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RER STATIONS UPDATE

Existing and New Station Analysis Update

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February 10, 2016



Purpose

That the Metrolinx Board of Directors receive this report and direct staff to continue technical analysis and public consultation for GO RER Existing and New Stations in consultation with local municipalities and key stakeholders.



GO RER \$13.5B Capital Program



New Track

150 kilometres of new dedicated GO track will allow for more uninterrupted service.



New Trains

New electric trains will travel faster for longer and reduce travel times.



New Bridges and Tunnels

Bridges and tunnels that eliminate intersections with rail and road traffic will provide more reliable GO train service.



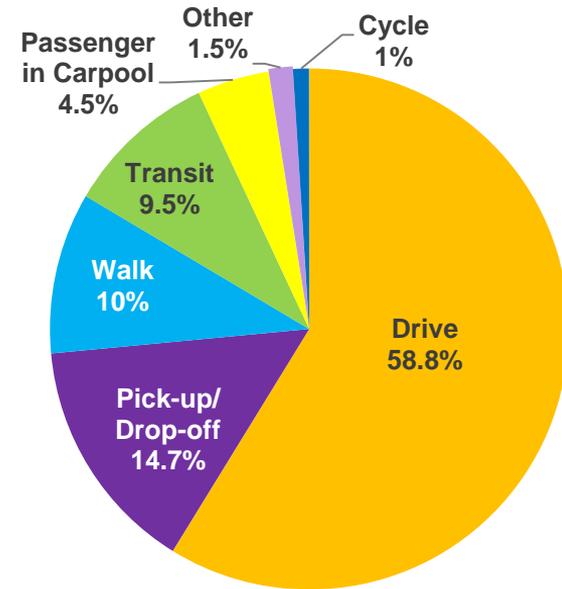
New Renovations

New and improved stations will make your journey more comfortable, from start to finish.

Stations in the GO RER Program

- GO is updating its plans for existing stations to accommodate new travellers as a result of GO RER service
- New or improved walking and cycling paths, transit bays, pick-up/drop-off lanes and vehicle parking will be examined
- New station locations are being analysed as part of the regional transit network expansion, providing more rapid transit to more communities

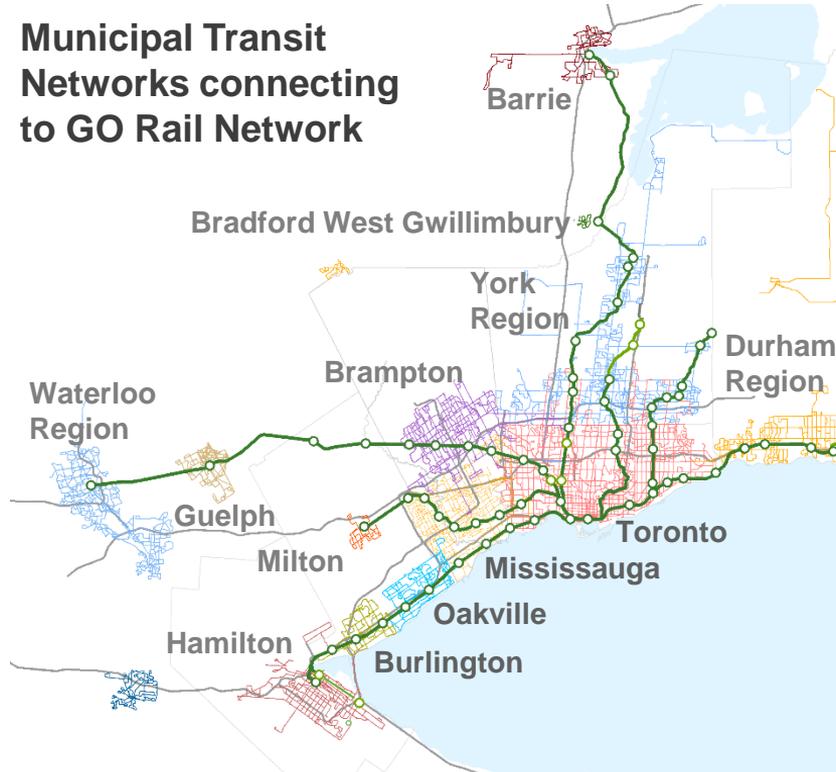
Riders travelling to GO stations (2015*)



