



PLANNING A GREAT CITY
TOGETHER

Re: EX11.5

Scarborough Transit Planning Update

Executive Committee
January 28, 2016

Transportation Planning Section | City Planning Division

Scarborough

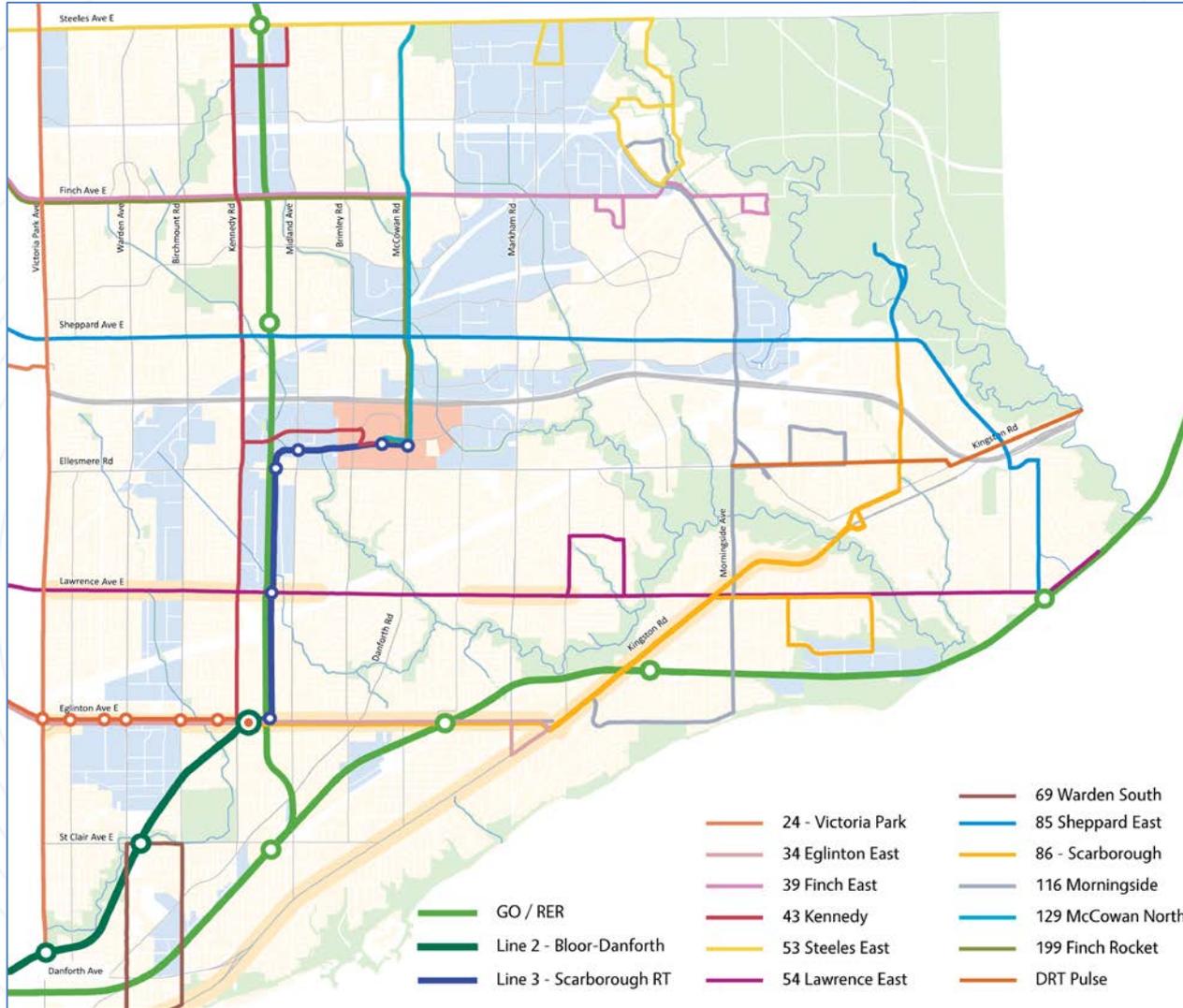
- Largely low density suburban form surrounding Scarborough Centre
- Public transit is predominantly local buses

Population	625,000
Density	33.3 people/ha
Scarborough Centre	17km from downtown



Photo source: [Talhamujahid](#) at the [English language Wikipedia](#)

