

Union Station West

The second transit hub we need to keep the region moving





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A UP Express train with Pearson and the Toronto skyline in the background

Summary

The Greater Golden Horseshoe (GGH) is surging, but congestion may limit growth

The GGH is one of Canada's fastest growing areas. More than 2.5 million residents are expected to move into the region by 2031. At the heart of the GGH and Canada's economic prosperity is a mega hub airport, Toronto Pearson — a magnet that attracts passengers, cargo, investment and workers. The area around the airport, the Airport Employment Zone (AEZ),¹ is the second largest concentration of jobs in Canada, second only to downtown Toronto.

Meanwhile, growing congestion threatens the ability of the GGH to reach its economic potential. Congestion leads to \$6 billion annually in lost productivity annually in Toronto alone, creates delays for valuable goods movement and may increase drive time to Pearson by 20-30 per cent by the mid-2030s.

This congestion is a symptom of our region becoming increasingly inter-municipal, while our transit system remains focused on connecting to just one regional hub, Union Station in downtown Toronto.

1 Blais, Pamela (2015). Planning for prosperity: globalization, competitiveness, and the growth plan for the GGH. Neptis Foundation. Retrieved from: https://www.neptis.org/sites/default/files/planning4prosperity/p4p_neptis_report_nov19_2015.pdf



Passengers boarding the TTC 900 Airport Express bus to Pearson

A “Union Station West” would deliver better regional connectivity

To help address this problem, the Greater Toronto Airports Authority (GTAA), operator of Pearson, has a bold vision for a Regional Transit Centre (RTC) at the airport. The RTC would create a new “Union Station West” transit hub to connect the GGH without the need to connect through downtown Toronto. It would also combine regional ground connectivity with international air connectivity.

The GTAA understands how the RTC will improve ground connectivity for Pearson and its passengers, but wanted to better understand the benefits for the wider region. So, in 2019 the GTAA undertook an extensive stakeholder listening series, facilitated by Urban Strategies, to hear how the RTC can support regional connectivity priorities.

Purpose of this Paper

This paper summarizes the key findings from the RTC listening series, and highlights the need for better inter-municipal transit, better last-mile connections in the AEZ and enhanced ground connections between the region’s airports. It further describes how the RTC could help provide those connections, calling on regional stakeholders and all levels of government to join the GTAA in progressing the RTC.

The findings are based on views expressed at five stakeholder roundtable events held across the region on three important topics:

- **Connecting the region’s key economic zones**
- **Connecting the “last-mile”** in the large and diffuse AEZ
- **Connecting airports** to support the success of the regional air system

Roundtable participants included municipal administrators and planning, transportation and economic development leaders; representatives from the Southern Ontario Airport Network (SOAN); representatives from post-secondary schools; senior staff from transit agencies; stakeholders from regional employers, and other private sector representatives, including from the goods movement industry.



The UP Express train at Pearson airport

Roundtable participants agreed that better regional ground connections are a top priority. Here is what we heard:

- Municipal borders are meaningless to residents living in an inter-municipal region, and the GGH’s “radial” transit system does not support connections between key regional centres.
- Road congestion is affecting commuters’ personal and productive time, as well as their physical and mental wellbeing.
- Transit users who cross municipal borders face un-integrated fares and uncoordinated transfers, even for short trips.
- Efficient connections to Pearson are critical for all regional economic zones.
- Businesses and post-secondary schools need better regional transit connectivity for productivity, talent attraction and retention, collaboration and to limit staff and student burnout.
- Providing more efficient transit options is essential in the regional effort to reduce greenhouse gas (GHG) emissions.
- The goods movement sector is straining under the intensity of regional congestion. Drive times are rising sharply, which is affecting profitability, talent retention and extends to increased consumer prices and reduced productivity for suppliers.
- The roughly 300,000 employees in the AEZ need safe, efficient first- and last-mile solutions that reflect the 24/7 nature of the employment zone.
- Direct, coordinated ground connections to, from and between the Southern Ontario airports would provide more convenience for travellers and support the growth of the regional air system.
- The GGH needs transit investments that help to link the entire region. A Pearson RTC is well positioned to do that, with a central location in the GGH surrounded by existing and planned transit lines.
- Better transit and last-mile solutions will depend on action by all levels of government and collaboration with employers and institutions, as well as a governance model that supports connections across municipal boundaries.

Building Pressure

Communities across Southern Ontario, particularly in the GGH region, are experiencing the challenges related to sustained regional growth. As our region grows, it is being constrained by road congestion and a transit network that hasn't kept pace with the changing demands for ground connectivity. A growing number of stakeholders across the region are calling for solutions to address congestion and improved connectivity to employment areas.

