FOREWORD

Everyone knows that traffic congestion in the Greater Toronto and Hamilton Area (GTHA) has reached an untenable state and that the congestion is growing dramatically. Everyone knows too that with an additional 2.5 million people expected to enter this city-region in the next twenty years, the problem is slated to get a lot worse.

After decades of neglect, we can no longer afford to postpone building a modern transit network across the region. The negative impacts and costs of traffic congestion in urban areas – on the economy, environment, and society in general – have been well documented. The evidence for the GTHA is compelling: Unless we expand our transit infrastructure in a way that is sustainable, congestion costs and productivity losses will compound.

The infrastructure investments we make today will determine the quality of our lives for generations. Despite consensus on the seriousness and scope of the problem, we can’t seem to agree on how to solve it. The Transit Investment Strategy Advisory Panel’s goal is to provide the basis for a mature discussion of the options before us and to enhance public awareness of the vital importance of investing in an improved regional transportation system.

The Panel was established by Premier Wynne on September 18, 2013 with a mandate to advise the Province on how to respond to the Metrolinx Investment Strategy and to engage with the public to determine whether the Metrolinx recommendations are the right ones. The Advisory Panel comprises 13 citizens with diverse backgrounds who bring relevant expertise and experience from across the region. The Panel has a tight timeframe and was asked to report in December.

We have spent the first four weeks in an intense process of orientation with a view to identifying the key issues. To that end we reviewed the major reports used in the development of The Big Move 25 year transportation plan, read the most pertinent external reports that contributed to The Big Move strategy, scanned the submissions and results of the extensive consultations conducted by Metrolinx and others, and were briefed by relevant Ministries and agencies. In addition, we have held a series of meetings with experts reflecting a range of perspectives.

Prior to embarking on the consultation phase of our work program, we are releasing three short discussion papers. The intent is to share the Panel’s understanding of the issues and provide a frame of reference for the feedback we are seeking. They are entitled:

1. Hard Truths about Transit
2. The Transit We Need
3. How We Pay for Transit Expansion
Over the next several weeks, we will be meeting with key stakeholders and providing opportunities for public and business input through town halls and via our website www.transitpanel.ca. We invite you to consider the premises and questions set out in these papers and get back to us with your thoughts and ideas.

Anne Golden  Paul Bedford
Chair  Vice-Chair
Introduction

Toronto used to be considered a transit system leader and all levels of government made bold investments to earn that reputation. We are reaping the benefits of those investments to this day, as a city, region, province, and country.

The Toronto region now ranks as the worst performer in Canada in moving people to and from work and is near the bottom of global rankings\(^2\). For the past several decades our investments in the region’s public transit have not kept pace with economic and population growth. This is true for Canada as a whole. Between 1955 and 1977, new investment in infrastructure grew by 4.8% annually, in line with economic and population growth; between 1978 and 2000, however, it grew by a miniscule 0.1%\(^3\). Little wonder we have fallen so far behind.

In Toronto, the investment in public transit (as a percentage of GDP) in the 1990s was among the lowest in OECD countries\(^4\). This was largely due to the decline in the federal share of investment in public infrastructure - from 27% in 1955 to 5.3% in 2007. Although both the governments of Canada and Ontario have since made more funding available, the gap has not nearly been closed nor does the funding increase respond to predicted growth.

The consequences for the Toronto region of this long period of under-investment are:

- Cost of time lost by people and goods sitting in traffic to the Toronto regional economy of $6 billion annually, and predicted to rise to $15 billion by 2031 if no action is taken\(^5\)\(^6\)
- Inability to effectively match workers to jobs, contributing to productivity losses and higher unemployment\(^7\)
- Lack of transit availability and connectivity which contributes to growing social inequity in the Toronto region. Average GTHA commuting time of 82 minutes to and from work each day, which is the longest daily commute of all US and Canadian cities. This is predicted to grow to 109 minutes if we fail to improve our transit system\(^8\)
- Negative impact on physical and mental health. Studies show that individuals who spend increased periods of time behind the wheel tend to be less fit and suffer more stress. Increased pollution, including reduced local air quality and high Greenhouse Gas (GHG) emissions

The GTHA is expected to grow by 2.5 million more people and by more than 1 million vehicles by 2031. Transit infrastructure, together with human capital, are the main determinants of economic growth in today’s knowledge economy. And they are linked because our ability to attract the people we need depends on the economic opportunities and quality of life our region can offer. Hence, the recent warning by the OECD that “The state of the Toronto region’s infrastructure could significantly strain its capacity to compete with other OECD metropolitan
In short, what is at stake is our city-region’s prosperity in a competitive global world.

