

# CITY OF HAMILTON WASTE REQUIREMENTS FOR DESIGN OF NEW DEVELOPMENTS AND COLLECTION

## TABLE OF CONTENTS

CITY OF HAMILTON WASTE REQUIREMENTS FOR DESIGN OF NEW DEVELOPMENTS AND COLLECTION .....	1
1.0 DEFINITIONS .....	5
2.0 INTRODUCTION .....	10
<b>2.1 Purpose of Document</b> .....	10
<b>2.2 City Waste Collection Services</b> .....	10
<b>2.3 Eligible and Ineligible Properties</b> .....	11
<b>2.4 Transition of Recyclable Material Program</b> .....	11
<b>2.5 How to Use This Document</b> .....	11
<b>2.6 Relevant Legislation</b> .....	13
<b>2.7 Governing Department</b> .....	13
<b>2.8 Effective Date</b> .....	13
3.0 DESIGN REQUIREMENTS .....	14
<b>3.1 Design Requirements for all Developments</b> .....	14
3.1.1 Waste Storage .....	14
3.1.2 Access Routes.....	15
3.1.3 Private Access Route Dimensions .....	15
3.1.4 Vehicle Movement Throughout the Access Route .....	15
3.1.4.1 Access Route Dimensions.....	15
3.1.4.2 Continuous Forward Motion .....	16
3.1.4.3 Use of Turnaround Areas .....	16
3.1.4.4 Safety Measures .....	16
3.1.5 Requirements for Development Applications.....	16
3.1.6 Private Waste Collection Services .....	17
3.1.6.1 Communication to Future Owners .....	17
3.1.6.2 Denial of Private Waste Collection Services .....	18
<b>3.2 Design Requirements for Single-Family Residential Properties with Individual Curbside Waste Collection Services</b> .....	18

3.2.1 Waste Storage .....	18
3.2.2 Waste Set Out .....	18
<b>3.3 Design Requirements for Buildings with Two to Five Dwelling Units.....</b>	<b>19</b>
3.3.1 Waste Storage .....	19
3.3.2 Waste Set Out .....	19
<b>3.4 Design Requirements for Multi-Residential Townhouse Developments .....</b>	<b>20</b>
3.4.1 Waste Storage .....	20
3.4.1.1 Waste Storage Details .....	20
3.4.1.2 Minimum Size of Storage Areas .....	21
3.4.1.3 Garbage Compaction.....	21
3.4.1.4 Waste Container Requirements .....	21
3.4.1.5 In-Ground Containers .....	22
3.4.1.6 Accessibility to Storage Areas .....	22
3.4.2 Waste Loading Areas .....	23
3.4.2.1 Loading Area Requirements .....	23
3.4.2.2 Loading Area Dimensions .....	23
3.4.3 Staging Pads .....	23
3.4.4 Set-Out Areas for Multi-Residential Townhouse Developments .....	23
<b>3.5 Design Requirements for Multi-Residential Buildings.....</b>	<b>24</b>
3.5.1 Waste Separation .....	24
3.5.1.1 Multi-Residential Building Types .....	24
3.5.1.2 Configuration of Waste Chutes .....	24
3.5.1.3 Chute Limitations .....	24
3.5.2 Waste Storage .....	25
3.5.2.1 Storage Area Details .....	25
3.5.2.2 Minimum Size of Storage Areas .....	25
3.5.2.3 Layout of Storage Areas .....	25
3.5.2.4 Multi-Residential Buildings Without Chutes .....	26
3.5.2.5 Waste Container and Storage Requirements.....	26
3.5.3 Waste Loading Areas .....	28
3.5.3.1 Requirements for Loading Areas .....	28
3.5.3.2 Location of Loading Areas .....	28

