





Town of Halton Hills Transit Service Strategy

Executive Summary



June 7, 2019

EXECUTIVE SUMMARY

INTRODUCTION

Halton Hills is a community in transition. A predominately rural municipality with most of its population concentrated in two urban areas – Georgetown and Acton – Halton Hills has grown significantly since the early 2000s, and is expected to add 50% to its population, and nearly double its employment, through 2031. At the edge of the Toronto suburbs, its surrounding municipalities also are growing, sometimes at even faster rates. The Town is the site of a growing regional retail centre, Toronto Premium Outlets, and a growing regional employment centre, driven by good access to Highway 401 and the rail network. The Town's two GO rail stations, which serve commuters to Toronto, will gain two-way, all day rail service sometime before 2031, changing the way people in use the rail system to travel to, and from, Halton Hills.

Many Halton Hills residents want to preserve the Town's semi-rural, small town atmosphere. The Town has been prudent in its plans for managing growth, with residential development focused on intensifying existing developed areas and expanding into adjacent areas of Georgetown and Acton, avoiding the suburban sprawl that has plagued many of its surrounding municipalities. But the growth and other changes that are occurring in Halton Hills and in surrounding communities bring the need for new and expanded public services. Public transportation is one area in which Halton Hills will need to expand and diversify its services if it is to meet the needs of its residents and employers over the next 10-15 years. Public transit will play a central role in managing congestion on the Town's road network and in meeting the Town's goal with respect to sustainability and livability. Aside from GO rail services, public transit services now are limited to ActiVan, the town's specialized transit service for the elderly and persons with disabilities; a subsidized taxi scrip program that serves elderly, disabled, and youth between 13 and 19 years of age; and GO bus routes transiting Halton Hills on routes connecting wider areas of the GTHA. While well-run and efficient, these services leave many gaps in the local and regional transit system, gaps that are sure to widen as transportation needs expand and diversify in tandem with the growth of Halton Hills and its neighbours.

The Town of Halton Hills Transit Service Strategy seeks to position Halton Hills to fulfill the community's goals and needs for public transportation over the next 10 to 15 years. Guided by a mandate to develop a "made-in-Halton Hills" strategy that serves the needs of all residents with services that are right-sized and can be phased in as required, the study has thoroughly analyzed the public transit markets in Halton Hills and the wide range of means for innovatively meeting transit needs that have been driven by technological change over the past ten years. The resulting strategy, developed in close consultation with Halton Hills community leaders and staff, stakeholders from within the community and from neighbouring municipalities and through extensive public consultation, combines conventional public transit concepts with innovative approaches that leverage partnerships between public and private sectors. The result is a strategy that takes Halton Hills to the next level, introducing local and regional fixed-route services in the short-term, while building a system that grows naturally from its existing ActiVan and Taxi Scrip programs, to efficiently phase in service as it is needed as the Town grows and

transit needs diversify. Halton Hills can grow a transit system that meets its community's evolving needs, while maintaining cost-efficiency and retaining the small-town atmosphere and connectedness that Halton Hills residents love, and that attracts residents and businesses to the town from throughout the GTHA and beyond.

VISION STATEMENT

Based on the comments and discussions received during the Visioning Workshop, and through Council discussions, the following Vision Statement has been adopted:

Expand on the existing Halton Hills transit service to provide an affordable and accessible system that is tailored to needs and opportunities in Halton Hills. The transit system will service the needs of residents, businesses and visitors within the Halton Hills urban, rural and hamlet communities, and provide links to surrounding municipalities by 2021. The transit system will continue to evolve to accommodate planned growth within the Town by 2031.

EXISTING TRANSIT SERVICE REVIEW

ActiVan, the only transit service provided by Halton Hills, is an accessible transportation service provided for seniors (age 65+) and persons with physical and cognitive disabilities residing in Halton Hills. The Taxi Scrip Program is a subsidized taxi program available to all registrants of the ActiVan program as well as youth ages 13 to 19. Both services provide door-to-door connections for trips within the municipal boundaries of Halton Hills. Low-income residents also can apply to a Halton Region program, Subsidized Passes for Low Income Transit (SPLIT), that subsidizes the cost of transit services for the users.

ActiVan Accessible Transit operates seven days a week, from 7:30 am to 6:00 pm on weekdays, and 8:00 am to 2:00 pm on weekends, with no service on holidays. Eligible customers must reserve trips at least 48 hours in advance, and can travel anywhere within the boundaries of Halton Hills. The standard fare is \$3 for each ride, with a \$1 surcharge on weekends and evenings after 5:00pm.

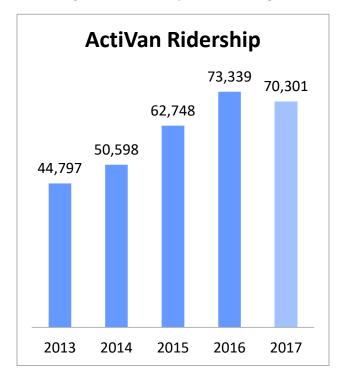
Taxi Scrip is a subsidized, taxi-based service that operates twenty-four hours a day, seven days a week within Halton Hills. The service sells books of taxi vouchers to ActiVan customers (disabled, elderly, and youth) to pay for trips with participating taxi operators. A book of twenty \$1 coupons costs the user \$12, a 40% discount. ActiVan customers call taxi companies directly to schedule their trips.

Halton Hills also is served by GO Rail service, which operates between Kitchener and Toronto, making stops at stations in Georgetown and Acton. Five inbound GO Rail trips to Toronto originating north of Halton Hills stop at Georgetown and Acton during each morning peak period, and two additional trains originate in Georgetown. Five outbound trips originating from Toronto stop at Georgetown and Acton during evening peak period, and two additional trips destined in Georgetown.