At the heart of this issue is the fact that the region's single hub-and-spoke radial transit network no longer provides the entire population with affordable, effective inter-municipal movement, and this has led to auto-reliance and road congestion.

Despite planning efforts within municipalities to match residents with jobs, every day our regional workforce wakes up and scrambles. The GGH is thoroughly inter-municipal, and workers today make 485,000 daily commuting trips from West GGH to East GGH, with two-thirds travelling overtop of Toronto or through its mid-town, and only 18 per cent use transit.² Further, Toronto Pearson serves an average of just over 130,000 passengers daily and provides work to nearly 50,000 airport employees; however, only 13 per cent of passengers³ use transit to get to the airport and 14 per cent airport employees⁴ use solely transit to get to their jobs.

The GTAA, like many others in the GGH, is concerned that the impacts of under-developed transit networks will undermine the benefits of regional growth if nothing changes. The risks of a business-as-usual approach are significant:

- The Greater Toronto Area (GTA) already has the 6th worst commute among global cities,⁵ and congestion is rising in the region by 9 per cent annually.
- Congestion is leading to billions of dollars in lost productivity annually. Many reports suggest that the GTA alone loses approximately \$6 billion each year in productivity due to congestion.

- Drive times to the airport could lengthen by up to 20-30 per cent by 2037.
- More cars on the road contribute to higher GHG emissions.
- Valuable shipments of cargo risk being trapped in traffic, at significant cost; a US study estimated the value of reliability and the cost of lateness of \$17 to \$177 USD per shipment-hour and \$1.38 to \$10.20 per ton-hour.⁶
- Employers across the region will struggle to attract and retain top talent as younger workers forego car ownership, choosing to stay close to radial transit lines.
- Commuters will continue to suffer the mental and physical health impacts of extended car commuting, including higher exposure to particulate matter, higher blood pressure, chronic stress and a lower sense of well-being.⁷

It's clear that the status quo is untenable. The GGH needs regional ground connectivity strategies.



The GTA has the 6th worst commute among global cities

2 Greater Toronto Airports Authority analysis.

3 Greater Toronto Airports Authority groundside survey.

4 Greater Toronto Airports Authority workforce survey.

5 ExpertMarket (2018). The Best and Worst Cities for Commuting. Retrieved from: <https://www.expertmarket.co.uk/focus/best-and-worst-cities-for-commuting>

6 Toronto Region Board of Trade (2017). Movement of Goods Series Report #2: Movement of Goods Challenges in the Toronto-Waterloo Corridor, p.11. Retrieved from: <https://indd.adobe.com/view/b4a17024-948f-434b-a72c-9fd2f1a7adb>

7 Statistics Canada (2019). "Results from the 2016 Census: Long commutes to work by car." Retrieved from: <https://www150.statcan.gc.ca/n1/en/catalogue/75-006-X201900100002>

The RTC is a Regional Transit Solution

Tackling mounting congestion in the GGH will require regional thinking and transit investments that will deliver benefits region-wide. The RTC at Pearson can play a role. The RTC would not only address the need for better connections to the airport, but also deliver a critical second regional transit hub in a location that aligns with the GGH's commuter flows and transit services.

A Union Station West at Pearson makes strategic sense for the GGH. Pearson is already a major trip generator in the region and is within the second-largest job area in Canada. It is also adjacent to several 400-series highways and multiple existing or planned transit services. Most importantly, it is at the heart of inter-municipal commuter and goods movement flows.

Plus, the RTC at Pearson would support connectivity at all scales:

- global air connectivity;
- regional transit networking; and
- local last-mile linkages.

The RTC, integrated with the country's mega hub airport, would be a catalyst for seamless regional transit and a critical building block to ensure that the GGH remains

connected and competitive. To date, the GGH hasn't kept pace with the regional transit investment seen in comparable regions. Currently, Union Station serves as the GGH's only major ground transportation hub. In 2016, the GTHA had an approximate population of 6.9 million.⁸ In comparison, approximately 90 per cent of US and Australian metropolitan areas with populations of 5-7 million that have at least two major ground mobility hubs.⁹

The global air connectivity at Pearson is bolstered by the Southern Ontario Airport Network airports and a potential airport on the Pickering Lands, and ground connectivity between these air transport assets would improve transportation choice for the entire region.

The RTC will be an important step in addressing our regional connectivity needs, but it is clear that all levels of government, as well as the private and educational sectors, need to play a larger role. There is the opportunity right now to get this right, before congestion stalls regional growth and while many transit investments are still under consideration.

The RTC will be an important step in delivering regional connectivity. There is an opportunity now to get this right.