3.5.4 Staging Pads .....	29
3.5.5 Set-Out Area for Small Multi-Residential Buildings .....	29
3.5.6 Shared Loading Areas .....	29
3.5.7 City’s Discretion for Waste Collection Services .....	30
<b>3.6 Design Requirements for Serviceable Commercial Properties.....</b>	<b>30</b>
3.6.1 Serviceability.....	30
3.6.2 Waste Storage .....	31
3.6.3 Waste Set Out .....	31
<b>3.7 Design Requirements for Places of Worship .....</b>	<b>31</b>
3.7.1 Waste Storage .....	31
3.7.2 Waste Set Out .....	32
<b>3.8 Design Requirements for Non-Serviceable Commercial and Institutional Properties.....</b>	<b>32</b>
<b>3.9 Design Requirements for Publicly Funded Schools .....</b>	<b>32</b>
<b>3.10 Design Requirements for Municipal Buildings .....</b>	<b>33</b>
<b>3.11 Design Requirements for Industrial Properties .....</b>	<b>33</b>
<b>3.12 Design Requirements for Mixed-Use Developments .....</b>	<b>33</b>
<b>3.13 Design Requirements for Live/Work Units .....</b>	<b>34</b>
<b>3.14 Design Requirements for Development Types Not Addressed.....</b>	<b>34</b>
<b>4.0 SERVICING REQUIREMENTS .....</b>	<b>34</b>
4.1 Requirements for New Developments to Receive Collection.....	34
4.2 Servicing Requirements for Single-Family Residential Properties Receiving Curbside Waste Collection .....	34
4.3 Servicing Requirements for Townhouse Developments Receiving Shared Waste Collection Services and Multi-Residential Buildings .....	35
4.4 Requirements for Developments to Maintain Waste Collection Services .....	35
4.5 Application for Service.....	36
<b>APPENDICES .....</b>	<b>37</b>
<b>Appendix 1: Diagrams of Waste Collection Vehicles .....</b>	<b>37</b>
<b>Appendix 2: Front-End Container Details .....</b>	<b>40</b>
<b>Appendix 3: Acceptable Turnaround Designs .....</b>	<b>42</b>
<b>Appendix 4: Diagram of Staging and Loading Areas .....</b>	<b>44</b>
<b>Appendix 5: Recommended Dimensions for In-ground Containers.....</b>	<b>45</b>

<b>Appendix 6: Curbside Container Dimensions .....</b>	<b>46</b>
<b>Appendix 7: Turning Radius.....</b>	<b>48</b>
<b>Appendix 8: Access Route Examples.....</b>	<b>49</b>

## 1.0 DEFINITIONS

- **Access Route** means a designated route used by a Waste Collection Vehicle to enter, exit and travel throughout a Development for the purpose of completing Waste Collection Services.
- **Accessory Structure** when used to describe a use of land, building or structure, shall mean a use which is commonly incidental, subordinate and exclusively devoted to the main use or main building situated on the same lot.
- **Agreement for On-Site Collection of Municipal Solid Waste** means an agreement, in a form set out in Schedule “F” of the Waste By-Law, between the City and an Owner within the City for the collection of waste on private property, and may be amended by the General Manager, with approval as to form by the City Solicitor, from time to time.
- **Blue Box** refers to a Recyclable Material container used for the collection of Recyclable Material from a Single-Family Residential, Multi-Residential or Commercial property described in Appendix “D” of the Waste By-Law.
- **Blue Cart** refers to a wheeled Recyclable Material container used for the collection of Recyclable Material from a Multi-Residential Building described in Appendix “D” of the Waste By-Law.
- **Bulk Item** means a household waste item that is too large or heavy for regular Collection Services, and which is not Recyclable Materials, Organic Materials, Yard Waste or prohibited collection waste.
- **City** means the municipality of the City of Hamilton or the geographic area of the City of Hamilton, as the context requires.
- **Compactor** means a machine or mechanism used to reduce the size and volume of Garbage through compaction.
- **Contractor** means a private company that is under contract to the City to carry out Waste Collection Service on behalf of the City.
- **Curbside Collection Services** means Waste Collection Services where waste is set-out for collection at the edge of the travelled portion of the Street or Private Road abutting the property receiving Waste Collection Service.
- **Developer** means a person, corporation, consulting firm or any party involved in the proposal, and construction of a new Development.
- **Development** means a change in the use of any land, building, or structure for any purpose, and shall include the carrying out of any building, engineering construction or other operation in, on, over or under land, or the construction, addition or alteration of any building or structure.
- **Development Application** means a City of Hamilton application detailing a Developer’s proposed plans for a Development on a property submitted through the City of Hamilton Planning and Economic Development Department for review and comment by City staff.
- **Duplex** means a Single-Family Residential Property containing two Dwelling Units but shall not include a Semi-Detached Dwelling.