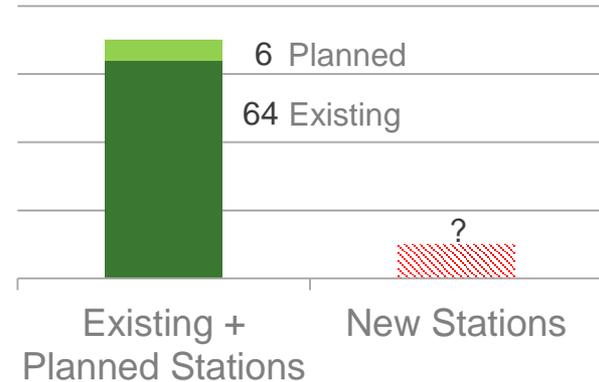
* Source: 2015 GO Rail Passenger Survey

Existing GO Rail Network

Municipal Transit Networks connecting to GO Rail Network



- 7 rail lines with 70 current & planned stations serving:
 - 13 local transit networks
 - 32 municipalities
 - 200,000 average weekday riders



Why is Station Access Important?

- The “first mile” and “last mile” is how GO passengers connect to our regional transit network, using a wide range of travel modes.
- Increased GO RER service does not help customers if they cannot easily get to and from GO stations.
- Designs for station facilities will be guided by both the way travel modes are used today and policies intended reduce dependency on single-occupancy vehicles and towards more sustainable modes.
- While investments will be made across all travel modes, those needed to achieve the shift towards more sustainable modes will be prioritized.



Walking



Cycling

Includes bike-share



Transit

Includes Municipal Transit and GO bus



Pick-up & Drop-off

Includes taxis, and new mobility services



Parking

Includes passengers, and carpooling

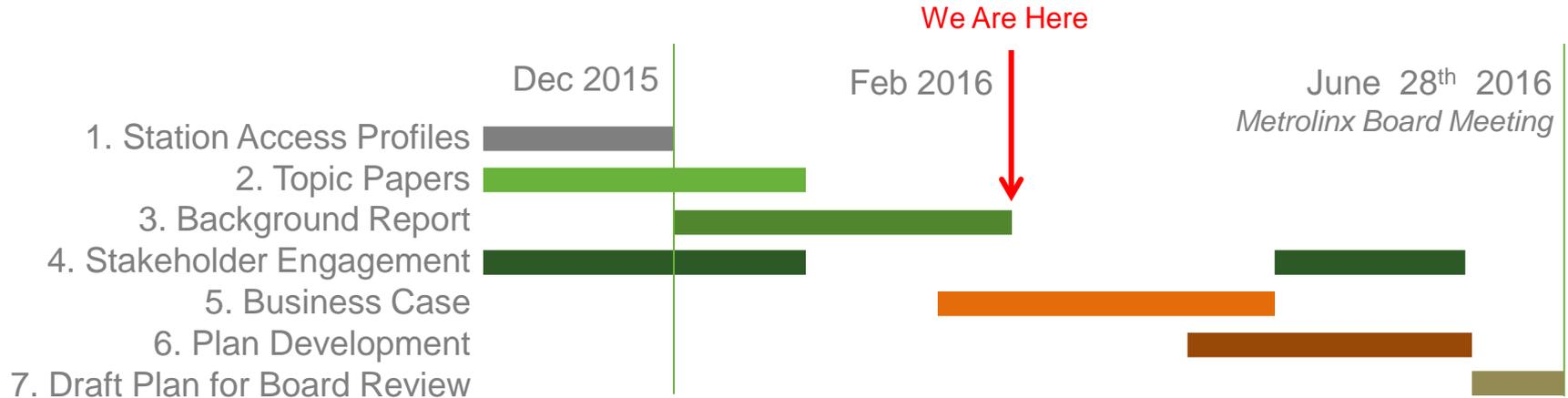


Existing Station Access Planning

We are updating the **GO Rail Parking & Station Access Plan (2013*)** to:

