

Committee of the Whole (2) Report

DATE: Tuesday, September 19, 2023

WARD(S): 1 3 4

TITLE: RUTHERFORD-MAPLE MOBILITY ON-REQUEST SERVICE
PILOT FINDINGS

FROM:

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ACTION: FOR INFORMATION

Purpose

Present Rutherford-Maple Mobility on-Request pilot findings.

Report Highlights

- The shared micro-transit pilot service at Rutherford and Maple GO station, offered through York Region Transit's Mobility On-Request (MOR) service, launched in May 2022 and has concluded in May 2023.
- The MOR pilot was successful in attracting over 1000 sign-ups for the service with over 4500 trips delivered.
- At the conclusion of the pilot, York Region Transit decided to permanently continue the service as part of its Mobility on-Request on-demand services.

Recommendations

1. That a copy of this report be forwarded to York Region Transit.

Background

The City of Vaughan, in partnership with York Region Transit and Metrolinx, undertook a Micro-Transit Pilot Project ("Pilot Project") to and from the Maple and Rutherford GO stations. The purpose of the Pilot was to reduce the reliance on driving to these GO stations by offering more convenient ways to get to and from the stations. A feasibility study was completed in early 2020, which identified micro-transit as the preferred type

of service and identified an implementation plan to deliver a 1-year pilot. At the time of the feasibility study, the primary objectives were to reduce “drive-and-park” at Rutherford GO station and support more sustainable choices to access the station, especially during the construction of Rutherford Road Grade Separation and station expansion. In addition, stemming from the disruption to transit ridership resulting from the COVID-19 pandemic, the Pilot Project was also assessed to determine whether it could help address challenges faced by public transit providers since the pandemic.

The findings of the Shared Mobility Feasibility Study were summarized in a Staff Communication to the Committee of the Whole on June 16, 2020. In addition, the completed feasibility study was submitted to the Federation of Canadian Municipalities (FCM) to apply for a grant under the Green Municipal Fund. The City was successful in receiving this grant funding from FCM, which covers up to 50% of the pilot project.

In September of 2021, a status update was provided to Council on the Micro-Transit Pilot Project and to seek delegated authority from Council to enter into necessary supporting agreements with York Region Transit and Metrolinx. York Region Transit (YRT) would support the Pilot Project by acting as the service provider, utilizing their existing Mobility On-Request (MOR) service. Metrolinx would provide use of their pick-up and drop-off facilities at Rutherford and Maple GO stations, as well as providing additional funding in exchange for data collected by the Pilot Project. The City entered into partnership agreements with YRT and Metrolinx for the implementation of the pilot project, which started in Q1 2022 for a duration of 12 months.

Micro-transit or Mobility On-Request (MOR) refers to an on-demand, non-fixed route transit services which typically use smaller vehicles than conventional buses and are usually supported by a smartphone application (app). In order to qualify for the pilot service, pilot participants would need to be located in the service area and traveling to or from either Rutherford or Maple GO station. Pilot participants would download the transit on-demand app onto their mobile device. The app would allow the user to request a ride to either Rutherford or Maple GO stations up to one hour before it's needed, and the user would be able to see the location of the vehicle that will be picking them up in real time as well as an estimated time of arrival. Each rider was picked up at the curb of their houses or address provided, and the vehicle continued to location(s) where there may be other customers in the neighborhood going to the same GO station around the same pick-up time.

Previous Reports/Authority

[Staff Communication SC1., Shared Mobility Feasibility Study Findings, June 16, 2020 Committee of the Whole \(2\)](#)

[Micro-Transit Pilot Project, September 14, 2021, Item 19, Committee of the Whole \(1\)](#)

