

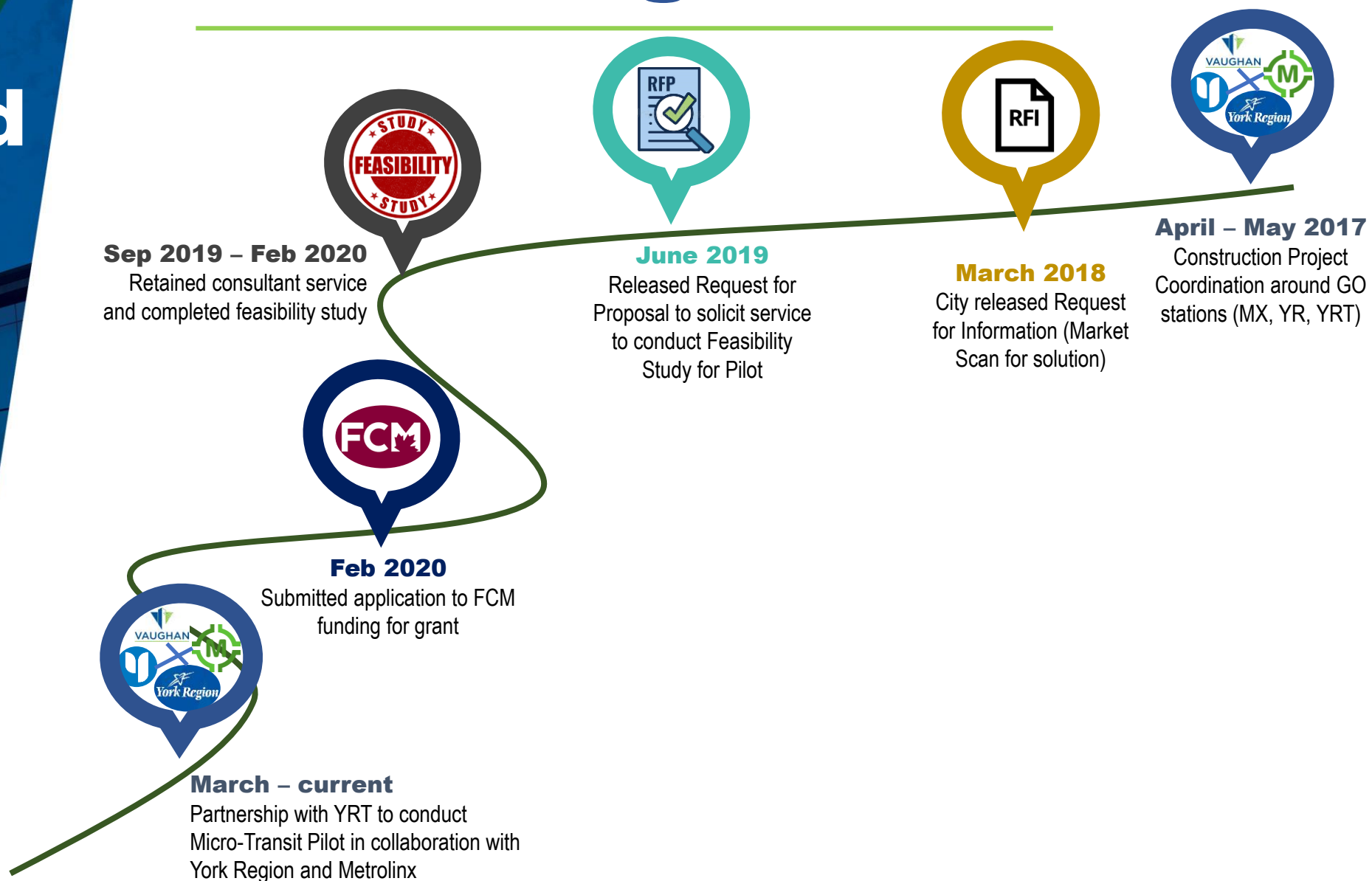
Vaughan Shared Mobility Pilot – Feasibility Study

Transportation & Infrastructure Task Force
June 3, 2020



Background

How we got here?