8 Statistics Canada (2016). "Population and Dwelling Count Highlight Tables, 2016 Census." Retrieved from: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/pd-pl/Table.cfm?Lang=Eng&T=304&SR=1&S=87&O=A&RPP=20&PR=35>

9 Greater Toronto Airports Authority analysis.



A MiWay bus departing the City Centre Transit Terminal in downtown Mississauga

Other global airports have already demonstrated the benefits of combining major airports with regional transit hubs. Leading European airports like London Heathrow, Amsterdam Schiphol and Frankfurt Airport combine global air connectivity with regional ground connectivity through full-service transit hubs at their airports. Those airports see more than 35 per cent of trips made using public transit, as compared to Pearson's 13 per cent. As our region and demand for air travel continue to grow, we need to follow international best practice and build another regional ground transportation hub.

- **London Heathrow Airport** has a range of subway and rail services ranging from local services serving west London to express rail to central London, as well as bus connection to the national rail network, local areas and 500 destinations across the UK.



A Heathrow Express train. Image: Hugh Llewelyn

- **Amsterdam's Schiphol Airport** features a full-service transit station that connects it to all major and most mid-size cities in the Netherlands, using trains, buses and rapid transit.



Thalys train leaving Schiphol Airport station. Image: DennisM2

- **Frankfurt Airport's** transit hub connects it to every region in Germany, reaching across borders with international high-speed rail.



The Frankfurt Airport train station. Image: zug55

These examples of combining global air connectivity with wide-reaching regional transit systems illustrate a possible future for our region, with the RTC helping to make it possible. The RTC also aligns with the priorities of regional stakeholders, which are summarized in the next section of this paper.

Connecting Across Borders:

What we Heard from GGH Stakeholders

Stakeholders from across the region who participated in the roundtable events had diverse opinions on connectivity in the GGH. They also all agreed on one thing: the status quo is not working, and the region needs connectivity investments and coordination that match the real travel patterns throughout the GGH.

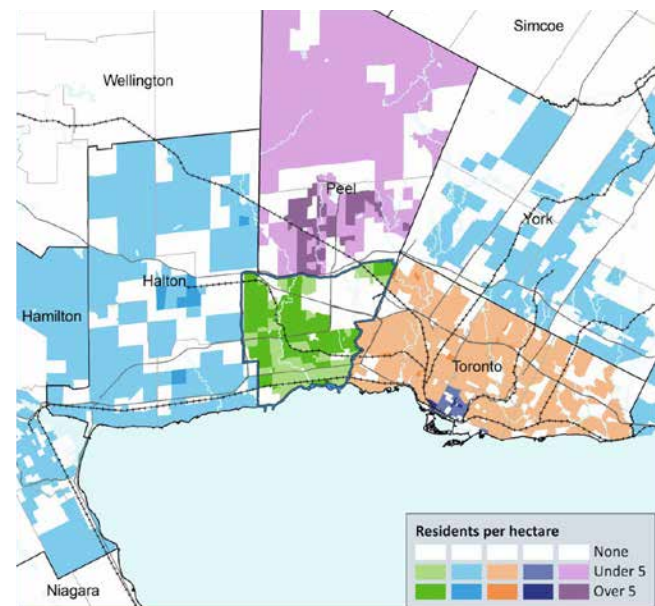
The following is a summary of the key themes that emerged from the roundtable discussions.

Municipal boundaries are meaningless for most, except where they prevent easy connectivity

Conversations with stakeholders across the GGH revealed a strong demand for improved ground connectivity region-wide. The overwhelming sentiment was that life in the GGH is fundamentally inter-municipal. Every day, GGH residents criss-cross between key economic zones to reach work, reach school, catch a flight, and deliver goods. For example, Mississauga's workforce comes primarily from surrounding GGH municipalities. Just 39% of Mississauga's workers live in the city itself.¹⁰

Our region has outgrown the single hub-and-spoke transit model, with all major connections leading in and out of downtown Toronto. While Toronto remains a significant centre of economic activity, other economic zones need better connectivity into their own zones and between zones, without having to connect through downtown. Transit investments have not kept up or matched the inter-municipal nature of travel today, and so without reasonable alternatives, GGH commuters choose to drive, which is driving up personal costs in time and wellbeing, further congesting roads, delaying valuable goods movement, and leading to increased GHG emissions. Others who cannot, or choose not to, drive face uncoordinated transfers and multiple fares.

Worst of all, frustrated drivers and transit users alike simply forego employment, business, and educational opportunities in parts of the region that cannot be reached efficiently. This impacts the economic prosperity of our region that now requires inter-municipal movement of talent, investment and ideas.



Map showing where Mississaugan workers live. Image: Mississauga Transportation Master Plan, 2019

The region's transit providers and employers have begun to respond to the issue, and there have been some improvements in two-way rail services and employee shuttle work-arounds, but a more comprehensive regional approach is needed.

¹⁰ City of Mississauga (2019). Mississauga Transportation Master Plan.