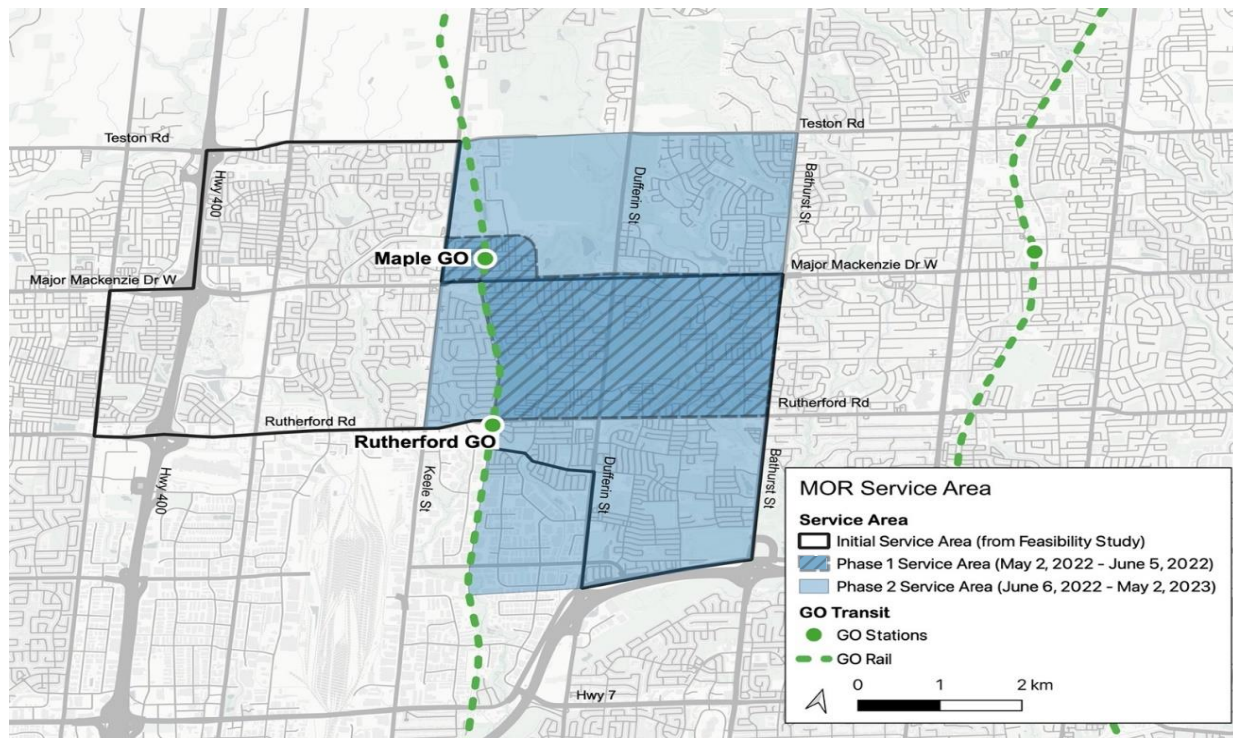
[Staff Communication SC3., Rutherford-Maple Mobility On-Request Service Transition from Pilot to Permanent Service, May 9, 2023, Committee of the Whole \(2\)](#)

Analysis and Options

The City of Vaughan retained the services of Left Turn Right Turn in collaboration with LURA Consulting to oversee and support the project management of the operations and pilot communications with stakeholders, public and customers. The Rutherford-Maple GO Mobility-On-Request pilot service was launched on May 2, 2022, and was delivered through a service contract with YRT. Participants of the pilot were able to use YRT's MOR application to book a YRT-operated vehicle to pick them up from their location and get dropped off at their desired GO station. For customers, the trip was free so long as they connected to GO train service using a PRESTO card. The same service was provided in the evening to return from the GO station. The 12-month long pilot provided service for residents within the service area travelling to/from the two GO stations during 6 a.m. to 9 a.m. and 3:30 p.m. to 6:30 p.m.

Pilot Primary Service Area

The pilot feasibility study recommended an initial service area that would serve a larger area extending from Highway 400 to Bathurst and from Teston to Rutherford Road covering both Rutherford and Maple GO stations. However, given the ridership challenges that the MOR service was experiencing at other stations due to the effect of the COVID-19 pandemic, the decision was made to start the pilot service with a smaller service area than initially proposed. The figure below shows the extents of the initially planned service area and the implemented service areas.



