

STAFF REPORT

THE CORPORATION OF THE TOWN OF COBOURG



Report to:	Mayor and Council Members	Priority:	<input checked="" type="checkbox"/> High <input type="checkbox"/> Low
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Meeting Date:	May 9, 2022		
Report No.:	Public Works-107-22		
Submit comments to Council			

Subject/Title: On-Demand Transit Pilot Results

RECOMMENDATION:

THAT Council direct Staff to implement transit service Option 1, 2 or 3; and,
FURTHER THAT Council select and approve the procurement of the transit vehicle type and number of vehicles associated with the chosen transit service Option; and,
FUTHER THAT Council consider reduced operating hours Options i, ii and iii; and,
FURTHER THAT Council authorize Staff to renegotiate the transit operations contract with the current provider for the remaining two (2) years to realign contract fees with the approved transit service option and vehicle types that is not to exceed the 2023/2024 fees of the current contract.

1. STRATEGIC PLAN

Invest in programs, services and infrastructure to make Cobourg more accessible.

2. PUBLIC ENGAGEMENT

Initially the subject matter was presented to Council on December 7, 2020, December 15, 2020 and January 21, 2021. Prior to the commencement of the pilot on April 19, 2021 Staff advertised the pilot utilizing the Town's website, social media, all local news outlets as well as a mailout to all residences of Cobourg through LUSI utility billing.

On February 8, 2022, Cobourg Communications Department launched an On-Demand User Survey to obtain feedback from riders on their experience with the one (1) year pilot project offering On-Demand transit services in Cobourg. Surveys were available through

the Town's website under Engage Cobourg, advertised on social media as well as the Town's advertisement block. Riders were provided the opportunity to take the survey online, via hard copy obtained on board the bus or to have a survey mailed to their address. Surveys were available to the public until February 28, 2022.

The On-Demand Survey summary report is attached for Council's review; the report will also be summarized under the analysis section in this report.

3. PURPOSE

To evaluate the outcome of the Cobourg Rides On-Demand transit pilot which commenced on April 19, 2021 and to seek Council direction for the future of Cobourg transit.

4. ORIGIN AND LEGISLATION

1. Council Motion (January 27, 2020)

Motion – Staff Report on Innisfil Ridesharing Transit Model

FURTHER THAT Council instruct Staff to investigate the Innisfil ridesharing transit model and provide a report on its viability in Cobourg.

2. Safe Restart Agreement

The Provincial and Federal Government have provided COVID19 relief funding under the Safe Restart Agreement which includes specific funding for municipal transit systems. As part of the Phase 2 funding requirements, municipalities with low performing services are being encouraged to consider whether they may be better serviced by microtransit.

3. Budget

2021 approved operating budget to provide On-Demand services for a one (1) year pilot commencing on April 19, 2021.

5. BACKGROUND

Council expressed an interest in modifying/improving the municipal transit system to provide better value and service. Staff developed a pilot project to trial an On-Demand service for a period of one (1) year utilizing the Town's current transit operator under contract (Century Transportation) and RideCo for the On-Demand software provision. RideCo's software optimizes the requested rides to accommodate as many people with as few vehicles as possible to ensure riders reach their destinations in a reliable way.

Cobourg Council approved the On-Demand pilot in December 2020.

Cobourg Rides On-Demand Transit Trial launched in two distinct phases to ensure a successful adoption of the new mode of operation. The first phase began on April 19th, 2021 providing WHEELS transit members On-Demand options all day and all riders the on-demand option in the evenings while still continuing to use the Conventional Transit (fixed route) during the day. The second phase began on June 14th when all services for both WHEELS and Conventional Transit riders were transitioned to the On-Demand model of operation.

WHEELS users have always been required to book rides in advance by calling the Century Transportation office during regular business hours. The On-Demand service provided an online application for booking rides for all users. Riders who did not have the capability to book a ride using a smart phone or computer also had the ability to call Century Transportation during regular office hours. During off hours, bookings were conducted through PWT's dispatching centre. Throughout the whole pilot, a call in booking service has always been provided during all hours of transit operation.

Town Staff, Century, PWT and Rideco also provided support to callers to help set up the new Pick UP application on their home devices as well as walking new users through the booking system.

6. ANALYSIS

Prior to the commencement of the pilot, Staff and RideCo determined goals and key performance indicators (KPIs) in order to evaluate the success of the pilot.

