THE BIG MOVE

Mobility Hubs

December 2008

1. Introduction

This is one in a series of backgrounders that have been produced by Metrolinx to provide further explanation and clarification on the policies and directions of the Regional Transportation Plan (RTP). The RTP is available for downloading at www.metrolinx.com.

This backgrounder should be read as an accompaniment to Strategy 7 of the RTP. It is intended to provide additional detail on the mobility hub policies of the RTP and clarification of the terms and definitions used in the RTP with respect to mobility hubs.

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2. What is a Mobility Hub?

The mobility hub policies of the RTP build on the overall policy framework established in the *Growth Plan for the Greater Golden Horseshoe*, particularly those related to *major transit station areas*. The *Growth Plan* defines *major transit station areas* as the area within a 500m radius (10 minute walk) of any existing or planned higher order transit station within a settlement area or around a major bus depot in an urban core. *Major transit station areas* that are particularly significant for the regional rapid transit system are recognized as mobility hubs in the RTP.

Mobility hubs are *major transit station areas* with significant levels of transit service planned for them in the RTP, high development potential, and a critical function in the regional transportation system as major trip generators. They are places of connectivity where different modes of transportation — from walking to high-speed rail — come together seamlessly and where there is an intensive concentration of employment, living, shopping and/or recreation. In addition to serving as places to arrive, depart and wait for transit, successful mobility hubs have the potential to become vibrant places of activity and destinations in themselves.

Currently, many of these sites offer little more than vast parking lots, but they could be much more. The RTP imagines a future in which these areas become true mobility hubs, with local transit service, cycling and pedestrian networks, secure storage facilities for bikes, car-share drop-off areas and more. They will

become locations for major destinations such as office buildings, hospitals, education facilities and government services. They will be places carefully designed to improve the transit customer's experience from the moment he or she approaches a station, by offering amenities such as heated waiting areas, traveller information centres, cafés and restaurants, as well as services such as daycares, grocery stores or post offices.

3. Mobility Hub Precedents

Other jurisdictions around the world have realized the importance of linking transportation and land use at key strategic locations in their regional transit systems. Indeed, the Yonge Subway line in Toronto, with its clearly visible pyramids of intense mixed-use development at stations along the line can be regarded as one of the best early examples.

Other interesting precedents can be seen in the way in which the latest generation of transit systems are being put in place in Europe. The Greater London Authority recently issued a Transport Strategy for the London region. The strategy involves linking centres within the urban area with high capacity, high speed transit. They have also prepared a 'mobility hub' planning template based on a recently introduced concept — the Public Transit Accessibility Level (PTAL) — from which flows a series of minimum development policies to be undertaken in the vicinity of a higher-order transit station.

The City of Bremen, Germany boasts a 60 per cent sustainable transportation modal split made up of 17 per cent public transit, 20 per cent walking, and 23 per cent cycling. The success of the system is based on a structure of mobility hubs that are strategically located throughout the city, creating useful intersection points between trams, buses, car-share, cycling networks, and taxis. Each hub is equipped with an electronic journey planning/ticket kiosk that provides real-time information.

Portland, Oregon, has successfully linked transportation and land use planning with its Transportation System Plan adopted in 2002. There are over 600 transit projects planned or underway in its sophisticated multi-modal system, with a strong emphasis on linking transportation

and land use. Transit investments are strongly linked not only to current demand, but also to future demand, in areas where development parcels can be assimilated and transit-oriented communities can be established.

4. Mobility Hub Identification

The RTP identifies two types of mobility hubs: Gateway Hubs and Anchor Hubs. This section describes the criteria that were used to identify these hubs.

4.1 Gateway Hubs

Metrolinx has defined Gateway Hubs as *major transit station areas* that are:

- located at the interchange between two or more current or planned regional rapid transit lines as identified in the RTP; and
- have 4,500 or more forecasted combined boardings and alightings in 2031 (in the morning peak period)

In addition, these areas are generally forecasted to achieve or have the potential to achieve a minimum density target of approximately 10,000 people and jobs combined within 800 metres.

Appendix A lists the Gateway Hubs that are identified in the RTP.

As the regional transit system is implemented, and detailed planning is undertaken for specific corridors, Metrolinx may refine the list of mobility hubs in consultation with municipalities and transit agencies.