This 'Phase 1' service area was then expanded to increase ridership with a goal of serving the full area identified in the feasibility study by the end of the pilot. However, due to challenges with road construction west of Keele Street along both Major Mackenzie Drive and Rutherford Road, operator shortages and vehicle availability, the decision was made to finalize the 'Phase 2' service area as the final area to be served for the remainder of the pilot. Efforts were also focused to maximize ridership through communication and promotion of the service to pilot participants within the existing service area who qualified but had not yet used the service as well as infrequent users of the service.

Goals and Assessment

The Pilot goals included:

- Enabling equitable access to transportation, reduce dependence on single-occupant vehicles and support low-carbon mobility options;
- Determining the best practices for encouraging mode shift away from driving to shared micro-transit; and
- Assess the viability of on-demand micro-transit service in Vaughan and replicability to support conventional transit in other locations.

The dedicated micro-transit service provided a first/last mile solution and aimed to reduce the reliance on the drive-and-park travel mode. Pooling customers travelling to similar locations ("Linked Trips") also supported the reduction of single-occupant

vehicles on the road network. Linked trip data and customer experience surveys were used to monitor the goal throughout the pilot.

The pilot project assessed the technical and financial feasibility as well as the environmental, social and economic performance. The pilot's performance was monitored for opportunities to improve the service through gathering information from user experience surveys and available operational data to identify and mitigate operational challenges, expand the service area and improve customer communications. Beyond operations, the pilot was also evaluated from a feasibility standpoint to assess the viability of micro-transit services in Vaughan and understand how MOR services can be successfully replicated to support conventional transit in other locations.

Stakeholder, Communication and Outreach Approaches

Communication and outreach played an important role in promoting the Pilot Project to build awareness and encourage adoption of this micro-transit service. The project team applied a Community-Based Social Marketing methodology to encourage participation in the pilot. The methodology included the following elements:

- Identifying barriers and benefits that influenced transportation decision-making;
- Identifying desired behaviors to encourage mode shift;
- Developing a service communication and outreach strategy; and
- Testing approaches to attain feedback and adjust the pilot accordingly.

Throughout the Pilot, the project team deployed a variety of communication and outreach approaches to reach the target audiences, including:

- **Mailing List Outreach:** Approved participants received regular communication about pilot updates by email.
- **Station Activation Events:** Eighteen (18) station events were held during morning and evening rush-hour periods to intercept GO train riders. As shown in the figure below, staff distributed informational postcards about the service and answered questions.
- **Primary Service Area Mail Outs:** Two (2) mailout project postcards were sent to every residential address in the PSA.
- **Station Posters:** Station posters were installed on notice boards at both Rutherford GO Station and Maple GO Station.
- **Temporary Roadside Billboards:** Temporary roadside billboards were installed near the entrances at GO station parking lots during September 1 to 30 in 2022 to raise awareness about the pilot and encourage people who drive to consider trying the pilot.

- **Social Media (Organic):** The City of Vaughan and YRT shared regular social media posts on Twitter with key messages about how to sign-up and use the pilot, as shown in the figure below.
- **Social Media (Paid):** One (1) paid social media campaign was implemented at the 5-month mark (September 2022) to raise awareness about the pilot at a crucial point when return to in-person work and back-to-school presented the opportunity for audiences to consider using the pilot.



Additionally, three user experience surveys were conducted at the 3-month (July 2022), 9-month (February 2023), and 12-month (May 2023) intervals from the start of the pilot.

- **Survey #1 (July 2022):** This survey focused on understanding the customer experience of early pilot implementation to identify initial user experience challenges and gather additional insights on travel behaviour.
- **Survey #2 (February 2023):** This survey focused on benchmarking the user experience evolution since Survey #1. This survey further explored participant travel behaviour in winter and travel behaviour in response to increasing return to in-person work resulting from COVID-19 recovery.
- **Survey #3 (May 2023):** The final survey focused on understanding customer reflections on the pilot overall, areas of improvement, and opportunities for expansion or application elsewhere.