Goals

Goal	Measure
Positive rider experience (ease of use)	Ride rating/User Survey
New service areas (virtual stops) utilized	% of rides to/from new areas
Increase in Ridership	Ridership

The first goal that was set was to achieve a positive customer experience which was measured by the driver rating and the results of the user survey. The driver rating for the whole length of the pilot was 4.74 which was above the goal of a 4.5 rating and the user survey indicated several instances that would indicate a positive experience such as:

- 78% who would recommend the service
- 42.6% of 26 users who wanted to see fixed route return indicated they would rather use on demand if the Town had more vehicles (smaller in service)
- 84% want to keep on demand
- 70.5% say that they are satisfied with On Demand
- 59% of riders are booking with the On Demand Pick-Up App

The second goal was to increase service to new service areas and the results showed that 39% of rides were to or from a new service area since the start of the launch date. This goal of providing transit service in a previously unserved area is one of the most important ways for the Town to increase ridership. Current and new riders are encouraged to suggest new virtual stop locations for Staff consideration.

The third goal was to increase ridership. Unfortunately, it was not possible to operate the pilot during a normal ridership year. The pandemic evidently had a major impact on ridership prior to the commencement of the pilot however as of March 25, 2022 Staff are pleased to report that ridership levels are starting to increase and certainly some of the recovery can be attributed to new riders utilizing the On-Demand service.

Key Performance Indicators

Customer Experience Metrics	Goal	Results (Launch to Jan 31)	Results (Comingled)
Pickup Violations	<5%	4%	5%
Dropoff Violations	<5%	2%	3%
Average Rating	4.5 / 5.0	4.7%	4.7%
% of rides to/from new service areas	10%	3%	4%
% rides with <= 3 star rating	<5%	7%	7%

Operational Metrics	Goal	Results (Launch to Jan 31)	Results (Comingled)
PVH (Passengers per vehicle hour)	Monitor	3.1 Weekdays 3.0 Week (Mon-Sun)	3.9 Weekdays 3.7 Week (Mon-Sun)
Ridership *2019 Pre pandemic= 170 weekend/15 evening	200 riders / weekend 20 riders / evening	122 riders / weekend 17 riders/evening	129 riders / weekend 23 riders/evening
% Cancelled rides	Monitor	29%	32%
% Abandoned rides	<0.5%	0.39%	0.05%
Search to book conversion rate	90%	89%	92%
Driver Acceptance rate	100%	99%	99%
Total Failed Search Rate	<5%	15%	6%
% users with failed searches due to high demand	<5%	6%	6%
Number of passengers per shared ride	Monitor	2.3	2.3
% of rides shared	50%	55%	61%
Unique Users who have Searched (as a measure of engagement)	Monitor	925	111
Percentage of Rides at Virtual Stops	Monitor	39%	37%

KPI Definitions:

Passenger per Vehicle Hour (PVH) is tracked to measure productivity. PVH is measured by the number of passengers served by in-service vehicles per hour.

Rides are measured by the actual booking of a ride, which does not include all passengers that board the bus. There may be 2-3 individuals that board the bus through a user booking one (1) ride (family).

% of Cancelled Rides is the percentage of the number of rides booked, then ultimately cancelled. Once a ride is cancelled, the ride is removed from the driver's itinerary. When dealing with a lot of no-shows or cancellations, RideCo has a throttling feature, which is able to discourage this behavior (providing a potential opportunity for rider education). For example, if a rider continuously does not show up for their ride or cancels their ride, this rider can be suspended from the app for a determined amount of time. Agencies can set unique parameters for this feature to keep the service running as smoothly and efficiently as possible. The Town has not utilized this feature as of yet.

% of Abandoned Rides, this KPI is related to a commitment that the system has made for booked rides and something has arisen to change that commitment. If a ride is abandoned, it is generally attributed to an operational issue such as, a driver arrived to early/late to their pickup, there is a capacity issue onboard, driver exceeded travel times, traffic or vehicle unavailability due to a mechanical issue, etc.

Search to Book Conversion Rate relates to users that have searched a trip for a particular day and has ultimately booked a ride successfully.

Driver Acceptance Rate should always be set to achieve 100% acceptance rate; however, there may be instances where a driver must reject a ride, for example the driver requires an unscheduled break or that the driver is unable to pick up the next passenger due to a traffic delay such as a motor vehicle accident/breakdown.

Total Failed Search Rate also includes failed searches where riders select an option that is unavailable, such as before or after service hours. There is also a possibility that the rider is trying to book a ride out of the Town's service boundary.

Failed searches due to high demand occur when there are more ride requests than available capacity on the buses to service these requests. Cobourg Rides tracks these failed searches and works to make service adjustments to better meet demand in the future.

Number of Passengers per Shared Ride indicates the number of passengers that are onboard when another passenger is picked up.

