional Transportation Plan will set this region on a path towards a more sustainable and prosperous future. For more information about the Growth Plan visit www.placestogrow.ca.