Feasibility Study

Purpose

To assess the feasibility of alternative transportation modes that could:

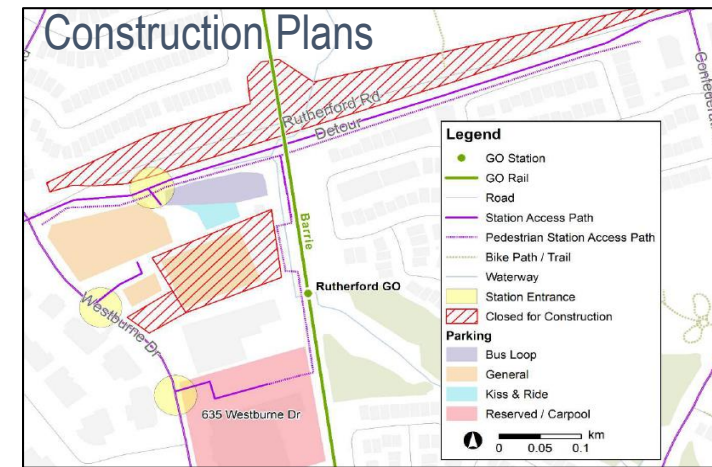
- Reduce Drive-and-Park to and from Rutherford GO
- Provide alternative choice to access station
- Identified a preferred solution and laid out an implementation plan for a 1-year pilot starting in 2020

Feasibility Study

Scope of Work

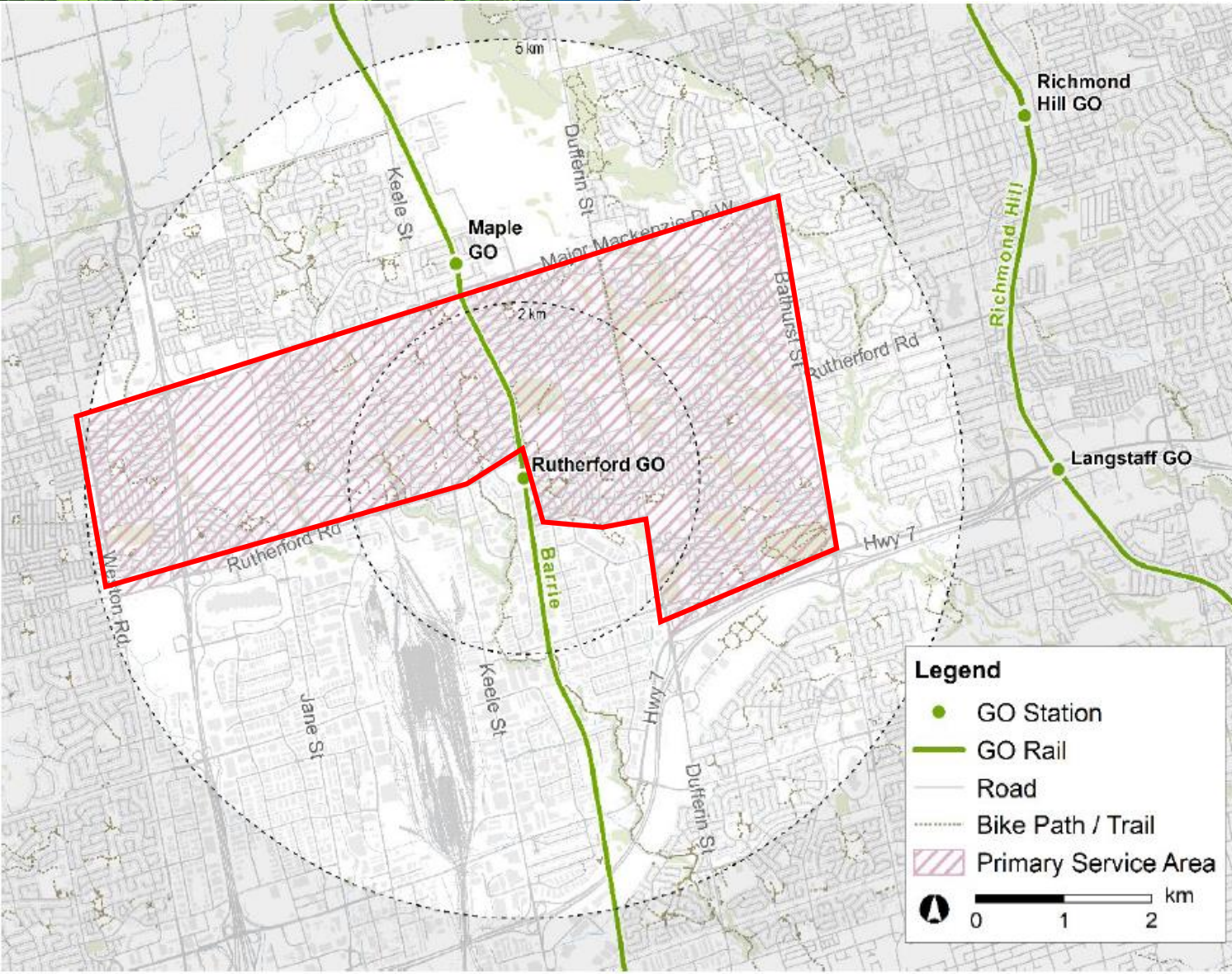
1. Confirm objectives
2. Understand the context around Rutherford GO
3. Identify Emerging Mobility solution options
4. Evaluate and Select Solution
5. Identify Access Paths & Station Needs
6. Establish Implementation (& Adaptation) Plan
7. Provide Way Forward (to transition back to normal)

