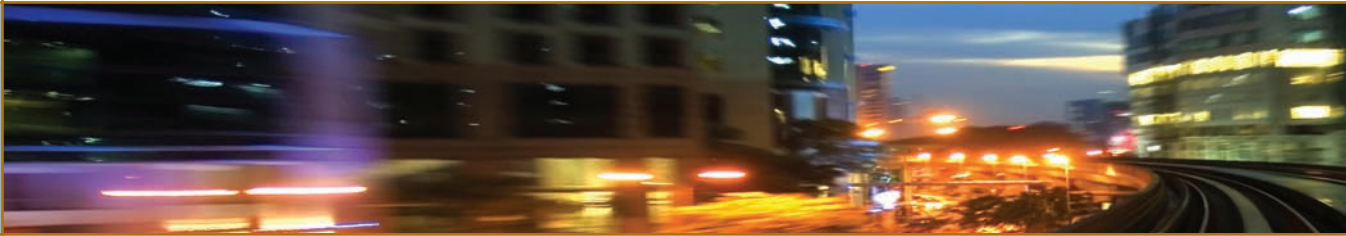


By Rosie Lombardi

Next-generation transit shapes new parking landscape



Major cities across Canada are grappling with a multitude of transportation issues: traffic congestion, urban sprawl, carbon emissions and obesity. Boosting mass transit to reduce reliance on cars is a universal concern, and many cities have ambitious plans to expand their systems substantially in the near future.

But the car will nevertheless reign supreme for many years to come due to the “suburban conundrum”, says Eric Miller, director of the University of Toronto’s Cities Centre.

“Many transit plans haven’t come to grips with the fact that a large number of people live in suburban areas,” he says. “Urban density and mass transit can’t be reconciled in a way that’s both cost-effective and offers an attractive service. Even from a carbon emissions perspective, it probably makes more sense for people to drive to the parking lot of a transit station and take the train downtown then to run half-empty buses through the neighbourhood.”

By necessity, parking still figures prominently in mass transit plans, but municipalities are transforming their stations’ design and offerings to create vibrant hubs of urban activity out of sterile, uninviting surface parking lots.

Toronto gets bigger

Toronto’s transit planners have their hands full. The population of the amalgamated Greater Toronto Area (GTA) is already 6 million, and is expected to grow to 8.6 million by 2031. “That works out to an extra 100,000 people every year for the next 25 years, all with travel requirements,” says Vince Mauceri, general manager of transportation operations and technology at Metrolinx.

Metrolinx is the sexy new name of the Greater Toronto Transportation Authority (GTTA), a crown corporation set up by the Ontario government to develop integrated transportation strategies for the GTA and Hamilton.

The agency is charged with developing plans that encompass a number of objectives that go beyond mass transit, such as reducing traffic congestion and greenhouse gas emissions, improving land use, and encouraging more walking and cycling in an increasingly obese population.

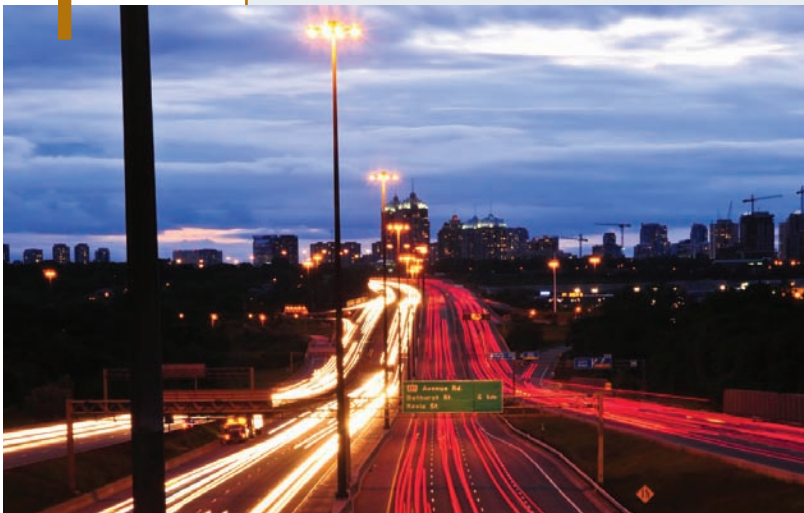
But boosting mass transit ridership is a key priority, says Mauceri. “About 16.5 percent of morning rush hour trips taken today in the GTA are by mass transit,” he says. “Our target is to increase that to 26.3 percent by 2031 – but the dominant form of transportation will still be the automobile, although it’ll hopefully be in greener vehicles by then.”

Extensions to the existing subway system are planned, in addition to new light rail transit (LRT) and bus rapid transit (BRT) lines. These additions will in turn impact public parking facilities, creating demand in new areas while decreasing it in existing ones.

Parking is an important component of the new “mobility hubs” Metrolinx will be developing at new stations. Today, many key intersections feature a sea of surface parking around an isolated transit station. Future hubs will instead offer a mix of residential buildings, stores and offices nearby to create jobs and shopping convenience within walking distance of transit, says Mauceri.

To maximize land use, multi-storey structured parking facilities will be built at several new stations planned at Downsview, which connects with York University, and in the Vaughan region. “There’s already a beautiful one at Whitby, and more are planned,” he says. The Toronto Parking Authority (TPA) is also involved in identifying suitable surface

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lots that can be redeveloped as commercial or residential buildings with public parking facilities rebuilt underground.