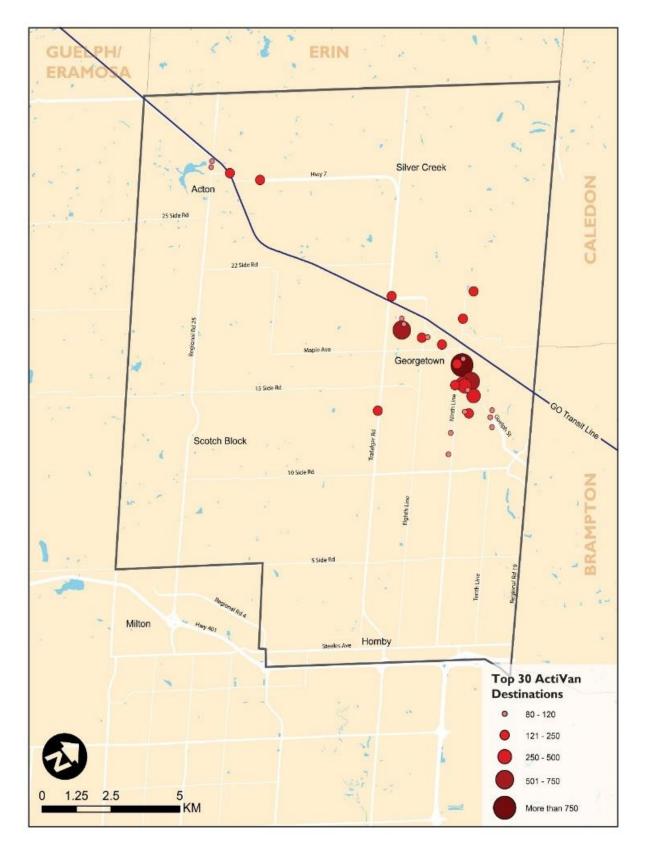
Shown in Figure on the next page, the ridership of the ActiVan service shows a trend of growing demand in transit, albeit with a slight decrease in 2017 due to a fare increase. Unlike fixed-route transit, which

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has a fixed operation cost for a given service level regardless how ridership changes, ActiVan has to increase its service level to accommodate the growing ridership. At some point, the cost of operating specialized transit will reach the level of operating a similarly routed fixed-route service, and become "unmanageable" if ridership continues to grow.



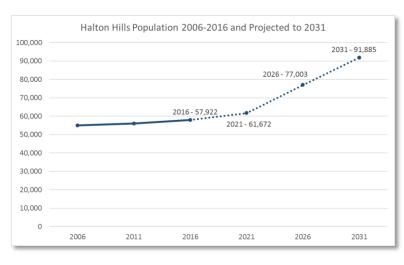
A closer review of ActiVan's most popular destinations reveal that most the trips are clustered in Georgetown along Guelph Street east of Mountainview Road, while trip origins to those destinations also showed a base along Guelph Street, Mountainview Road, Main Street, and Maple Avenue within Georgetown Urban Boundary – see the figure on the next page. This suggests that a fixed-route service connecting some of the most popular destinations in Georgetown would generate reasonable ridership and therefore could reduce ActiVan demand.



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MARKET ANALYSIS

Halton Hills' demographics indicate that the Town is moderately affluent, with a small transit-dependent population. Most of the households that lack access live in the immediate north of Georgetown, and in Acton along Main Street north of Mill Street. The primary markets for transit include elderly and



disabled people, youth, commuters who use GO Rail service, and the Town's relatively small low-income population. However, transit demand in Halton Hills is expected to grow significantly through 2031 due to five factors:

• The rapid growth of ActiVan

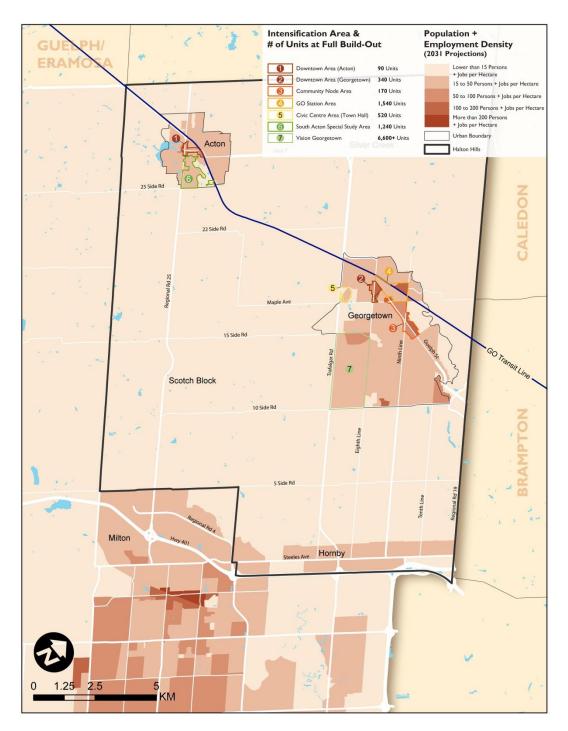
 Population growth, increasing population density, and the aging and growing diversity of the population

- Employment growth and geographic separation between Halton Hills' population and employment centres
- Growth in GO rail service, particularly implementation of two-way, all-day rail service and improvements to GO rail facilities
- Emphasis on transit service in municipal, regional and provincial plans

As noted above, ActiVan ridership has grown dramatically since it began service in 1981. As the Town's only transit service, it has grown from a tiny operation to carrying more than 200 trips per day. While ActiVan is a well-run and efficient service, specialized transit services are costly to operate on a per-trip basis, and it is difficult for them to achieve efficiencies or economies of scale. A fixed-route network would allow some of those ActiVan users who are physically able to use fixed-route service to do so, reducing the number of door-to-door ActiVan trips and more efficiently serving Halton Hills elderly and disabled population.

