

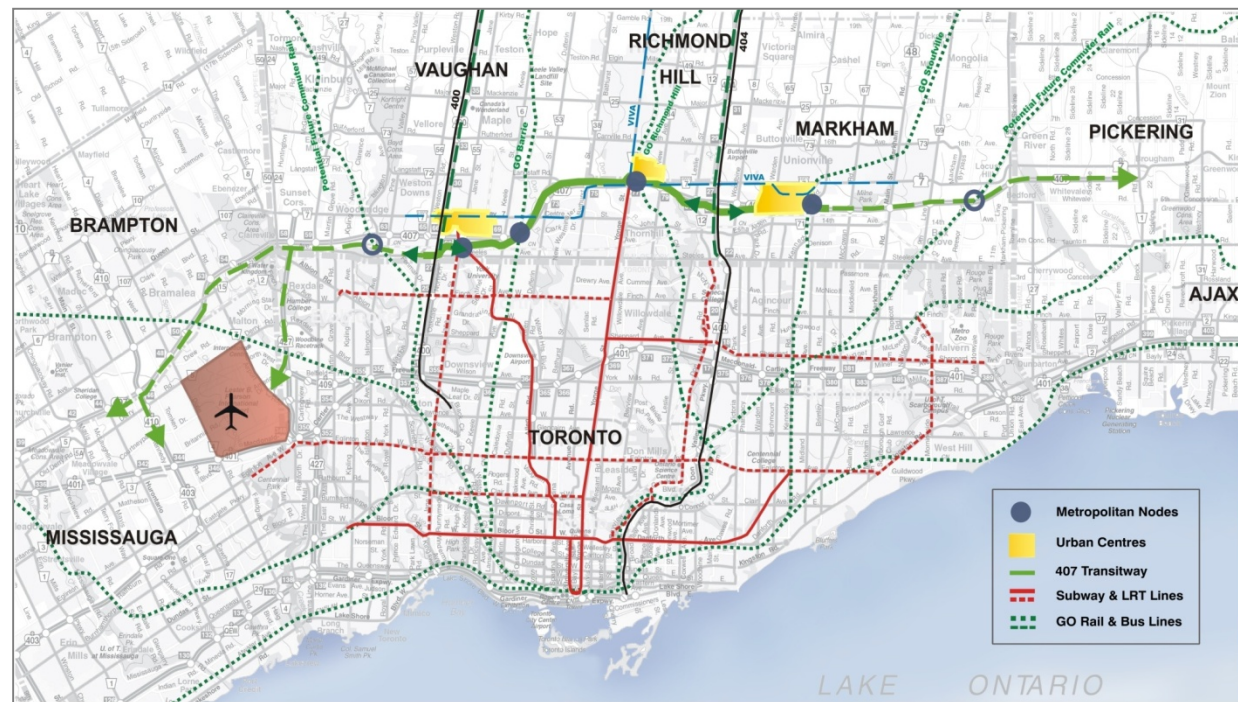
2. TRANSPORTATION NEED AND TRAVEL DEMAND

This section confirms the need for the 407 Transitway and its role in the GTA transportation network by examining future land use, population and employment, and developing the future travel demand. The demand analysis illustrates key travel patterns and growth areas that lead to the need for and justification of, the 407 Transitway.

2.1 407 Transitway Role in the Greater Toronto Area (GTA)

The primary role of a major investment in rapid transit in the Highway 407 Corridor is to offer a viable alternative to fundamentally change travel behavior in the 905 area. The corridor's location within the GTA, as illustrated in **Figure 2-1**, provides an ideal opportunity to enhance connectivity with the existing and future primarily radial transportation network. In this role, the continuous corridor will become the much-needed, second east-west spine across the GTA parallel to the Lakeshore corridor. Given the importance of this role, planning of high-order rapid transit in this corridor must focus on the objectives of transportation, land use, natural and social environments, and costs, as outlined below:

Figure 2-1: Role of 407 Transitway Within the GTA



Transportation

- Enhance east-west cross-regional mobility for medium to longer distance trips >10-15 km;
- Offer a safe, high speed, more efficient way of moving people between GTA population and employment zones, north or south of the corridor;

- Improve integration with the regional transportation network;
- Improve the ability to increase capacity to meet additional travel demand; and,
- Maximize utilization of protected Highway 407 Corridor.

Land Use

- Improve accessibility to existing/planned major urban centres/nodes; and,
- Increase support for a more compact urban structure maximizing opportunities for TOD.

Natural and Social Environments

- Minimize adverse effects on the natural environment;
- Minimize adverse effects on the social environment; and,
- Reduce reliance on energy resources, and reduce automobile dependence and gas emissions.

Costs

- Increased cost-effectiveness of moving people in corridor.

2.2 Land Use, Population & Employment

The Growth Plan is based on the premise of encouraging more compact, mixed-use development while controlling greenfield developments to contain urban sprawl. The Growth Plan specifies that at least 40% of new development should be concentrated within existing urban areas, preferably in UGCs and activity corridors with controlled development of designated greenfield areas to minimum density standards. Under the Growth Plan, the GGH is projected to grow by 2.7 million to 11.5 million persons over the thirty-year period from 2001 to 2031. Employment is projected to increase by 1.75 million to 5.56 million jobs over the same time period. Over three-quarters of the population and employment growth is projected to occur within the GTHA.