Metrolinx is undertaking a comprehensive strategic study to identify best practices and standards that will apply to new and existing parking facilities, says Mauceri. These will likely be completed and introduced in 2010. "Once the best practices are ready, we'll go back and redo existing parking lots and restructure them accordingly on an incremental basis."

The GTA's parking standards tend to become de facto standards for other Canadian cities, says Dave Hill, COO of the Winnipeg Parking Authority (WPA) – so these best practices will likely have a wider influence beyond Ontario.

The GTA is also moving to paid parking at transit facilities. Effective April, free parking will no longer be offered by the Toronto Transit Commission (TTC) at subway stations to create a disincentive to using cars. Commuters will need to pay about \$4.00 daily on top of their transit fares for parking. "The best environmental policy is paid parking," says Mauceri.

Automated fare and parking collection is also coming soon in the form of smart cards. Metrolinx is building the hardware and software infrastructure for the new Presto fare card system. "It's a stored-value card that deducts amounts for fares or other purposes, as it's a multi-application card," he says. "The TTC and Ottawa OC Transpo have indicated they'd like to enhance the program to include parking fees." In fall 2009, Oakville will be the first transit hub to pilot the Presto card in conjunction with its primary destination point at Union Station in downtown Toronto.

But one thing that won't be coming for many years is a car-free downtown zone, adds Mauceri. "Even the most progressive European cities haven't shut down their downtown cores to vehicles – they've just closed off certain streets, much like we have on Sparks street near Parliament Hill in Ottawa."

Calgary rides on light rails

Calgary has the most successful light rail transit (LRT) system in North America, and has plans to further extend its system over the next five years, says Dave Colquhoun, transportation lead for the city's Plan It Calgary project.

LRT is a lower-capacity mode of transportation compared with subway systems, but it offers more flexibility because it doesn't require digging dedicated underground tunnels. "LRT is the backbone of our system, and it carries 290,000 passengers daily," says Colquhoun.

Like most metropolitan regions, Calgary is planning improvements that will help its transit system better compete with automobiles and relieve traffic congestion in downtown areas. Three new LRT lines are planned, extending into the south-west and north-central areas, and south-east to a regional hospital.

The city is also expanding its park and ride network in recognition that many people need to use their cars for some portion of their trips, he says. "Our philosophy is to provide most of our parking at LRT stations beyond a 5-kilometre radius of downtown. We want to get people onto transit at the earliest opportunity in the suburbs to discourage them from continuing their trips by car."

But the city also places limits on the quantity of parking provided at transit stations. "Our past practice has been to size our park and rides to accommodate no more than 20 percent of ridership demand to encourage walking, cycling and so on."

In recent years, as Calgary boomed and LRT lines were extended, demand for parking has diminished at transit nodes such as the Anderson, Brentwood and Whitehorn stations. These areas are becoming more desirable for denser urban development. "Anderson, for example, was once the terminus for the south line with 1600 surface stalls for parking. We've seen demand decrease to the point where about 6 acres of the lot aren't used."

Over the next few years, there are plans to intensify development around the station with offices, high-rise residences and shopping areas, and convert the parking lot into a compact multi-storey structured facility. "It would become a revenue-generating node instead of a half-empty lot," he says. "And it also fits our philosophy of encouraging more people to live and work near transit to reduce the need for cars."

Like Toronto, Calgary is also introducing charges of \$3 per day for parking this spring to provide a further disincentive to automobiles. Facilities will likely be equipped with new automated pay and display machines, says Colquhoun. "We will need more staff to manage the system, and we're looking at a partnership with the Calgary Parking Authority."

Vancouver combats cars

Vancouver is also planning extensions to its transit system. Planners are studying a new line out to the University of British Columbia for its Skytrain LRT, and the first phase of





next generation

Vancouver's downtown streetcar system extension will link to the Olympic Village in Granville Island in time for the games next year.

However, Vancouver has no park and ride facilities within city limits, although there are several in nearby municipalities such as Burnaby, Richmond and Surrey, says Carli Edwards, parking management engineer at the city of Vancouver.

The city has tough policies and regulations to combat the automobile's dominance, explains Edwards. "We have a policy of not increasing road capacity, and we're also holding the number of parking spaces static. Our transportation system's priorities are pedestrians first, followed by bikes and transit, and vehicles last."

Instead of building parking facilities at transit stations, Vancouver has focused on building stations in high-density areas so people who rely on transit can walk to them, and enforcing building regulations that specify the amount of parking private developers can build, she says.

"We have minimum and maximum standards for new buildings built for any purpose. If they're near a transit station, the amount of parking allowed is typically lower, as fewer people will need cars. And we also have a land-use policy that encourages higher density around stations."

The city's overarching urban planning policy is to reduce new vehicle capacity by placing limits in various areas so it doesn't grow beyond current levels. "We know how many cars can get across the bridge, how many parking spots there are, and so on. We don't necessarily allow developers to build parking for the number of cars that exist today – we're trying to push car ownership and usage down."

Thus far, Vancouver's approach seems to be working. "We've seen a lot of growth in jobs and residences recently, but car trips have decreased because of the way we've done land use and transit planning," says Edwards. ■