Pilot Results

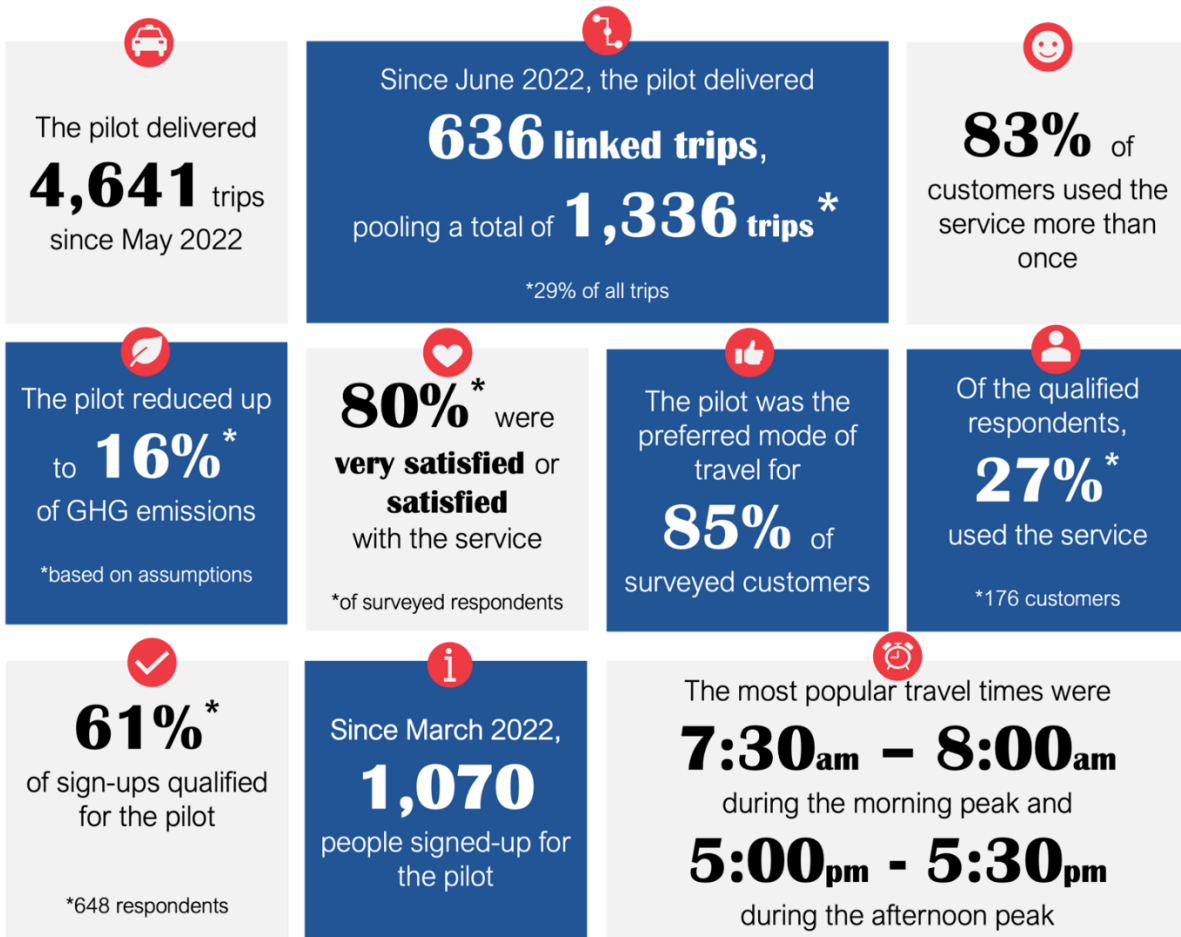
Based on the established goals of the Pilot, specific metrics were measured to assess the MOR service from three perspectives:

- The customer – Metrics such as wait time, customer satisfaction, and ridership were used to monitor operations and propose future enhancements.

