



Technical Memorandum #1

Date: March 31, 2022 **Project No.:** 300054505.0000

Project Name: Graywood - Bronte Solid Waste Management

Client Name: Graywood Bronte Village Limited Partnership

Submitted To: Shwaan Hutton

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Reviewed By: James R. Hollingsworth, P.Eng.

1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) has been retained by Graywood Bronte Village Limited Partnership (hereinafter referred to as Graywood), to provide solid waste management planning services for the proposed 2365-2377 Lakeshore Road (Bronte Village) mixed-use development in the Town of Oakville.

The recommendations and requirements provided in this Technical Memorandum, which can be shared with your entire team, are based upon the Diamond Schmitt Architects Architectural Plans and Statistics dated February 9, 2022. The below recommendations are primarily regarding the waste management design for your development. Operational procedures will be detailed in a subsequent Waste Management Plan, to accompany your SPA submission.

2.0 Design Requirements

1. Residential garbage will need to be compacted to reduce the number of bins collected. Due to safety concerns, access to the compactor must be restricted to trained staff. The Waste Storage Room should be locked, preventing resident access.
2. A chute system feeding into the Waste Storage Room must be accessible on all floors containing residential units. The Region's minimum requirements call for a single chute system, leading to a tri-sorter in the Waste Storage Room.

3. As the Waste Storage Room is located on the ground floor and due to the presence of ground-floor level suites in this development, a system must be established for these suites to dispose of their waste since they will not have chute access. This may be done using a waste vestibule, with built-in through-the-wall chutes that lead into waste carts within the Waste Storage Room. The following is recommended to accommodate ground-level waste disposal:
 - Carts (conservatively assumed to be 360 L (95 gallon) capacity) will be required on the receiving end of the through-the-wall chutes to collect each waste type/stream as it is deposited.
 - For the recycling waste stream, the cart will need to be dumped into the front-lift bin regularly – a cart tipper¹ is required to assist maintenance staff with this task. Cart tippers typically require a 120v outlet for charging or for direct power.
 - For the garbage waste stream, the front-lift garbage bin will need to be ‘pre-loaded’ – tipping the garbage carts into an empty garbage bin before it is loaded onto the compactor – using the cart tipper. This is expected to occur every time a new front-lift bin is loaded onto the compactor.

4. Provided below, Table 2-1 summarizes the residential container needs for once weekly collection. Halton provides no minimum area for the waste room, though it must be large enough to hold and maneuver the required number of waste containers, a garbage compactor, and bi-sorter unit. Additional equipment that can be stored in the Waste Storage Room include (see Recommendation #18 in Section 3.0 for equipment usage):
 - A bin-puller (requires 1 m x 2 m space),
 - cart trailer (also requires a 1 m x 2 m space), and
 - Bulky Waste Storage which requires a contiguous 10 m² space. This may be incorporated into the Waste Storage Room or be a standalone room. The bulky waste storage space should be clearly marked on the Site Plan.

Table 2-1: Waste Equipment Requirements

Stream	Quantity [‡]	Type	Dimensions [†]
Garbage	2	3 yd ³ front-end bin (compacted)	2.03 m by 1.12 m
Recycling	4	4 yd ³ front-end bin	2.03 m by 1.37 m
Organics	8	360 L Cart	1 m by 0.8 m
Ground Floor Suites	3	360 L Cart	1 m by 0.8 m

[†] Dimensions noted in Appendix 2 of Halton Guidelines and may vary by manufacturer.

[‡] We recommend an addition container for each waste stream be present in the Waste Storage Room to allow for continued waste collection services during Regional pick-up.

¹ A cart tipper such as one from Vestil Manufacturing Corp. – Model: TCD-M-60. Available in AC (plug-in) or DC (battery operated). <https://www.vestil.com/product.php?FID=227> (accessed January 2022).