- **Dwelling Unit** means a room or suite of rooms used or intended to be used by one or more persons living together as one household, in which cooking and sanitary facilities are provided for the exclusive use of the household, and to which an independent entrance is provided from outside the building or from a common interior hallway, vestibule or stairway.
- **Front-End Collection Services** means Waste Collection Services where waste is collected in a Front-End Container(s) from a location on the property.
- **Front-End Container** means a metal or plastic container with a secured lid that is collected by a collection vehicle designed to collect Front-End Containers as illustrated in Appendix 2: Front-End Container Details. Front-End Containers are permitted to be used for the collection of Garbage, Recyclable Material and Organic Material.
- **Fronting** refers to the Street that the entrance and/or front of a building is located. Additionally, a building's principle address is usually directly related to where a building is Fronting, except for Secondary Dwelling Units. If a building is Fronting a Private Road, then the entrance of the building can be reached by the Private Road and the building will have an address based on the name of the Private Road.
- **Garbage** means waste other than Recyclable Materials, Organic Materials, Yard Waste, Bulk Items, and prohibited collection waste.
- **Garbage Container** means a container used for the collection of Garbage from a Single-Family Residential property, Multi-Residential Townhouse, Multi-Residential Building or Commercial Property described in Appendix “D” of the Waste By-Law.
- **Green Cart** means a wheeled container used for the collection of Organic Material described in Appendix “D” of the Waste By-Law.
- **Individual Curbside Collection Services** means Waste Collection Services where Waste is set-out for collection at the edge of the travelled portion of the road abutting the property receiving Waste Collection Services for each Dwelling Unit and where the Waste is not combined with the Waste from any other Dwelling Unit.
- **Industrial Property** means property designated in an official plan for clusters of business and economic activities including, but not limited to, manufacturing, warehousing, offices, and associated retail and ancillary facilities.
- **In-ground Container** means a container based on the specifications in “Appendix 5: Recommended Dimensions for In-ground Containers” in which a receptacle to receive Waste is located above-ground with a storage component that extends underground.
- **Institutional Property** means a property designated as educational, health, retirement residence and other institutional uses as described by Municipal Property Assessment Corporation (MPAC). They may include government owned and operated facilities or be privately owned and operated.