Connecting economic zones will support economic growth and the wellbeing of residents across the GGH

Strategic clusters of business, industry, education and research provide enormous economic benefit to urban regions such as those in the GGH, including Waterloo, Durham, York, and Peel. Synergies among members create opportunities for collaboration, innovation, specialization, talent and enterprise attraction, and enhanced region-wide profile and market clout. These clusters are best described as economic zones.

Connectivity is essential for the continued success and growth of economic zones. The members of these zones are part of geographic agglomerations, but they are spread out and dependent on efficient transport linkages to connect people and move goods.

With highway congestion across Southern Ontario increasing, it is expected that there will be significant increases in travel times to, from and between these key regional economic zones. This will threaten the success of these zones.

Regional economic zones want better connections to each other

Speaking with stakeholders from Waterloo, Durham, York and Peel regions, one critical need was commonly agreed upon: better connections are needed between the region's various successful economic zones, and these links should not all be forced to connect via Toronto or Union Station.

Stakeholders pointed to the demand for connectivity beyond the current 'radial' system of transit links into Union Station, and connecting economic zones throughout the GGH to each other and giving them their own direct connectivity to Pearson airport and elsewhere. Current regional commuter flows clearly demonstrate a demand for links that don't pass through downtown Toronto. Nearly twice as many West GTHA commuters travel across the top of the GTA to North Toronto and York Region daily – along a "northern arc" – than to downtown Toronto.

Despite the demand, taking transit across the northern arc is inefficient, with more than 60 per cent of transit trips requiring at least one connection, and more than 20 per cent requiring two or more.¹¹ The AEZ around Pearson generates nearly one million vehicle trips daily, drawing commuters from every municipality in the West GTHA. At Pearson, an airport employee survey recently revealed that, on average, workers spend two hours per day commuting to and from their airport jobs.

Stakeholders in key economic clusters in Waterloo, Peel, York and Durham regions agree that the regions need better links to each other, without having to connect through downtown Toronto.

Priority connections for stakeholders included all-day two-way links between Waterloo and downtown Toronto, and Waterloo and the AEZ; two-way all-day connections between Mississauga City Centre and the other jobs/population centres to the west; and much better east-west connectivity between economic zones across the top of Toronto, linking Durham and York Regions through the Highway 404/407 high-tech corridor to Pearson and to a strong flow of inter-city commuters between Vaughan, Mississauga and Brampton.

¹¹ Greater Toronto Airports Authority analysis.

Connectivity between zones is critical for talent, investment, and productivity

Better ground connectivity between economic zones is good for business.

The demand for better regional ground connectivity is strong, and in its absence, the workforce is relying on personal automobiles to reach the economic zones that offer jobs and opportunity. Poor transit on these heavily trafficked inter-zone routes is presenting serious challenges to the economic growth and prosperity of the regional zones.



Businesses want better ground connectivity to boost talent attraction and productivity

With employees facing increasing congestion, stakeholders in each of the economic zones are concerned about talent attraction and retention. They see both a hyper-concentration of talent in areas in the GGH that already have good regional connectivity, and competition from regions outside of the GGH that offer more affordable housing.

Businesses in the GGH are also seeing lost productivity and a reduction in face-to-face connections as congestion increases. Across many sectors employees are spending more time in traffic, which reduces productivity each work day and cuts into personal time for employees. Businesses and municipalities also struggle to connect with investors and teammates face-to-face, and while web- and telecommunications offer workaround solutions, they do not match the deal-making and collaborative power of in-person meetings.

Municipalities with fewer regional transit connections, or with services that focus on flowing commuters into Toronto, struggle to attract new business investment that would employ people locally. Some municipalities note that even in places where transit investments are planned, uncertainty around implementation leads business to locate in areas that are already served by transit.

The absence of efficient regional ground connectivity is so severe that in some cases the private sector steps in, opting to provide their own employee shuttling services, including Google Canada, Shopify and OpenText in Waterloo. In Durham, private employers are providing more than 400 private shuttles a day for employees, often as last-mile solutions. Employees at the Airport Corporate Centre in Mississauga also used to rely on a private shuttle service to provide a link between that jobs centre and the Kipling TTC subway station. Most stakeholders agree that there is a role for the private sector in improving regional connectivity—particularly in making last-mile links—but the proliferation of private shuttle services is difficult for firms to sustain and does nothing to improve the reliability or equity of transit service for the region overall.

“Downtown Toronto is the only place in the GGH that you can access the entire regional labour market.”

All economic zones need connectivity to Pearson

Connectivity to Pearson also proved to be an important measure for the success of regional economic zones. Downtown Toronto already enjoys frequent and direct multi-modal access to the mega hub airport and has seen the benefits. In growing economic zones like Waterloo, Durham, York and Peel, better connectivity to the mega hub airport means better connections with clients and shipping goods, as well as attracting international students and foreign investment.