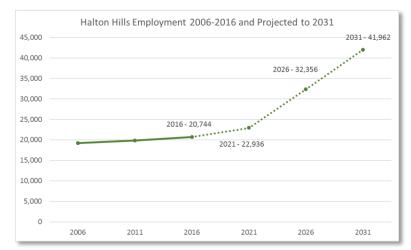
The population of Halton Hills is projected to grow by 58%, from fewer than 60,000 people today to more than 90,000 in 2031, according Halton Region Best Planning Estimates (BPE). Most of the population growth is expected to concentrate in the Town's two biggest urban areas – Georgetown and Acton. As the population grows and ages, and as the Town grows more densely populated, demand for transit service will increase. Many of the newcomers will be moving from areas that have high-quality public transit service, and they will expect and depend on similar service to be available in Halton Hills.

Nearly all the Town's population growth is projected to locate in planned intensification areas in or adjacent to the existing built-up areas of Acton and Georgetown. Georgetown is expected to add more than 9,000 dwelling units, including nearly 2,000 in the GO station area / downtown Georgetown, and a larger number in the Vision Georgetown area to the south. Acton is also expected to add 1,330 dwelling units through intensification. Growth areas are shown in the figure on the next page.

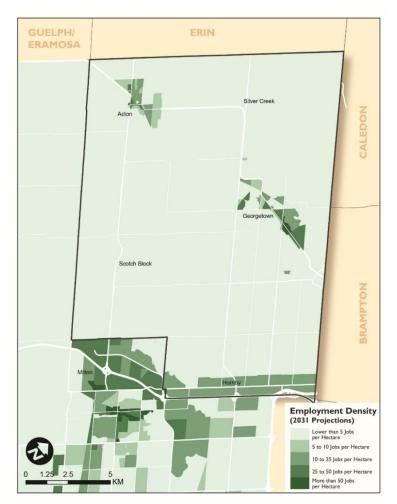


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Employment in Halton Hills is expected to grow even faster than the population, from fewer than 22,000 jobs today to more than 42,000 by 2031. While employment is expected to grow in both Acton and Georgetown, most of the employment growth is projected to occur in the employment lands located near the Town's southern edge along a 4.5-kilometre segment of Steeles Avenue from Trafalgar Road to James Snow



Parkway – also the boundary with the Town of Milton. This employment area has excellent access to Highway 401 at Trafalgar Road and James Snow Parkway, and is the continuation of an employment centre along Steeles Avenue that begins west of Bronte Road in Milton. When completed, it will extend more than 12 kilometres along Steeles Avenue. However, Steeles Avenue is more than 10 kilometres from Halton Hills' primary population centre in Georgetown, and more than 15 kilometres from Acton.



Providing access to this employment centre to residents of Halton Hills and of surrounding communities will create significant future transit demand. Toronto Premium Outlets (TPO), located at Steeles Avenue and Trafalgar Road, is among the existing destinations in the Halton Hills portion of the corridor. TPO management and residents of both Halton Hills and surrounding communities have requested transit connections in to TPO.

Today, hundreds of Halton Hills residents use GO rail service to commute to downtown Toronto and other stations in Brampton, Mississauga and Toronto. Most of these commuters area 'park-and-ride' at GO stations in Acton, Georgetown, or at the Mount Pleasant GO station in Brampton. Metrolinx plans propose implementation of two-way, all day GO rail service to Acton and Georgetown. This service would allow Halton Hills residents a wider range of

travel options on GO Rail systems, including options to travel during midday and evening periods, and to travel northbound to such destinations as Guelph and Kitchener. The two-way, all-day service also would bring visitors and commuters to Acton and Georgetown from both south and north. With two-way, all day service, local transit in Acton and Georgetown would be needed to carry the increased number of Halton Hills residents attracted to the more convenient GO rail service – otherwise they would overwhelm park-and-ride supply at the two stations. Local transit service also would be required to connect inbound GO rail customers to employers and other destinations in Halton Hills beyond walking distance of the two rail stations.

The Town of Halton Hills, Halton Region, Metrolinx and the Province all have released plans this decade which suggest the need for, or are predicated upon, the existence of a fixed-route transit system in Halton Hills. These plans see mass transit as necessary to the functioning of the broader transportation system and the achievement of regional and provincial environmental, land use and development goals. Several plans are predicated on Halton Hills operating or financially supporting transit service that uses or connects to proposed regional facilities or services.



PUBLIC CONSULTATION

Development of the service strategy included three rounds of public consultation. Each round included consultation meetings with technical agencies, stakeholders, and members of the public; the second also included engagement with youth at two local secondary schools. The public was engaged through public information centre (PIC) meetings and online platforms that allowed members of the public to conveniently provide input. Each round was followed by a report to the Town's senior management team and to the Mayor and Council in open session, which provided the public with additional opportunities to engage with the project team and public officials about the project.

KEY THEMES

The key themes at the first round of public consultation were establishing the need for public transit in Halton Hills, and discussion of the elements, characteristics and parameters of the proposed service. There was widespread acknowlegement that some level of additional transit is needed today, and that this need is likely to increase in the future. Many participants in the meetings and PICs had specific requests for connections or service types, however, concerns about cost and large buses changing the small-town atmosphere of the Town were also common comments. Discussions of destinations for

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transit service often included TPO and locations outside Halton Hills, including Trafalgar Memorial Hospital in Oakville, Square One Shopping Centre, Mold-Masters SportsPlex, Sheridan College, and other locations in Brampton, Guelph, Milton and Mississauga. Town staff and members of the consultant team presented service options, including various specific fixed-route services as well as alternative service strategies that coalesced into the proposed Universal Access Service over the course of the project. While many stakeholders and residents expressed interest in and support for the Universal Access Service, others requested that a fixed-route service is a necessary part of the plan and should be incluided from inception of service.

Public Consultation WorkshopsDevelopment of the Transit Service Strategy included three consultation meetings with Technical Agencies, Stakeholders and the public. The public was engaged through workshops, presentations, Public Information Centre (PIC) meetings which were held on February 15, 2018; May 14, 2018 and March 27, 2019 and through the online platform 'Let's Talk Halton Hills' that allowed convenient opportunity to provide comment and input through surveys and interactive engagement tools. Each public meeting, presentation and workshop provided key project information and acquired necessary feedback on where transit is required in the community and the opportunities and challenges associated with it.

