

GO Transit's deliverable: the 2020 Service Plan

GO Transit's 2020 Service Plan describes GO's commitment to customers, existing and new, to provide a dramatically expanded interregional transit option that integrates fully with the RTP rapid transit network, and addresses the future travel needs in the Greater Golden Horseshoe. Further analysis during the planning and design of individual services will detail the service outline presented here, and define the appropriate technology, rail corridor improvements, bus priority measures, passenger facilities, fleet growth, operational growth, and other activities needed to build the service.

This 2020 Service Plan summarizes the frequency and extent of service to be offered on major corridors, and is consistent with the infrastructure improvements and technologies included in the Metrolinx RTP and GO Transit's vision and objectives described above. The plan reflects a significantly more proactive approach to service development than the incremental, business-case driven approach that has guided GO's growth for the past 15 years. GO Transit will provide an attractive travel option that will compete successfully with automobile use for peak and off-peak trips between Urban Growth Centres identified in the *Growth Plan for the Greater Golden Horseshoe* and other areas of activity throughout the Greater Golden Horseshoe. An intensive service will be provided within the Core Service Area, corresponding to the central Built-Up Area, where a significant portion of growth and development will be directed to achieve intensification in accordance with the *Growth Plan*. Outlying Urban Growth Centres will be linked by appropriate interregional transit services.

- **Peak-period train service** – By 2020, GO Transit's rail corridors will be serving diverse travel needs, with significant amounts of traffic against the peak direction and between outlying activity centres, in addition to the high volume of passengers to downtown Toronto. Two-way, all-day service will be provided within the Core Service Area. Services will extend beyond to serve more distant Urban Growth Centres as appropriate.
- **High-frequency, peak-direction trains in Core Service Area** – GO will expand Built-Up Area peak-period service on the existing corridors to offer a train at least every 15 to 20 minutes in the peak direction on all existing rail lines, supporting the intensified development envisioned in the *Growth Plan for the Greater Golden Horseshoe*. This level of service is designed to fully develop the 2020 work travel market in each corridor from the regions outside Toronto to the immediate Union Station area. The goal is to attract 80% to 85% of these travellers, with corresponding increases in travel to the broader area around downtown Toronto.

Success... and challenge: Union Station.

About 95% of GO Train customers travel to or from Union Station. During the peak hour, 45,000 customers use GO Transit's seven tracks and six platforms – the most intensive use of a train station in North America. GO Transit has invested in more stairways, passenger waiting areas, and communications systems to handle the growing traffic through this "mobility hub." The adjacent Union Station GO Bus Terminal provides convenient access to express "train-bus" service between Union Station and GO stations when trains are not scheduled to run. Union Station also offers excellent access to TTC services.

Union Station is the heart of GO Transit's operations. It was designed to handle intercity rail travel and not the high volume of commuter traffic that passes through it each day. Train and passenger traffic through the station will continue to grow substantially. It needs extensive work to ensure its structural integrity, to provide an appropriate environment for its important transportation function, and to accommodate the mix of transportation and commercial activity that a vibrant public facility requires. Appropriate agreements, involving the stakeholders who use Union Station, must be reached to support the refurbishing and ongoing operations of the station.

When demand justifies more than four trains in the peak hour, GO will introduce express trains and offer a peak direction train at least every 15 minutes for each station. With GO's high-speed, interregional services, departures more frequent than every 15 minutes would not attract significantly more customers. However, introducing additional fast express trains instead (with few or no local stops en route, and average operating speeds ranging from 75 to 85 km per hour) would result in a more attractive service and improved ridership.

The number of trains arriving at Union Station during the morning peak hour will more than double to meet the demand for regional rail service. Inbound ridership for the year 2020 will increase due to population growth in GO Transit's regional markets, enhanced service on all corridors, and GO's expanding market share, even if the number of jobs in downtown Toronto does not increase dramatically. Significant changes in the relative cost of driving vs. taking GO, fare integration with the TTC, or public acceptance of transit use could result in even higher numbers. To meet demand, trains will have to arrive at Union from the Lakeshore East and West lines nearly every five minutes, from the Milton line about every eight minutes, and every 12 to 15 minutes from each of the other corridors. This high concentration in the peak hour will need a substantial increase in Union Station's capacity for trains and passengers. It will drive construction of track and other infrastructure improvements, including passenger stations and terminals, rail and bus corridors, vehicles, and support facilities, which are addressed in the MoveOntario 2020 capital investment plan and the Metrolinx RTP.