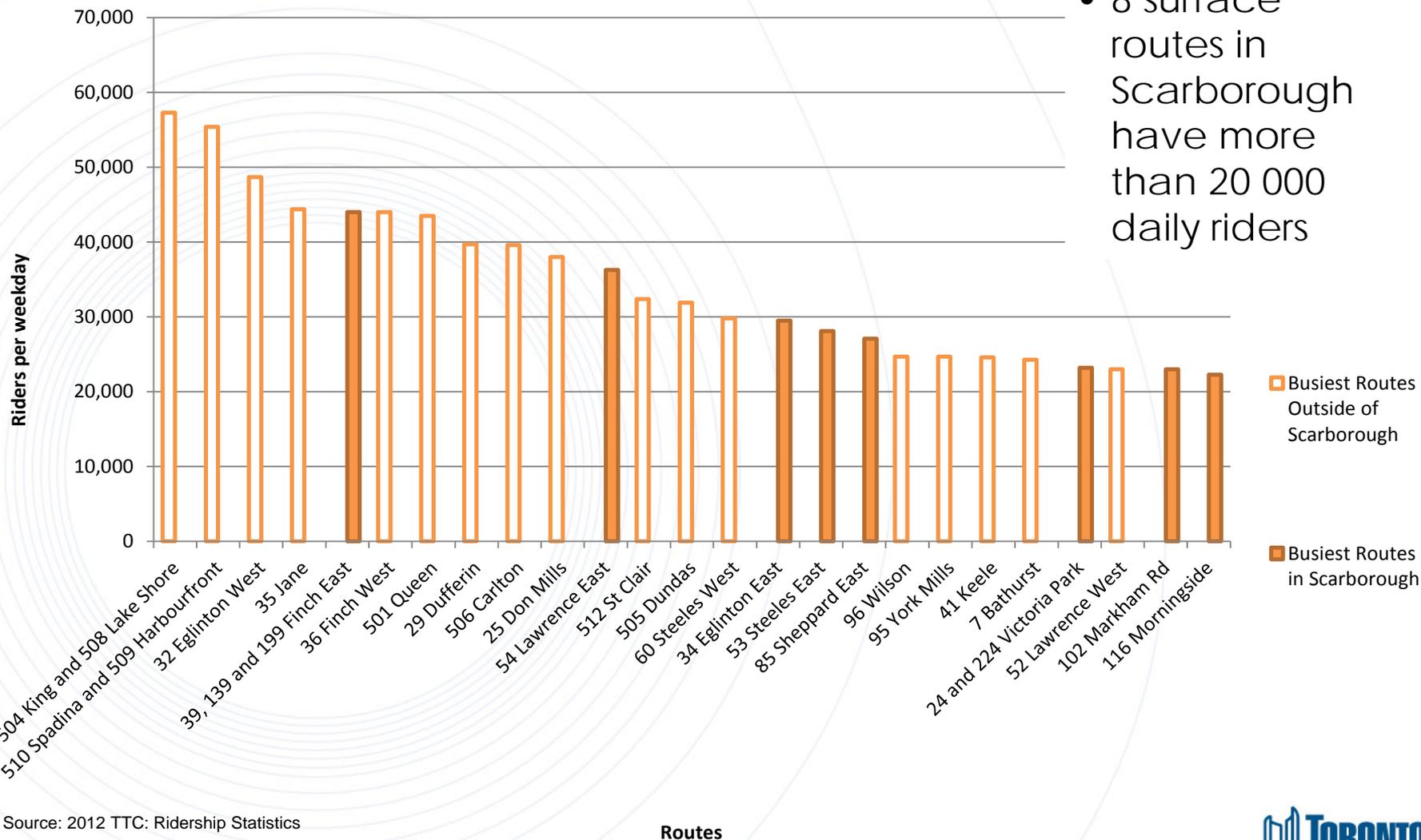
Existing Rapid Transit and 10 Minute Frequent Surface Transit



- Predominantly bus based transit
- Infrequent north-south routes
- Employment areas lack frequent transit service

Daily Ridership on Busiest TTC Surface Routes

- 8 surface routes in Scarborough have more than 20 000 daily riders



Source: 2012 TTC: Ridership Statistics

Transit and Urban Form

- Use of land around the transit line should be planned to make use of the transit capacity offered
 - Higher capacity & frequent transit can support greater densities by moving more people
 - Stations should be planned and designed to be integrated with development
 - Areas around stations should be intensified to accommodate more jobs and people within a 5 minute walk of a station