The AEZ, straddling three different municipalities, is the second largest concentration of jobs in Canada after downtown Toronto and benefits from its proximity to Pearson. From east to west across the GGH, tens of thousands of workers travel to the AEZ to work and businesses locate there for global access via the mega hub

airport. However, with no strong high-order transit link to the AEZ, many commuters are stranded with few options. Many AEZ workers from York and Durham rely on personal vehicles and the 407 tolled highway or multiple transit connections that also face standstill traffic on Highway 427.



Pearson handles almost half of Canada's air cargo

Pearson's economic and connectivity impact

6th most connected airport in the world

Busiest airport in North America for international travellers

72% connectivity to global GDP through daily, year-round, non-stop flights

2017:
332,000 jobs facilitated

Late 2030s:
700,000 jobs facilitated

Address congestion for goods movement's sake

The issue of ground connectivity in the AEZ does not just affect workers. Better ground connectivity for commuters directly supports more efficient goods movement. Approximately \$3 billion in goods move through Southern Ontario each day,¹² and at least \$1.8 billion passes through Peel Region alone.¹³ At the heart of Peel, the AEZ is a critical junction for cargo. Pearson handles nearly half of Canada's air cargo and CN Railway operates its largest Canadian intermodal facility there. But those air and rail links rely on trucking and road capacity to get the valuable goods to and from their facilities. Engaged stakeholders noted that highway connectivity is key for high-value supply chains and that commuter congestion disrupts valuable goods movement. Representatives from the goods movement sector see alarming results of increased

congestion, with a near doubling in peak travel times between some zones compared to a decade ago, lower profits for goods movement outfits who spend more time per shipment, rising insurance costs as accidents have increased along with traffic, and experienced drivers abandoning the business as conditions worsen.

Taking more personal car trips off the road in the AEZ would enable cargo shipments to move more effectively throughout and outside of the region.

"We have many freight companies that do international truck routes. The worst part of the Toronto-Mexico route is between Toronto and Kitchener."

12 Greater Toronto Airports Authority (2017). "Annual Report 2017". Retrieved from: <https://www.torontopearson.com/ar2017/our-neighbourhood/more-growth-we-spark.html>

13 Region of Peel. Goods Movement Planning in Peel Web Page. Retrieved from: <https://www.peelregion.ca/pw/transportation/goodsmovement/>



Traffic on Highway 401. Image: Stefan Acepcion

A new class of transit for GGH students and schools

Post-secondary schools are core components of our regional economy. They develop the talent and research that fuels our industries and are they are significant employers themselves. Meanwhile, campuses are concentrated centres of activity that draw people from across the region and the rest of the world. Efficient connectivity to these campuses is crucial both for the economy and to reduce car congestion.

Stakeholders from the GGH's post-secondary schools see ground connectivity as equally essential for their students, faculty and staff, and the continued success of their institutions. Across the board, stakeholders from post-secondary institutions also noted that their campuses have significant commuting populations that could be diverted from roads to transit if there were better connections.

When schools have excellent transit connectivity, students use it. For example, at York University, 80 per cent of their students use transit, split amongst different municipal and regional services. By contrast, 70 per cent of students at Trent University's Durham campus plan to drive automobiles on a daily basis. The difference comes down to strong, diverse and multi-modal transit access at one campus and a lack of transit service at another. And without transit, schools face pressure to invest heavily in new parking facilities and on-campus residences.

Post-secondary schools provide the talent and research that fuel the regional economy. But poor connectivity to campuses is threatening talent attraction and adding cars to the busy regional road system.

Improved transit is a top priority for the region's post-secondary schools because it is critical for attracting and retaining talented students, faculty and staff regionally and from around the world. It is also essential to support the increasing degree of collaboration between schools, enabling students to access a wider range of courses and expanding conversations among academics. Recruitment and collaboration are two increasingly important factors in the lifecycle of post-secondary institutions.

Broader regional transit connections enable a school to draw on a wider regional catchment area of students and recruit international students, many of whom have an expectation that their new is well-connected by transit. Stakeholders pointed out that students today do not want to drive or own cars, and transit connectivity factors heavily into their choice of school. Many international students are surprised to find poor inter-municipal transit and have a strong preference to study in transit-connected areas. Local students routinely decline offers of enrollment due to a lack of transit.

The complexity of joint-institution programs and multi-campus schools is made harder still by transit connectivity in the region. Wilfrid Laurier University maintains campus buildings in Waterloo, Brantford, Milton and Toronto, needing to maintain connectivity between all of them for a free-flow of students. When it comes time for work placements and co-op terms, future job development could be at risk because of the same lacking connections.



