

## WASTE AND RECYCLING MANAGEMENT PLAN

### YEE HONG MISSISSAUGA – NEW RETIREMENT RESIDENCE & LIFE LEASE BUILDING

This plan outlines the handling and pickup of residential waste and recyclable materials by the Region of Peel (“Peel”) at Yee Hong’s (“Yee Hong”) new, multi-residential development consisting of an 18-storey retirement residence and a 13-storey life lease building linked by 6-7 storey podiums and two levels of underground parking. This new development is adjacent to our existing, long-term care (“LTC”) home located at 5510 Mavis Road, Mississauga, ON. There will be Planning Act consents sought through severance applications creating three new parcels from the single address (existing property). Together, the new and existing residential area developments will encompass lands with in-effect, residential zoning designation and create a new, Yee Hong campus of care (“Campus”).

The Yee Hong retirement residence, with proposed municipal address 5530 Mavis Road, will be a rental, non-institutional, OBC Major Occupancy Classification “C - Retirement” occupancy including both independent living (“IL”) and independent supportive living (“ISL”)/retirement suites. The Yee Hong life lease building, with proposed municipal address 5520 Mavis Road, will be a life-lease interest, non-institutional, OBC Major Occupancy Classification “C-Residential” occupancy. The existing LTC home will retain its current address of 5510 Mavis Road and no changes are being proposed to its garbage and recyclable materials collection in any fashion; this plan only addresses the new development with the existing, LTC home operations remaining the same.

This plan was developed in consideration of the Region of Peel’s Waste Collection Design Standards Manual, 2020 (“Manual”). The plan is also based on comments received from Peel and Urban Design staff at the City of Mississauga (“City”) during circulation and review of DARC Project #20-203 submission for rezoning noting the following:

- 1) “the residential and retirement units are eligible for front-end waste collection services provided the requirements in Section 2.0 and 4.0 of the Waste Collection Design Standards are met”; and,
- 2) “a waste management plan must be submitted with the zoning by-law amendment application. This plan must demonstrate: -- Collection vehicle access route requirements can be met, including turning radii and head-on approach to the collection point-- Collection point has required overhead clearance and is large enough for staging of all front-end bins of the larger stream---Waste storage room is large enough for all required bins and storage of bulky items.”
- 3) “Indicate the number of anticipated waste, recycling and green bins for both buildings. Indicate where the bins will be located within the two waste storage rooms. Indicate where the bins will be picked-up from on the waste collect day.”

#### **Retirement Residence (“RR”):**

The RR will consist of an 18-storey building and 6 storey podium with a total of 238 residential dwelling units/suites comprised of 134 IL (with full kitchens) and 104 ISL (with kitchenettes only) suites. ISL residents generate less waste from their dwelling units than IL residents, whose suites have full kitchens, as they are on meals plans with meals being served in the RR’s common dining room. The RR has commercial kitchen facilities providing meals to all ISL and some IL residents on meal plans.

#### **Life Lease (“LL”) Building:**

The LL will consist of a 13-storey building and 7 storey podium with 243 residential dwelling units (with full kitchens).

**Existing LTC:**

The existing LTC already consists of a 5 storey building with 200 long-term care beds. The LTC has a full commercial kitchen.

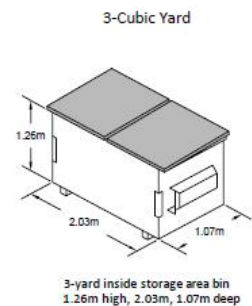
**Proposed Collection Point (external):**

In collaboration with the City of Mississauga urban design, landscape and planning staffs, our site plan for the new development shows the existing, exterior **collection point** of the LTC home remaining as-is and being shared with the new development for garbage and recyclable materials to be set-out on scheduled collection day(s). This seems the most reasonable and logical approach having a single, shared collection point for our entire Campus. The proposed collection point location abuts, and will be between the newly created development and adjacent LTC property, and will not obstruct any roadway or sidewalk or extend beyond the frontage of any property. Both the RR and LL buildings will have: 1) internal waste closet/rooms at each floor; 2) internal, main garbage rooms (“Common Collection Areas”) acting as the last collection point shared by multiple occupants for the bulk collection of residential waste and recyclable materials. Main garbage rooms will be accessible through either a single, steel sectional roll-up door or two, conventional entry doors allowing for adequate access for bins.