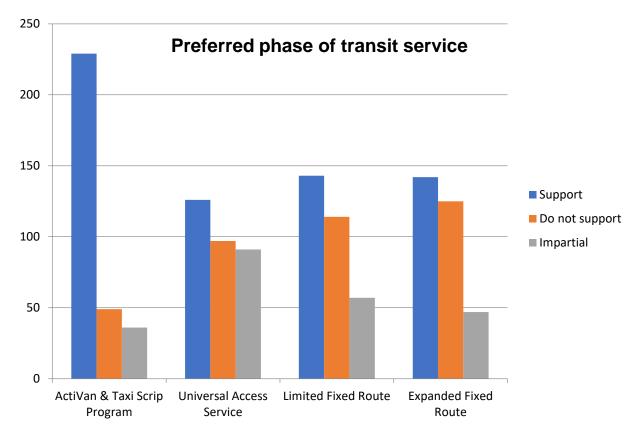
The initial survey process received 983 responses. Combined with the survey results and consultation through workshops, the following key points were identified:

- Widespread acknowledgement that some level of additional transit is needed today in Halton Hills
- Request for connections to other regions and municipalities
- Desired destinations of transit included Downtown Georgetown, TPO, employment areas along Steeles Avenue and Armstrong Avenue, Trafalgar Memorial Hospital in Oakville, Sheridan College and Square One Shopping Centre in Mississauga

The third round of public consultation included a second survey for public input. The survey received 314 responses which provided significant input to the process, including the following:

- The top three identified contributors of implementing transit in Halton Hills are:
 - Reduces carbon footprint
 - Facilitates travel throughout the Town
 - Facilitates travel to surrounding areas
- 16% of participants of the survey said while living in Halton Hills they had to pass on employment or educational opportunities due to lack of transit in Halton Hills.

In addition, based on results in the second survey, it was determined that the following phases of transit that are 'supported' or 'not supported' in Halton Hills are shown in the figure on the next page.



All public engagement conducted followed the Town's fundamental principles for the Public Engagement Charter and remained consistent in the Town's commitment to the promise of Transparency, Notification and Participation.

The public consultation workshops also received some media coverage, which contributed to the consultation process. The figure on the next page shows an example of media coverage from TheIFP.ca, covering the first public consultation workshop.

Barrage of questions at first Halton Hills transit study meeting

Residents eager to see a vision for transit system, voice concerns about affordability







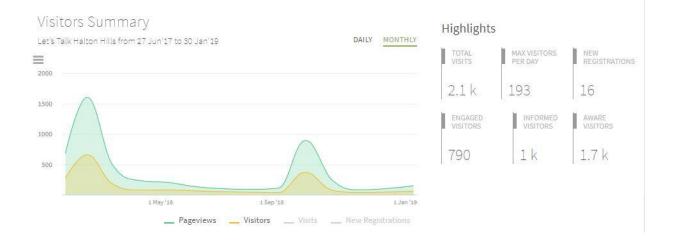
Georgetown resident John Cooke checks off boxes of things that he feels are important in transit services. - Alexandra Heck

In addition to the PICs and other face-to-face meetings, members of the public were given the opportunity to learn about the project and provide input through the Let's Talk online platform.

2,538 total site visits to Let's Talk Halton Hills platform were recorded through the end of May 2019. Through that platform:

- 2,272 people were up-to-date and informed about the Transit Service Strategy
- 1,323 people have consulted and pursued information within the platform on the Transit Service Strategy
- 983 have collaborated and participated within the Let's Talk platform for the Transit Service Strategy
- Total 887 on-line survey responses were submitted

The figure on the next page shows total visitor and participant statistics from the Let's Talk platform.

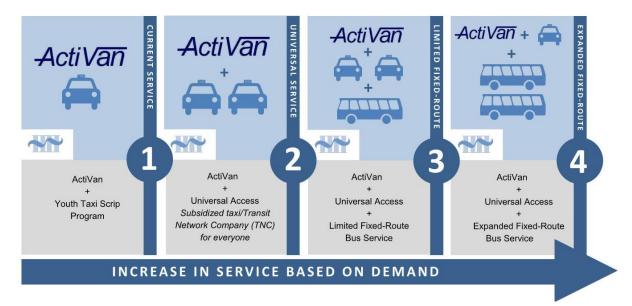


SERVICE ALTERNATIVES

The study examined service options in two broad categories: conventional fixed-route transit service, and alternative mobility options. Alternative mobility options include curb-to-curb options that operate in the absence of fixed route options, and curb-to-curb and curb-to-hub options that supplement fixed-route service. Alternative mobility options were critical to the strategy, to fulfill Halton Hills' goal of providing service throughout the Town. The alternative mobility option envisioned as part of the strategy, called Universal Access Service, would operate in the background behind any combinations of fixed-route services.

The Plan envisions three levels of transit services, ranging from demand-based curb-to-curb ride-share to a comprehensive fixed-route network connecting major destinations in and around the Town, on top of what Halton Hills currently operating. Each level of service and the elements included is illustrated in the figure below.

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The first level represents Halton Hills' existing transit services – ActiVan and Taxi Scrip Program, as of 2019. These programs are highly specialized and only served portion of the population, seniors, persons with disabilities, and the young between 13 and 19 years of age. While the Town has strived to provide high-quality service, the specialized nature of these services defines the celling of service level that the Town could provide to its residents.

The second level of transit service retains the well used ActiVan service and introduces the Universal Access Service for all Halton Hills residents and visitors. The Universal Access Service would consist of curb-to-curb ride-share service between any two points in Halton Hills, provided by a program that subsidizes taxi and/or Uber trips. The ActiVan system would remain in place, operated in-house by the Town of Halton Hills staff, to provide service to disabled and elderly customers. The current Taxi Scrip programs, however, would be discontinued and folded into the Universal Access service.