Local bus service to UOIT. Image: Madison Gulenchyn

Better connectivity supports better health, wellbeing and equity

A resounding theme in discussions with stakeholders was the need to support the wellbeing of commuters and travellers in the region by offering safer, more convenient, and more affordable travel options. Stakeholders spoke of the impact that rising congestion is having on workers from all sectors, whose time spent commuting is impacting their physical and mental wellbeing and leading to burnout. Safety was also raised as an important issue for regional commuters, particularly for night shift workers and students trying to reach placements and co-ops off campus, but also for daytime commuters who are concerned about the mounting risk of collisions as congestion worsens.

Under investment and lack of coordination in transit is also creating inequity in the region with respect to connectivity. Students and workers who use multiple transit services often pay more than one fare per trip because fares are not integrated across services and face long transfers between

services because there is not coordination across municipal boundaries. These are steep penalties in time and cost for people with limited incomes. Stakeholders across the region want investments in transit that match the inter-municipal needs of all travellers, and not just those who can afford toll highways or whose companies can provide private shuttles.



Congestion affects the health and wellbeing of commuters

Connecting the last-mile in the AEZ

Straddling the borders of Toronto, Brampton, and Mississauga, the AEZ does not appear as a typical urban employment centre. Low-density commercial and industrial buildings are crowded around the airport, 400-series highways and rail corridors. It is an auto-oriented environment that lacks the transit and pedestrian connectivity of a downtown core, but it is home to Canada's second largest cluster of jobs, full of productive power. Stranded in a "transit desert", the AEZ's full potential could be realized by improving ground connectivity to, through and from the area.

Today, AEZ workers, students and residents have few reasonable alternatives to the car, and so most choose to drive. Because the AEZ stretches across several municipal boundaries there is little integration of bus services or fares, and without priority lanes buses are caught in the same traffic as regional car commuters and freight trucks.

Even when AEZ workers and students can take transit to a node in the AEZ such as the Renforth Gateway or Malton

GO, there simply isn't efficient last-mile connectivity to get them the rest of the way. Walking and cycling is almost completely out of the question in an area so completely dedicated to auto travel.



Stakeholders discussing last-mile solutions as part of a GTAA roundtable on October 3, 2019

Last-mile connectivity is especially difficult for thousands of workers whose shifts begin and end at nighttime, when there are fewer and less frequent bus services and a greater concern for safety. Some employers cover the cost late night taxis or ride-hails for workers whose shifts go long, filling the gap between an employment area that runs 24/7 and a transit system that does not.

The AEZ is car-oriented today, but stakeholders see significant potential to improve last-mile connectivity. The AEZ, while large and diffuse, actually has a much more intact employment area fabric than other global airport employment zones that often have tracts of rural or residential land dividing employment nodes. AEZ commuters would opt for non-auto trips if there were near-term improvements to transit service speed, frequency and reliability, and better walking and cycling infrastructure. Stakeholders see four necessary conditions to make these improvements happen:

- improved inter-municipal coordination and potentially a new governance model that can guide last-mile delivery across municipal boundaries;
- significant public-private collaborations, particularly between AEZ employers and transit providers;
- leveraging new technologies and testing new solutions; and
- longer-term investments in new transit, pedestrian and cycling infrastructure.

The RTC would provide a hub in the centre of the AEZ at an existing major employment destination, pulling together several municipal services and enabling better coordination among transit providers. This could be combined with additional local services that further extend into the AEZ.



The Filéo bus system provides on-demand, all-day bus service for employees at Charles de Gaulle Airport

Pearson itself, with its nearly 50,000 employees, provides an opportunity to test emerging technologies at scale, both in terms of new vehicles and services and improved information and coordination platforms. Other AEZ employers recognize that they will also play a role in delivering and supporting last-mile solutions, and would be able to leverage the services and connectivity at the RTC to deploy a range of solutions such as shuttles, coordinated ride-sharing, and other flexible solutions that can connect people with destinations throughout the AEZ.

There is especially an opportunity to deliver new "bus-hailing" on-demand bus service that would serve the 24/7 needs of the AEZ and Pearson workforces. The Filéo bus system at Charles de Gaulle Airport in France delivers such a service to airport employees, who can hail a bus ride any time of day or night.

The RTC would also serve as a catalytic piece of infrastructure, creating a clear connection point and mobility anchor in the AEZ that would help focus and prioritize additional investments over time.

The RTC could help to create new cycling and pedestrian linkages in the AEZ, and transform some of the car-oriented environment with more sustainable and human-scaled urban design. The "Slow Lane" project in Eindhoven, Netherlands offers a potential model. Across four municipalities the Slow Lane passes through industrial areas, the high-tech business centre, Eindhoven Airport, university campuses, neighbourhoods, and even nature reserves, delivering the fastest and most environmentally sustainable surface link for employees in the region. The roads and green system in the AEZ could deliver similar connectivity for cyclists, pedestrians and potentially emerging micro-mobility modes, while also improving the quality of the public realm.