- The City – Metrics such as operating cost and productivity were used to evaluate the cost-effectiveness of the service.
- Wider society – Metrics for the wider impacts of the service on the community included change in Vehicle Kilometers Travelled (VKT), reduction in greenhouse gas emissions, and modal shift.

The MOR pilot was successful in attracting over 1000 sign-ups for the service of which approximately 61% qualified to participate in the Pilot. With over 4,500 trips delivered in hybrid vehicles, the pilot was successful in reducing up to 16% of emissions through the combination of a green fleet and linked trips

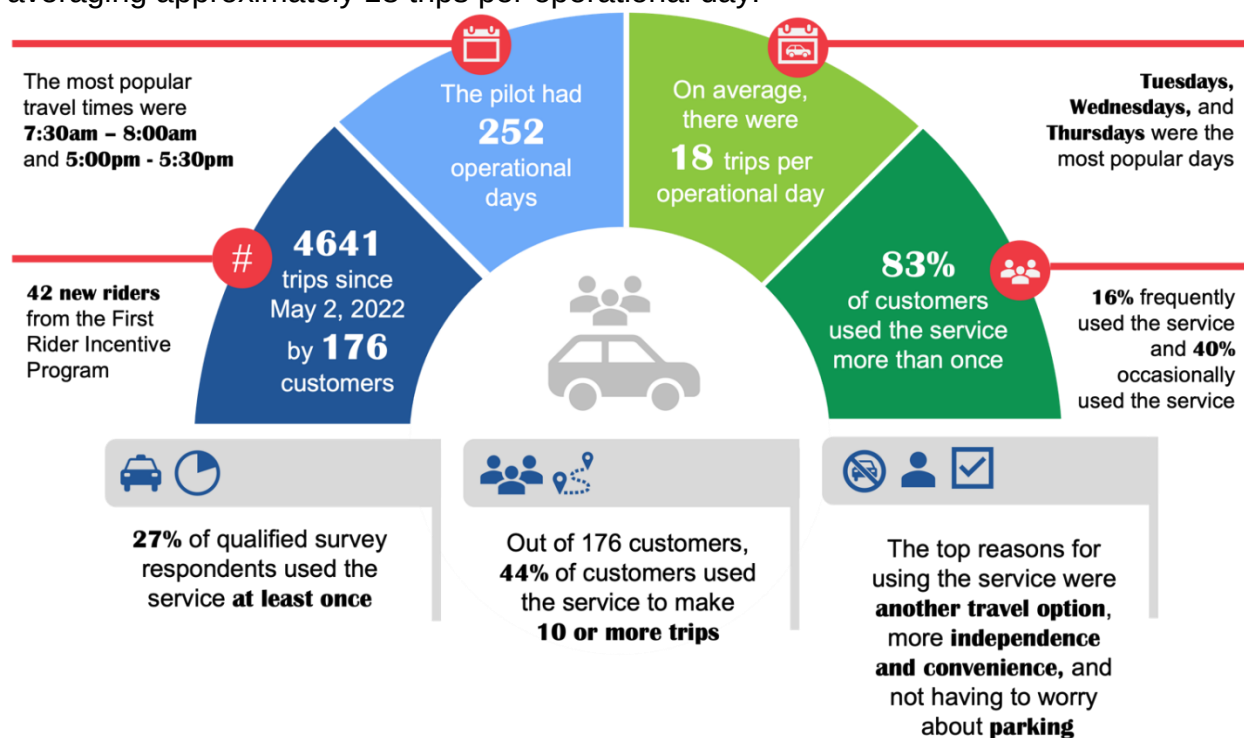
At the conclusion of the Pilot, York Region Transit decided to permanently continue the service as part of its Mobility On-Request (MOR) on-demand services. An overview of the Pilot results are presented in the figure below:



While the pilot generated great public interest in the service, only 27% of those who signed up and qualified to use the service used the service at least once throughout the course of the pilot. The low ridership was primarily attributed to the significant reduction

in GO transit ridership due to the COVID-19 pandemic. However, of those who did use the service, the pilot garnered positive feedback among customers, scoring highly in both satisfaction as well as interest in continuing to use the service as a preferred mode of travel. Of those who were surveyed, 85% of respondents who have used the service indicated that the pilot service was their preferred method of travel. Users were generally very impressed with their travel experience with over 70% of users consistently scoring elements such as drop-off, safety, driver interactions, and ease of payment as “Excellent” or “Very Good”.