4.2 Anchor Hubs

Anchor hubs are primary major transit station area in an *urban growth centre*[1]. In addition, Pearson Airport and Union Station are identified as anchor hubs due to their roles as the GTHA's primary international gateways.

Anchor Hubs have strategic importance due to their relationship with *urban growth centres* and/or their role as major international gateways. Anchor Hubs contain current or planned major regional destinations such as major institutions, employment centres, town centres or regional shopping centres, and they have significant potential to attract and accommodate new growth and development. Anchor Hubs have the potential to transform the regional urban structure and act as anchors of the regional transportation system. The RTP identifies a total of eighteen Anchor Hubs (see Appendix B).

4.3 Destinations

Destinations are unique places within the region that have significant drawing power. Although without the transit activity to be full mobility hubs, such destinations are critical to the functioning of the transportation system. Destinations include universities, colleges, airports, regional shopping centres (typically 200+ stores), hospitals (typically 300+ beds), and arenas (typically 5,000+ seating capacity), and arts centres (typically 1,000+ seating capacity). Destinations may or may not have existing higher order transit service or development potential, but are important regional activity centres and trip generators. A partial list of destinations follows. The RTP recommends that municipalities identify destinations such as these in their official plans and transportation master plans.

- Colleges and Universities: McMaster University, Mohawk College, University of Toronto at Mississauga, York University, University of Toronto at Scarborough, Sheridan College, Durham College, University of Ontario Institute of Technology, University of Toronto, Ryerson University, Centennial College, George Brown College, Humber College, Seneca College.

- Airports: John C. Munro Hamilton International Airport, Oshawa Municipal Airport, Toronto City Centre Airport.

- Regional shopping centres: Sherway Gardens, Scarborough Town Centre, Oshawa Centre, Pickering Town Centre, Eaton Centre, Yorkdale, Square One Mississauga, Markville Shopping Centre, Bramalea Centre, Upper Canada Mall, Limeridge Mall, Vaughan Mills, Mapleview Mall, Jackson Square, Fairview Mall, Pacific Mall.

- Hospitals: Brampton Memorial Hospital Campus, Credit Valley Hospital, Humber River Regional Hospital, Mount Sinai Hospital, North York General Hospital, St. Joseph's Health Centre, St. Michael's Hospital, Toronto East General Hospital, Toronto General Hospital, York Central Hospital, Southlake Regional Health Centre, Joseph Brant Hospital, Oakville Trafalgar Memorial, Lakeridge Health, York Regional Hospital.

- Arenas, Stadiums and Major Recreation Destinations: Rogers centre, Exhibition Place, Air Canada Centre, Harboufront Centre, Hershey Centre, General Motors Centre, Copps Coliseum, Ricoh Coliseum, Ivor Wynne Stadium, Birchmount Stadium, Lamport Stadium, Canada's Wonderland.

- Arts Centres: Roy Thompson Hall, Four Seasons Centre for the Performing Arts, Massey Hall, Canon Theatre, Princess of Wales Theatre, Sony Centre, Oshawa Civic Auditorium, Mississauga Living Arts Centre, Hamilton Place, Rose Theatre.

4.4 Other Transit Stations

Major transit station areas that do not meet the criteria for mobility hubs continue to be important components of the region's urban structure and transportation system. These are locally significant access points to or interchanges within the transportation system and as such they must provide convenient access from various forms of transportation. The policies for *major transit station areas* are provided by the *Growth Plan*.

In accordance with Policy 7.16 of the RTP, Municipalities may identify areas in Official Plans and Transportation Master Plans that have the potential to meet the mobility hub definitions and criteria of the RTP in the future, and plan for their potential future role as mobility hubs. This may include the preparation of detailed master plans for these areas as described in Policy 7.15 of RTP.

5. Policies for Mobility Hubs

5.1 Mobility Hubs and the Growth Plan for the Greater Golden Horseshoe

The RTP builds on the policy directions of the *Growth Plan*, particularly with respect to the policies concerning mobility hubs and *major transit station areas*.