The "Slow Lane" in Eindhoven provides a continuous bike connection between employment areas year round

Connecting airports over ground will enhance travel choices and strengthen the regional air system

Better ground connectivity between Southern Ontario's regionally significant airports and Pearson would support the success of a regional air network, spurring local economic development and keeping this region competitive. Improved airport connections will also allow underutilized airports to play a larger role in supporting the growing air travel demand.

This is why Southern Ontario's commercially significant aviation assets have come together to form the Southern Ontario Airport Network (SOAN).

"Air travel and transit are part of the same regional system"

By working together and playing a larger role in supporting the region's growing aviation needs, SOAN airports will be better placed to support local economic development. The Region of Durham also has a considerable potential air transport asset in the Pickering Lands, which may require connectivity in the future. These connections will increase the competitiveness of the region, the province and the country.

For this network approach to be fully realized, effective and efficient ground connectivity between airports is a necessity. At present, there is a notable absence of ground links to and between the region's airports. If nothing changes, Southern Ontario won't be able to support the rising demand for passenger and cargo activity. The region and its communities will struggle to stay competitive on the national and international stage, and a critical opportunity will be missed. Not only does transit enable airports to work together to support growth, it will support a transition to lower-carbon air transport system as some short haul flights are replaced by other options such as rail.

Listening to stakeholders from regional airports, it is abundantly clear that improved ground connectivity would offer benefits that go beyond taking cars off congested highways and giving people more mobility throughout the region. Southern Ontario's airports want to see better connections to the regional transit system at their airports, with better coordination between flights and ground services for their passengers. They also see the potential for better links between airports, which may help them deliver new air services. With improved ground connectivity, these airports and their passengers stand to benefit in three ways:

- increased choice of transportation for passenger traffic and goods movement;
- a more convenient experience for passengers travelling by air in the region; and
- development of new and stronger local air services as greater demand is supported by improved ground networks.

Around the world we are seeing airports and airlines take up ground links between airports. In the Netherlands and Brussels, KLM Royal Dutch Airways, Thalys and NS Dutch Railways have jointly developed rail services that will replace some daily air services between Brussels Airport and Amsterdam Schiphol with efficient train services. This will increase airport capacity for longer-haul flights while retaining reliable and high-quality links between the airports.

Bringing this Transformative Project to Life

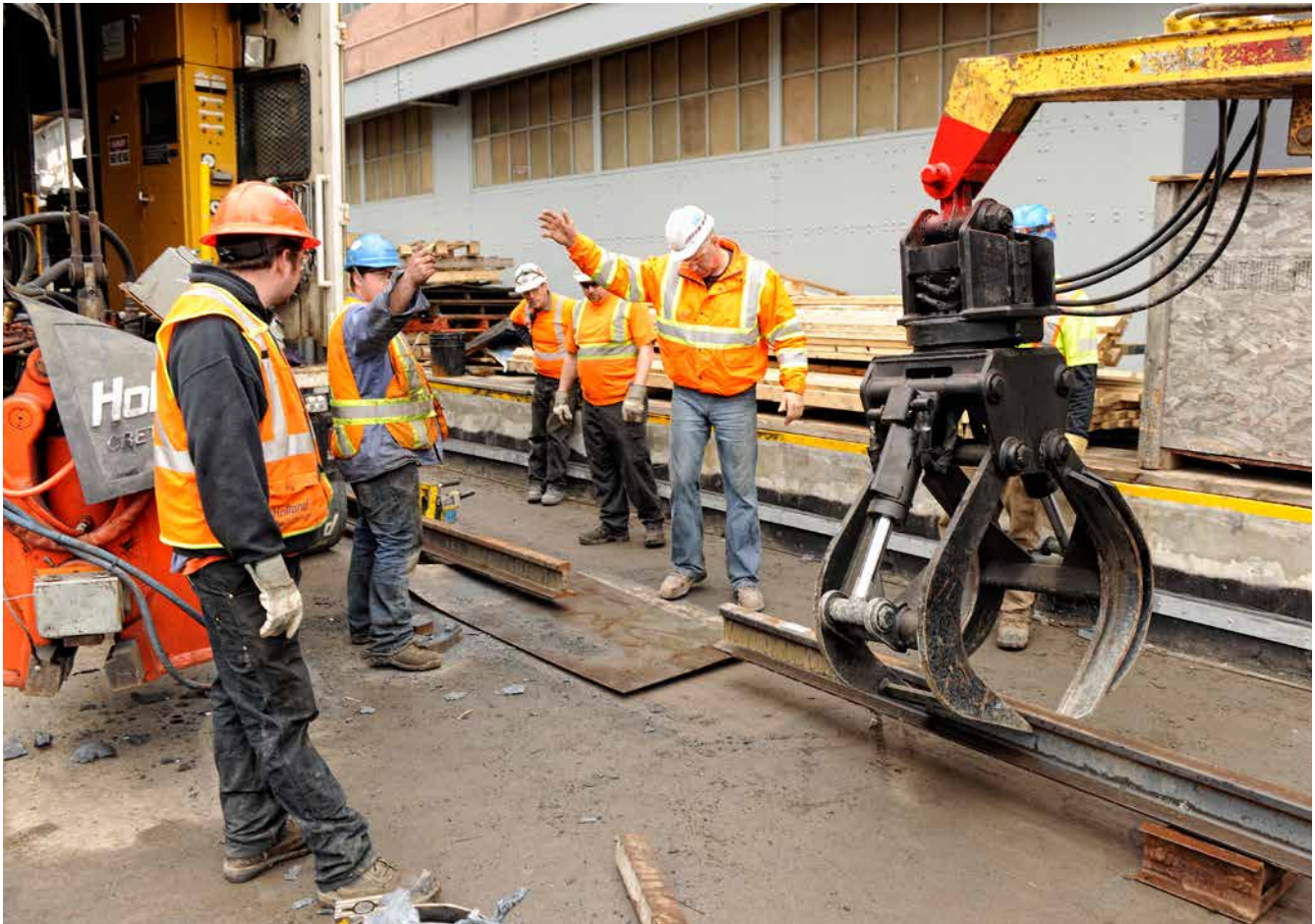
The benefits of the Pearson RTC are clear and all levels of government and GGH stakeholders have a role to play.