% of Shared Rides this KPI indicates what percentage of all rides have been shared rides, our goal was 50% which has been exceeded, the results with comingling show 61%.

Unique Users that have Searched this KPI illustrates the number of individual users that have searched for a ride. It does not include when an individual searches several times from the same device.

Percentage of Rides at Virtual Stops measures the percentage of riders that were either picked up or dropped off at newly created virtual stops.

KPI goals are set to keep objectives of the project at the forefront of decision making; they are pertinent in measuring success and failures of undertakings. It is important to note that throughout the On Demand pilot, Team members met frequently to troubleshoot any issues that arose as well as making changes throughout the pilot to improve service to riders. Several adjustments were made along the way, including call centre menu

improvements for bookings, dispatching instruction for call centre employees, route optimization for drivers and commingling of services.

As illustrated in the tables above, the results are indicating that nearly all KPI's were achieved and that the pilot has been a success. Another good measure of the success of the pilot is that average ride times went from upwards of one (1) hour on the fixed route service to an average of 10-minute ride times with the On-Demand service. Since commingling of services, Staff have seen a significant reduction in failed trip searches as well as an increase in passengers per vehicle hour spread amongst all three (3) vehicles being utilized equally.

Statistics

A further description of each phase of the pilot and the statistics recorded throughout each phase is presented below:

Pilot Phase 1: On-Demand from 5 p.m. to 10 p.m., Monday to Friday and all On-Demand on Saturday and Sunday. WHEELS On-Demand for all hours. Fixed Route was an option for riders during the week from Monday to Friday 6:15 a.m. until 5:00 p.m. allowing riders to start utilizing On-Demand services after 5:00 p.m. and on weekends.

Statistics Conventional Ridership: April 19 to June 13, 2021

Rides & Passengers	Ride Rating (Out of 5)	Failed Search Rate	Failed Search Rate (Unique Users)	PVH (Passenger per Vehicle Hour)
Rides: 571 Passengers: 652	4.74	0%	0%	1.28

Statistics Wheels Ridership: April 19 to June 13, 2021

Rides & Passengers	Ride Rating (Out of 5)	Failed Search Rate	Failed Search Rate (Unique Users)	PVH (Passenger per Vehicle Hour)
Rides: 533 Passengers: 606	4.74	8%	2%	.082

Pilot Phase 2: Fixed route transit offerings were eliminated, riders were offered full time On-Demand services throughout the remainder of the pilot.

Statistics Conventional Ridership: June 14, 2021 to January 31, 2022

Rides & Passengers	Ride Rating (Out of 5)	Failed Search Rate (Total)	Failed Search Rate (Unique Users Total)	Failed Search Rate During High Demand January 2022	Failed Search Rate (Unique Users) January 2022	PVH (Passenger per Vehicle Hour)
Rides: 18,146 Passengers: 20,576	4.72	18%	10%	27%	14%	3.94
Rides: 3,940 Passengers: 4,612	4.65	9%	4%	8%	3%	1.52

Phase 3 Commingling Service: February 1, 2022 to March 31, 2022

In order to reduce the number of failed ride searches and improve the number of passengers per vehicle hour, the On-Demand Team developed a pilot within the pilot. For the month of February, the Town commingled Conventional and Wheels services utilizing three (3) smaller 8m vehicles instead of one dedicated small Wheels bus and two large conventional buses. The conventional buses are not able to provide the origin to destination service that WHEELS members require, so it was required that all three vehicles had to be able to access all streets and addresses in Town. The Town of Cobourg owns two (2) 8m low floor ramp capability buses and Century Transportation has one (1) low floor ramp capability as well as one (1) small school bus with a wheelchair lift to use as a back-up bus if required.

Prior to February, the highest number of passengers per vehicle hour was trending at 2.9, meaning that the largest vehicle needed to accommodate ridership demand for two vehicles was 5.8. The highest PVH for the WHEELS service was only 1.53, indicating that the WHEELS bus was not being fully utilized. The comingled service allowed for all three small vehicles to be available for non-WHEELS bookings instead of two. It was not expected that WHEELS members would have more difficulty booking since they too would have all three buses to book, rather than just one.

With the demonstrated success of the February commingling of services, Staff extended commingling of services for the month of March to continue to gather valuable statistics.

The results of the comingled service trial for the month of February and March are as follows:

Rides & Passengers	Ride Rating (Out of 5)	Failed Ride Searches (Unique User)	PVH (Passenger per Vehicle Hour)
Rides: 6,767 Passengers: 7484	4.74	6%	4 *Highest PVH (5.0) occurs at 8am and 2-3 pm (Mon-Fri)

The results of the analysis showed significant improvement on all KPI metrics associated with the comingled On-Demand service.