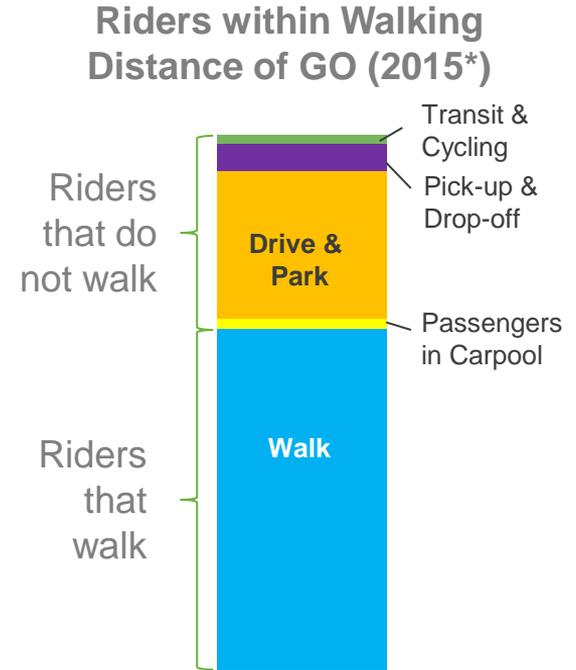
- Assess impacts of GO RER on parking & station access
- Strengthen station access modes that do not depend on parking
- Identify station access investments needed to support RER
- Develop strategies to operationalize station access policies

**Available at Metrolinx.com*



Walking to GO

- Currently 10% of riders walk to GO rail service.
 - But 40% of riders that live within walking distance (10 minute walk) of a GO station take other modes.
 - This shows the potential for increasing the share of riders who walk to GO, which will be necessary to achieve RER ridership goals.
- At some stations, future development could substantially increase the number of riders living or working within walking distance of a GO station.
- Incentives are needed to encourage walking (e.g. improved walking routes and environment, prioritize walking access over cars, etc.)



*Source: 2015 Cordon Counts and GO Rail Passenger Survey



Cycling to GO

- Currently 1% of riders cycle to GO rail service.
 - Potential exists to serve more short and medium trips (0.5-4km) by cycling.
- Stations in areas with a dense street network and good connectivity usually see a relatively high use of cycling and walking.
- Cycling can provide an effective solution at urban stations with constraints to parking capacity.
- Incentives to encourage and significantly increase cycling are needed (e.g. improved cycling routes and environment, secure bike parking, bike share, etc.)