5. Double doors (minimum 2.2 m width) must be provided to access the Waste Storage Room and Bulky Waste Storage Room. Double doors on the Bulky Waste Storage Room should open outwards as to not impede on the available floor space of the room.
6. Waste storage rooms must have a hose bib and floor drain for washing and cleaning of the room and waste containers.
7. The air exchange rate for waste storage rooms should be a minimum of one-cubic foot per minute per square foot of floor space (1 CFM/ft²)².
8. The Collection Point shall include the length of the truck (approximately 9.7 metres), plus the length of the staging area as determined by the number of waste receptacles required. As noted in item 11 (below), this will be a maximum of 9 metres.
9. The minimum required 'straight head-on' approach for the collection truck to the collection point is 18 m. If this 18 m head-on approach is not possible, the collection area must be designed such that the collection truck does not need to back up more than 18 m (from front tire to front tire). A turnaround area allowing for a three-point turn of not more than one truck length is an acceptable option to the Region.
10. Halton Region requires a 6.0 meter wide loading area.
 - a) The development intends to utilize a private service for residential waste collection. The 5.5 meter wide loading area will accommodate the development's needs.
11. The length of the staging area will be dictated by the largest number of waste bins that will be set-out for collection at once (usually recycling bins). Appendix 4 from Halton Guidelines has been enclosed with this Memo, which shows the required bin arrangement for either a 6 metre or 9-metre wide collection area. This layout also shows how carts (360L carts, used for organic waste) are set-out for collection.

As four bins are required for recycling, the staging area (assuming a 6 metre width) will entail a 2 by 3 bin-grid – meaning one bin in column 1 and three bins in column 2. The staging area required for this layout would be 6 metres wide by 9 metres long. This allows the driver to collect all bins without requiring bins to be jockeyed by a building maintenance staff. The length of the loading area should be increased to 9 m to meet this requirement.

- a) The staging area assumes private waste collection for residential waste. This can be accommodated within the provided staging and loading area.

² per American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62.

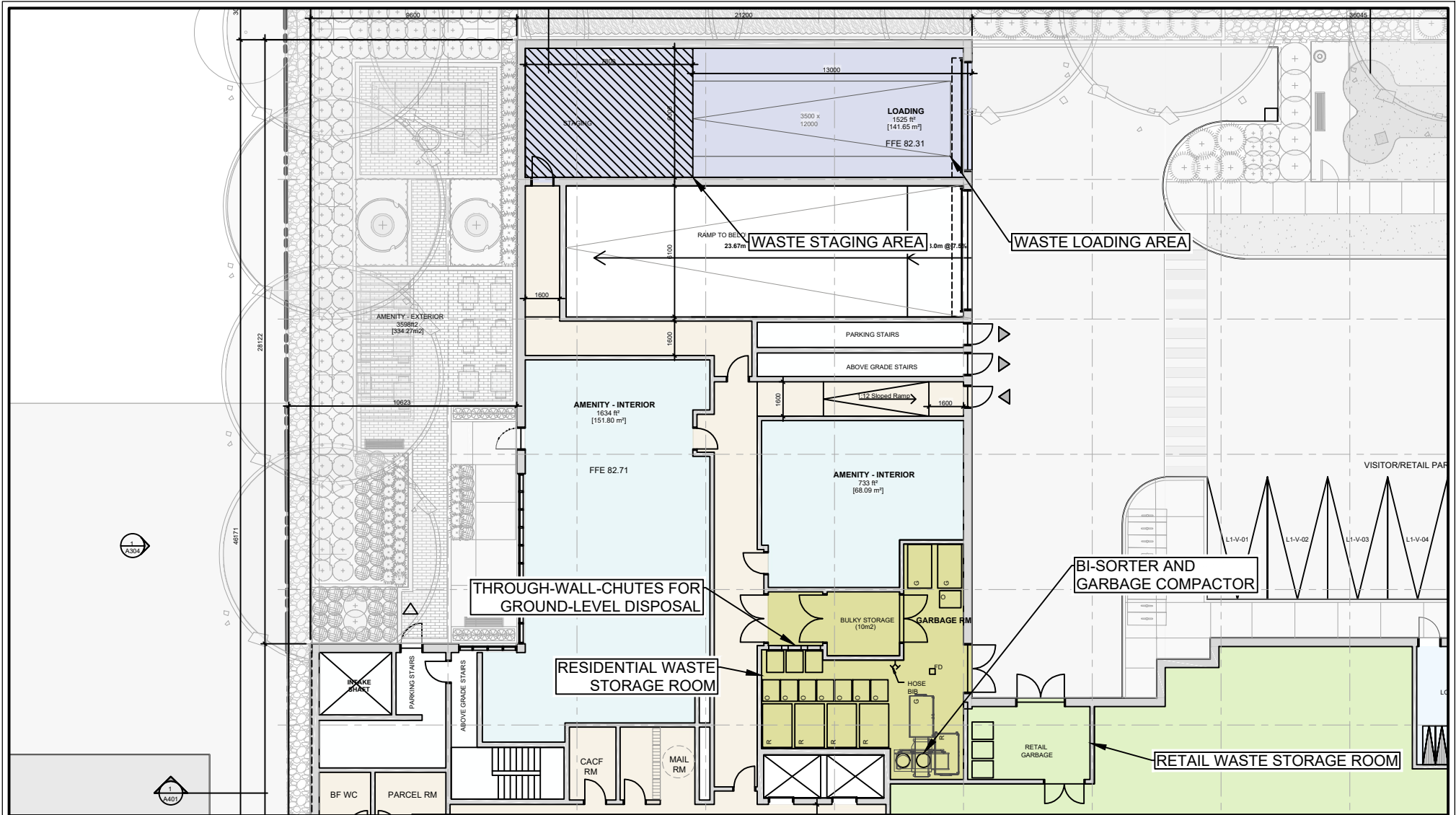
12. The grade of the collection point must not be more than +/- 2%. This must be shown on your drawings.
13. Any path travelled by the waste collection vehicle must be able to support a minimum of 35 tonnes (the weight of a loaded collection truck). A letter certifying the load capacity must be provided by your (Structural) Engineer.
14. The Region's design guidelines states that the collection point must have a minimum 'all-clear' overhead clearance of 9.0 m. It should be noted that the 9.0 m value is a typo, and the actual minimum overhead clearance height is 7.5 m; this has been explained through discussion with Halton. Anything below this must be requested and approved by the Region in advance.