In the Panel’s view, the public debate is being impeded by a series of misconceptions. This paper, the first of three leading up to the consultation phase of our work, aims at adding clarity to the debate by establishing six hard truths.

- **Subways are not the only good form of transit.** What matters is matching the right transit mode and technology to the proposed route to avoid wasting scarce capital, reducing funds for other projects, and creating burdensome debt.
- **Transit does not automatically drive development.** To be successful and affordable, transit routes must connect with current and anticipated employment.
- **The cost of building the transit is not the main expense.** Lifecycle operating and maintenance costs are a major portion and must be included in the analysis leading to decisions.
- **Transit riders are not the only beneficiaries of new transit infrastructure.** Everyone benefits – economically, socially and environmentally – from new transit infrastructure.
- **Transit expansion in the region is not at a standstill.** There is $16 billion worth of transit construction now in progress throughout the GTHA.
- **We can’t pay for the region-wide transit we need by cutting waste in government alone.** New dedicated revenue sources are required.

These are hard truths, but until we accept them, we will not be able to have a mature discussion. Decisions will not be based on reason and evidence, but will be one-off decisions aimed at short term political gain.

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**Hard Truth One:**

Subways are not the only good form of transit. Matching the right transit mode and technology to the proposed route is what matters.

Many people operate under the assumption that subways are the optimal type of transit in all situations and anything else is second best. In fact, different circumstances merit different transit technologies based on current and projected ridership levels, population and employment densities, and terrain. The importance of ridership levels is obvious as low ridership means excessive subsidies.

Despite the obvious appeal of subways, TTC surface streetcar and bus service plays a huge role in moving people and feeding into the subway network. The 140 TTC bus routes carry a total of 1.2 million riders per day. According to 2012 data, 283,000 daily riders use Toronto’s eleven streetcar lines. This number far
exceeds the 187,000 daily riders on the entire GTHA GO train network. Even on the popular GO transit system, one-quarter of the riders use GO buses.

The choices for rapid transit expansion before us are: bus rapid transit, light rail transit, subways, and regional rail. Each mode, operating in its own right of way, has distinct benefits and very different construction, operation, and maintenance costs (see Table 1).

It is essential to note that the St. Clair line is not an LRT; it is a streetcar in its own right-of-way and is not the model for future LRTs.

Table 1: General Comparison of Rapid Transit Technologies

<table>
<thead>
<tr>
<th></th>
<th>BRT</th>
<th>LRT</th>
<th>Subway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ridership capacity</td>
<td>2,000-25,000</td>
<td>5,000-25,000</td>
<td>25,000-40,000</td>
</tr>
<tr>
<td>per peak hour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average speed</td>
<td>15-40 km/h</td>
<td>15-40 km/h</td>
<td>25-50+ km/h</td>
</tr>
<tr>
<td>Station spacing</td>
<td>~500m</td>
<td>~500m-900m</td>
<td>~500m-2km+</td>
</tr>
<tr>
<td>Cost per kilometre</td>
<td>$25-50M</td>
<td>$35-40M</td>
<td>~$300M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$150M (underground)</td>
<td></td>
</tr>
<tr>
<td>Cost per vehicle</td>
<td>$450K - $1M</td>
<td>$3-5M</td>
<td>$5M+</td>
</tr>
</tbody>
</table>

Ministry of Transportation

Figure 1: Descriptions of Transit Options

<table>
<thead>
<tr>
<th>Transit option</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td><strong>Subway</strong></td>
<td>A heavy rail system that runs on a track that is completely separate from road and pedestrian traffic. The Toronto subway travels mostly through underground tunnels, although some stations are at street level.</td>
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<tr>
<td><strong>Light Rail Transit</strong></td>
<td>A fast-moving train that operates in its own right-of-way (a separated traffic line, or off street route). LRTs have about twice as many stops as subways but fewer than bus or streetcar routes. They are faster and can carry more people than buses and streetcars. LRTs are very popular in European and US cities, as well as in Calgary, Edmonton and Ottawa.</td>
</tr>
</tbody>
</table>
**GO Train:** A train that operates on existing railways and tends to cover longer commuting distances.

**Bus Rapid Transit:** A bus that travels in its own lane separated from traffic by curbs. Rapid bus lanes are being built along Yonge St. and Hwy 7 in York Region. BRT is the least expensive mode of rapid transit to build and most accessible as entrances are barrier-free. BRTs can operate like LRTs without the rails and can be converted to LRTs when ridership warrants. BRT has a distinct role to play and is complementary to both LRT and subway technology.

Contrary to the myth that subways are the only good form of rapid transit, the truth is that an effective and sustainable public transit network depends on matching the technology to the circumstances.