Eglinton Avenue Intensification Areas & Focus Areas

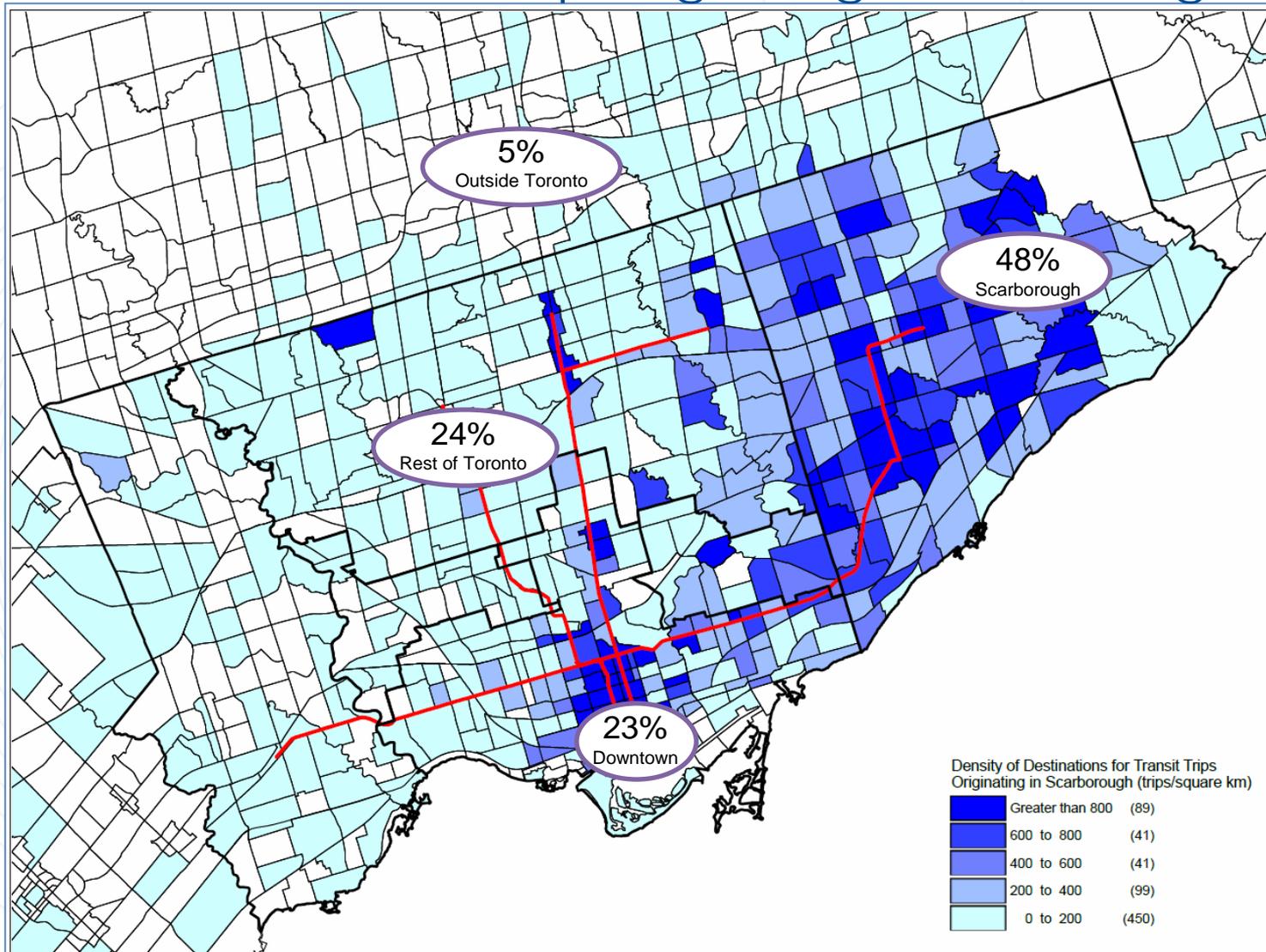


Existing Travel Patterns for All Trip Types

- 14% of all trips that both begin and end in Scarborough are made using transit
 - *Need to increase access*
- 6% of all trips that begin in Scarborough end in the downtown, of those, 66% are made using transit
 - *Fast and frequent connection important*

Existing Transit Travel Patterns

Destinations of all transit trips originating in Scarborough



Key Destinations (all trip types)

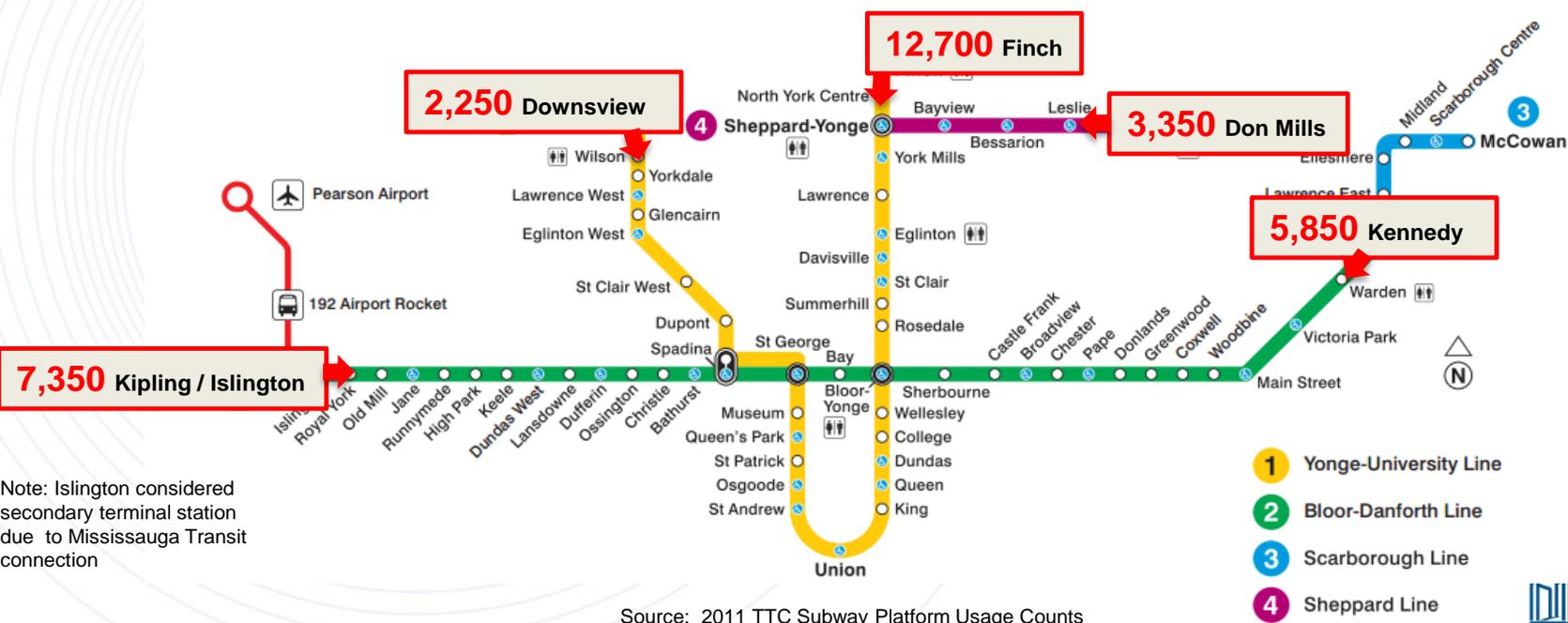
Key destinations for trips originating in Scarborough	Daily Trips
Financial District (bounded by University-Queen-Yonge-Lake Shore)	12,500
University of Toronto - St George Campus (Traffic Zone 69)	6,000
York University area (Traffic Zone 391)	5,500
Ryerson University area (Traffic Zone 38)	5,000
Yonge-Eglinton Centre	4,000
Pearson International Airport area (Traffic Zone 3709)	2,000
Scarborough (Internal Trip)	692,000