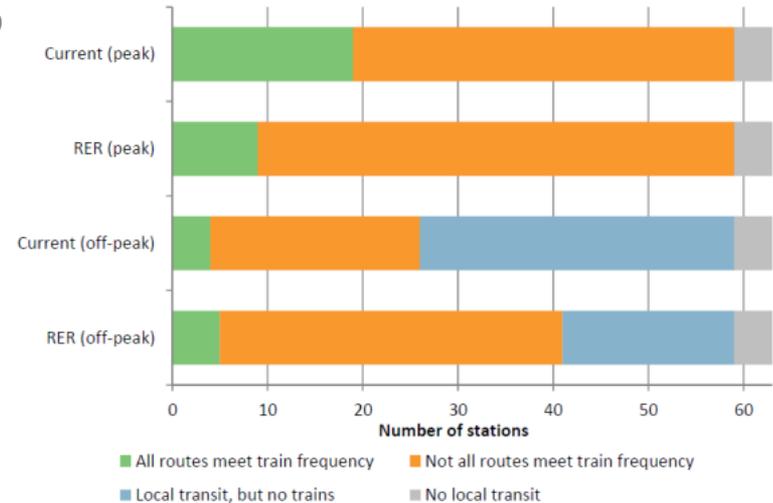




Local Transit

- Currently 8% of riders take local transit to GO rail service.
- RER represents an opportunity for local transit to better link to a regional rapid transit system.
- RER increased service levels will provide many with new opportunities and challenges for station access, including local transit
- ‘Priority routes’ will need to be identified to optimize frequencies and scheduling.
- Incentives for taking transit to stations are critical to making local transit more competitive with driving.
 - Improving local transit could significantly reduce dependency on single-occupancy vehicles.

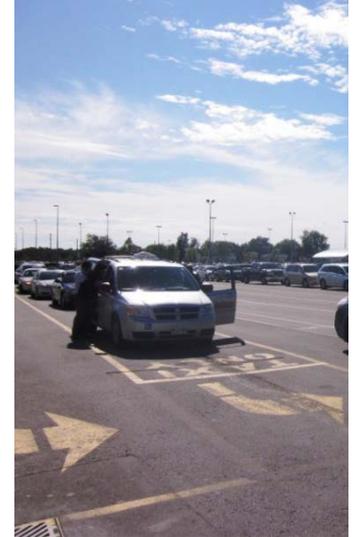
Local Transit Frequency Meeting GO (2015)





Pick-up & Drop-off

- Pick-up and drop-off is the 2nd most common way for riders to connect to GO rail service.
 - Currently 14.7% of riders use this station access mode.
- Metrolinx has been expanding the capacity of pick-up and drop-off facilities to support short term needs.
 - Demand of these facilities is tied to amount of riders getting on/off a given train.
- While RER will increase train frequency and riders, the amount of riders getting on/off a given train is not expected to grow significantly.
 - Most stations will not require significant further expansion of the capacity of these facilities to support RER. However, the configuration of these facilities may need to be changed (e.g. introduction of short term parking stalls) at high ridership stations to support peak period needs and growth in use of new mobility solutions.





Pick-up & Drop-off: New Mobility

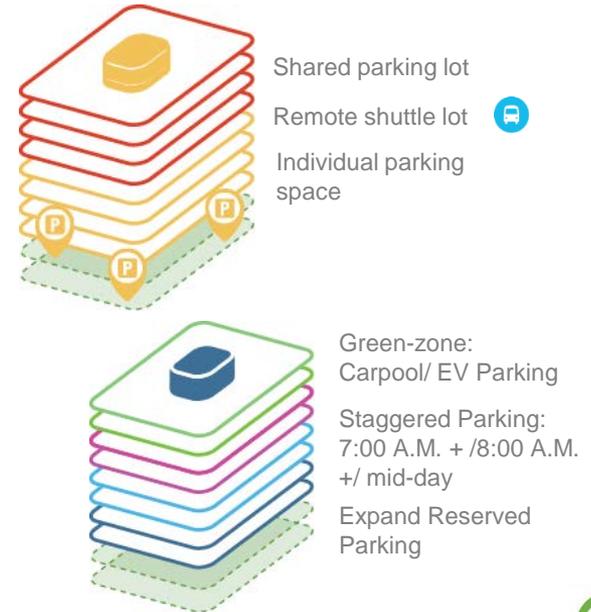
- New mobility solutions such as ride share services, demand response shuttles and autonomous vehicles are emerging and could play a larger role in station access in the future.
 - To support RER related ridership growth, facilities will need to be re-assessed to ensure that they accommodate these emerging options.
- These solutions should be supported at GO stations with large catchment areas, those with limited local transit service and/or use, and in areas with fragmented streets and low densities.
- Results from a Metrolinx-funded pilot Demand Response Shuttle at Milton GO (delivered by contracted taxis) and other research indicates new mobility solutions are competitive:
 - generally for longer trips (5-7 km trips)
 - mid-length trips (2-4km) where transit coverage or frequency is limited