Improving Efficiency:

On-demand transit reduces passengers on board times by taking a more direct route to their final destination, while picking up a few other passengers and staying on the most efficient route. With the guaranteed arrival time and pick up window, passengers know in advance how long they will be on board.

Staff are continuously monitoring ridership statistic and adjusting the number of buses on the road where necessary to meet the demands of high and low ridership times.

In reviewing ridership numbers over the weekends (Saturday & Sunday) it was decided to try operating only two of three buses for the month of March.

After monitoring Saturday ridership and failed search requests throughout March, Staff determined that three (3) buses should be operated on Saturday morning until 1:30 p.m. after which time service can be reduced to two (2) buses.

Ridership on Sundays is extremely low, approximately 40 riders throughout service hours, and for this reason Staff have made the adjustment to only operate two (2) buses on Sundays moving forward instead of three (3).

Staff will monitor ridership numbers as well as failed ride searches and will address the number of buses in service as ridership continues to increase. Although there may be savings associated with the reduced buses on the road, budget will have to reflect the potential for ridership increases where all three (3) buses are required to be in operation.

Vehicle Projections

Staff requested that RideCo provide the Town with a simulation of operations utilizing different sizes and number of vehicles taking into consideration current ridership numbers, 2019 ridership numbers, as well as projecting future growth beyond 2019 numbers.

Two simulations were run by showing the use of three and four vehicles all day to show the levels of service that can be achieved by the Conventional and WHEELS service.

Scenario 1: Three vehicles operating all day

- 140 rides from actual service day (Wheels + Conventional)
- 40 rides that failed due to high demand from actual service day (Conventional)
- 100 generated rides from top 10 booking origins and destinations (Conventional)

Scenario 2: Four vehicles operating all day

- 140 rides from actual service day (Wheels + Conventional)
- 40 rides that failed due to high demand from actual service day (Conventional)
- 200 generated rides from top 10 booking origins and destinations (Conventional)

Key Performance Indicators from RideCo Simulation:

Metric	Actual Service Day	Actual Service Day (Comingled)	3 Vehicle Simulation	4 Vehicle Simulation
Vehicle Hours	40	41	42	56
Ridership	178	184	303	431
On-Time Performance	97%	99%	100%	99%
Shared Rides	70%	63%	72%	73%
Avg. Direct Ride Duration	6m	6m	5m	5m
Avg. Ride Duration	9m	9m	7m	8m
Avg. Ride Duration (incl. wait for pickup)	11m	12m	10m	11m
PVH	4.4	4.5	7.3	7.6
Failed Ride Searches	23%	1%	8%	5%

**Chart supplied by RideCo*

Data Legend:

- Actual Day of service was October 1, 2021 for both Wheels and Conventional as this date showed the highest ridership to the date of simulation.
- Arboc Spirit of Freedom (8m bus) was used as the vehicle type (Wheels bus).

Simulation Results:

- Combining Conventional and Wheels services significantly reduced failed searches (23% to 1%).
- Simulations show that over 300 passengers can be serviced with 3 vehicles in service.
- Passenger per Vehicle Hour (PVH) of upwards of 10 (average 7.3) can be achieved with more productive vehicle hours (matching the maximum capacity of the Dodge Ram Promaster 2500, minibus).
- 3-4 vehicles will allow for ridership levels to exceed 2019 fixed route values.
- Only one vehicle is required to be in service from 7pm to 10pm (Monday to Friday) and on weekends from 8am to 9am and 4pm onwards.
- Depending on customer feedback, reducing service from 10 pm to 9pm is also a possibility.

On-Demand User Survey Results

Staff in coordination with the Communications Department developed a rider survey to capture feedback from riders. User surveys were available to the public online or by paper copy from February 8-28th.

A total of 78 riders submitted feedback from taking the user survey, either online or by hard copy. Of the 78 participants, only 62 had utilized the on-demand service.

- 84% of users who had tried the service identified that moving forward post pilot they would like to see the transit service continue as On-Demand.
- 16% of users who had tried the service identified that they would like to revert to fixed route service
- 16 users who had not tried the service, indicated that they would like to revert to the fixed route service.

When asked if the Town were to continue with On-Demand services and increased the number of vehicles (smaller) offering service to help reduce failed trip requests, would the user then prefer On-Demand services. Only 26 users answered this question as 52 skipped the question because they selected that they would like to see On-Demand post pilot. Of the 26 users that selected that they would like to see fixed route post pilot, 46.2% said that if the Town increased the number of buses to reduce failed search request, then they indicated that they would utilize On-Demand services going forward.