Source: 2011 Transportation Tomorrow Survey
 Figures Rounded

Ridership

- Ridership thresholds are not the primary consideration in choosing technology when extending existing lines
 - High ridership at the end of a line would mean crowding further along
 - Don't plan for maximum ridership at the end of the line
 - Incremental stations should encourage development and ridership in new areas rather than only respond to existing demand

Peak hour (AM) Boardings at Terminal Stations



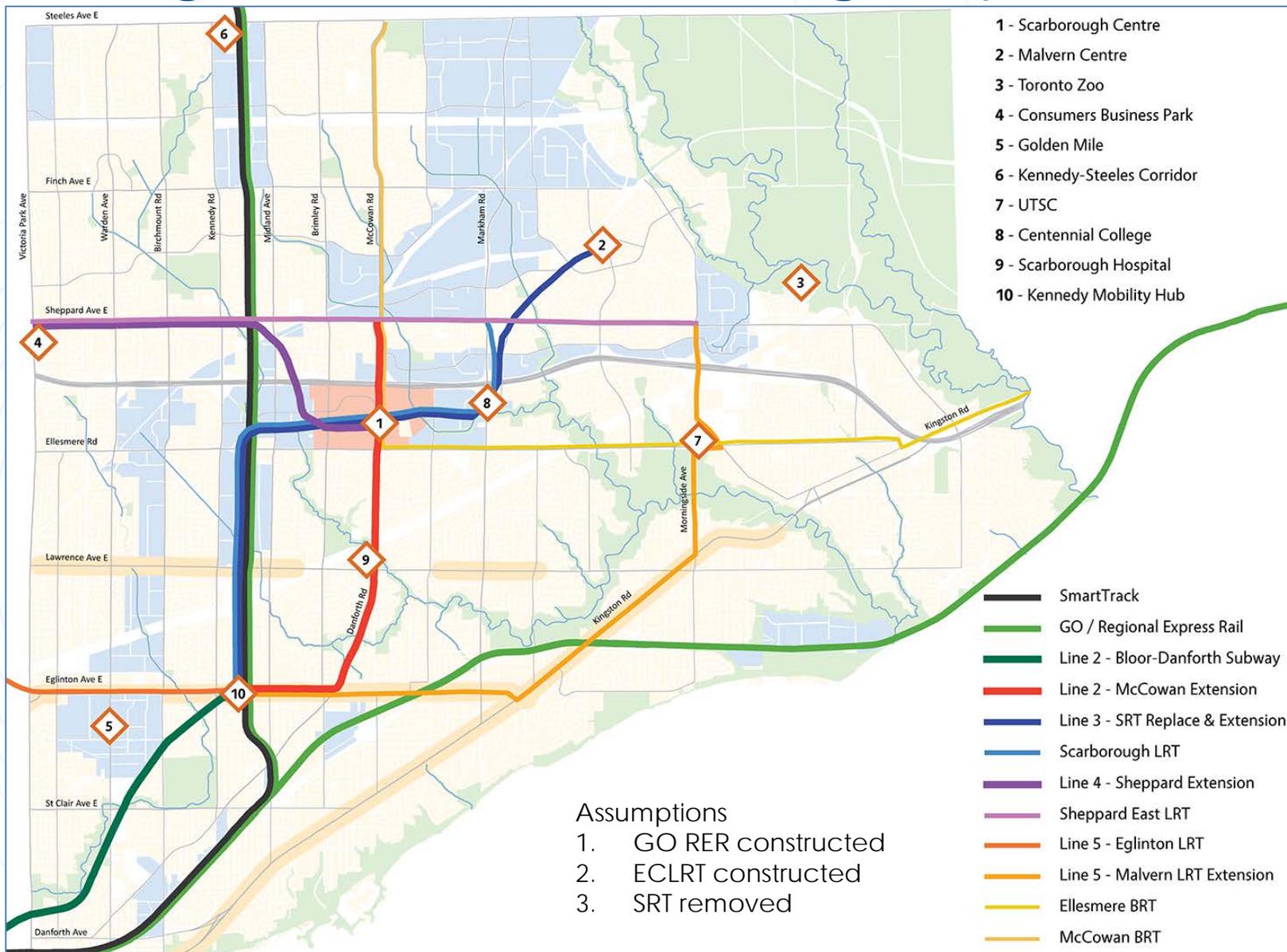
Note: Islington considered secondary terminal station due to Mississauga Transit connection

Source: 2011 TTC Subway Platform Usage Counts
 Figures Rounded

Local & Regional Transit Priorities

- Two overarching priorities for transit planning in Scarborough:
 - **Priority 1 (Regional):** *Connecting Scarborough Centre to higher order rapid transit to encourage residential and employment growth and intensification.*
 - **Priority 2 (Local):** *Better serve existing transit riders, improve access to transit and improve quality of life across Scarborough.*