Parking at GO

- Currently 63.3% of riders use parking at GO rail stations.
 - Parking is at, near, or over capacity at most GO rail stations.
- If past trends continue, RER will significantly increase the demand for vehicular parking at a number of stations.
 - Especially during weekdays when parking lots will fill up earlier during morning peak and affect late peak and mid-day travel.
- Current Provincial policies and Metrolinx plans seek to reduce congestion across the GTHA by reducing the share of single-occupancy vehicle trips.
 - Continually expanding parking at GO rail stations is not a sustainable strategy and does not align with policies and plans.
 - Better parking management will need to be explored in tandem with initiatives to increase use of other access modes.

Potential Parking Management & Expansion Options





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NEW STATIONS ANALYSIS



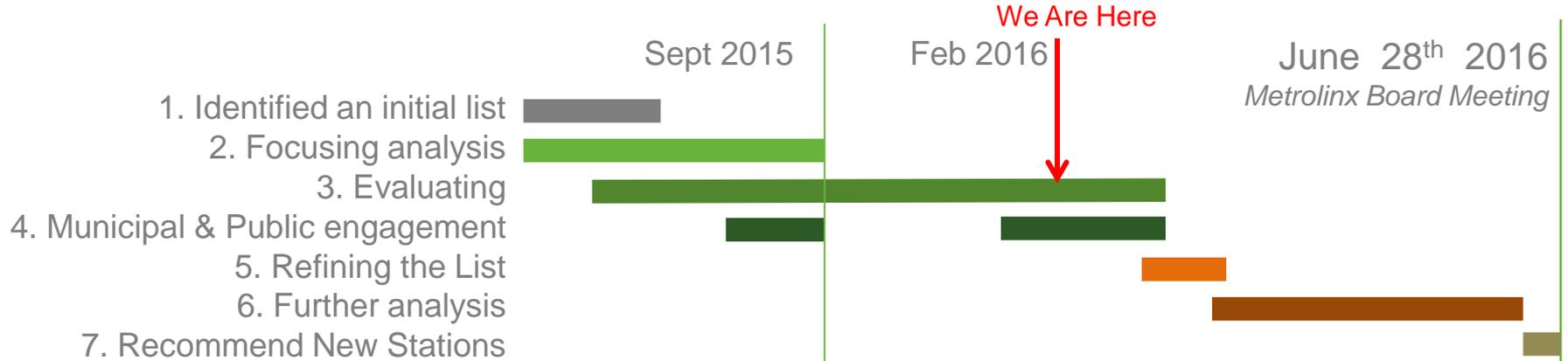
New Stations Process

Why now?