- **Regular counter-peak trains in Core Service Area** – Customers travelling to workplaces and other destinations outside downtown Toronto, or between stops along the corridor, will have a regular schedule of counter-peak trains every 30 minutes or less.
- **More train service options** – To improve access to the Core Service Area, GO will introduce trains along rail lines it is not currently using. Peak-period GO Trains will operate between Bolton, Seaton, East Markham (Locust Hill) , and the Yonge/ Summerhill area. These improvements are consistent with the Metrolinx initiative to optimize use of existing rail infrastructure.



Off-peak train service – GO will continue to develop midday, evening, and weekend trains on all existing rail corridors.

- **Lakeshore off-peak service** – By 2010 off-peak service on the Lakeshore corridors will be increased from the current hourly departures to a train every 30 minutes.
- **Buses to trains** – Off-peak service on the Milton, Stouffville, Georgetown, Barrie, and Richmond Hill lines is currently being provided by express buses that GO calls “train-buses,” which have proven a very economical and flexible way of serving the modest demand during the off-peak hours. As demand increases, and track capacity and funding allow, higher-capacity trains running every 30 or 60 minutes will replace the buses.

Linking Core Service Area Growth Centres – High-speed GO Bus service will connect Urban Growth Centres in the Built-Up Area and other concentrations of activity outside downtown Toronto, including Pearson Airport, with convenient transit options. GO Bus services will increase dramatically to provide this network of routes.

- **Bus Rapid Transit (BRT)** – Frequent service on the BRT corridor (reaching from Oakville to Pickering by way of the Hwy. 403, 407, and 401 corridors) and its feeder facilities will be the spine of the high-speed bus network. Attractive passenger facilities, designed to offer convenient transfers between local and interregional services, as well as parking and customer conveniences where warranted, will anchor these services in the community.
- **New and expanded routes** – GO Transit’s bus network will expand by 2020 to provide frequent trips and more than twice the current amount of service, using bus priority lanes to minimize traffic impacts. Primary routes will be selected to operate every 15 minutes or better during peak periods, and 30 minutes or better off-peak.

Expanding to serve the Greater Golden Horseshoe – Convenient and appropriate transit services will link the Urban Growth Centres (identified in the *Growth Plan for the Greater Golden Horseshoe*) that are outside the Greater Toronto and Hamilton Area to those inside the area. Planning for these services will reflect the demand and travel patterns in each corridor.

- **New service extensions** – GO Bus or GO Train service will be provided to serve travel demand throughout the day to St. Catharines/Niagara Falls, Brantford, Kitchener/Waterloo/Cambridge, Guelph, and Peterborough.
- **Rail reaching out** – Extensions to existing GO rail lines will bring peak-period trains to Bowmanville on the Lakeshore East line, Uxbridge on the Stouffville line, Aurora Road on the Richmond Hill line, and Guelph on the Georgetown line. Existing bus services will be enhanced as required at other times of day.

Success... and challenge: BRT/express bus service. In 2000, GO Transit introduced its first bus rapid transit (BRT) service on Hwy. 407, launching a direct service that links the regions around Toronto without going to downtown Toronto (known as circumferential services). BRT service, which connects key municipal centres of activity, colleges and universities, and selected park & ride locations, now carries over 14,000 customers daily, more than the Richmond Hill train line. New park & ride lots, bus terminals, and bus priority measures have helped improve and grow the service.

Interregional bus services are entering a period of very rapid growth, including development of new routes, at a time when there are few concentrations of employment and residential density in the new service areas in outlying regions. Higher-density residential communities and employment centres, where travellers can walk to and from bus stops, will be required to generate the ridership needed for new services to be fiscally effective.

2020 Capital Program

A new program of capital investment to support GO's service development, centred on the MoveOntario 2020 program and the Metrolinx RTP, will enhance every aspect of GO Transit's facilities.

Corridor infrastructure — Track construction will be needed on all existing corridors, doubling single-track sections to provide two-way operation, and adding track and capacity to the already heavily used Lakeshore, Milton, and Georgetown corridors. Signal system improvements will also be essential to increasing capacity and operational effectiveness. GO will add segments of rail corridor to the network, extending existing routes and bringing service to Bolton, east Markham, and Seaton. Introducing electric trains on the Lakeshore corridor, and the Georgetown corridor if appropriate, will offer travel time savings and environmental benefits. And on primary bus routes, GO will add priority measures and BRT facilities.

