



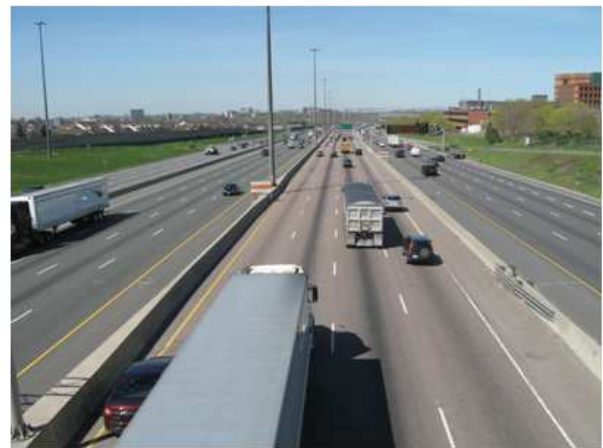
Number 19

May 2011

## Testing the Missing GTA Transit Link

Toronto Mayor Rob Ford's proposal to extend the Sheppard Subway eastward to Scarborough Town Centre and westward to the Spadina subway has hit a financial roadblock: the \$4.2 billion cost formula has not been worked out, with the Province not yet willing to provide funding.

Given that this project is delayed, there is time now to look at other options that are not on the defunct Transit City plan but are needed to deal effectively with the issue of commuter traffic in the GTA. Both the Transit City Plan and the new subway plans are focused on the City of Toronto only, with little regard for the congestion impacts of longer-distance and cross-border traffic to and from Peel, York and Durham.



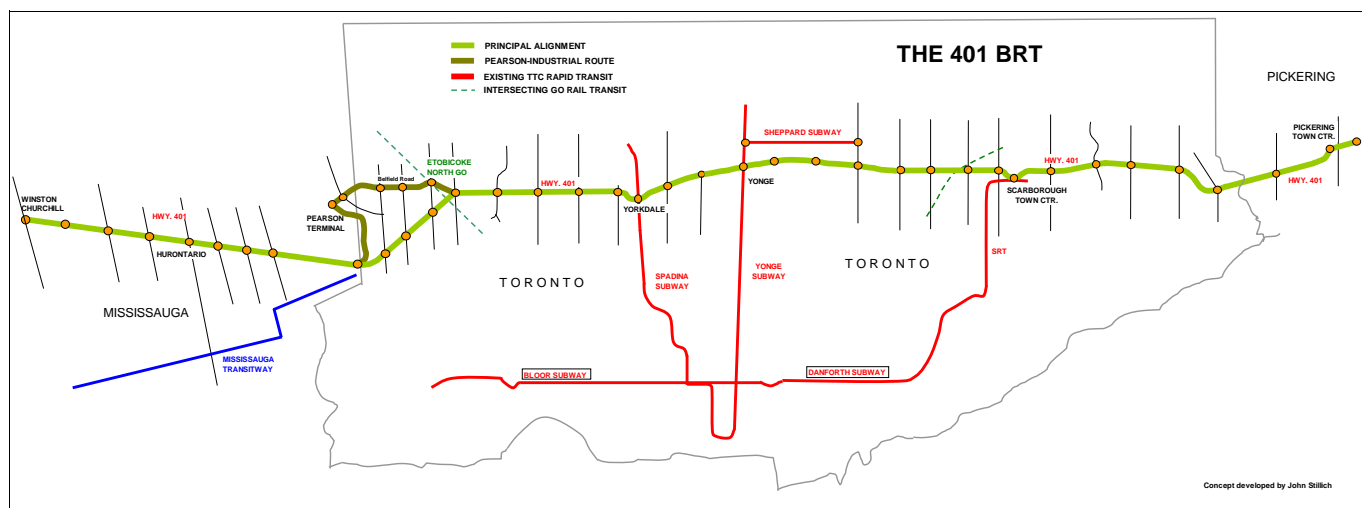
In the past, SUDA has suggested to Metrolinx that it consider a singular East-West rapid transit line from Pickering to Mississauga using the Highway 401/409 corridors (mostly at grade), with off-highway segments tunnelled to significant destinations, such as Pearson Airport, Scarborough Town Centre, Pickering Town Centre, and under Britannia Road to Hurontario Street in Mississauga. The 401RT, as it is called, is estimated to cost \$8 billion for a 50-kilometre distance, use subway technology, and increase transit ridership by 150,000,000 by 2031.