**Hard Truth Two:**

*Transit does not automatically drive development.*

*Success depends on the right alignment with economic growth and jobs.*

It is widely assumed that building new rapid transit will lead automatically to new real estate development along the transit line, including office development which accommodates almost half of the region’s labour force. During peak hours, when the congestion occurs, the ratio of workers to non-workers among riders is four to one. Recent research makes it clear that the role of office development in generating ridership is pivotal.

The evidence shows that you cannot just build transit anywhere and hope commercial development will follow. While access to rapid transit is a catalyst for development, it is only one factor. The potential of rapid transit to spur development linked to employment depends on its alignment with the development potential of land surrounding transit stops and the plans of businesses for growth. Integrating rapid transit decisions with land use planning, economic development strategy, and job growth is crucial. Only then can we hope to achieve sustainable ridership and the best possible return on investment.
In Toronto, the original extension of the University line to Yorkdale, as well as the Danforth and Bloor extensions did not attract significant development. The Sheppard subway line has generated residential but very little office development. The line remains vastly under-used; the daily ridership of just 50,000 people is below that of the King streetcar. Subways are appropriate where they align with demand: When the original Yonge subway was approved in 1946, demand was assured, as 17,500 people per hour were already using the existing trolley system. The Yonge subway now carries almost three-quarters of a million people daily.\textsuperscript{13}

Understanding the relationship between transit planning, land use and employment region-wide will cast the debate over transit priorities in a new and constructive light.

\begin{center}
\textbf{Hard Truth Three:}
\textit{The cost of building transit is not the main expense. The long term cost of operating and maintaining transit is far higher.}
\end{center}

The current budgeting practice of governments in Canada is to separate capital spending from operating. The Panel believes that we need to understand both sides of the equation in making decisions on where to invest in transit.

The Metrolinx Investment Strategy recognizes the importance of thinking beyond construction costs to factor in the full costs of the projects after they are built. However, these associated costs are not spelled out fully in \textit{The Big Move} plan.

The graph below sets out the typical construction cost and the subsequent operating and maintenance costs for each mode.
Hard Truths About Transit In The Toronto Region

Graph 1: Transit Mode 50-Year Costs: 25-Year Capital Financing on a Per Kilometre Basis (does not include fare box revenue)

All of these costs must be taken into account in analysing the full cost of a project before deciding what to build, where, and when.

Hard Truth Four: Transit users are not the only beneficiaries of new transit infrastructure. Everyone benefits – economically, socially, and environmentally.

Another misconception is that only transit users benefit from new transit infrastructure. This argument, often voiced by those who have no access to public transit themselves, reflects the view that, “if I don’t use it, why should I pay for it?”

The answer to that question is that the ability of our economy to produce and distribute opportunities to all depends on how efficiently we connect employers, jobs and residents. Public transit infrastructure is a cornerstone of a productive economy, especially in this century when reliance on cars can no longer provide the requisite connectivity. Expanded transit infrastructure supports economic growth, productivity gains, and regional competitiveness. It also contributes to social inclusiveness by improving access to employment opportunities and making job work connections easier, especially for those without cars.

All Ontarians have access to public infrastructure that they may not use at the individual level. Parks, police services, hospitals, and public schools are
examples of services that one may not use personally every day, but benefit from collectively.

The lack of transit choices throughout the region requires many families to own two vehicles. According to the Canadian Automobile Association, the average cost of owning and operating a car is approximately $10,000-11,000 per year\textsuperscript{14}. Improved transit availability could produce substantial personal savings for many families if they could meet their transportation needs with a single vehicle - savings that could be better used in various ways, be it for housing, children’s education, or retirement savings. For those who can’t or choose not to take transit, connecting jobs to transit will reduce commuter traffic on the highways and improve driving conditions.

A comprehensive and integrated regional transit network will produce benefits that are very personal: more economic and employment opportunities, more money available for public services, more choices, less time stuck in gridlock, less stress, and a better quality of life for more people. These are indirect benefits that will be felt by all of us. But for some, the benefits will be quite dramatic. For instance, all day GO service will give people who are totally car dependent now a new transportation choice. Those who don’t drive will notice a significant improvement in access and convenience.

\textbf{Hard Truth Five:}

\textit{Transit expansion in the region is not at a standstill. There is $16 billion worth of transit construction now in progress throughout the GTHA.}

Much of the discussion on transit in the GTHA has focussed on overcrowding on our subways, streetcars and buses, worsening congestion on our roads, and months of heated debate over what to build in Scarborough. The prevailing mood of frustration and cynicism was summed up in a recent National Post headline “The TTC once knew how to move people but now we spend more time arguing than building subways” (July 20, 2013). But it is important not to lose sight of the real progress that is being made and the many projects currently under way across the region.