Union Station — With increasing GO travel to downtown Toronto, more and more express trains on the Lakeshore, Georgetown, and Milton lines, and the growth of VIA services, train traffic through Union Station will more than double. Efficient use of all platforms in an integrated operation, along with expanded and improved tracks, platforms, waiting areas, and customer services, will be required. A major investment in these operational facilities will take place in conjunction with the renewal of this historic building.

Passenger facilities — GO Transit will enhance train stations to encourage local transit use and active transportation access (by walking or cycling), and will expand parking lots or build parking garages to meet demand. Facilities for bus passengers will be an integral part of BRT development, along with bus terminals and stations at active transfer points. To make these facilities attractive, GO will offer posted schedules, real-time trip information, shelter, and other amenities.

Vehicles — GO's bus and train fleets must double in size over the next 10 years. Other vehicle technologies, such as alternative power sources and self-propelled trains that run on either diesel fuel or electricity, will be assessed and introduced where appropriate.

Maintenance, storage, and support facilities — GO Transit will need new support facilities, located for efficient service delivery throughout the Greater Golden Horseshoe. A second rail maintenance facility, and a new bus maintenance facility in the east, will be required to service and maintain growing train and bus fleets. These major maintenance and storage yards will be complemented by more overnight bus and train storage areas, and midday train storage located and sized to support efficient service delivery. GO will also add facilities to house station operations and maintenance, transit security, and other functions.

Service	Peak Service	Off-Peak Service	Capital Program
Barrie line	Train service for Bradford every 15-20 minutes during peak periods, with selected trips for Barrie. Counter-peak service every 30 minutes.	All-day service twice hourly to Bradford with bus service to Barrie.	Additional track and signals.
Georgetown line	Train service for Brampton every 15 minutes during peak periods, with selected trips serving Georgetown and Guelph. Counter-peak service every 30 minutes.	All-day train service twice hourly to Mount Pleasant, with bus service to Georgetown and Guelph.	Additional track, electrification if appropriate.
Lakeshore West line	15-minute or better train service, with express service during high-demand periods. Counter-peak service every 30 minutes or better.	All-day service twice hourly between Union Station and Hamilton.	Track and signal enhancements, electrification between Union and Hamilton.
Lakeshore East line	15-minute or better train service, with express service during high-demand periods, with selected trips serving Bowmanville. Counter-peak service every 30 minutes or better.	All-day service twice hourly between Union Station and Oshawa.	Track and signal enhancements, electrification between Union and Oshawa.
Milton line	15-minute or better train service for Meadowvale, with express service during high-demand periods. Counter-peak service every 30 minutes.	All-day service twice hourly to Meadowvale with bus service to Milton.	Additional track, possible rail-to-rail underpass or overpass.
Richmond Hill line	Train service for Richmond Hill every 15-20 minutes during peak periods, with selected trips for Aurora Road. Counter-peak service every 30 minutes.	All-day service twice hourly to Richmond Hill.	Additional track, rail-to-rail grade separation.
Stouffville line	Train service for Mount Joy every 15 minutes during peak periods. Counter-peak service every 30 minutes. Selected trips serving Lincolnville and Uxbridge as demand warrants.	All-day service twice hourly to Mount Joy with bus service to Stouffville and Uxbridge.	Additional track and signals.
Bus routes	Bus service every 15 minutes or better on primary routes.	All-day bus service on primary routes twice hourly or better.	Bus priority facilities.
BRT corridor and related services	Frequent service every five minutes on the Bus Rapid Transit corridor, supplemented to serve specific markets as demand warrants.	All-day limited-stop BRT service every 10-20 minutes supplemented as demand warrants.	Bus way facilities, stations.
Bolton line	Peak-period train service every 30 minutes for Bolton.	All-day bus service as warranted.	Track improvements, stations.
East Markham line (requires Crosstown line)	Peak-period train service every 30 minutes for east Markham (Locust Hill).	All-day bus service as warranted.	Track improvements, stations, rerouting of freight trains.
Seaton Line (requires Crosstown line)	Peak-period train service every 30 minutes for Seaton in conjunction with community development.	All-day bus service as warranted.	Track improvements, stations, rerouting of freight trains.
Kitchener-Waterloo, Cambridge, Niagara-St. Catharines, Brantford and Peterborough	Possible service area extension to provide peak-period bus or train service for Kitchener/Waterloo, Cambridge, Niagara/St. Catharines, Brantford and Peterborough as demand warrants.	Possible service area extension to provide all-day bus or train service as demand warrants.	TBD