A summary of the survey results are as follows:

1. Satisfaction with Cobourg Rides

Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Other
34 (43.6%)	21 (26.9%)	5 (6.4%)	11 (14.1%)	7 (9.0%)

*Note: 16 respondents that completed this section have not utilized On-Demand services since the launch of the pilot.

2. Recommending Cobourg Rides to a friend or family member

Definitely Agree	Somewhat Agree	Neither Agree or Disagree	Somewhat Disagree	Definitely Disagree
35	17	9	3	14

*Note: 16 respondents that completed this section have not utilized On-Demand services since the launch of the pilot.

3. What would keep you from utilizing the On-Demand Service

Physical or Virtual Stop not close enough	Too expensive	Service hours are too limited	Not leaving my house often due to COVID19	Too Challenging to use
16	3	22	8	8

4. How often do you utilize public transit (monthly)

10+ times per month	9-10 per month	7-8 times per month	5-6 times per month	4-5 times per month	2-4 times per month	1-2 times per month
30.8%	2.6%	6.4%	10.3%	14.1%	11.5%	24.4%

5. When booking a trip, what method of booking do you use

By calling booking agents	By the Pick-Up On-Demand App
41%	59%

6. Have you used a new virtual stop?

Yes	No
20.5%	79.5%

When asked how riders heard about Cobourg Rides, 29 users heard from a bus driver, while 17 heard from the website and 12 learned about the service from bus shelter posters.

When asked what made the rider try the service, 55 users expressed that they do not own a vehicle or drive, while 29 say taxis are too expensive.

Overall based on the feedback provided by those who have used On-Demand services, the new service model has been well received.

RECOMMENDATIONS AND OPTIONS

Staff have developed three (3) different service delivery models for Council's consideration.

Option 1 – Fully On-Demand Service

This option a fully On Demand Service, using the commingled approach that was piloted in February and March showing positive results in ridership as well as a significant reduction in failed ride searches. The service is flexible for all users with the availability of the call-in option to book rides, just as WHEELS members have been used to doing since the WHEELS program's inception.

The service requires three (3) 8m buses to be in operation at all times and it is recommended that there be two (2) spare vehicles of similar size. Currently, the Town is operating both small buses as well as Century's small bus (which is supposed to be the spare bus). The only available spare bus currently is a small school bus with a lift which Staff are recommending be replaced with a new spare vehicle.

The requirements to implement Option 1 is for the Town to purchase two (2) more small vehicles in order to operate three at a time, with one spare owned by the Town and one spare owned by Century.

The use of 30' buses is not possible when commingling services, as there is a requirement for all vehicles to be able to provide origin to destination drop offs/pickups for WHEELS members. The 30' buses cannot maneuver throughout all of the residential neighbourhood streets. This option will include eliminating the use of 30' vehicles and all three existing 30' vehicles will be sold.

Option 2 – Hybrid Model

This option is a hybrid model which consists of On Demand Services as well as offering one (1) Limited Fixed Route system.

The On-Demand service will operate the same as is offered under Option 1 and utilize three (3) low floor accessible vehicles commingling to serve Conventional and WHEELS services and two (2) spare vehicles will be required.

The limited fixed route option is derived from feedback received from existing riders who have been reluctant to use the booking in advance system for various reasons. Understandably, it is a new approach and requires planning to book in advance as opposed to simply knowing when and where a bus arrives at a transit stop in order to get a ride.

Staff are suggesting that a limited fixed route could be possible during the high demand hours of the days Monday to Friday from 9 a.m. to 4 p.m. The route would be a short continuous loop with stops implemented at approximately 15-20 major points of interest, including senior resident homes. Booking in advance would not be required for this fixed route.

The limited fixed route would utilize one (1) 30' low floor accessible bus (2017 Vicinity) and would allow for two (2) 30' low floor accessible buses as spare vehicles.

There are risks involved with this option:

1. The spare large buses will be beyond their useful life cycle and the Town may incur higher maintenance costs to continue to keep them operational.
2. By offering a fixed route, there is less incentive for riders to try the new on-demand system and this could lead to a higher demand for the fixed service and overcrowd the single operational bus, require expansion, and negate the point of the on-demand service.
3. Keeping a fixed route essentially commits the Town to maintaining a larger vehicle type in operation. Since the two spare vehicles are 2010 vintage, a new spare will soon be required. A new spare could potentially be a medium sized vehicle (Type C vehicle described below). Should this option be chosen, a trial will have to be conducted to gather ridership stats to determine the ideal bus size before a procurement is made.