Transportation Context



Transportation Context

Service Area & Market Size



The Primary Service Area (PSA) covers 74,800 residents.

Could be modified throughout the pilot depending on demand.

First/ Last Mile Solutions Considered

Four emerging mobility solutions assessed:

Micro-Transit



RIDEco via TransLōc® Routematch

UBER
Transportation Network Company
(TNC) Partnerships



lyft



transdev KEOLIS PWTransit Canada safety First



Shared Micro-mobility

Lime BIRD JUMP lyft SPIN

Solution Evaluation & Selection

The evaluation framework is based on four elements that measure how well the solutions achieve the goal



Strategic

- Supports vision and transportation policies
- Provides equitable access
- Reduces dependence on single-occupant vehicles
- Support low-carbon emission
- Provide cost effective and “safe” public transit service



Financial

- Financially feasible for City to enable 1st/last mile options for commuters



Economic

- Provides economic benefits to users and community (i.e. reduce traffic congestion, travel time, environmental impact)



Market-Readiness

- Be suitable for all-season operations
- Ready to operate by June 2020

Solution Selection –

Summary Ranking of the Four Solutions



Micro-transit can serve a large area, can support low-carbon & barrier free vehicles, and gives the City tools to exercise more control over the demand to manage costs. The estimated net cost per trip of \$10 is about twice YRT's 2018 average, but would extend service into neighbourhoods with few transit options.



TNCs are easy to launch and support barrier-free access but are expected to increase kilometres travelled and GHG emissions overall. They also offer few tools to the City to manage costs if demand begins to spike unexpectedly. The example of Innisfil shows how quickly costs can escalate once residents see the benefits of on-demand service.



AV Shuttles are a chance to gain experience in the latest mobility technology, but they serve few people and are costly to set up. This solution is better suited as a technology demonstrator.



Micro-Mobility has a small environmental footprint but the lack of accepted regulatory standards, potential health and safety risks to users, and the City's potential for exposure to liability are major challenges. Potential usage is also low, and the market is not commercially attractive to shared bike/scooter companies. The City would likely need to heavily subsidize operators.



Key Elements of Implementation Plan

1. Service Delivery
2. Public Engagement
3. Performance Monitoring

1. Service Delivery

Implementation Plan

Micro-Transit Service would operate as:

1. First/Last Mile Transit Feeder

- AM pickup anywhere in primary study area & drop-off at Rutherford GO
- PM pick up from Rutherford GO and drop-off anywhere in primary study area.

1. Service Delivery

Implementation Plan

2. Use “Virtual Stops”
 - Not “door-to-door”
 - AM, in-app direction to safe, convenient pickup location
 - PM, drop off at similar locations with walking directions to destinations
 - Special needs customers would be directed to YRT’s mobility plus service.

