

BRIEFING

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Transportation Briefing to

Priorities and Finance Committee
2020 June 09

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On Demand Transit Pilot Service Update

PURPOSE OF BRIEFING

Faced with demand for transit service in new communities at a time of economic uncertainty, Calgary Transit has been looking for innovative ways to deliver service. On November 19, 2018, the Priorities and Finance Committee approved a grant from the Council Innovation Fund of \$338,000 to fund a one-year On Demand Transit pilot in the new communities of Carrington and Livingston and report back in Q2 2020. As developing communities, these areas did not yet have the population to support traditional transit services. This pilot was meant to enhance Calgary Transit's service delivery, by exploring innovations in transit service delivery.

The pilot was launched in August of 2019 with vendor RideCo; however, due to the unprecedented changes in ridership because of COVID-19, findings for this briefing are based on the first seven-months of the pilot. In order to gather more data, Calgary Transit will be building on the initial successes of the pilot to test the model's scalability in areas with pre-existing fixed route transit.

SUPPORTING INFORMATION

How it works

Using the free "Calgary Transit on Demand" app, customers can request transit service between Carrington, Livingston and North Pointe. Customers select the date and time they wish to take the trip and payments can be made via pass, ticket, transfer, or pay in the app with credit card. Trips to and from North Pointe provides a connection to Calgary Transit's fixed route system for trips beyond the pilot area.

Findings

By the end of February of 2020, On Demand surpassed its four project charter goals of ridership-per-week, customer rating, app downloads, and weekday cost per ride (Attachment 1).

The pilot achieved a maximum utilization of 22-passengers-per-revenue-operating-hour (PROH) using two-12-passenger vehicles at peak-periods, demonstrating that the technology effectively creates shared rides from individual trip requests, while still providing a valuable customer experience. The pilot also showed that the On Demand model can cover a wider geographic area than a fixed-route service while providing a comparable level of service; the average trip was only four-minutes longer than if the customer had driven. It is likely that low-demand areas and times of day would see similar results (Attachment 1).

When it comes to moving a high volume of passengers over longer distances, fixed routes and fixed schedule that group riders by time and location together are likely more efficient. This threshold will be different for each application, but it is likely around the 20 PROH mark, where larger fixed route vehicles become more cost-efficient.

Much of the direct savings in this pilot resulted in the use of an external (lower cost) service provider; however, cost savings are also achieved as there are no dispatching costs with On

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Demand, and infrastructure costs to maintain bus stops can also be reduced. The need for route planning, maps and schedules is also minimized.

Customer Experience

On Demand provides a predictable and personalized experience for customers who can pre-book their rides 24 to 48 hours in advance, enabling exact pick-up times. Last minute bookings are subject to longer delays as seats are already full. To bypass this, some customers were pre-booking two or more rides within minutes of each other, causing seats to go unused and increasing delays for other customers. Calgary Transit now has policies in place to deter this practice which saw a reduction in last minute cancellations, reducing wait times to less than 15-minutes for last minute bookings.

Fifteen per cent of On Demand customers had not previously used Calgary Transit, which demonstrates the ability of On Demand service to grow ridership.

The On Demand app was downloaded by 1676 customers (project goal was 200) and after each trip, the customer is given the ability to rate the trip from one to five. To date, the average rating is 4.92/5.00 with 97.2 per cent of customers giving a rating of four or five (project goal was to achieve 85 per cent customer rating). From survey and feedback, customers expressed what they liked:

- Ease of Use (app, payment, policy, and stop locations);
- Total time in Vehicle; and
- Feeling of a more personalized service

In addition, the survey provided Calgary Transit feedback on what improvements the On Demand Transit service could make: reduce ride-delays during peak hours and provide increased service hours. In response to the expressed concerns, the project added an hour of service to the end of the day and developed and communicated a no-show policy to reduce unused seats and reduce delays.

Environmental Impacts

Another identified advantage of the On Demand model is the reduction in distance travelled, and the resulting reduction in emissions. While a fixed route service in Carrington/Livingston would travel 484 km in a weekday, On Demand averaged 390 km. This is a 20 per cent reduction in pollution, fuel costs, and capital depreciation. During COVID, On Demand vehicles have averaged only 80 km per day.

Next Steps

The pilot established a proof-of-concept that this type of technology can work in Calgary, demonstrating that dynamic, demand-driven transit can provide first/last-mile service to low-density communities, and that it is well received by our customers. The next step is to test for viability and scalability to determine whether these efficiencies can be achieved with low-performing existing routes and reduce transit costs during off-peak hours and weekends.

Calgary Transit will be building on the successes of the pilot to test the model's scalability in other areas, with funding coming from Calgary Transit's existing budget.

ATTACHMENT(S)

1. Attachment 1 – On Demand Additional Metrics