**Proposed Waste and Recycling Receptacles:**

This plan proposes the use of 3-cubic yard, front-end bins for both residential garbage and recyclable materials. Source Separated Organics (“SSO”) is not available for multi-residential complexes based on the Manual; therefore, there is no separation of organics in this plan. Bin colors will be coded to match Peel program requirements (as required).

Used cooking oil, from the RR commercial kitchen, will be contained via a grease interceptor (as per sewer bylaws) that can be pumped out periodically.



**Proposed Scheduled Collection Day(s):**

Existing residential garbage and recyclable materials collection days to match proposed as follows:

Existing LTC home (to remain):	Residential Garbage – Tuesdays and Fridays Recyclable Materials - Mondays and Thursdays
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Proposed RR & LL:	Residential Garbage – Tuesdays and Fridays Recyclable Materials - Mondays and Thursdays
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**Truck Turning Radius/Truck Dimensions:**

As part of this management plan a circulation plan has been created (see Traffic Impact Study) showing the Peel truck turning radius on the site plan. Requirements and standards as outlined in the Manual that are required to be met include:

- 1) Turning Radius – turns have a minimum of a 13 metre turning radius for Peel waste collection vehicles (“Vehicles”);
- 2) Roadway width – all roads have a minimum of 6 metres to allow unrestricted movement of Peel vehicles and roads will be designed to support a minimum of 35 tonnes;
- 3) Head-on approach – Vehicles have a minimum head-on approach of 18 metres;

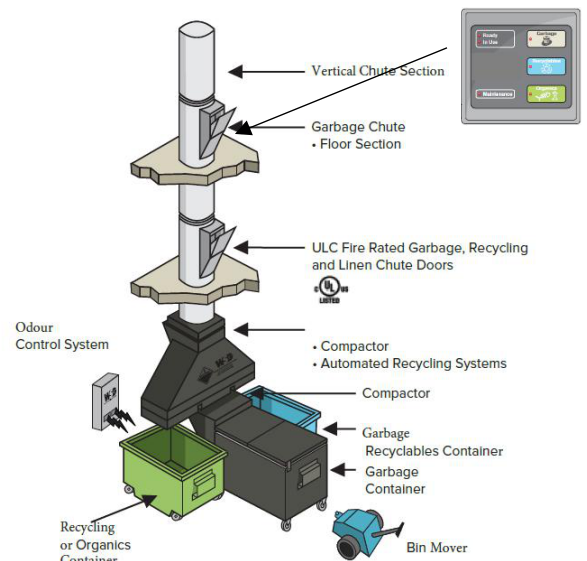
- 4) Access – Vehicles will not be required to reverse in excess of 15 metres, turn while reversing or reverse onto a municipal roadway;
- 5) Overhead clearance – outside of the collection point, a clear height of 4.4 metres from the top of the access road, along the Vehicle access and egress route is provided and free of obstructions such as building overhangs, wires, ducts, sprinklers, trees or balconies. A minimum clearance height of 7.5 m from the concrete pad at the collection point is provided;
- 6) Vehicles will not be required to drive onto or over a supported structure (i.e. grates or underground parking garage) along the Vehicles path to the collection point.

**Residential Waste & Recycling Collection (internal systems):**

Peel will provide final approval, after application and final site review and meeting occupancy requirements, for the provision of front-end residential waste and recyclable materials collection to the multi-residential development as described above. Source Separated Organics (“SSO”) is not available for multi-residential complexes based on the Manual and are not included as a stream separation for implementation.

This new development is accessed by a private roadway that is structurally adequate to prevent damage by Peel collection Vehicles. Turning radius for turns will have the minimum required radius for Vehicles and labelled on the Site Plan. All collection routes will have a minimum height clearance of 4.4 m from the top of the access road, along the Waste Collection Vehicle access and egress route. The clearance height of 4.4 m is free of obstructions such as sprinkler systems, ducts, wires, trees or balconies. The access route does not involve travel on or over the deck of an underground parking garage.