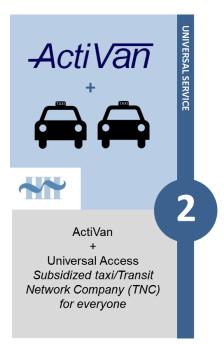
The third level of service would add minimal levels of fixed-route transit service to the Universal Access Service, to support the most likely high ridership patterns. These include travel within Halton Hills, and connections to TPO, Brampton, Milton and Mississauga. Connections between Acton and Georgetown would continue to be provided by GO bus. ActiVan service will remain in place and Universal Access Service will be modified to provide service to areas outside of fixed-route service area, and for the entire town outside of fixed-route service area. Both ActiVan and the Universal Access Service usage are expected to see reduction by the availability of fixed-route service.

The fourth level of service would increase the level of fixed-route transit service within Georgetown, expanding on regional services and add a second connection between Acton and Georgetown. ActiVan and Universal Access Service usage would be further reduced by the greater availability of the expanded fixed route network.

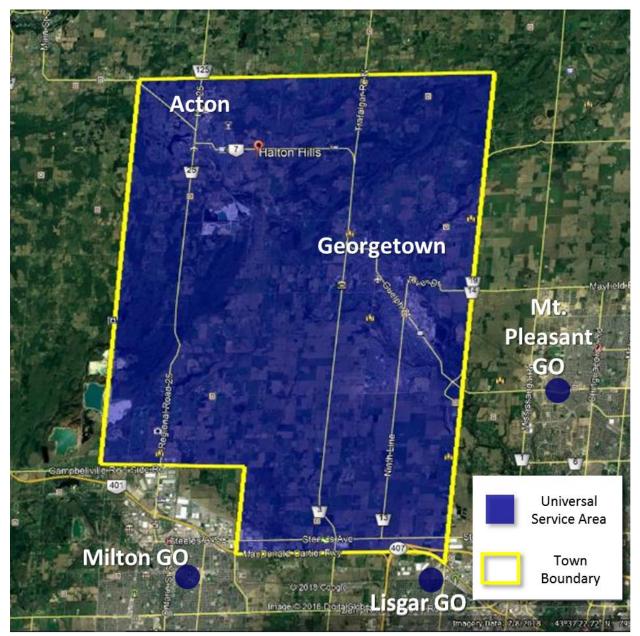
Level 2, 3, and 4 are discussed in more detail in the following paragraphs.

LEVEL 2 - UNIVERSAL ACCESS SERVICE

This level includes curb-to-curb service provided by either taxi or TNC as contracted drivers. The current Taxi Scrip Program would be discontinued and folded into Universal Access Service. In-house operations Universal Access Service is not recommended due to estimated cost of an additional \$1 - \$1.4 million to operate the service in-house, and expanding the ActiVan service to provide this service could risk the Town's ability to maintain ActiVan's service quality. As currently envisioned, the Universal Access Service would be provided through a subsidized taxi and TNC program, and ActiVan would remain in house to provide the same "wellloved" service that it is today. Administration and dispatch of the program is recommended to remain in-house for Universal Access Service in order to control customer service standard and monitor ridership and growth of the program. Service area would include all of Halton Hills and key destinations outside Halton Hills (Lisgar, Milton, and Mount Pleasant GO stations), as shown in the figure on the next page.



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FARE POLICY

Universal Service customers would pay \$3.75 for trips less than 10 kilometres, and \$1 for each additional kilometre. This pricing is similar to current Uber pricing, except the price to the customer is reduced by up to about \$6 per trip for most the trips. While the ActiVan data suggests that majority of the trips were within 10 kilometres, there are few exceptions. Under the proposed fare structure, those long trips would cost the Town more to subsidize. However, as the number of such long trips only takes up a small portion, it is still beneficial for Halton Hills to maintain a simple fare structure. The table on the next page provide a few examples of the longer-distance trips within and around Halton Hills to demonstrate what these longer-distance trips could cost both the user and the Town.

DESTINATION	UBER COST ESTIMATE	USER FARE	TOTAL TOWN COST
Acton GO to Georgetown GO = 13.6 km	\$17-\$22	\$3.75 fare + \$3.60 each additional km travelled = \$7.35	Town to subsidize the remaining amount = \$14.65
Georgetown Marketplace to TPO = 11.1 km	\$16-\$21	\$3.75 fare + \$1.10 each additional km travelled = \$4.85	Town to subsidize the remaining amount = \$16.15
Acton Library to Milton GO = 20.7 km	\$25-\$33	\$3.75 fare + \$10.70 each additional km travelled = \$14.45	Town to subsidize the remaining amount = \$18.55
Limehouse P.S. to Ethel Gardiner P.S. = 11.4 km	\$16-\$21	\$3.75 fare + \$1.40 each additional km travelled = \$5.15	Town to subsidize the remaining amount = \$15.85

The requirement for customers to pay an initial fee for all trips, and the cap on the public subsidy, along with other controls, should prevent the program from being over-subscribed or too costly for Halton Hills to continue to operate.

PROJECTED RIDERSHIP DEMAND AND COST

Ridership for the Universal Access Service was estimated considering the current use of ActiVan and the Taxi Scrip programs and also the per-capita demand for the service in Innisfil. The estimates assume that existing Taxi Scrip ridership would be absorbed into the Universal Access Service ridership, and that some ActiVan ridership also would shift to the Universal Access Service.

The cost estimates for the services using Taxi and TNC operation assume a cost of \$10 per trip, despite subsidy cap of \$6.25 per trip (all costs are presented in circa 2018 dollars). The additional cost would cover the Town's costs associated with managing the program, dispatching, call-taking, customer service responsibilities that arise as a result of the program, and occasionally longer-distance trips that require more subsidy. Taxi and TNC operation of the service makes the operators responsible for maintenance and staffing, thereby reducing the financial and administrative stress on Halton Hills and its staff. Projected ridership and associated operating costs from 2020 to 2028 are shown in the table on the next page.