- **Laneway** means a public highway or road allowance having a width of less than 12 metres.
- **Large Commercial Property** means a property used mainly for commercial purposes, with four or more floors and/or is part of a shopping centre.
- **Loading Area** means an area where Front-End Containers are set out to be collected as part of Shared Waste Collection Service.
- **Lodging House** means a house or other building or portion thereof in which four (4) or more persons are or are intended to be harboured, received or lodged for hire, where lodging rooms are without kitchen facilities for the exclusive use of the Occupants and where each Occupant does not have access to all of the habitable areas in the building, but does not include a hotel, hospital, nursing home, home for the young or the aged or institution if the hotel, hospital, home or institution, is licensed, approved or supervised under a general or special Act other than the Municipal Act, 2001, and does not include student residences or convents.
- **Mixed-Use Development** means a Development or area comprised of different land uses either in the same building or in separate buildings. The mix of land uses may include agricultural, residential, commercial, industrial or institutional uses. Mixed-Use Developments may have uses that are eligible for Waste Collection Service and uses that are ineligible for Waste Collection Service.
- **Multiple Dwelling** shall mean a building or part thereof containing three or more Dwelling Units but shall not include Dwelling Units that are part of a Street Townhouse property or Semi-Detached Dwelling.
- **Multi-Residential Building** means a property used mainly for residential purposes which contains six or more Dwelling Units, and does not include institutional facilities, Residential Care Facilities, Lodging Houses, student residence, or a hotel, hospital, nursing home, home for the young or the aged or institution if the facility, house, residence, hotel, hospital, home or institution, as applicable, is licensed, approved or supervised under a general or special Act other than the Municipal Act, 2001.
- **Multi-Residential Townhouse** means a Townhouse Development with six or more Dwelling Units, in which some or all the Townhouses are not Street Townhouses, and so receive Shared Waste Collection Services. As an example, Multi-Residential Townhouses include stacked Townhouses.
- **Occupant** means an Owner, lessee, tenant or any other person inhabiting a property in the City.
- **Organic Material** means Waste items or materials referred to in Schedule “A” of the Waste By-law.
- **Owner** means any person with ownership over a property in the City or is either in charge or in control of a property on behalf of the Owner in the City.
- **Place of Worship** shall mean a building used by any religious organization for public worship or other religious functions and may include accessory or ancillary

uses which shall include but not be limited to an assembly hall, auditorium, convent, monastery, rectory, cemetery, bookstore, out of the cold program, day nursery and educational or recreational uses.

- **Private Road** means a paved road or thoroughfare which is not assumed by the City, and which is owned and maintained by the Owner or Owners of a property.
- **Private Waste Collection Services** refers to a private waste company contracted by the Owner of a property for the collection of waste.
- **Property Manager** means a person or firm hired by the Owner of a property to maintain and operate the property.
- **Recyclable Material** means recyclable containers material and/or recyclable fibres material, as the context requires; waste items or materials referred to as Recyclable Materials in Schedule "A" of the Waste By-law.
- **Residential Care Facility** means a "Residential Care Facility" as it is defined in the City's Zoning By-law of the City of Hamilton, By-law No. 05-200, as may be amended, restated, superseded or replaced from time to time.
- **Right of Way** means the section of property abutting the road, which is administered by the City and which the City can use for providing municipal services.
- **Roadway** means the section of a road intended for the use by vehicular traffic.
- **Secondary Dwelling Unit** means a self-contained Dwelling Unit with a private kitchen, bathroom facilities and sleeping areas located within a Single Detached Dwelling, Semi-Detached Dwelling, Townhouse or within an accessory building located within the rear or side yard of the principle dwelling.
- **Semi-Detached Dwelling** means a building divided vertically into two Dwelling Units, by a common wall which prevents internal access between Semi-Detached Dwelling Units and extends from the base of the foundation to the roof line and for a horizontal distance of not less than 35% of the horizontal depth of the building. Each Semi-Detached Dwelling Unit shall be designed to be located on a separate lot with frontage on a Street or Private Road.
- **Set-Out Area** means an area designated for waste to be placed for collection.
- **Shared Collection Services** means Waste Collection Services provided by the City that consists of Waste generated from all Dwelling Units on a property being stored and set out for collection in a combined manner using Front-End Containers and/or Blue Carts and Green Carts.
- **Single Detached** means a Single-Family Residential Property consisting of a home which is not attached to any other home in any way.
- **Single-Family Residential Property** means a property used mainly for residential purposes containing five or fewer Dwelling Units, including Lodging Houses and Residential Care Facilities in residential neighbourhoods.
- **Small Commercial Property** means a property used mainly for commercial purposes, excluding commercial properties with four or more floors and/or shopping centres.