**Figure 1. Trisorter System w/ Compactor – Used for Waste + Single Stream Recyclables (no SSO)**



Each of the two buildings will have a central garbage room servicing each floor via a vertical, single chute which will be equipped with an automated mechanical separation system (i.e. trisorter) to direct garbage and recyclable materials into separate, front-end bins. Trisorters can be programmed to handle three stream sorting, but in the case of this development it will be two stream (waste and recyclables) and any future changes by Peel can be accommodated (i.e. SSO collection). Residents access the chute on each residential floor through a waste closet/room and can select, on the chute access door, the type of material (i.e. waste or recyclable) for disposal. The single chute runs down to the P1 level central garbage room where materials are sorted by the trisorter system with attached compactor which allows for sorting of: 1) garbage and its immediate compaction into a 3-yd<sup>3</sup> waste bin and; 2) non-compacted recyclable materials in another 3-yd<sup>3</sup> recycling bin. Two bins, one of each, are located under the trisorter at all times and additional bins will be located in the garbage room or adjacent area and swapped-out as needed (see **Figure 1** above). Please refer to Table 1. below for bin requirements.



Table 1. # of Front-End Bins	# of Dwelling Units	Garbage Front-End Bins (Compacted) Required (3 yd <sup>3</sup> )	Recycling Front-End Bins (Non-compacted) Required (3 yd <sup>3</sup> )
Retirement Residence Central Garbage Room	238	238/54 = 4.4 rounded to <b>5</b>	238/45 = 5.3 rounded to <b>6</b>
Life Lease Building Central Garbage Room	243	243/54 = 4.5 rounded to <b>5</b>	238/45 = 5.4 rounded to <b>6</b>
<b>Green bins are not required as SSO is not available for multi-residential developments.</b>			

These central garbage rooms will be of sufficient size to accommodate waste and recycling bins, providing for easy movement of containers to and from the rooms, access to containers, and movement to exterior collection points by way of adequately sized doors and use of bin movers (i.e. tractors and/or Bin Buddy).

**Summary Considerations, Comments & Action Items:**

- 1) A single, central, external Collection Area for the Campus.
- 2) Yee Hong will supply front-end garbage bins and Peel will supply front-end bins for recyclable materials.
- 3) Residential occupants will use waste/recycling closets on each floor as the common collection point for waste and recyclable materials disposal for that floor.
- 4) Central garbage rooms for each building (common, interior collection areas for buildings) with trisorter + compactor system designed to accommodate front-end bin storage and movement to the external Collection Point, by Yee Hong operations staff, where bins will be set-out on the Scheduled Collection Day(s).
- 5) All waste and recyclable materials generated by residents'/occupiers' will be managed/disposed of in 3-yd<sup>3</sup> bins. Garbage will be compacted and recyclables non-compacted.
- 6) Biomedical waste from the wellness centre (i.e. needles and syringes) will be disposed of in specified, "biohazard" containers and picked-up by biomedical, waste disposal service.
- 7) The existing, external LTC Collection Point will be the collection point for the Campus. It will be shared by the new development and existing, LTC home.
- 8) The concrete pad is positioned to allow Peel's waste collection vehicle to empty and return the containers without shuffling. Bins will be positioned and angled in a manner that makes them easily accessible by the waste collection vehicle. If bins are not able to be collected or access to the bins is impeded the waste will be left uncollected. The driving approach to the pad and bin location is level (concreted). The pad will have signage marked "Loading Area" and "No Parking" to prevent resident or visitor parking which would impede waste collection.
- 9) Peel collection, as proposed, will not change. Front-end bins will be moved from internal garbage rooms, by Yee Hong staff, to the external collection point on scheduled collection days; Peel collection contractors/waste vehicle drivers will not be required to exit Vehicles or be responsible for moving waste bins.
- 10) Yee Hong will introduce the waste collection service in conjunction with the recycling service to all residents prior to program commencement. Yee Hong will propose the residents create and run a "Waste and Recycling Management Committee" to administer, develop programs, and foster information sharing amongst existing and new residents on best practices for waste and recycling management.



- 11) Yee Hong is looking forward to working with Peel and meeting all standards for safe collection on private property and minimizing any liability.
- 12) Yee Hong proposes Peel setup various recycling programs to assist in the promotion of waste diversion. Yee Hong is targeting a diversion rate of 90%+ and will promote and encourage on-going efforts towards that goal.