Major transit station areas are directed by the *Growth Plan* to be designated in official plans and to be planned to achieve:

a) increased residential and employment densities that support and ensure the viability of existing and planned transit service levels
b) a mix of residential, office, institutional, and commercial development wherever appropriate

Major transit station areas are also considered to be intensification areas in the *Growth Plan*. Among the policies that the *Growth Plan* applies to intensification areas are:

- accommodating population and employment growth by focussing intensification in intensification areas;
- establishing minimum density targets for them that are consistent with planned transit service levels and provincial transit-supportive land use guidelines;
- planning and designing them to attract a significant portion of population and employment growth and provide a diverse and compatible mix of land uses, including residential and employment uses, to support vibrant neighbourhoods;
- planning and designing them to provide high quality public open spaces with site design and urban design standards that create attractive and vibrant places;
- planning and designing them to support transit, walking and cycling for everyday activities; and
- generally achieve higher densities than surrounding areas and achieve an appropriate transition of built form to adjacent areas.

As *major transit station areas*, all mobility hubs are required to conform to these *Growth Plan* directions.

5.2 Master Plans for Mobility Hubs

Section 7 of the RTP provides a number of policy directions for mobility hubs. One of the cornerstone policies is the requirement for municipalities, in consultation with transit agencies, landowners, major stakeholders and public agencies and institutions, to prepare detailed master plans for each mobility hub and, where appropriate, other *major transit station areas* and unique destinations (see Strategy 7.15). Master plans would be prepared as either secondary/tertiary plans to local official plans, community improvement plans, or as part of a development permit by-law, and must conform to and help implement the *Growth Plan*.

The RTP recommends that master plans for mobility hubs:

- set out policies and an anticipated schedule for their achievement, to conform with and implement the Growth Plan for the Greater Golden Horseshoe's policies for major transit station areas and, where applicable, urban growth centres;
- establish minimum density targets that conform to the Growth Plan for the Greater Golden Horseshoe and are based on the planned transit service levels of the RTP;
- optimize transit-oriented development potential, and identify and implement incentives to promote transit-oriented development, such as streamlined planning and building approvals and reduced development application fees;
- provide for a range of amenities for travellers such as retail uses, restrooms, community spaces and tourism information, where appropriate;
- optimize the trip-generation benefit of the mobility hub;
- set target modal splits for transit usage, single occupancy vehicle trips and active transportation for each mobility hub, and an anticipated schedule for their achievement;
- establish a surface parking reduction strategy in consultation with transit agencies, that is based on site-specific redevelopment opportunities and the existing or planned availability of alternative modes of access to the mobility hub, and that includes a scheduled transition from free surface parking to a limited supply of fairly priced, structured parking, and policies to set aside reserved parking spaces for carpool and car-sharing vehicles;
- include design policies that help achieve environmental sustainability objectives, such as LEED Gold or equivalent standards, for any new transit-related buildings;
- improve the travelling experience through the use of public art, landscaping and architectural excellence;

- minimize distances between transit stations, and between transit stations and key destinations, within the mobility hub;
- give priority to transit, pedestrian and bicycle access over all other modes, and identify a zone around mobility hubs that provides priority measures for these modes on access roads;
- establish a pedestrian-focused internal movement plan that integrates public and private spaces through well-designed, human-scaled spaces;
- provide secure, conveniently located, weather-protected bicycle storage facilities and integrate bike-sharing where available; and
- address issues related to the comfort and convenience of transit users, including policies that provide for customer service amenities, such as a plentiful supply of clean, safe, comfortable, weather-protected waiting areas, way-finding, and access for users with special needs.

6. Implementing Mobility Hubs

While new transit infrastructure will often by itself increase adjacent real estate values and promote development, there will be many situations around hubs where property, infrastructure or public realm investment will be necessary to optimize the development potential of the hub. Land acquisition or consolidation is often necessary. There are frequently large areas of parking around transit stations that need to be freed up for development through construction of structured parking. New roads, bike or pedestrian routes may be needed to provide access to the improved hub. The environment around stations often needs improvement to create, for example, the active transit plazas contemplated in the RTP. Improvements to the design, customer convenience and comfort of the stations themselves are also a critical component of a strong and efficient transportation system. In many cases, these types of improvements will require a degree of up-front public investment in addition to that necessary for the transit improvements themselves.