Ridership is a key indicator of a transit service’s success. Ridership for the pilot was tracked using the automatically generated daily reports from the MOR micro-transit system. As outlined in the figure below, the year-long pilot service had 4,641 total trips, averaging approximately 18 trips per operational day.



Lastly, to evaluate the transferability of micro-transit services to other locations, the third user survey asked participants for locations of interest where they would be willing to use micro-transit in the future. The results revealed potential locations including the Vaughan Metropolitan Centre subway station, Vaughan Mills Mall, and Cortellucci Vaughan Hospital.

Lessons Learned

The Pilot Project was a valuable service to customers and an important initiative that provided key insights on operating a micro-transit service in a post-pandemic world. The lessons learned from the Pilot can be applied to future programs to explore and

implement sustainable first/last mile and other micro-transit solutions. The following are key observations and takeaways from the learnings of the 12-month pilot:

- **Demand for first/last mile micro-transit services have a close correlation to the ridership of the service they are connecting to:** As a first/last mile service to GO stations, the level of demand at the GO stations was the most significant impact to the pilot ridership. Despite the high interest in the pilot based on the number of signed-up and qualified customers for the service, the actual ridership levels were lower than expected, where 27% of qualified customers used the service. Therefore, demand should not be analyzed based only on potential interest in a service, but actual ridership on connecting services, potential for latent demand as well as existing challenges with current transportation options within the considered service area.
- **Align marketing strategy with customer priorities:** Throughout the pilot, participants were asked what elements of the pilot service were most important to them. As the pilot evolved, specific communications were tailored to align with these key messages to highlight how the pilot service provides these benefits in different circumstances. For example, messaging in the winter focused on framing the pilot service as another option to travel when it snows. Conversely, some key messages that the project team thought would resonate with users did not. Although the environmental impact of the project was one of the Pilot evaluation criteria, in this instance participants consistently ranked environmental impact low on their reasons for choosing to use the service. From a communications and outreach perspective, understanding which messages resonate with customers is key to ensure that promotional material is relevant to audiences.
- **Conduct location-based communication and outreach:** Survey participants indicated that GO station events, GO station posters, and social media advertisement were the most effective promotional approaches. GO station events, staffed by project ambassadors who intercepted GO train riders, played an important role in on-the-ground promotion of the pilot service to the pilot's primary audience. Timing of these communication and promotions is also important to successful engagement. Aligning promotions at certain periods such as back-to-school or back-to-work helps to maximize awareness of target audience and improve ridership. Learnings from other micro-transit services have shown that demand typically takes time to build. Awareness and exposure to the service over time will grow ridership. Incentives such as monthly prize draws for individuals who use the service for the first time can also be an effective way to get potential audiences to try the pilot for the first time.

Financial Impact

There are no financial impacts from this report.

Operational Impact

Consultation with internal departments was not necessary to prepare this report.

Broader Regional Impacts/Considerations

At the conclusion of the pilot, York Region Transit decided to permanently continue the service as part of its [Mobility On-Request on-demand services](#). Information collected through user surveys, inquiries and feedback throughout the Pilot were shared with York Region Transit. This contributed to the continued improvement of MOR services across the Region.

Conclusion

The Micro-Transit Pilot Project was a valuable experience that provided real-world data and observations for planning and implementing a micro-transit service in a post-pandemic world. Going forward, staff will continue to investigate opportunities where micro-transit services can be leveraged, with a goal to provide a sustainable first/last mile solution to other locations with the potential for high ridership, which also provides benefits to both service users and to the broader transportation system including reduced traffic congestion, lower network travel times and reduced greenhouse gas emissions.

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Attachments

N/A

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