The overhead height clearance should be clearly noted on the Site Plan.

- a) Using private waste collection, the overhead clearance provided in the current design is acceptable.
15. Should collection occur within the overhead door of the Loading Area, the Region requires that the door for the loading area must be a minimum of 6.0 m in width (the minimum width of the loading area), and 7.5 m tall (unencumbered) to accommodate the overhead height requirements of the collection truck during collection. Should collection not occur within the overhead door, and maneuvering room isn't needed, the doorway can be 5 m wide by 5 m tall.
16. Retail wastes must be stored separate from residential wastes at the development. Halton Region does not collect retail wastes. Due to the sizing of the retail area, it is assumed that these wastes may be temporarily stored within each retail unit on the ground level, possibly in a small closet featuring 360 L carts for each waste stream before disposal into the main Retail Waste Storage Room shown on the Ground Floor.

3.0 Design Recommendations

17. Burnside recommends cabinet space be provided in all residential kitchen units for the segregated collection of recyclables, organics, and garbage.
18. Space in the waste storage room is recommended to be allocated for collection of Hazardous and Special Products (HSP) and electronic waste by appointment. Roughly a 2 by 1 metre area featuring shelving is expected to be sufficient.



NOTE:

CONCEPTUAL PLAN BASED ON DIAMOND SHMITT "ISSUED FOR ZBA / OPA" GROUND LEVEL PLAN DATED MARCH 31, 2022



Figure Title

**CONCEPTUAL
WASTE MANAGEMENT SYSTEM
GROUND FLOOR PLAN**

Client

**GRAYWOOD BRONTE VILLAGE LIMITED
PARTNERSHIP**

Drawn

ZM

Checked

CJ

Date

MARCH 2022

Scale
N.T.S.

Project No.
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Figure No.

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Appendix 4

Front-End Collection Specification