1. Service Delivery

Implementation Plan

3. “Turnkey” Operation

- Service operated by contractor including:
 - ✓ drivers & vehicles,
 - ✓ training,
 - ✓ ongoing oversight, development and operations of software
- City will be responsible for marketing, communications, customer inquiries and contract management.

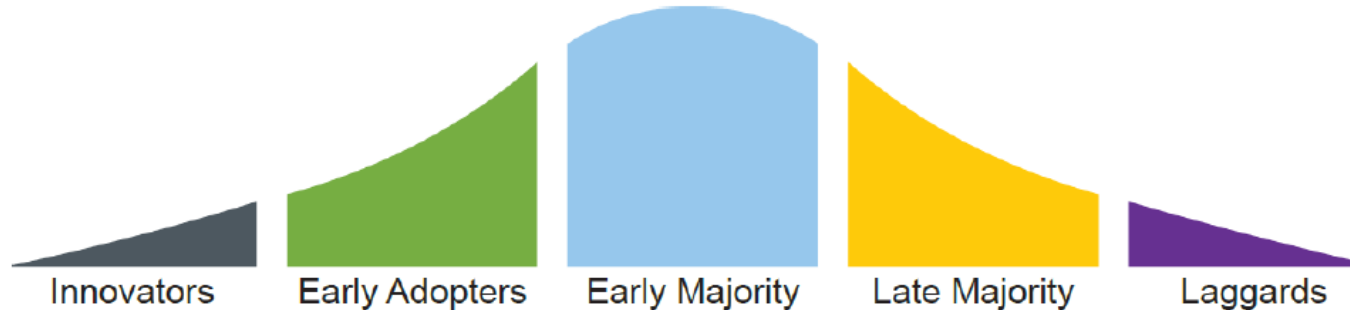
1. Service Delivery

Implementation Plan

4. Fare

- Consistent with YRT fare structure
- Presto card holders pay \$1 when connecting to/from GO train
- Others would pay standard YRT fares
- Direct integration with Presto system is preferred (incl. on-board card readers)
- YRT Pay / In-App payment at time of booking

2. Public Engagement



The plan consists of six phases as follows:

1. **Development Phase** starting two months before launch with the goal of identifying the brand, confirming the public engagement strategies, scheduling outreach events, and developing marketing materials;
2. **Pre-Launch Phase** starting a month before launch focusing on building awareness of the service, where it would operate, and the fare levels. This effort builds interest among the innovators and early adopters. It is the most critical part of the plan as it will introduce the service to the public and set the tone and messaging of the campaign;
3. **Early Launch Phase** starting just before launch and ending just after launch, including an official launch event and engaging closely with innovators and early adopters to resolve initial challenges;
4. **Launch and Ramp-Up Phase**, which aims to build excitement, awareness, and ridership soon after launch. This phase engages directly with the early majority who may not have tried the service at this point;
5. **Maintenance Phase** starting about a month after launch and continuing through the duration of the pilot to continue building awareness among the late majority and laggards at strategic times through the year; and
6. **Evaluation Phase** starting two weeks before the end of the pilot focused on collecting the last round of user feedback on the service.

3. Performance Monitoring

Implementation Plan

Performance monitoring from three perspectives:

1. The Customer – an attractive travel experience that encourages switch to more sustainable travel options.
2. The City – a cost effective service to operate, which provides residents with affordable mobility choice
3. Wider Society – the wider impact of the service, such as Vehicle Kilometres Travelled (VKT), fuel use and related Greenhouse Gas (GHG) emissions, and effectiveness in transitioning back to conventional public transit

Moving Forward

1. Awaiting FCM Grant decision
 - Decision likely by July 2020
2. YRT's Partnership
 - YRT is in agreement with City's goals & service delivery model
 - YRT needs to align their service adjustments and plan internally
 - Need to establish partnership model
 - Opportunity to partner with YRT's current service provider

Moving Forward

3. Timeline Alignment

- Grant decision (if not from FCM, explore other funding opportunities)
- YRT's timeline
- Procurement needs



Thank You