Existing and Possible Scarborough Rapid Transit Projects

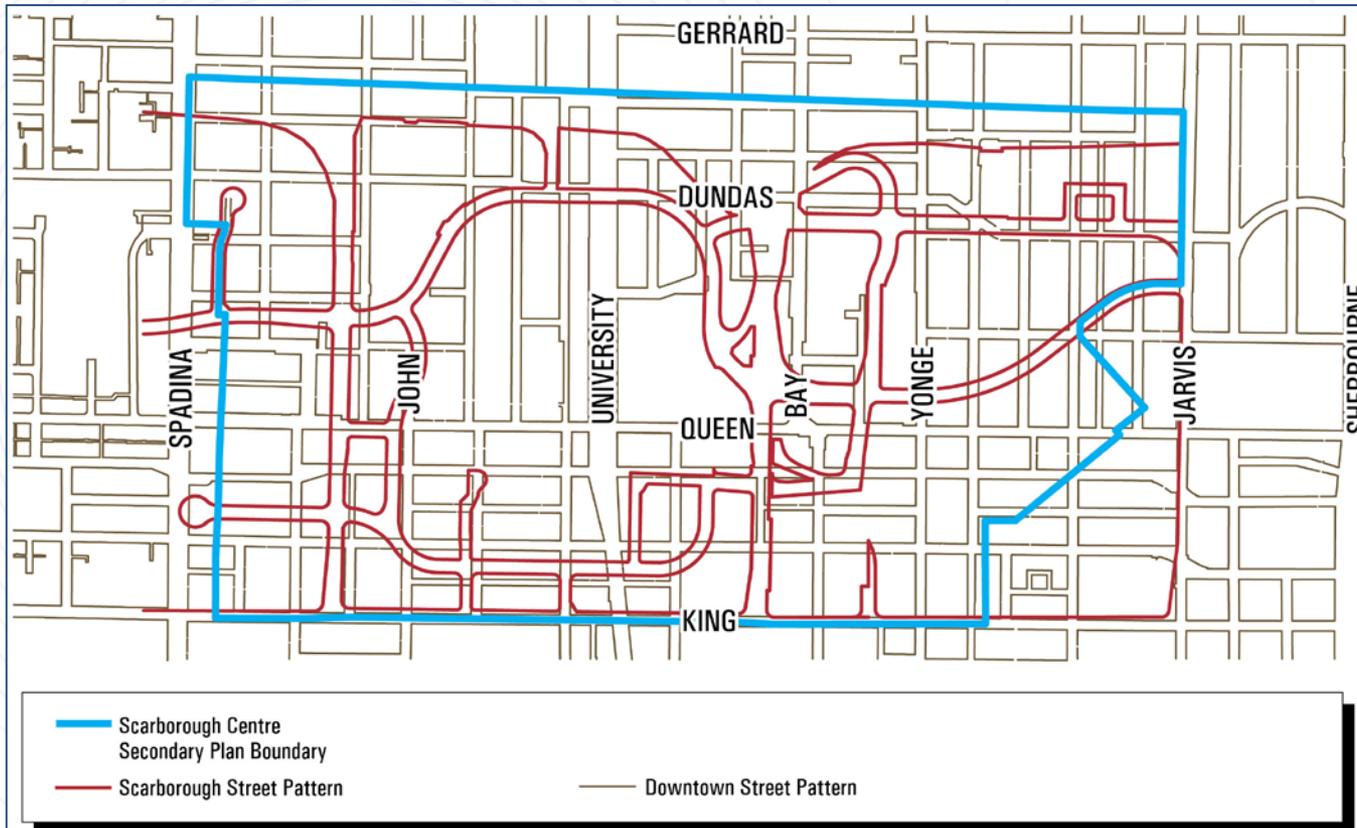


Priority 1: Connect Scarborough Centre

- Connect Scarborough Centre to higher-order transit network to
 - Encourage residential and employment growth in the Centre
 - Improve connections between Scarborough and key destinations across Toronto and beyond
- OP: Improving *Scarborough Centre's* connectivity is crucial to its success, particularly improving its Regional Gateway function
- Building transit is an ambitious investment whose long-term return is private development and economic prosperity
- Supports OP, PPS, Growth Plan and other local and Provincial planning policies

Vision for Scarborough Centre Continued

- Excellent internal and external public transit links are crucial to improving the accessibility and livability of Scarborough Centre.
- Scarborough Centre covers a massive area with the potential to become a vibrant urban node.



Scarborough Centre compared to Downtown streets

Priority 1: Connecting Scarborough Centre

Principle	Scarborough Subway	RT Replacement	Scarborough LRT	Sheppard Subway	Sheppard E LRT	Scarborough Malvern LRT	Ellesmere BRT	McCowan Rd BRT	
Does it connect Scarborough Centre?	YES	YES	YES	YES	NO	NO	YES	YES	
Good connectivity to network	Good	Fair	Fair	Good	Fair	Fair	Fair	Fair	
Fast, frequent service where people want to go	Good	Fair	Fair	Good	Fair	Fair	Fair	Fair	
Encouraging development and jobs	Fair	Poor	Poor	Fair	Fair	Fair	Poor	Poor	
Conclusion	Note 1	Fair	Poor	Note 1	Fair	Fair	Note 2	Fair	