	2020	2024	2028
Absorbed Taxi Scrip Ridership	33,000	38,000	45,000
Universal Service (new ridership)	34,000	40,000	46,000
Total Universal Service Trips	67,000	78,000	91,000
Cost Per Trip		\$10 per trip	
Annual Universal Service Operating Cost	\$700,000	\$800,000	\$950,000

STAFFING

While the Universal Access Service would require hiring no drivers, mechanics or other operating staff, additional town staff would be necessary to manage the program and to provide additional customer service support for the program. The number and costs of staff needed are shown in the table below.

REQUIRED STAFF	NUMBER	ANNUAL COST
FTE Staff	2	\$154,000
PT Staff	Multiple	\$211,000
Total Cost		\$365,000

COST SUMMARY

The estimates of cost provided in the tables on the following pages assume growth of the program generated by the Town's population growth, and include separate costs for the Universal Access Service and ActiVan services. Capital costs are limited to computer and dispatching equipment and software, and additional vehicles for the ActiVan system, as no vehicles are required for the Universal Access Service. The costs also include costs for a vehicle and storage facility for the ActiVan service and any future fixed-route bus routes.

ANNUAL OPERATING COSTS	2020	2024	2028
Universal Service	\$700,000	\$800,000	\$950,000
ActiVan Specialized Service (existing service and budget)	(\$1 - \$1.2 mil)	(\$1.2 - \$1.4 mil)	(\$1.4 - \$1.7 mil)
Additional Staffing	\$365,000	\$556,000	\$665,000
Scheduling-Dispatch Software	\$50,000	\$50,000	\$50,000
Total Operating Cost	\$1.1 mil	\$1.4 mil	\$1.7 mil
Universal Service Revenue	\$0	\$0	\$0
ActiVan Revenue	\$200,000	\$250,000	\$300,000
Total Net Operating Cost	\$900,000***	\$1.15 mil***	\$1.4 mil***
Capital Expenditures in Year of Investment	2020	2024	2028
Vehicles for ActiVan Service	\$0	\$200,000	\$200,000
Vehicles for Universal Service	\$0	\$0	\$0
Computer Equipment and Software	\$350,000	\$100,000	\$100,00
Vehicle Storage and Maintenance Facility	\$1.8 mil*	\$10 mil**	
Total	\$2.15 mil	\$10.3 mil	\$300,000

*Environmental clearance and design fees, 2020 – 2022

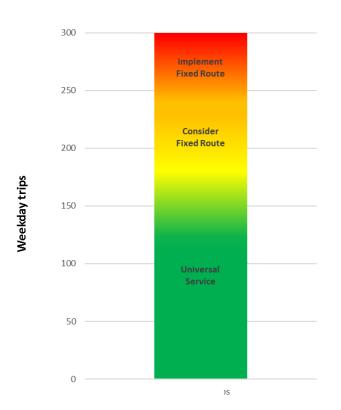
** Land acquisition, construction, construction management, 2023-2024

***Additional Gas Tax and other subsidies are not included

SERVICE TRIGGERING

As demand for the Universal Access Service grows, service standards would trigger implementation of fixed-route bus services to replace Universal Access Service trips on common trip patterns. Fixed-service becomes more cost effective than Universal Access Service when the number Universal Access Service trips from one area or in one travel corridor reaches between 200 to 250 daily trips. The service standards then would be used to monitor the service to ensure that it progresses towards achieving productivity standards. The figure on the next page illustrates the threshold to implement fixed-route service based on weekday Universal Access trips.

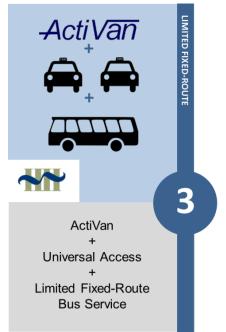
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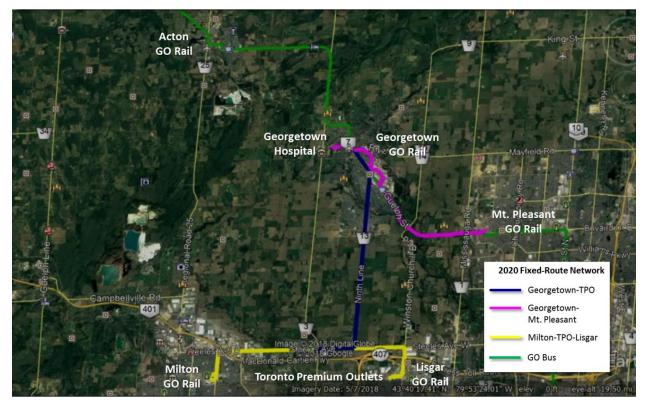


When to Implement Fixed-Route

LEVEL 3 - UNIVERSAL ACCESS SERVICE + LIMITED FIXED ROUTE

While Universal Access Service provides a balance between service level and cost when the demand is moderate, cost of operating such service could skyrocket when demand increases, as experienced in Innisfil. Halton Hills should consider implementing a limited fixed-route network connecting some of the most population destinations to alleviate the burden in providing costly curb-to-curb service to these destinations. The Plan proposes an initial limited fixed-route network including three (3) routes, connecting Georgetown, Mt. Pleasant GO, Toronto Premium Outlets, and Milton GO. Figure below shows the proposed fixedroute network.





The 2020 network would provide Universal Access Service for trips that begin or end more than 500 meters away from a fixed route bus service. The Universal Access Service and Limited Fixed-Route network together would reduce ActiVan use by approximately 10,000 trips in 2020. Table below summarize the estimated annual operating cost of Universal Access Service with a limited fixed-route service in operation.