2.2.1 Population and Employment Growth

Table 2-1 shows the 2001 and 2031 projected population and employment growth for GTHA municipalities, as documented in the Growth Plan. Population is projected to grow by 48% from 5.81 million to 8.62 million, with employment increasing at a similar rate, from 2.95 million to 4.33 million jobs. It is projected that 26% of the population growth and 28% of the employment growth will be located in York Region, and as a result is the region that will face the largest growth over the 30 year period. This distribution of growth has significant implications for transit in the Highway 407 Corridor.

- Oshawa GO Station/Durham University to Spadina subway 407 Station; and,
- Pickering GO Station to Scarborough Town Centre/Centennial College/University of Toronto Scarborough Campus to Spadina Subway 407 Station.

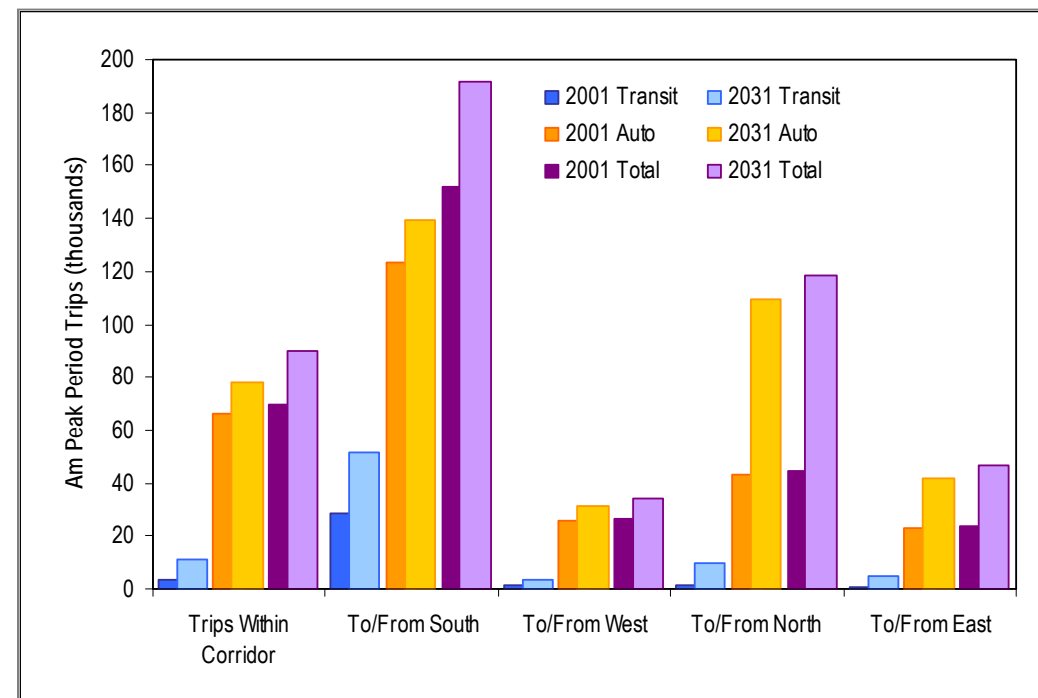
All these routes would operate on the transitway facility and divert into major destinations adjacent to the transitway such as Markham Centre and RHC to provide passengers with direct, no-transfer connections. There will be a connection to Vaughan Metropolitan Centre and York University via transfer to the Spadina Subway Extension (one and two stations away). It is assumed that the no-transfer services would operate at 65 km/h on the transitway facility between Jane Street and Markham Centre.

2.4 Future Travel Demand

2.4.1 Total Trips

Figure 2-4 presents the trends for major trip interchanges using the Highway 407 Corridor. Based on the GGH model projections, significant trip making growth is forecasted in the corridor with total trip making projected to increase by 52% from 315,900 trips in 2001 to 480,800 trips in 2031. As a result of the land use intensification under the Growth Plan, transit use is expected to more than double over the 30 years. The transit mode split for trips servicing the corridor is projected to increase from 11% to 17%. This indicates that with some further transit investment in the corridor (i.e. the 407 Transitway) there is a significant shift in travel mode from automobile to more sustainable public transit.

Figure 2-4: 2001 & 2031 AM Peak Period Transit, Auto & Total Volumes



Sources: 2001 Transportation Tomorrow Survey, Data Management Group, University of Toronto; IBI Group model run of 2031 using the GTHA Travel Forecast Model.

One of the fastest growing trip markets is trips from the east (Durham Region and east Markham). Total trips between these areas are expected to double by 2031. Since there is more dispersed land use patterns found in northern York Region, this trip market is projected to have the lowest transit mode split of 8% in 2031. In general, the existing transit usage patterns are projected to remain in the year 2031 with strong transit usage for radial trips to and from Toronto (Downtown Toronto in particular). For the other more circumferential trip interchanges, mode splits of around 10% are expected indicating that transit use in the corridor will remain largely dominated by captive transit riders. In general, while the largest flows will remain bound for Toronto in the south, the flows to the north are growing fastest and will become the second largest trip interchange surpassing flows to the west in Peel and Halton Regions and beyond, and flows to the east in Durham Region.

Figures 2-5(a) and (b) provides schematics of the growth in travel flows to and from the 407 Transitway. The schematics show that for flows into the corridor, significant growth is seen entering the corridor from the east (from eastern Markham and Durham Region), and from Peel Region in the west. There is additionally a growth in reverse commute trips, leaving Toronto and destined to the corridor, particularly in the eastern portion of the transitway corridor. For trips originating in the corridor, trips into downtown Toronto will continue to be the dominant movement with significant growth to most other areas surrounding the corridor.

Figure 2-5(a): 2001 to 2031 AM Peak Period Corridor Travel Flow Growth, Flows to Highway 407 Corridor