Good
Fair
Poor

Notes

- Our conclusion that Scarborough Subway performs better than Sheppard Rd Subway due to:
 - Lower capital costs
 - Sheppard adds more riders to the overcrowded Yonge Subway line south of Sheppard
 - A potentially shorter travel time from Scarborough Centre to the downtown
 - Direct connection to Eglinton Crosstown
- Ellesmere BRT could be developed by Durham Region Transit in the future
 - Low-cost link between Scarborough Centre, UTSC, Downtown Pickering and Downtown Oshawa

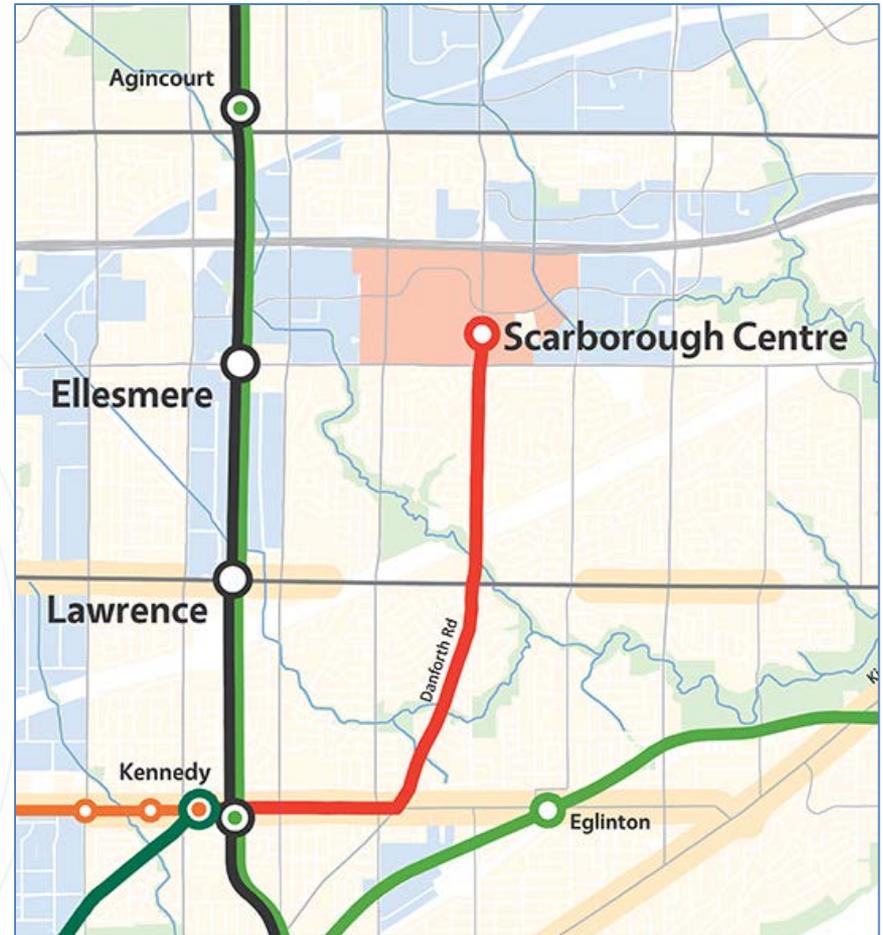
Scarborough Subway Extension

- Currently under study
 - TPAP anticipated in 2016
- Committed funding
- Stops at Lawrence E, Scarborough Centre, Sheppard E
- Cost: \$3.56B*
 - * Escalated costs to the midpoint of construction
- Opportunity for fourth station at Eglinton & Brimley for additional cost



Optimization of SSE

- Introduction of SmartTrack
- Reduce length of subway extension by terminating at Scarborough Centre
- Remove stations outside of Scarborough Centre, because redevelopment of the Centre is the key objective



Priority 2: Improve local transit

- Improve transit connections between local destinations, services and amenities to:
 - Better serve existing transit riders
 - Attract new transit riders
 - Improve quality of life for Scarborough residents
- OP: improve transit accessibility for neighbourhoods by investing in transit service along the *Avenues* and major streets – objective to reduce auto dependency and provide choice
- Building transit serves local needs and helps people move around their neighbourhoods everyday
- Increase connectivity in disadvantaged neighbourhoods
- Support for local businesses