	2020	2024	2028
Universal Service Trips	44,000	55,000	65,000
Cost Per Trip		\$10 per trip	
Annual Universal Service Operating Cost	\$450,000	\$550,000	\$650,000

TECHNOLOGY

Additional software and hardware are needed to operate fixed-route services. These include:

- CCTVs on buses, both internally and externally facing cameras (security and insurance claim prevention)
- Fare System (Automatic Fare Collection)
- Fare Integration (integration of Fare system with Core software)
- CAD/AVL dispatch console and software;
- Automatic Passenger Counters
- Covert Alarm System

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- Cellular or wireless local area networks (LANs) for communicating data to/from buses in real-time or when in the garage;
- Web-based portals (with firewalls) for the public (real-time bus arrivals and Transit App and Website);
- Web-based portals (with firewalls) for disseminating information to third party users (Bus / Taxi companies); and
- Scheduling software to include (add) fixed route or a completely new system that will encompass all the ITS features required.

VEHICLE REQUIREMENTS TO OPERATE THE LIMITED FIXED-ROUTE NETWORK

	2020	2024	2028
Milton-TPO-Lisgar**	N/A	N/A	N/A
Georgetown-Mt. Pleasant	1		
Georgetown-TPO via Mountainview	1		
Spares	1		
ActiVan Service		1	1
Total Required in Year	3	1	1
Estimated Cost Per Vehicle	\$200,000*		
Vehicle Capital Expenditure	\$ 600,000	\$200,000	\$200,000

* Based on 8-metre low floor cut-away style bus recommended to supply service. ** Vehicles supplied by Milton Transit

STAFFING

REQUIRED STAFF	NUMBER	ANNUAL COST
FTE Staff	5	\$423,000
PT Staff	Multiple	\$242,000
Total Cost		\$665,000

ANNUAL OPERATING COSTS	2020	2024	2028
Universal Service	\$450,000	\$550,000	\$650,000
ActiVan Specialized Service (existing service and budget)	(\$950,000 - \$1 mil)	(\$900,000 - \$1.1 mil)	(\$850,000 - \$1 mil)
Milton-TPO-Lisgar (Net Cost)	\$400,000	\$400,000	\$590,000
Limited Fixed-Route Service	\$1 mil	\$1 mil	\$1.5 mil
Additional Staffing	\$525,000	\$644,300	\$665,000
Scheduling-Dispatch Software	\$50,000	\$50,000	\$50,000
Bus Stop Signs-Shelters, Maintenance	\$50,000	\$50,000	\$50,000
Total Operating Cost	\$2.5 mil	\$2.7 mil	\$3.5 mil
	<u>.</u>		<u>.</u>
Universal Service Revenue	\$0	\$0	\$0
ActiVan Revenue	\$200,000	\$200,000	\$150,000
Limited Fixed-Route Revenue	\$360,000	\$360,000	\$520,000
Total Net Operating Cost	\$1.9 mil***	\$2.1 mil***	\$2.8 mil***

COST SUMMARY – UNIVERSAL ACCESS SERVICE + LIMITED FIXED-ROUTE

CAPITAL EXPENDITURES IN

YEAR OF INVESTMENT	2020	2024	2028
Vehicles for ActiVan Service	\$0	\$200,000	\$200,000
Vehicles for Universal Service	\$0	\$0	\$0
Vehicles for Limited Fixed-Route	\$600,000	\$0	\$0
Computer Equipment and Software	\$700,000	\$250,000	\$250,000
Bus Stop Sign & Shelter Parts	\$100,000	\$25,000	\$25,00
Vehicle Storage and Maintenance Facility	\$1.8 mil*	\$10 mil**	
Total	\$3.2 mil	\$10.5 mil	\$475,000

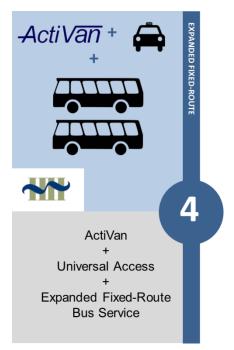
*Environmental clearance and design fees, 2020 – 2022

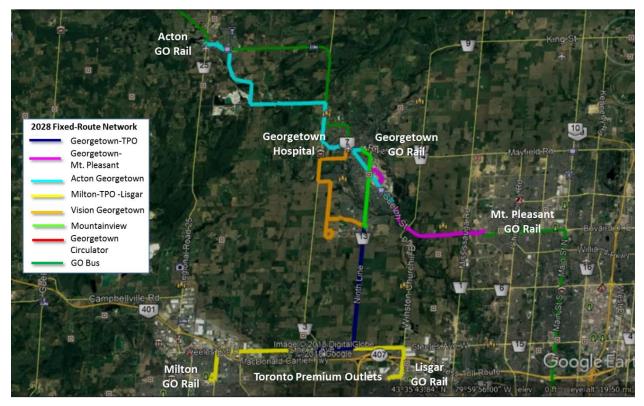
** Land acquisition, construction, construction management, 2023-2024

***Additional Gas Tax and other subsidies are not included

LEVEL 4 - UNIVERSAL ACCESS SERVICE + EXPANDED FIXED ROUTE

As the demand in transit grows, Halton Hills should consider expanding the fixed-route transit service to cover more destinations, in and around the Town. At this level, the Plan proposes an expanded fixed-route that provides a secondary connection to Acton and introduces fixed-route service to the Vision Georgetown area and other areas within Halton Hills. The map on the next page shows the proposed expanded fixed-route network.





Universal Access Service and the Expanded Fixed-Route Network will further reduce demand for ActiVan Specialized Transit. Representing a further expansion of service beyond the last level, as fixed route service coverage improves, the population living beyond transit access will shrink, and demand for Universal Access Service will decrease. The table below shows the estimated annual operating cost of Universal Access Service, with an expanded fixed-route network.