Option 3 - Fixed Route Service

This option will have the transit system revert back to the two route fixed conventional service and WHEELS service operating separately as they did prior to April 19, 2021. Fixed Route service would resume utilizing two (2) of three (3) existing 30' buses; with

one bus acting as a backup vehicle. The large 30' buses seat approximately 24 ambulatory or 20 plus one wheelchair or 17 plus 2 wheelchairs.

As noted previously, two (2) of the 30' buses are past their useful life and will require replacement as soon as possible to offer riders reliable service.

Vehicle Types

Type A

Minibus: This is the smallest type of bus available and has side/rear ramp options as well as several seating arrangements such as 3 ambulatory, 3 mobility aids, 7 ambulatory and 1 mobility aid, 5 ambulatory and 2 mobility aids. A minibus is fully accessible with a ramp at the side and rear of the vehicle. The results of the Rideco vehicle simulation indicated that three minibuses would be adequate to service the 2019 ridership stats plus allow for some growth. The simulations are not able to factor in the variable of a seating capacity reduction when mobility aids are on board the bus. It can reasonably be assumed that it would be unlikely for more than one mobility aid to be on a single bus at any given time and if so, the failed ride searches may increase slightly during those times.

The minibuses do not offer as much seating capacity, are not as spacious as the Arboc Specialty vehicles, and often have seats mounted on elevated track systems; however, they are more cost effective and capable of providing an adequate level of service. It should also be noted that using the smaller vehicles will more quickly lead to a fourth vehicle purchase with ridership growth ie. There is more room for growth with three 8m Arboc Specialty vehicles than with the smaller minibuses.

Cost: ~\$120,000 per vehicle

Type B

Small Arboc Specialty Vehicle (8m): This bus type is the same as the Town's current WHEELS buses and the consistent look across all vehicles would be a benefit for riders. This size of vehicle would also allow for the most growth in ridership and could potentially be used on a trial basis for the limited fixed route (Option 2) to see if it would meet the ridership demand.

The vehicle is spacious enough to allow for 'sneeze guards' and driver barriers to protect riders between seats and the floors are flat without tracks for seating. According to the Rideco simulation, the average passengers per vehicle hour is currently trending at 7.3 indicating the capacity is slightly underutilized currently; however, the PVH has reached 10 indicating that daily maximums can be accommodated as well as there being room for ridership growth. The vehicles can seat 14 ambulatory + 1 mobility aid or 12 ambulatory + 2 mobility aids

Cost: ~\$160,000 per vehicle

Type B – Hybrid Option

Staff were made aware on April 25th that Metrolinx is actively holding preliminary discussions with transit agencies that may be interested in a joint procurement for 7m and 8m specialized vehicles. This new joint procurement will also have a hybrid option.

Costs: The cost and seating capacity of the proposed 7m/8m hybrid option is currently unknown.

Type C

Large Arboc Specialty Vehicle: This bus would only be considered if a new limited fixed route was implemented. The bus is 1m longer than the Town's WHEELS bus and is the same length as the Century spare vehicle. The look would be consistent with other Town vehicles. This size of vehicle comes with two seating arrangement options: (i) 19 ambulatory or 13 + 3 mobility aids; and (ii) 18 ambulatory or 12 + 2 mobility aids. This bus can also be an on-demand spare bus if needed as the size is conducive to maneuvering through residential neighbourhoods.

Cost: ~\$200,000 per vehicle

Metrolinx Transit Procurement Initiative

The Town is a member of the Metrolinx joint procurement program called the Transit Procurement Initiative (TPI) and Staff will be monitoring available vehicle offerings including alternative propulsions such as hybrid, gasoline, and propane.

As noted previously, Metrolinx TPI is actively holding preliminary discussions with transit agencies that may be interested in a joint procurement for 7m and 8m specialized vehicles. This new joint procurement will also have a hybrid option. The Town can put forward interest in any number of vehicle types that are being procured and does have opportunity to withdraw upon understanding the final costs of the vehicles once a supplier has been selected, prior to a master agreement being signed.

Funding

No matter which vehicle type is chosen, procurement funding can be utilized from the Investing in Canada Infrastructure Program (ICIP) - Transit Stream. The breakdown in funding equates to a federal contribution of 40%, provincial contribution of 33.33% and municipal contribution of 26.67%. The 2022 capital budget for fleet replacement is \$240,000 of which \$64,008 (26.67%) is funded from the tax levy.