The concept reflected a recognition that the problem of congestion in the central portion of the GTA will only get worse until there is a way to get rapidly across the middle of the region by public transit. Other than a few GO Transit buses, there is currently no opportunity for a traveler to, for example, go quickly from Pickering to North York, or from Scarborough to the Pearson airport employment area, except by car. And for many people, taking a slow bus from Etobicoke or Scarborough to get to the Spadina or Yonge subways is not an option. There must be a viable transit alternative.

Beyond congestion, imports of cars and petroleum for transportation are an annual drain of more than \$10 billion per year in Ontario, and as the price of oil will rise rapidly over time, the negative economic impacts to Ontario will worsen. And as has been recently reported in the media, families are already giving up some of their discretionary spending in order to pay for the rising cost of gasoline. Traffic congestion also means increased pollution and more greenhouse gas emissions, at a time when these need to be reduced urgently.

The viability of closing this missing link on the GTA transit system – a cross-GTA rapid transit service through the middle of the region – should be tested, and it can be done with a variant of the original 401RT idea, by using buses on existing road infrastructure at the edges of Highway 401.

The concept involves an express and semi-express bus service running from central Pickering through Toronto and across Mississauga, almost entirely via Highway 401, with a few short diversions. The concept includes a secondary alignment to Pearson International Airport and the employment area to its east. In almost all cases, by using existing right-hand highway lanes and existing or modified on- and off-ramps, 40+ arterial road intersections along the way can become transfer stops. The bus route would also link to the Spadina, Yonge and SRT rail transit lines. Access for people to the 401 BRT service, if not by walking/bicycling from close-by buildings such as at Pickering and Scarborough Town Centres and from subway connections, would be by buses running on intersecting arterial roads. The test should include both arterial-to-arterial service and express services (for example, from Hurontario Street in Mississauga non-stop to Pearson Airport and then locally across the industrial area). An important benefit of a bus-based service is that both express and arterial-to-arterial services can be accommodated on the same lane; this option is not possible on light rail transit.



The test should include extra-comfortable regular or articulated buses running at close headways (not more than 5 minutes apart). Attracting passengers also requires that fully-enclosed modern shelters be provided at all transfer points, to protect passengers from Canada’s severe weather. A variety of shelter and ramp designs would be needed, depending on the infrastructure that exists at arterial intersections.

The implementation cost of this service – up to 74-kilometres -- should be about \$100 million, including ramp adjustments, new platforms and stair infrastructure for a few locations, enclosed shelters at every stop, and new buses (50; \$37.5m) – overall, much less than the price of a single kilometre of subway or two kilometres of LRT. The cost assumes that no additional highway lanes need to be constructed – that the existing right-most lane in each direction can be temporarily converted to bus-only and exit-only lanes between intersecting arterials. If appropriate, the bus lane can also be used for other high occupancy vehicles. The cost excludes possible ‘Kiss and Ride’ facilities. Additional buses on arterial routes can also be added.

Ridership and price structure would determine operating viability. Based on a \$325,000 annual cost per bus, 50 new buses, and an average fare of \$3.00, the break even ridership would be about 5.4 million total riders per year (20,000 per workday).

If the pilot test is a success, the service can become a permanent alternative to the cost and frustration of driving, and a significant answer to transportation, environmental and economic costs. Success also means that ridership on a 401 BRT would offset the traffic impacts of converting a single highway lane to transit, whether it be a bus-only lane or the rail-based concept

of the 401RT. If the test project is terminated, the buses can be re-assigned and shelters re-located.

One thing should be clear – ‘Business as Usual’ is unsustainable. Without a high-quality rapid transit service across the middle of the GTA, the region will not be able to prevent a worsening of conditions.

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Example of typical BRT / Arterial Road Intersect