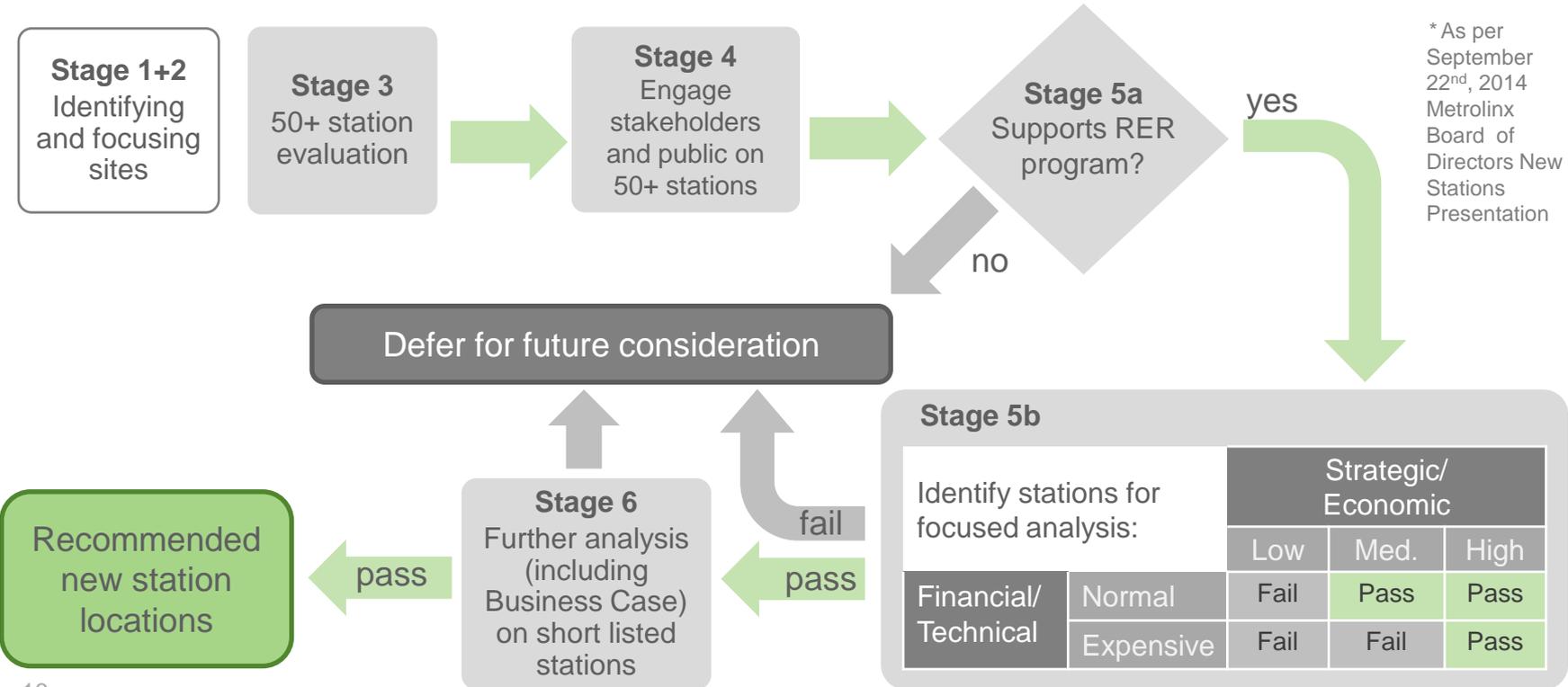
- RER related engineering and design of infrastructure for tracks and electrification is proceeding to meet deadlines. Station locations influence design.

Context of work

- Taking a regional perspective on potential new locations
- Focusing on opportunities within RER timeframe



Decision Making Process*



* As per September 22nd, 2014 Metrolinx Board of Directors New Stations Presentation

Engagement and Feedback to Date

- Workshops undertaken with GTHA municipalities
- Context analysis was largely consistent with municipal feedback. New information incorporated
- Surrounding development potential was noted as an important lever for municipalities to support transit-oriented design and broader policy objectives for intensification. That potential should be reflected in the evaluation
- Questions around timeframe for RER (10 years) and its relationship to wider planning vision (30 years)
- Received correspondence from elected officials and councils regarding many sites
- Broader public engagement planned through Winter 2016



Evaluation Process Summary

- The initial results of Stage 3 evaluation and Stage 4 stakeholder input to date provides a preliminary evaluation of locations.
- This analysis will be updated with public and stakeholder input.
- Stations were analyzed based on 40 measures. However, nine key criteria were identified that significantly differentiate stations from each other and are better predictors of overall performance.
- Assumptions about station configuration were based on the context of each location, with most urban locations assumed to provide no parking.