7. FINANCIAL IMPLICATIONS/BUDGET IMPACTS

All operational estimates are based on 2022 contract rates with Century Transportation to compare with the current 2022 operating contract budget of \$950,000. The operations contract is a three (3) year contract ending December 31, 2022 with the option to extend for an additional two (2) years.

All capital estimates are based on gas/diesel powered vehicles.

Option 1 Summary:

- Comingled service (conventional and WHEELS integrated together)
- Operate three (3) Type B vehicles with two (2) spare Type B vehicles
- Utilize Century small bus as one spare vehicle
- Eliminate the use of 30' buses – sell three 30' buses

- Capital Requirement: Two additional (Type A or B) vehicle purchases (one full time/one spare)

Estimated Operational Contract Cost: \$960,000

This option will be the least expensive of the three options if the operations contract can be renegotiated/tendered to encompass savings when buses are not driving. Currently the Town does not have the ability to save costs while the buses are in between rides. The hourly rate encompasses driver time, maintenance, fuel and administrative costs which was sufficient for a fixed route system. A future contract could break out the expenses to more accurately reflect the operating expenses of smaller vehicles that are not in continuous operation such as with the on-demand system. The anticipated cost savings will be evident with the smaller buses being more fuel efficient, not driving as many kilometers, and being less expensive to repair and maintain. Should the Town purchase two new vehicles, all four vehicles will be small and far more cost effective to operate and require few unexpected maintenance costs.

Estimated Capital Cost (Option A): \$240,000.00 to purchase two (2) Type A buses (minibus) Total municipal contribution of \$64,008 (26.67%).

Estimated Capital Cost (Option B): \$320,000.00 to purchase two (2) Type B buses (Small Arboc Specialty Vehicle (8m)). Total municipal contribution of \$85,344 (26.67%).

Estimated Capital Cost (Option C): \$280,000.00 to purchase one (1) Type A bus (minibus) and one (1) Type B bus (Small Arboc Specialty Vehicle (8m)). Total municipal contribution of \$74,676 (26.67%).

Option 2 Summary:

- Comingled service (conventional and WHEELS integrated together)
- Operate three (3) Type B accessible vehicles for On-Demand service with two (2) spare Type B vehicles
- Utilize Century small bus as one spare vehicle
- Operate one (1) 30' large bus on a new fixed limited route
- Capital Requirement (Option A): Purchase two vehicles (Type A or B), keep all 30' buses
- Capital Requirement (Option B): Purchase two vehicles (Type A or B) and one Type C bus, sell two older 30' buses
- Operational Cost Considerations: spare 30' buses are beyond useful life and may have unexpected high costs to keep operational

This option will have the most expensive annual operational costs as there would be four (4) buses in operation Monday to Friday from 9 a.m. to 4 p.m. Other unknown costs under this option are the maintenance and repairs associated with the older larger vehicles.

Estimated Operational Contract Cost: \$1,065,000 + unexpected repair costs

Estimated Capital Cost (Option A): \$240,000 - \$320,000

Estimated Capital Cost (Option B): \$320,000 - \$360,000

Option 3 Summary:

- Operate two (2) 30' accessible vehicles on two fixed routes utilizing Town owned spare vehicles
- Operate the WHEELS origin to destination service utilizing Town owned small bus and one spare small bus
- Capital Requirement: Purchase two new 30' accessible vehicles (one full time/one spare)
- Operational Cost Considerations: back up 30' buses are beyond useful life and may have unexpected high costs to keep operational

Option 3 has the most expensive capital costs and will be consistent with the 2022 operating budget. Maintenance and repair costs are expected to increase significantly for the older 30' buses and service reliability is also expected to decline due to breakdowns.

Estimated Operational Contract Cost: \$950,000 + unexpected repair costs

Estimated Capital Cost: \$1,100,000 to purchase two (2) new 30' buses. Total municipal contribution of \$293,370 (26.67%).

RideCo Licensing and Maintenance Fee:

The 2022 operating budget includes licensing costs to continue using the RideCo Pick up App at \$19,800.00, \$550.00/per vehicle/per month. If Council chooses to revert back to fixed route, the Town will continue to incur licensing fees for this software for the WHEELS service.

Cost Saving Opportunities for All Options

The only opportunity to save on operational costs under the current contract is to reduce hours or levels of service. Should the Town procure smaller and/or more fuel-efficient vehicles and given the substantial changes in transit operations, it would be prudent for the Town to renegotiate hourly operating rates with Century Transportation for the remaining two years of the contract. Newer vehicles, smaller vehicles, less kilometers travelled per vehicle, may all lead to a reduced hourly rate. Unfortunately, operating costs have also increased for the transportation industry due to the pandemic and global unrest in the supply of commodities. A renegotiation may not reduce operating rates and therefore Staff are assuming that the operating budget will be based on the agreed upon contract rates as a worst-case scenario.