Priority 2: Improving Local Transit

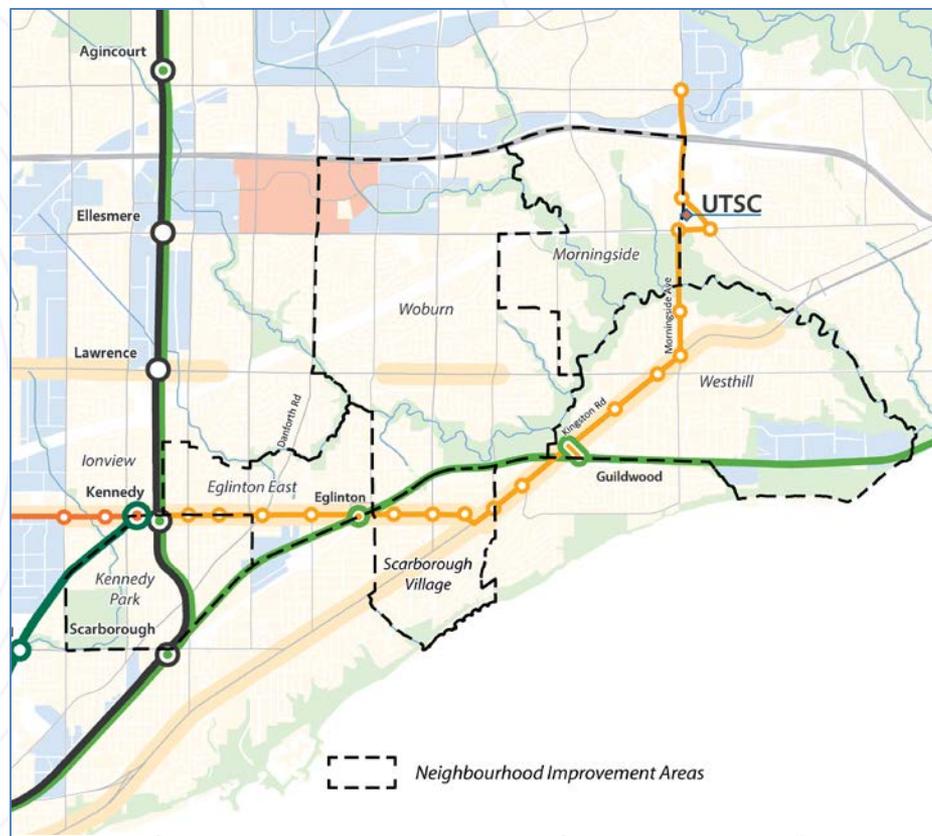
Principle	Scarborough Subway	RT Replacement	Scarborough LRT	Sheppard Subway	Sheppard E LRT	Scarborough Malvern LRT	Ellesmere BRT	McCowan Rd BRT	SmartTrack	Good	Fair	Poor
Good connectivity to local destinations and the broader network	Poor	Fair	Fair	Poor	Fair	Good	Fair	Fair	Poor			
Faster, frequent service to mixed-use growth areas	Poor	Fair	Fair	Poor	Good	Good	Fair	Fair	Poor			
Service to Neighbourhood Improvement Areas (NIA)	Fair	Fair	Fair	Poor	Poor	Good	Fair	Poor	Poor			
Supports local jobs and existing urban form	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Poor			
Local environment	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair			
Conclusion	Poor	Fair	Fair	Poor	Fair	Note 1	Fair	Fair	Poor			

Notes

- Scarborough-Malvern LRT performs particularly well due to:
 - Service to mixed-use Avenues, local destinations and NIAs
 - Network connections

Crosstown East

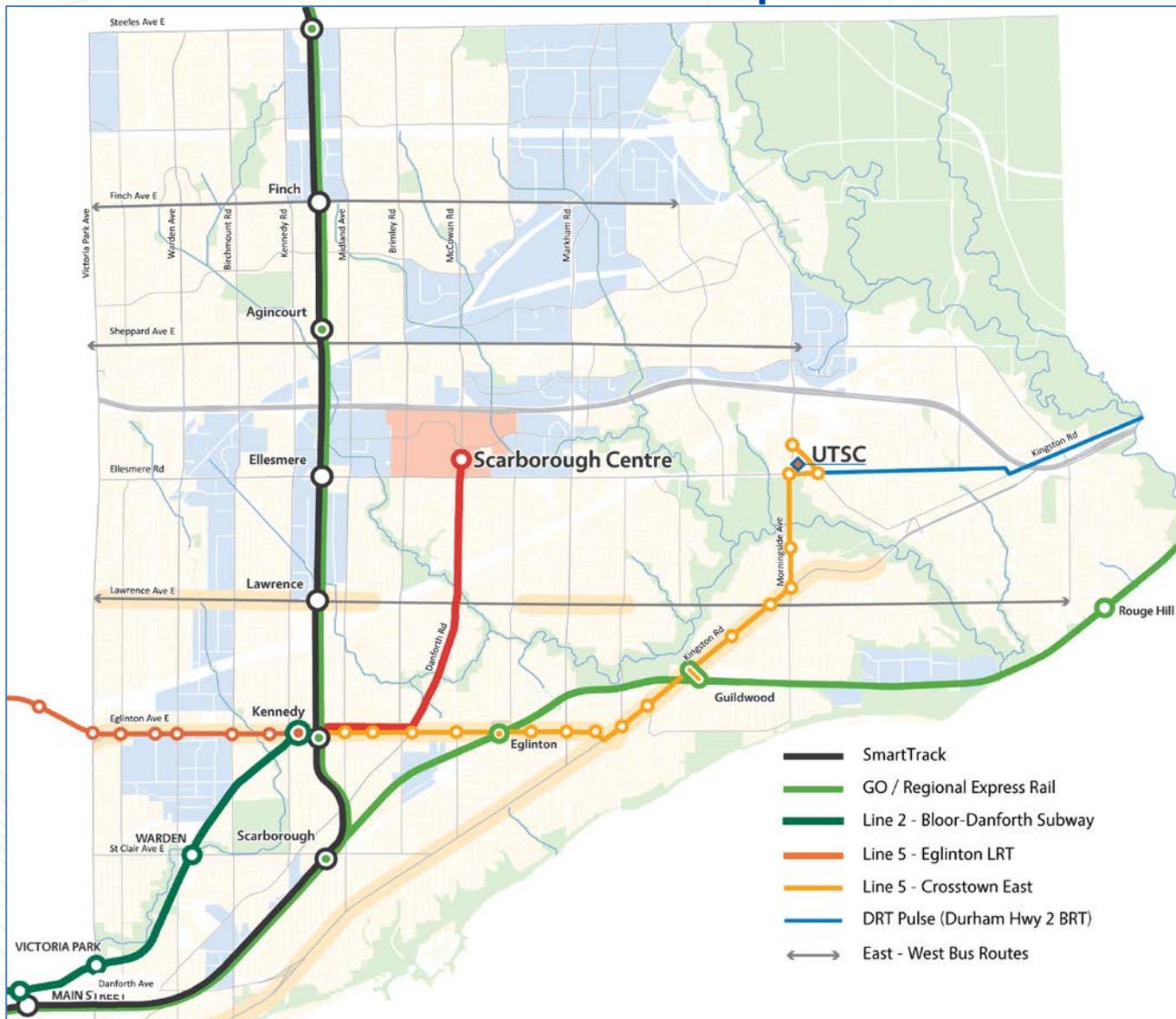
- 12km along Eglinton E, Kingston, Morningside to Sheppard E
- EA completed in 2009 (Scarborough-Malvern LRT)
- 19 stops:
 - Avenues - Eglinton E and Kingston
 - 5 Neighbourhood Improvement Areas
 - UTSC
 - 2 GO stations - Eglinton and Guildwood
 - ECLRT Connection
- Could plan future branches to Malvern, Port Union, Highland Creek Village