	2020	2024	2028
Universal Service Trips	44,000	24,000	26,000
Cost Per Trip		\$10 per trip	
Annual Universal Service Operating Cost	\$450,000	\$250,000	\$300,000

TECHNOLOGY

Additional software and hardware are needed to operate fixed-route services. These include:

- CCTVs on buses, both internally and externally facing cameras (security and insurance claim prevention)
- Fare System (Automatic Fare Collection)
- Fare Integration (integration of Fare system with Core software)
- CAD/AVL dispatch console and software;
- Automatic Passenger Counters
- Covert Alarm System

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- Cellular or wireless local area networks (LANs) for communicating data to/from buses in real-time or when in the garage;
- Web-based portals (with firewalls) for the public (real-time bus arrivals and Transit App and Website);
- Web-based portals (with firewalls) for disseminating information to third party users (Bus / Taxi companies); and
- Scheduling software to include (add) fixed route or a complete new system that will encompass all the ITS features required.

VEHICLE REQUIREMENTS TO OPERATE THE EXPANDED FIXED-ROUTE NETWORK

	2020	2024	2028
Milton-TPO-Lisgar**	N/A	N/A	N/A
Georgetown-Mt. Pleasant	1		
Georgetown-TPO via Mountainview	1		
Acton Connector		1	1
Georgetown Circulator		2	
Vision Georgetown		2	
Georgetown Mountainview		2	
Spares	1		2
ActiVan Service		1	1
Total Required in Year	3	8	4
Estimated Cost Per Vehicle	\$200,000*		·
Vehicle Capital Expenditure	\$ 600,000	\$1.6 mil	\$800,000

* Based on 8-metre low floor cut-away style bus recommended to supply service.

** Vehicles supplied by Milton Transit

STAFFING

REQUIRED STAFF	NUMBER	ANNUAL COST
FTE Staff	13	\$1,378,000
PT Staff	Multiple	\$272,000
Total Cost		\$1.65 mil

COST SUMMARY

ANNUAL OPERATING COSTS	2020	2024	2028
Universal Service	\$450,000	\$250,000	\$300,000
ActiVan Specialized Service (existing service and budget)	(\$750,000 - \$900,000)	(\$700,000 - \$850,000)	(\$700,000 - \$850,000)
Milton-TPO-Lisgar (Net Cost)	\$400,000	\$400,000	\$590,000
Expanded Fixed-Route Service	\$3.4 mil	\$3.4 mil	\$5.3 mil
Additional Staffing	\$1.2 mil	\$1.4 mil	\$1.65 mil
Scheduling-Dispatch Software	\$100,000	\$100,000	\$100,000
Bus Stop Signs-Shelters, Maintenance	\$100,000	\$100,000	\$100,000
Total Operating Cost	\$5.65 mil	\$5.65 mil	\$8 mil
Universal Service Revenue	\$0	\$0	\$0
ActiVan Revenue	\$150,000	\$150,000	\$150,000
Expanded Fixed-Route Revenue	\$1.2 mil	\$1.2 mil	\$1.8 mil
Total Net Operating Cost	\$4.3 mil***	\$4.3 mil***	\$6 mil***

CAPITAL EXPENDITURES IN

YEAR OF INVESTMENT	2020	2024	2028
Vehicles for ActiVan Service	\$0	\$200,000	\$200,000
Vehicles for Universal Service	\$0	\$0	\$0
Vehicles for Expanded Fixed- Route	\$600,000	\$1.4 mil	\$600,000
Computer Equipment and Software	\$700,000	\$250,000	\$250,000
Bus Stop Sign & Shelter Parts	\$200,000	\$50,000	\$50,000
Vehicle Storage and Maintenance Facility	\$1.8 mil*	\$10 mil**	
Total	\$3.3 mil	\$11.9 mil	\$1.1 mil

*Environmental clearance and design fees, 2020 – 2022

** Land acquisition, construction, construction management, 2023-2024

***Additional Gas Tax and other subsidies are not included

ALTERNATIVE FUEL OPTIONS

Many Canadian and US transit agencies are using alternative fuel vehicles to reduce energy consumption, pollution and greenhouse gas emissions. However, no alternative fuel option currently available costs less than conventional diesel-or gasoline-powered vehicles, when accounting for vehicle, fuel, and infrastructure costs. Battery electric vehicles are being evaluated by many transit operators, and likely will be the industry standard in the future. However, battery-electrics are the most expensive type of bus, approximately three times the price of diesel vehicles and require infrastructure that could add thousands of dollars to the cost of each vehicle. At the present state of battery technology, they have a shorter and more variable range than diesel buses, which can increase operating costs and lead to the need for expensive on-route chargers placed at transit centres and other bus layover points. Halton Hills should monitor the progress of bus technology and re-evaluate the potential for alternative fuel vehicles as the cost and performance gap narrows between diesel and alternative fuels vehicles.

RECOMMENDATIONS

- The Town should initiate the planning and budgeting processes for the introduction of the Universal Access Service;
- The Town should enter negotiations with the Town of Milton to plan and allocate costs for the Steeles Avenue fixed-route bus service between Milton GO Station, Toronto Premium Outlets and Lisgar GO Station. Introduce the Steeles Avenue bus service as the initial step in adding fixed-route service;
- Monitor transit ridership annually when to introduce fixed-additional route services, and which services;
- Monitor the progress of bus technology;
- Re-evaluate the potential for alternative fuel vehicles as the cost and performance gap narrows between diesel and alternative fuel vehicles;
- Initiate planning for a mobility hub in the vicinity of Steeles Avenue and Trafalgar Road/Ninth Line;
- Establish guidelines for population + employment density on which to base provision of fixed route service;
- Initiate a process for defining transit stop locations and infrastructure;
- Initiate discussions with Metrolinx regarding the potential use of PRESTO when fixed-route service is introduced;
- Incorporate transportation demand management measures when fixed-route services are to be introduced;
- Update the Development Charges By-law to incorporate transit charges;
- Develop and implement a communications & marketing strategy.