Criteria	Action
Stations performing well and moderately	Proceed with initial business case
Locations not performing well	Defer pending significant change to key assumptions



Stage 3. Evaluating

Key criteria - updated

Category	Objective	Criteria	Measure/Metric
Strategic/ Economic Planning	Connectivity and Ridership Drivers	How many trips will start and end at this station?	Sum of boardings + alightings
		Does the station connect to other higher order transit modes and have potential to improve network and/or corridor service?	Distance to existing and planned routes
		Does the station connect to key destinations?	Number of nearby destinations and places of interest
	Travel Time Savings	What are the time savings associated with the new station?	Ratio for time penalty of existing riders to minutes saved for new station users
	Market Potential	How well situated is the station in relationship to future market demand?	High level assessment of market potential
	Development Potential	Can the station support future development and intensification? What is the likely timing?	Soft sites; number and scale of recent development proposals
	Policy Alignment	Does the station area align with Growth Plan policy?	Location relative to urban growth centre, built up area, or rural area
Financial/ Technical	Affordability	What is the cost to construct the station?	Relative expected cost
	Ease of construction	Can the required facilities be constructed ?	Degree of site constraint



Next Steps

Stage 4. Municipal and Public Engagement

(Fall/Winter 2015/16)

Municipal stakeholder meetings complete

(Winter 2016)

Public meetings:

- Discussion on methodology, criteria and process, identified locations and clusters
- Aligned with consultation on Electrification, SmartTrack and other related Transportation Initiatives

Stage 5. Refining the List

(Winter/Spring 2016)

- Based on public engagement and continuing analysis

Stage 6. Further Analysis

(Spring 2016)

- Undertake further study including business case assessment on short list

7. Recommend new stations for consideration

(Spring 2016)

- Based on results of further analysis



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APPENDICIES



A. 50+ location list: by corridor

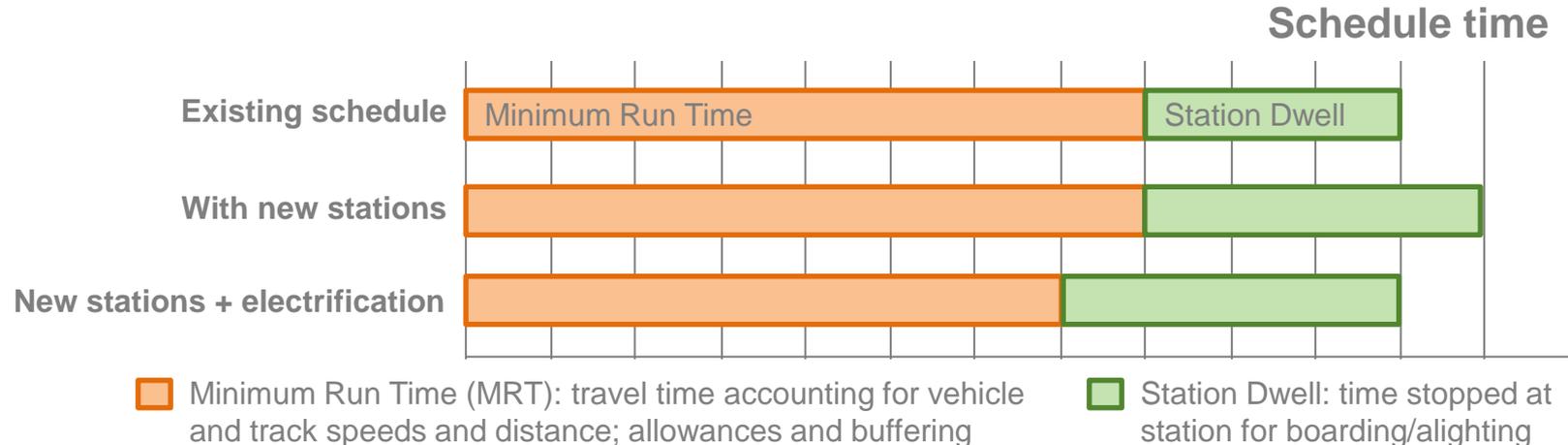
Lakeshore East	Lakeshore West	Barrie	Stouffville	Kitchener
[Parliament-Cherry] [Don Yard] [Unilever (DVP-Eastern)] [Queen (Queen-Degrassi)] [Dundas-Logan] [Gerrard (Gerrard-Carlaw)] [Jones] [Greenwood] [Coxwell] Whites Rd Lakeridge Rd	Spadina (Bathurst-Spadina) Roncesvalles Park Lawn* Kipling Winston Churchill Maple Grove Dorval Walkers Line-Cumberland	[Spadina (Bathurst-Spadina)] [Liberty Village (King West)] [Queen W-Dufferin] [Dundas W] Bloor-Davenport St. Clair Hwy 7-Concord* Kirby Sideroad 15-Bathurst Mulock Innisfill	Parliament-Cherry Don Yard Unilever (DVP-Eastern) Queen (Queen-Degrassi) Dundas-Logan Gerrard (Gerrard-Carlaw) Jones Greenwood Coxwell Lawrence East Ellesmere Finch East 14 th Av	Spadina (Bathurst-Spadina) Liberty Village (King West) Queen W-Dufferin Dundas W St. Clair Islington* Hwy 27-Woodbine Heritage Rd Breslau
Richmond Hill	Milton	<h2>Selected sites</h2> <p>[] - location reviewed under other corridor</p> <p>*Considered in comparison to existing neighboring stations</p>		
Parliament-Cherry Queen East Dundas East Gerrard East Don Mills-Bond Millwood Eglinton York Mills John-Green 16 th Av	[Spadina (Bathurst-Spadina)] [Liberty Village (King West)] [Queen W-Dufferin] [Dundas W] East Mall West Mall Cawthra-Dundas Trafalgar			