Optimization of Crosstown East

- It may be possible to optimize this project to reduce costs and/or increase benefits
 - May not need to extend to Sheppard if MSF could be accommodated elsewhere
 - Collaborate with University of Toronto master planning process
 - Stop spacing and service concept should be reviewed
- Detailed analysis of opportunities is required
 - Benefit/cost
 - Connectivity
 - Travel demand (ridership)

Optimized Network Map



Optimized Network

- Potential network includes:
 - Scarborough Subway Extension (express to Scarborough Centre)
 - Crosstown East
- Detailed analysis of these opportunities is required
 - Benefit/cost
 - Connectivity
 - Travel demand (ridership)
- If optimized to reduce costs and increase benefits, these projects may fit within the existing committed funding envelope
- Additional funding may be required to provide rapid transit to the Sheppard East corridor, to have a more complete network and serve northern Scarborough better

Comparison of Options

	Current Proposals for Scarborough	Optimized Network
Key Destinations	<ul style="list-style-type: none"> • Scarborough Centre • The Scarborough Hospital 	<ul style="list-style-type: none"> • Scarborough Centre • University of Toronto – Scarborough and Toronto Pan-Am Aquatic Centre
Land Use	<ul style="list-style-type: none"> • Serves employment area at Sheppard East and McCowan • Lawrence/McCowan station outside of designated growth area and extremely constrained 	<ul style="list-style-type: none"> • 8km of LRT along Avenues largely designated for mixed-use growth
Possible Extensions	<p>Subway</p> <ul style="list-style-type: none"> • Extend north of Sheppard 	<p>Express Subway</p> <ul style="list-style-type: none"> • Extend to Sheppard at McCowan and north of Sheppard • Add future stations at Eglinton/Brimley and Lawrence/McCowan <p>LRT</p> <ul style="list-style-type: none"> • Opportunities for future branches in eastern Scarborough
SmartTrack Stations		<ul style="list-style-type: none"> • Opportunity to move Lawrence Station to subway if better development potential or negative impact to SmartTrack operation

Comparison of Options – Planning Considerations

	Measure	Current Proposals for Scarborough	Optimized Network
Connectivity	People within 500m of stations	13,943	63,961
	How many more people can each Scarborough resident connect to in 45 minutes via transit compared to the base case?*	32,234 (+6.6%)	46,371 (+9.5%)
Economic Development	Jobs within 500m of stations	22,875	27,737
	How many more jobs can each Scarborough resident connect to in 45 minutes via transit compared to the base case?*	11,667 (+6.3%)	19,333 (+10.4%)
	Hectares of potential redevelopment sites	160 ha	200 ha
	How many more people can reach Scarborough Centre in 45 minutes via transit compared to the base case?*	155,640 (+20.3%)	172,280 (+22.5%)
	How many more people can reach the Financial District in 45 minutes via transit compared to the base case?*	26,210 (+2.4%)	35,472 (+3.3%)
Educational Opportunities	How many more people can reach UTSC in 45 minutes via transit compared to the base case?*	635 (+0.2%)	55,823 (+15.8%)
	How many more people can reach Centennial College in 45 minutes via transit compared to the base case?*	21,113 (+5.0%)	32,934 (+7.9%)

* Base case includes Eglinton Crosstown, Toronto-York Spadina Subway Extension, Finch West LRT, Hurontario LRT, introduction of new streetcars and incremental improvements to surface transit routes. The SRT is not included.

Comparison of Options – Neighbourhood Improvement Areas

	Measure	Current Proposals for Scarborough	Optimized Network
Transit Access in Neighbourhood Improvement Areas	NIAs served directly with stations	Woburn	Eglinton East Kennedy Park Morningside Scarborough Village West Hill
Connectivity	How many more people can each Scarborough NIA resident connect to in 45 minutes via transit compared to the base case?*	50,555 (+9.9%)	88,886 (+17.4%)
Economic development	How many more jobs can each Scarborough NIA resident connect to in 45 minutes via transit compared to the base case?*	20,242 (+10.1%)	34,848 (+17.5%)

* Base case includes Eglinton Crosstown, Toronto-York Spadina Subway Extension, Finch West LRT, Hurontario LRT, introduction of new streetcars and incremental improvements to surface transit routes. The SRT is not included.

Immediate Solution