Reduced operating hour options:

- i. Currently statistics are showing an average ridership of 1.7 passengers between the hours of 9:00 p.m. and 10:00 p.m. from Monday to Friday. The costs associated with ridership between 9pm to 10pm equates to ~\$46 per ride. The annual cost savings associated with ending service hours at 9:00 p.m. Monday to Friday is \$20,000 (2022 rate), which includes the transit hourly rate as well as the call centre hourly rate.
- ii. Council can consider reducing the call centre operating hours to match the operating hours of Century Transportation:

- Monday to Friday 8:00 a.m. to 5:00 p.m.
- Saturday 8:00 a.m. to 4:00 p.m.
- Sunday 8:30 a.m. to 2:00 p.m.

Currently PWT conducts the call centre out of Calgary for the operating hours before and after Century's hours so that all hours of transit service have a call in option. Limiting the call centre to Century office hours is a reduction in service level as those who utilize the call-in option and who have not booked far enough in advance, may not be able to book rides on the same day if they plan to ride during times when the call centre is closed. However, it may also encourage riders to book further in advance or to try the online/app booking system. Online/app booking will always be available 24/7. The cost savings for this option would equal ~\$29,000.

- iii. Council can consider reducing just the afterhours call centre (PWT) to the following hours:
 - Monday to Friday 6:15am-8am and 5pm to 7:30pm
 - Saturday 4pm to 6:45pm
- iv. Currently statistics are showing that only two buses are needed after 1:30 p.m. which would equal a savings of ~\$20,000. Ridership will continue to be tracked by Staff on Saturdays to ensure there are enough buses operating to serve the demand.
- v. Currently statistics are showing that only two buses are needed on Sundays which would equal a savings of ~\$30,000. Ridership will continue to be tracked by Staff on Sundays to ensure there are enough buses operating to serve the demand.
 - Sunday 2pm to 3:45 pm

The cost savings for this option would equal ~ \$12,500

Options iv and v are variable and will be monitored by Staff to keep expenses as low as possible however the full cost to run three buses for all transit hours must be budgeted in case ridership increases throughout the year.

Staff are recommending Option 1 for full on demand services and are also recommending that two Type B buses be purchased to facilitate a reliable and consistent on-demand transit service. Should the TPI procurement of hybrid buses meet the necessary seating capacity, Staff will confirm interest in two hybrid vehicles. Once the costs of the vehicles are known, Staff will provide a report back to Council for approval.

Staff would also support Option 2 on a trial basis, under the stipulation that at least one Type B vehicle is purchased in order to act as a spare vehicle for the limited fixed route in case the spare 30' buses are not operational.

Staff are also recommending that Council authorize the renegotiation of the transit operations contract with Century Transportation for a minimum of two (2) years. The current contract already includes the opportunity to extend the contract if mutually agreeable however considering the potential revisions to the transit operations it would be equitable for the Town to permit Century Transportation to reconsider the contract

rates to align with the revised service and vehicle types. Century Transportation has been a supportive partner during the Town's pilot project and have been very flexible in adjusting their operations and schedules during the implementation of the on-demand system. It is recommended that in good faith, the Town extend the opportunity to renegotiate the remaining two years of the contract without going to public tender. Should Council choose Option 3 to revert back to a fully fixed route service, a renegotiation will not be required and the contract rates for 2023 and 2024 will apply.

8. CONCLUSION

THAT Council direct Staff to implement transit service Option 1, 2 or 3; and,

FURTHER THAT Council select and approve the procurement of the transit vehicle type and number of vehicles associated with the chosen transit service Option; and,

FUTHER THAT Council consider reduced operating hours Options i, ii and iii; and,

FURTHER THAT Council authorize Staff to renegotiate the transit operations contract with the current provider for the remaining two (2) years to realign contract fees with the approved transit service option and vehicle types that is not to exceed the 2023/2024 fees of the current contract.

Report Approval Details

Document Title:	On-Demand Transit Pilot Results - Public Works-107-22.docx
Attachments:	- On-Demand Transit Survey Summary Report.pdf
Final Approval Date:	Apr 28, 2022

This report and all of its attachments were approved and signed as outlined below:

No Signature - Task assigned to Tracey Vaughan, Chief Administrative Officer was completed by delegate Ian Davey, Treasurer / Director of Corporate Services

Tracey Vaughan, Chief Administrative Officer - Apr 28, 2022 - 10:05 AM