A mobility hub investment program is thus seen as a critical component of the overall RTP investment program. While it is difficult to estimate the total requirements of such a program, in the RTP Metrolinx has proposed $50 million per year over the life of the plan. The overall amount of investment in mobility hubs is however seen as several times this amount, as the up-front investment would leverage investment by the private sector that is generated by the increased accessibility created by the RTP and by municipal investments generated by development charges, Section 37 and Tax Increment Financing (TIF) revenues, as well as with direct capital contributions. To the extent possible, the investment should be structured as a

revolving fund, providing the up-front assistance necessary to enable transit-related development to take place which in turn would generate value enhancements, property tax revenues and other receipts.

The investment program should adopt operating procedures designed to maximize the potential for private sector and municipal financial participation in mobility hub development. Applications for funding could be invited from municipalities or, where appropriate, major institutions or private investors, in a series of competitive application rounds that might take place every two or three years. These could be based on development plans and business strategies prepared by municipalities in cooperation with area institutions and landowners that identify the optimal development strategy. Periodic funding, with fewer rather than more individual investments, would permit investment at the scale necessary to make a structural and transformative contribution to the success of the overall transportation system.

The criteria for awarding funding should stress the extent to which private and municipal investment would be forthcoming, the degree to which it would support use of the transit system, the scale of development and improvement that would be generated by the investment, the receptiveness of the planning and implementation framework for the contemplated transit-related development, the overall business plan for the mobility hub improvement, and the repayment program envisaged.

APPENDICES

Appendix A:

Gateway Hubs

Gateway Hub	Number of Rapid Transit Lines	2031 Boardings + Alightings (AM peak period)*	2031 Population + Employment (within 800 m)*
Beaver Creek-Leslie/407	3	8,400	●
Bramalea GO	2	12,700	●
Cooksville GO	3	38,800	●●
Don Mills-Eglinton	2	13,200	●
Don Mills-Sheppard	2	13,000	●
Don Mills-Steeles	2	5,000	●
Dundas West Station	5	41,000	●●
Eglinton West Station	2	22,000	●●
Eglinton-Weston	3	9,000	●
Fairview GO	4	11,600	●
Finch West-Keele	2	12,000	●
Finch-Yonge	2	8,200	●●
Hamilton-Liuna	1	4,600	●
Hurontario-Steeles	2	11,900	●
Jane-Bloor	2	11,700	●
Jane-Eglinton	2	32,000	●
Jane-Finch	2	4,600	●
Kennedy-Eglinton	4	37,000	●
Main Station	2	31,000	●●
Mohawk-James	2	5,200	●
Newmarket GO	1	1,100	●
Osgoode Station	2	77,200	●●●●
Oshawa GO	2	29,800	●
Pape Station	3	54,200	●●
Port Credit GO	3	6,200	●
Queen Station	2	63,800	●●●●
Renforth Gateway	3	12,000	●
Seaton	3	6,200	●
St. George Station	2	13,600	●●●
Steeles Station	2	7,400	●
Yonge-Bloor	2	42,700	●●●●
Sheppard-Yonge Station	2	33,800	●●
York University/Steeles West	4	7,800	●

< 25,000 people and jobs	●
25,000-50,000	●●
50,000-100,000	●●●
100,000+	●●●●

** Values derived from modeling carried out in support of the RTP.*

Appendix B:

Anchor Hubs

Anchor Hub	Number of Rapid Transit Lines	2031 Boardings + Alightings (AM peak period)*	2031 Population + Employment (within 800 m)*
Downtown Brampton	3	32,200	●●
Downtown Burlington	1	2,900	●
Downtown Milton	2	4,800	●
Downtown Oshawa	4	3,700	●●
Etobicoke Centre	4	26,600	●●
Downtown Hamilton	3	15,700	●●●
Markham Centre	4	19,400	●
Midtown Oakville	3	16,300	●
Mississauga City Centre	3	5,000	●●●
Newmarket Centre	1	5,200	●
North York Centre	1	6,000	●●●
Pearson Airport (LBPIA)**	4	24,000	●
Downtown Pickering	3	47,400	●
Richmond Hill-Langstaff Gateway	5	86,300	●
Scarborough Centre	3	30,200	●●●
Union Station	13	380,200	●●●●
Vaughan Corporate Centre	3	19,600	●
Yonge-Eglinton Centre	2	42,000	●●●

< 25,000 people and jobs	●
25,000-50,000	●●
50,000-100,000	●●●
100,000+	●●●

** Values derived from modeling carried out in support of the RTP.*