

**Subject: On-Demand Transit Service – Demonstration Pilot Project and
Analysis of Future Expansion**

File Number: ACS2023-TSD-TCSP-0015

Report to Transit Commission on September 14, 2023

**Submitted on September 5, 2023 by Renée Amilcar, General Manager, Transit
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Ward: Citywide

**Objet : Service de transport en commun sur demande – Projet pilote de
démonstration et analyse de l'expansion future**

Numéro de dossier : ACS2023-TSD-TCSP-0015

Rapport présenté au Commission du transport en commun

Rapport soumis le 14 septembre 2023

**Soumis le 5 septembre par Renée Amilcar, Directrice générale, Services de
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Quartier : À l'échelle de la ville

REPORT RECOMMENDATION

That the Transit Commission receive this report for information.

RECOMMANDATION DU RAPPORT

Que la Commission du transport en commun reçoive ce rapport pour information.

BACKGROUND

On-demand transit service is a way to provide transit service that responds to customers' travel needs in real time, offering the possibility of shorter waiting times, shorter travel times, and reduced operating costs, by avoiding unproductive parts of a fixed-route bus schedule. Versions of on-demand service have been part of the OC Transpo system in years past, replaced by scheduled fixed-route service as ridership grew. On-demand service is being used by several Canadian transit systems, particularly since the onset of the COVID-19 pandemic, and particularly in lower-ridership areas or at lower-ridership times of the week.

An on-demand transit pilot project is one of 22 strategic initiatives documented in the Transit Services Five-Year Roadmap (ACS2023-TSD-TS-0011), presented to the Transit Commission on June 29, 2023. In addition, the City undertook to assess on-demand transit service as part of the agreement for the provincial government to provide Safe Restart Agreement funding to reimburse the City for lost fare revenue and other costs incurred in responding to the COVID-19 pandemic.

DISCUSSION

Demonstration Pilot Project – Fall 2023

The demonstration pilot project is intended to show and test how on-demand service would work as an integrated part of the OC Transpo network, ideally providing shorter waiting times and shorter travel times for customers, at a lower operating cost, in an area of the city with lower ridership. In order to make use of the current fleet of minibuses, the pilot project would operate on weekends only. The pilot project is planned to begin in the fall of 2023. Further expansion of on-demand service could begin in 2024, as noted later in this report.

The area that staff have identified as the preferred zone for the demonstration pilot project is Blackburn Hamlet, where the on-demand service would replace Route 28 on weekends and would provide the connections to Blair Station. Route 28 would continue to operate as it does now from Monday to Friday, and Route 25 on Innes Road would continue to operate as it does now, seven days a week.

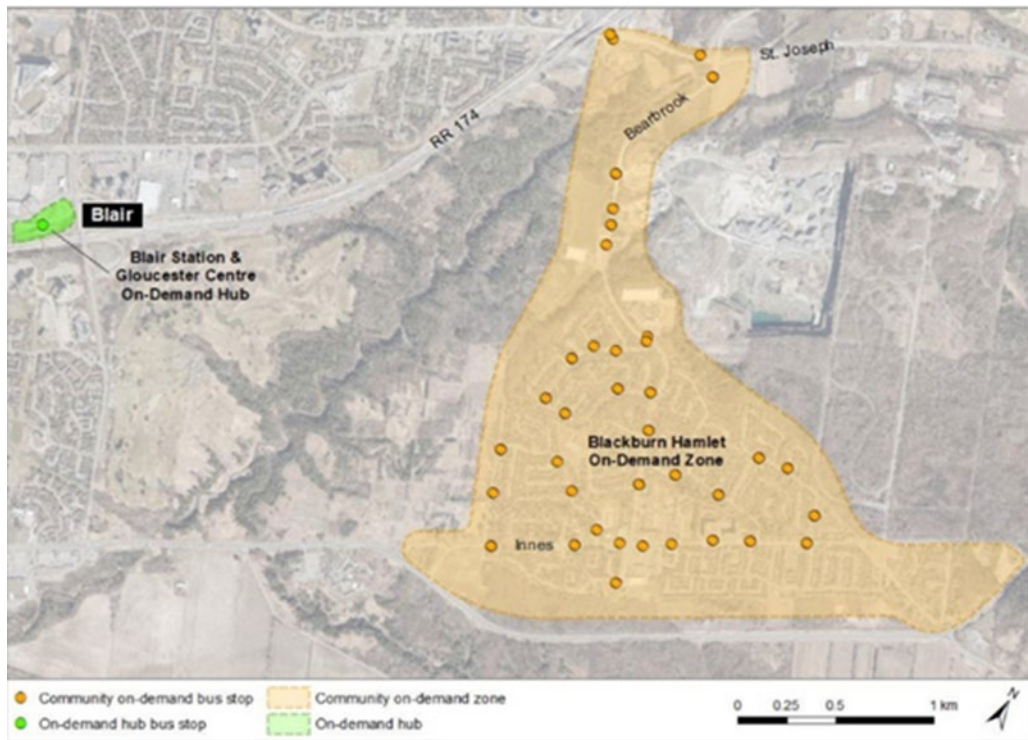


Figure 1: On-demand transit area for Blackburn Hamlet showing current bus stops

The preferred service zone for the pilot project was selected by evaluating areas across the entire Urban Transit Area (UTA), by considering:

- Areas where transit service operates every 30 minutes or less frequently;
- Areas where walking distances are longer than the 10-minute walk (800 metres) specified in current service design policy;
- Areas with limited connections to key transfer stations and other major destinations;
- Areas and times with comparatively low ridership;
- New areas that have some travel demand, but do not yet have a high enough population to warrant conventional transit service; and
- Areas with existing transit service that do not meet the minimum financial performance standard.

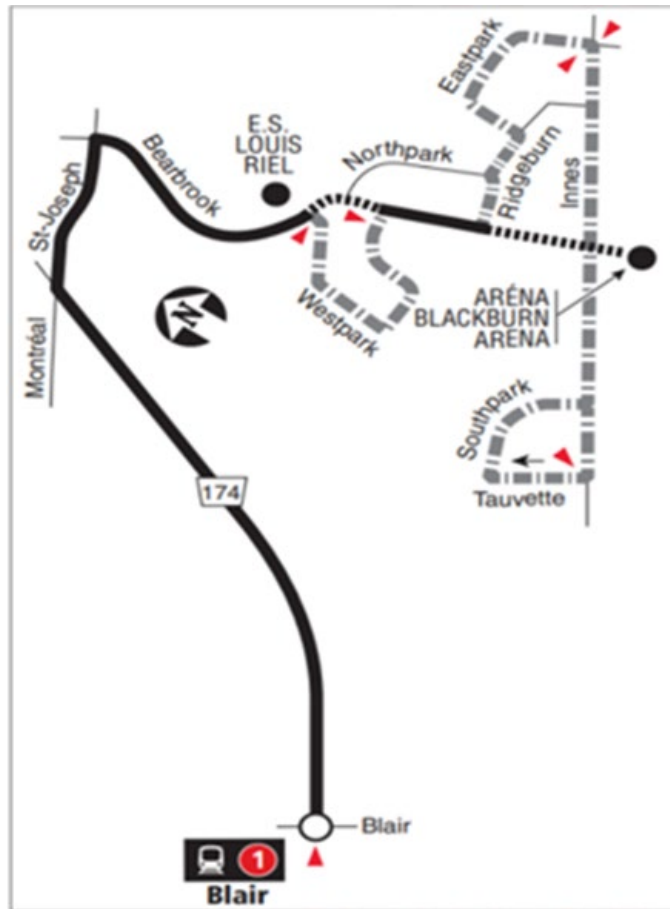


Figure 2: Current Route 28

Residents travelling to, from, or within the on-demand service zone would have the opportunity to book a trip, either through a smartphone application, online, or by calling OC Transpo's customer service centre. They would receive confirmation of their pick-up time window and location, which would be their nearest bus stop. Customers would pay their fare upon entering the bus and would be carried to their destination. All booked trips would start/end within the service zone or at Blair Station. The bus will make regular and scheduled stops at Blair Station for customers starting their journey there.

Staff would work with the ward Councillor to introduce the demonstration pilot project to Blackburn Hamlet residents, and to ensure that any aspects for potential improvement are quickly identified and resolved.

There would be no net increase to operating costs for the on-demand pilot project. The

software and support services for the pilot project are being provided by the supplier, Pantonium, who received a grant from the federal government through Sustainable Development Technology Canada. The operating cost of the minibuses that would provide the service is offset by the savings from not operating conventional buses on Route 28 on weekends. Support staff costs and any minor capital costs would be funded from existing budgets.

The City owns 80 minibuses, which are used to provide Para Transpo service. Of the 80, 65 minibuses operate each day from Monday to Friday (the others are in maintenance on those days) and 44 operate on weekends. These buses, along with contracted taxis, accommodate substantially all trip requests from Para Transpo customers. As a result, the implementation of the on-demand demonstration pilot project will not have any negative effect on Para Transpo service.

As with all parts of the OC Transpo system, on-demand service performance will be monitored, and the results of this pilot project will help inform future decisions with regards to possible on-demand expansion into other areas. If in the future a decision is taken to end on-demand service in this area, staff would reinstate the current Route 28 weekend service.

