

Accessible GO Transit Services

Richard C. Ducharme

GO Transit is an integrated network of train and bus services reaching 100 km (60 miles) from downtown Toronto. We carry 36 million passengers annually in the Greater Toronto Area covering 8000 km² and a population of 4.9 million. On a typical weekday, GO transports some 133,000 passengers in our distinctive green-and-white trains and buses—103,000 by train and 30,000 by bus. Our company has been offering barrier-free access to our train services since June 1995. In this first stage, 10 stations in our network became fully accessible to passengers using mobility aids such as motorized and ordinary wheelchairs—as well as to anyone else preferring not to have to climb steps to get on and off our trains. Since these beginnings, another 20 GO Train stations across the entire network of 49 stations have been made fully accessible (Fig. 1). They include the network hub, Union Station in downtown Toronto. Each of our seven railway lines now has at least three accessible stations,

and we are adding more as we build new stations or expand existing ones. Moreover, we are now poised to introduce barrier-free bus services on our network later this year.

Major Retrofits

Achieving these successes required major retrofits to stations and carriages. Forty-two of our fleet of 318 split-level cars were modified to accommodate mobility aids and selected stations were substantially improved by installing elevators where there were pedestrian tunnels, constructing boarding ramps on train platforms, making station buildings and ticket sales counters accessible, and putting in amenities such as automatic door-openers and accessible pay phones. Most of our barrier-free stations also have accessible washrooms. The entire service was designed so that passengers who use mobility aids can

ride GO Train services independently. Barrier-free facilities at accessible stations and one accessible car in every train enable disabled passengers to buy their own ticket or pass, board the train themselves, and travel at their own convenience. No reservations are needed and mobility-impaired customers pay the same fare as other passengers. If a disabled passenger requires an attendant, that person travels free-of-charge on the same ticket as long as they are in attendance for the entire journey.

Consultation on Barrier-Free Access Design

Our service was developed with the input of an advisory committee representing travellers with disabilities and included people with impaired vision, wheelchair users, and senior citizens. The committee members advised us on every aspect of the project, including the layout of accessible carriages, the boarding method, ticket machine design, elevator features, and staff awareness and training. Without the input of this committee—in essence, a consumer group—our accessible train service would not have been as convenient to use.

Tracing a hypothetical train journey by a wheelchair user is a good way to illustrate our accessible train service.

Before starting their journey, passengers can telephone GO Transit to check that the stations they plan to use are barrier-free. The same information is available at our Web page (<http://www.gotransit.com>) which also provides comprehensive details about each station including parking, etc. Our booklet—*Accessible GO Train Service: A Guide for Riders*—gives clear, step-by-step information on how to use our service and is available at accessible stations.

Passengers using wheelchairs will find no barriers to easy access, no matter how they arrive—by parking their car in



Wheelchair users can gain easy access to carriages across a bridge from the mini-platform.

(GO Transit)



The lower deck of accessible cars has eight wheelchair positions that are easily reached. (GO Transit)

designated spaces; by taking accessible municipal transit services or taxis; or by getting a ride to the station's 'kiss & ride' drop-off area. And the start of GO Bus barrier-free services later this year will make access even easier.

The path to the train platform is also barrier-free and clearly sign-posted. Passengers simply make their own way directly to the platform by ramp or elevator.

Mini-platforms

The centre of each main platform has an accessible 'mini-platform' for step-free boarding and alighting. The accessible car is always the fifth car behind the locomotive and always stops at this mini-platform, which is concrete and about 38-cm (15") high with a gradually sloping ramp at each end to allow passengers to get up to the car door level. These

gradually sloping ramps also make the mini-platforms ideal for anyone preferring step-free access to the train, including senior citizens, people with medical conditions, or passengers with luggage or baby strollers. The ramp sides are protected by railings.

Passengers can wait for their train on the landing at the top of the mini-platform. The landing also has railings on one side if it is on a side platform, but none if it is on an island platform where both sides are used to board trains. The open side of the mini-platform is clearly marked by a wide, yellow tactile warning strip.

Portable Bridge to Car

Each accessible car has wide doors at one end (the retrofit involved removing the centre stanchion), and every train stops with these doors positioned next to the mini-platform. The train crew places a

portable bridge across the gap between the car and the edge of the mini-platform, so wheelchair users can cross the bridge independently onto the car's lower floor, which is at almost the same level as the mini-platform landing. The bridge can support loads up to 270 kg (600 lb), and is about 90-cm wide (3 ft) with a 5-cm lip (2 in) along both sides. It is put down at every accessible station when there is a passenger waiting to board or exit through the accessible doors. While the train is moving, the bridge is folded and stowed next to the doors.