In fact, there is $16 billion worth of capital funding for rapid transit projects proceeding now:

- **Toronto-York Spadina Subway Extension**: An extension of Toronto’s subway system from Downsview station to Vaughan Metropolitan Centre in York Region.

- **Light Rail Transit Projects**: LRT projects on Eglinton Avenue, Sheppard Avenue East and Finch Avenue West.

- **Union Pearson Express**: A rail link connecting Union Station with Pearson Airport, which will be completed in time for the 2015 Pan Am Games.
• **York Region Viva**: Bus rapid transit (BRT) service on bus only lanes along Yonge Street and Highway 7 corridors in York Region.

• **Union Station Revitalization**: The renewal and expansion of Union Station, the busiest transportation hub in Canada.

• **Mississauga Transitway**: A BRT system across Mississauga along Highway 403, Eastgate Parkway and Eglinton Avenue.

• **Brampton Züm**: BRT on Queen Street, Main Street, Steeles Avenue and Bovaird Drive in Brampton.

• **Georgetown South Project**: Infrastructure improvements along GO Transit’s Kitchener rail corridor.

• **Durham Pulse**: The BRT system travelling across the Highway 2 corridor in Durham.

• **PRESTO card**: The regionally integrated fare card for the GTHA.

In addition, **GO Transit** is making significant infrastructure improvements across its extensive rail and bus network. These investments include the expansion of GO’s locomotive fleet, new double-decker buses, new and expanded parking facilities across the rail network, new rail service to Kitchener-Waterloo Region and Guelph, the extension of the Bradford GO rail services to Barrie, and 30-minute service on the Lakeshore line. In addition, all day GO train service will start on the Kitchener line by 2015 and is slated to be extended to the Barrie, Stouffville, and Richmond Hill lines within the coming five years.

These improvements are a good start after decades of deferred expansion, maintenance and renewal. But the transit infrastructure spending shortfall is enormous and it is placing major demands on present and future municipal budgets.

Acknowledging the progress that is being made will hopefully contribute to building momentum for investing in the region-wide integrated transit system that is so urgently needed.

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**Hard Truth Six:**

*We can’t pay for the transit we need by cutting waste in government alone. The necessary funds cannot be found from savings and efficiencies alone.*

There is no evidence that the magnitude of funds needed to build, operate, and maintain a transit network capable of serving a future region of more than 10 million people can be found by simply cutting waste.

These are the facts:

- Ontario has the lowest spending per capita of all provincial governments.
- Spending has been reined in significantly. Program spending is projected to grow at an average annual rate of less than 1% over the next five years.
• Ontario is committed to eliminating the deficit by 2017-18.

These commitments leave little room for major new expenditures from existing revenue sources, especially in these times of constraint.

The Drummond Commission spent nearly a year searching for ways to cut spending. It did not find measures sufficient to both reduce the deficit and fund transit expansion. Indeed, the Commission highlighted the importance of transit infrastructure investments and called for “an honest discussion on other revenue solutions.”

Conclusion

Every choice brings with it consequences. Transit decisions have been and are being made based on poor and incomplete information. This distorted conversation has been facilitated by perpetuation of the myths set out in this paper. The Panel is of the view that we must acknowledge the “hard truths” about public transit in order to make intelligent choices that will serve us well for the long-term.
End Notes

1 Ontario, The Growth Plan for the Greater Golden Horseshoe, June 2013
2 Toronto Region Board of Trade, A Green Light to Moving the Toronto Region, p. 5, 2013
3 Golden and Brender, Conference Board of Canada, Mission Possible: Successful Canadian Cities, 2007
4 Organization of Economic Development, OECD Territorial Review, p. 96, 2010
5 Metrolinx, Cost of Road Congestion in the Greater Toronto and Hamilton Area: Impact and Cost Benefit Analysis of the Metrolinx Draft Regional Transportation Plan, 2008
6 There is a debate about the cost of traffic congestion. To date, the cost has been estimated based on the value of time lost by people and goods sitting in traffic. A recent report by the C.D. Howe Institute (July 2013) argues that $6 billion underestimates the congestion costs because it doesn’t taken into account ‘agglomeration benefits’. If we add the costs when congestion makes urban interaction too costly to pursue, the number rises by up to $5 billion.
7 Conference Board of Canada, Connecting Jobs and People, 2011
10 Pembina Institute, Drivers’ Choice, pg. 7, April 2012
12 Strategic Regional Research, A Region in Transition, January 2013
14 Canadian Automobile Association, Driving Costs, 2012
15 The Commission on The Reform of Ontario’s Public Services, p. 46, 2013