B. Key Criteria: Travel Time Savings

How will new stations impact journey time?

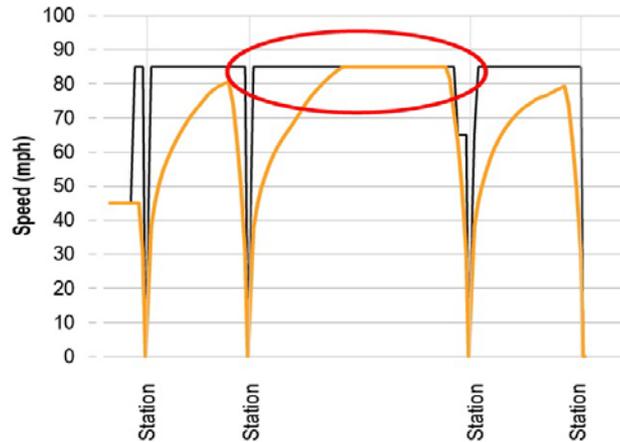
- New stations will increase dwell time by 2-3 minutes each
- Electrification will reduce travel time
 - e.g. from Oshawa GO to Union Station by about 5 minutes



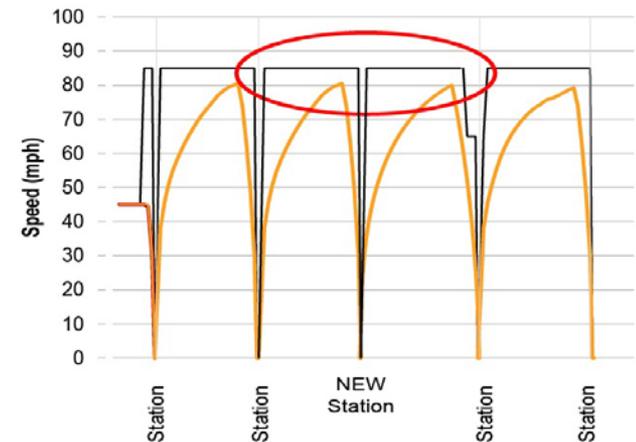
C. Key Criteria: Station Spacing

How far apart do stations need to be?

Locating stations too close together will reduce travel speeds and the benefits of electrification



Larger station spacing means trains cover distances at higher speeds



Adding stations mean trains need to stop and accelerate again, slowing travel along the corridor

— Max track speed — Train speed