The GTAA

The GTAA is taking a leadership role in the regional transit connectivity conversation and championing the need for a second major multi-modal hub. As a private organization, The GTAA is investing millions of dollars to advance technical work to help bring the vision of a regional transportation hub to life. The airport's co-funding of these necessary studies with Metrolinx will inform the business case development for both private sector and government stakeholders.

Federal Government

Southern Ontario is an economic powerhouse in Canada. Better ground connectivity will improve Pearson's ability to serve growing air travel demand and to continue enabling high value exports, foreign direct investment and tourism. Support for the RTC and investments in nationally significant ground connections are needed to keep this region moving and to maximize its contribution to the Canadian economy.



Transit construction. Image: Metrolinx

Provincial Government

The GGH urgently needs regional transit programs that facilitate connectivity throughout the region and between economic zones. It is imperative that the Provincial Government leverage the opportunity to build a second regional multi-modal transit hub that will keep GGH competitive with other global cities. Toronto Pearson offers a well-positioned location for a range of connections from and between the eastern, northern and western economic zones in the GGH that will complement existing transit services into downtown Toronto and provide needed relief on the region's roads. It is also critical that transit investments be made with greater regional-level governance. As a recent Institute on Municipal Finance and Governance (IMFG) paper notes, as our region continues to “become more deeply integrated as an economic super-region, finding ways to more efficiently govern and invest in the transportation system is imperative.”¹⁴ The recent agreement between the City of Toronto and the Provincial Government to work together to deliver four key transit projects, including the Eglinton West Crosstown Extension, is an encouraging example of this type of efficient governance and investment. The Provincial Government should prioritize similar agreements and investments in other GGH municipalities.

Municipal Governments

Regions and cities are at the front lines of increasingly inter-municipal life in the GGH. To drive shifts towards sustainable transportation, municipal governments must continue to highlight the critical role of transit connectivity in building successful economic zones that power the broader regional economy. They should also be prepared to coordinate and collaborate with each other across municipal boundaries to better serve workers and residents that cross those borders freely. This will enable greater efficiency, convenience and affordability.

Regional employers, educators, and other stakeholders

Nobody knows better how critical connectivity is for students and employees than those who teach and employ them. Businesses and post-secondary institutions across the region play an important role in identifying needs and advocating for solutions like the Pearson RTC. Businesses and schools will also play an important role in shaping—and potentially delivering—connectivity solutions for the last-mile.

As experts in local transportation demands, these stakeholders should be prepared to partner with each other to implement privately operated transit solutions for their immediate workforce or student body, including shuttles or other programs that support transit connectivity.

14 Fagan, Drew and Matti Siemiatycki (2019). Transit in the Greater Toronto Area: How to Get Back on the Rails. IMFG Perspectives No. 26 / 2019. The Institute on Municipal Finance and Governance (IMFG), Retrieved from: <https://tspace.library.utoronto.ca/bitstream/1807/96710/1/Perspectives-26-Siemiatycki-Fagan-Transit-GTA-October-2019.pdf>



