



Automated Carts and Multi-residential Organics

Energy from Waste Advisory Committee

June 27, 2025

What Is Automated Cart Waste Collection

- Automated Cart Waste Collection uses two-wheeled carts that can be picked up and emptied into collection vehicles using automated grapple 'arms' (fully automated) or using tipping devices on the back of collection vehicles (semi-automated).
- Carts can be used for garbage, organics or blue box materials*.
- The Region conducted an automated cart collection pilot for garbage in Ajax and Scugog starting in 2024 and ending in April 2025.
- Significant and growing number of municipalities are moving to this style of collection across Ontario.



*No longer a Regional responsibility

Automated Cart Collection in Action



Benefits of Automated Collection

- One truck and one operator can complete the collection route vs. one truck and two operators with manual collection.
- Overall faster waste collection.
- Significantly improved operator health and safety and operator retention – no repetition, no heavy lifting.
- Improved ergonomics and accessibility for residents.
- Reduced wind-blown litter.



Automated Collection Pilot Results

Time Efficiency – 43% increase in number of homes collected per hour in Ajax (urban)
– No change in Scugog (rural).

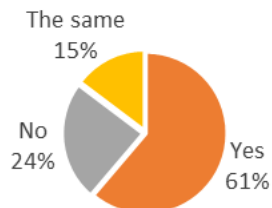
Health and Safety – No driver injuries during collection pilot.

Wind-blown litter – Residents reported reduced litter during pilot.

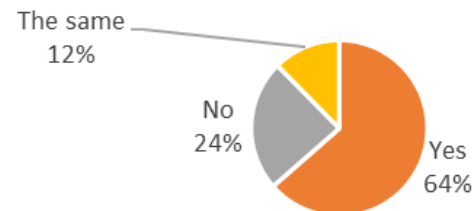
Resident Satisfaction – after initial adjustment:

- 76% of residents reported carts were faster or the same to use (one trip to curb vs. multiple trips with more than one garbage bag).
- 76% of residents reported cart was easier or the same to use as garbage bags.
- 84% supported or were indifferent with cart collection.
- 98% participation rate.

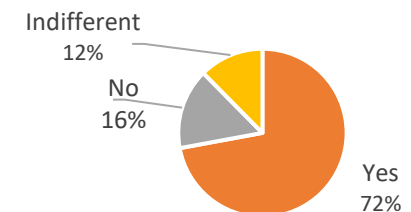
Survey 2 Question 4:
Does the cart make it faster to bring
your garbage to the curb?



Survey 2 Question 3:
Does the cart make it easier to take
your garbage to the curb?



Survey 2 Question 1: Do you
support cart collection?



Health and Safety - Automated vs Manual Collection

- Waste collection is a physically demanding job with high injury and significant fatality rates.
- January to December 2024 injury comparison between comparable existing automated cart collection program and Durham manual waste collection, both operated by same contractor:
 - Automated truck collector injury rate was 1 injury/50 trucks.
 - Manual truck collector injury rate was 1 injury/2 trucks.
- Common injuries with manual collection include cuts, slips, trips, strains, sprains, pinches, overexertion, exposure to heat and cold.



[This Photo](#) by Unknown A



Council Direction

- Staff presented the Pilot results to Council in March with the recommendation that collection contracts transition to automated collection when re-tendered.
 - The next contract for Clarington and Townships of Brock, Scugog, and Uxbridge starts April 2028.
 - The next contract for Pickering and Ajax starts April 2030.
- Council was impressed with the Pilot results and directed staff to investigate extending the Pilot and expanding automated cart collection throughout the Region more quickly.

Report Back to Council

Staff report to June 4 Works Committee with the following recommendations:

1. Retrofit one collection vehicle with semi-automated collection to continue servicing the two Pilot routes on Fridays – one in Ajax, one in Scugog.
2. Purchase garbage and organics carts to distribute to residents on selected Tuesday – Thursday collection routes to expand semi-automated collection to those days and fully utilize the retrofitted vehicle.
3. Investigate and report back in the fall on options and costs to retrofit existing Ajax and Pickering collection fleet with semi-automated collection to transition it to semi-automated collection before next contract in 2030.

Differences between Original Pilot and Expansion Options

- Original Pilot was conducted with a fully automated collection vehicle borrowed from another municipality to collect only two routes.
 - This option is not sustainable.
- Retrofitting a vehicle only results in semi-automated collection. The driver must exit the vehicle to position the cart for pick up by the tippers. In fully automated collection the driver is not required to exit the vehicle.
 - Collection efficiency and health and safety improvements will not be fully realized until fully automated collection is implemented when contracts are re-tendered – in 2028 and 2030.
- With one retrofitted vehicle, only one route/day can receive semi-automated collection. These routes have not been identified.

Automated Collection Contract Tender



- Pre-qualification for Clarington and Townships garbage and organic collection contract was issued in April – four bidders
- Qualified contractors will be invited to submit a quote for the tender later this year.
- Tender will require fully automated collection vehicles, alternative fueling, provision of carts for garbage and organics for each household.
- New contract starts April 1, 2028.



Enhanced Green Bin

- Launched July 1, 2024 – approaching one year since launch.
- Subsidized Green Bin sales ended in December but promotion of online ordering of new and replacement bins continues.
- Monthly tonnage comparisons 2023 vs 2024 show consistent increases in collected tonnes.
- On average a 16% increase from the same month the previous year.



Multi-Residential Green Bin

- Launched June 3 in approximately 81 buildings. First collection is June 10.
- Work has been ongoing with property managers and building owners to communicate program parameters.
- Approximately 200 buildings outside of Oshawa and Whitby will eventually receive organics collection.



Multi-Residential Green Bin

- Phase 1 is approximately 50% implemented - full implementation completed in July. These are the 'green' ready to go buildings (Approx. 80).
- Phase 2 implementation will start in August/September. These are the 'yellow' minor modifications needed buildings (Approx. 35).
- Phase 3 implementation will start in 2026. These are the 'red' difficult to implement buildings (Approx. 10 - 12).





Thank You

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