Potential future expansion of on-demand service

The evaluation of areas across the city has identified a range of locations where on-demand service could be an appropriate way to provide transit service. These potential areas include areas where service is currently available but where ridership has become lower since the COVID-19 pandemic as a result of many office staff working from home or working a hybrid schedule. They also include new areas where transit service is not yet provided and areas where only a limited service is currently provided at certain times of the day.

The evaluation of these areas will be integrated with the findings of the current bus route review in order to develop recommendations for the Transit Commission. The results of the demonstration pilot project will assist in developing these recommendations, as well as assist with the readiness to implement any expansion once the Transit Commission and Council have made decisions.

On-demand transit service can potentially bring these benefits to the transit system:

- Increased ridership in areas with low transit usage, by providing shorter waiting times or shorter travel times, or by introducing lower-cost service at off-peak times of the day.
- Increased operational efficiencies by using smaller minibuses and by avoiding unproductive parts of a fixed-route bus schedule on parts of a route where no customers are travelling at that time.
- Improved service reliability by providing direct routes and connections to transit hubs and by providing real-time information on the expected arrival time of the minibus.
- Improved customer satisfaction, with service based on customer trip requests, flexible responsiveness to customer demands, greater connectivity to a wider transit network and greater customer control over their travels.
- Minimizing environmental impacts, including a reduction in emissions and fuel costs by reducing idling and buses operating with low ridership.

To expand on-demand service, beyond a limited pilot on weekends, would require the acquisition of additional minibuses, and a separate report will be before the Transit Commission with a recommendation to make funding available to allow for that expansion. Any future minibuses purchased for on-demand service would be identical to the minibuses purchased for Para Transpo service, to allow them to be used interchangeably in both types of service.

FINANCIAL IMPLICATIONS

There are no financial implications to receiving this report. The software and support services for the pilot project are being provided by the supplier, Pantonium, who received a grant from the federal government through Sustainable Development Technology Canada. The operating cost of the minibuses that provide the service is offset by the savings from not operating conventional buses on Route 28 on weekends. Support staff costs and any minor capital costs would be funded from existing budgets.

LEGAL IMPLICATIONS

There are no legal impediments to receiving this report for information.

CONSULTATION

The project identified in this report is a pilot project for evaluation. Transit Services staff

will provide Transit Commission updates on the progress of the pilot project and report back once the evaluation is complete. Staff will be consulting with customers who participate with the on-demand service.

ACCESSIBILITY IMPACTS

One of OC Transpo's Mission statements, as outlined in the Five-Year Roadmap is: We promise to deliver safe, clean, dependable and accessible public transit. All components of future bus procurement and Para Transpo services will adhere to the *Accessibility for Ontarians with Disabilities Act (AODA)*.

Staff will ensure that any applicable accessibility legislation, standards and guidelines are adhered to during the execution of the on-demand project identified in this report. Staff will continue to engage persons with disabilities and accessibility stakeholders to ensure that their perspectives are considered and incorporated, and to promote inclusion.

The vehicles identified in this report are fully-accessible minibuses currently used to provide paratransit service. The smartphone application that will be used by customers to book on-demand service is fully accessible and WCAG 2.0 Level AA compliant.

There will be no impact to Para Transpo service availability as a result of the use of minibuses from the current fleet for weekend-only on-demand service.

CLIMATE IMPLICATIONS

Ottawa's Climate Change Master Plan established greenhouse gas (GHG) reduction targets of 100 per cent by 2050 for the city as a whole and 100 per cent by 2040 for the municipal corporation. The transportation sector contributes 44 per cent of Ottawa's overall GHG emissions, so achieving these targets will require significant shifts in vehicle technology and travel behavior, as outlined in the City's Energy Evolution Strategy. One of the reported benefits many agencies experience from implementing on-demand transit is a reduction in driving distance and fuel savings.

RURAL IMPLICATIONS

Rural implications have been taken into consideration in the development of the projects outlined in this report. The on-demand project is limited to the Urban Transit Boundary so rural areas will not be included in this project. On-demand service may prove to be a viable option for transit service delivery in rural areas.

TECHNOLOGY IMPLICATIONS

On-demand transit uses software technology to offer flexible scheduling and optimized routing. A vendor is providing a host service for this software technology and Transit Services staff are working closely with the City and OC Transpo IT teams to ensure technological implications are addressed throughout the project.

TERM OF COUNCIL PRIORITIES

This report supports the following Term of Council Priorities:

- A city that is more connected with reliable, safe and accessible mobility options
- A city that is green and resilient

DISPOSITION

Transit Services staff will provide Transit Commission with updates on the progress of the pilot project and report back once the evaluation is complete.