Wheelchair Positions

The lower level of each accessible GO car has eight wheelchair positions where wheelchair users can ride in any position they find most comfortable—facing forward or backward.

Low partitions with flip-up seats separate these positions and they can be folded down for any passenger to use as long as no one using a wheelchair needs the seating area. Each wheelchair position has retractable belts for securing wheelchairs. Passengers are free to decide whether to use the belts, but must lock the brakes on their wheelchair. We recommend a maximum size for wheelchairs because of the interior dimensions of our cars. The aisle clearance is 81 cm (32"), and the floor space in each wheelchair position is 152-cm long (60"), designed to accommodate a wheelchair no bigger than 81 x 122 cm (32 x 48").

Cars converted for wheelchair access have 142 seats, compared to 162 in other cars. Other modifications include relocating the yellow emergency alarm strip under the window next to a horizontal grab bar. Unfortunately, car washrooms are not accessible. We allow bicycles on off-peak trains, but they are not permitted in the accessible car.

Accessible Union Station

The destination of the vast majority (96%) of GO Train passengers is Toronto's Union Station and this has also been improved significantly for accessibility. There are now four elevators connecting the station waiting area with the train platforms. Not only is Union Station the hub of our rail network, it is also conveniently connected to the Toronto Transit Commission's subway, VIA Rail's inter-city trains, and the many offices, shops, and entertainment attractions of downtown Toronto.

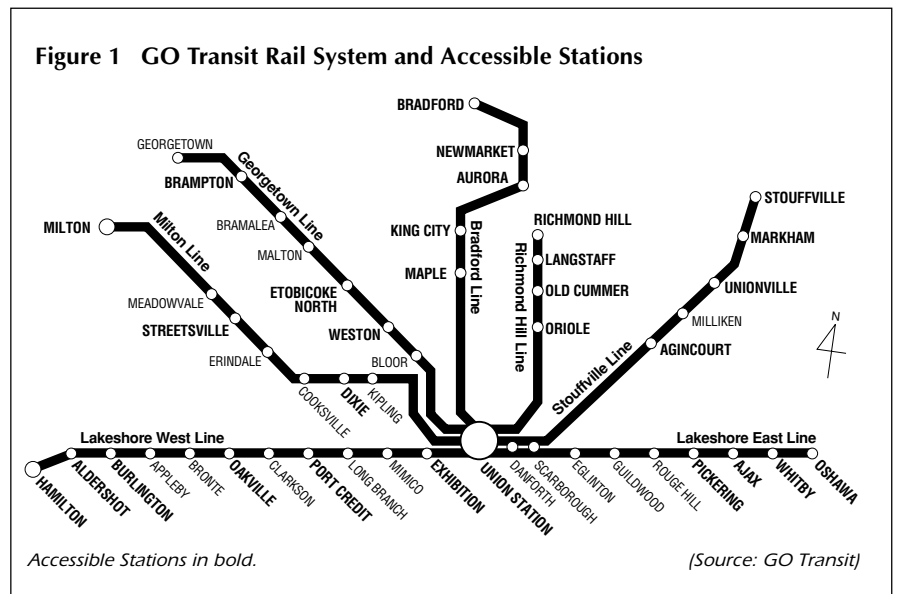
Barrier-Free GO Bus Service

Meanwhile, we are gearing up to phase-in our barrier-free GO Bus service later this year. Many of our existing buses already have a 'kneeling' mechanism that lowers the front end to reduce the step height, but each of our latest order of 20 new highway coaches has a wheelchair lift and they will be our first-ever fully accessible buses. We expect to take delivery this summer and will use them to provide accessible services on some of our main bus routes.

In the longer term, the types of buses we buy in the future will be determined by the two different markets we serve: inter-city, and transit. Inter-city buses will have lifts, while transit buses will have either low floors or lifts, or both. We are now formulating a policy that will enable us to extend barrier-free service across our entire bus network. ■



At the wheelchair position, the emergency alarm strip is under the window next to a horizontal grab bar. (GO Transit)



Richard C. Ducharme

Mr Ducharme is Managing Director of GO Transit. After graduating in civil engineering from the University of Waterloo, he worked for Ontario's Ministry of Transportation in construction, research, and transportation and transit planning. He joined GO Transit in 1976 and has held various positions in market research, project development, engineering, and rail operations. He became Managing Director in 1993.