- **Staging Pad** means the area adjacent to the Loading Area of a property receiving Front-End Collection Services, which is used to manipulate and move Front-End Containers so that their contents can be loaded into the Waste Collection Vehicle.
- **Storage Area** means the area of a Development where Waste containers and material is stored in between collection days. Storage Areas in Multi-Residential Buildings may also be used by Occupants to separate and dispose of Waste from their individual Dwelling Units.
- **Storey** shall mean that portion of a building or structure, other than a cellar, included between the surface of any floor and the surface of the floor, roof deck or ridge next above it, except an attic Storey.
- **Street** means a public highway or road allowance having a minimum width of 12 metres.
- **Street Townhouse** means a Townhouse that is designed to be on a separate lot having access to and frontage on a Street or Private Road, Laneway or common condominium driveway.
- **Townhouse** means a building divided vertically into three or more Dwelling Units, by common walls which prevent internal access between units and extend from the base of the foundation to the roof line and for a horizontal distance of not less than 35% of the horizontal depth of the building but shall not include a maisonette.
- **Turning Radius** means the smallest radius of a circular turn that a Waste Collection Vehicle can make.
- **Waste** means Garbage, Organic Material and Recyclable Material collectively.
- **Waste By-law** means City of Hamilton By-law 20-221, Solid Waste Management By-law as may be amended.
- **Waste Collection Service(s)** means either Curbside Collection Services or Front-End Collection Services delivered by the City, or its Contractor, to properties enrolled in the service.
- **Waste Collection Vehicle** means a vehicle used by the City, or its Contractor, to carry out Waste Collection Service operations.
- **Waste Diversion Program** refers to a source separation program, where at minimum, Recyclable Material and Organic Material are separated from Garbage by Occupants and Owners, but may also include the separation of Yard Waste, and collected by Waste Collection Services.
- **Yard Waste** means material referred to as Yard Waste in Schedule "A" of the Waste By-law.
- **Yard Waste Container** refers to a container used for the collection of Yard Waste described in Appendix "D" of the Waste By-Law.

## **2.0 INTRODUCTION**

### **2.1 Purpose of Document**

The City of Hamilton Waste Requirements for Design of New Developments and Collection (“the Design Requirements”) provides information on how new Developments must be designed to ensure safe Waste Collection Services through the City.

Additionally, the Design Requirements include design principles for New Developments to:

- Provide efficient movement of Waste Collection Vehicles; and
- Ensure that all Occupants have equal access to both Garbage disposal and Waste Diversion Programs provided by the City for that Development type OR provide greater accessibility to Waste Diversion Programs than Garbage disposal.

In all cases, best efforts should be made to satisfy these principles.

All properties requesting municipal Waste Collection Services must:

- Be constructed according to the submitted drawings approved by the City; and
- Successfully apply for Waste Collection Services.

Redevelopments where a change of service or classification occurs should meet all applicable requirements set forth in the Design Requirements (for example: a Single-Family Residential Property being redesigned into a Multiple Dwelling with five units).

The Design Requirements include specific requirements that should be satisfied when designing certain development types, however, staff will exercise on a case by case basis flexibility in applying the Design Requirements. This flexibility is intended to satisfy the purpose of Occupants receiving equal access to Waste Diversion Programs and Garbage collection in cases where application of the Design Requirements could result in a new development conflicting with the existing character of the street, the urban design and density objectives of the applicable land use policies, existing heritage features and/or the existing surrounding context.

### **2.2 City Waste Collection Services**

City Waste Collection Services includes the collection of Garbage, Recyclable Material, Organic Material, Yard Waste, as well as Bulk Items. The City enforces a limit on the amount of Garbage and Bulk Items that are collected from each type of property. If a property generates more Garbage and Bulk Items than are permitted to be collected by the City, then it is the responsibility of the Owner to secure other means of disposal. City Waste Collection Service is provided as an all-or-nothing service. If a property is not designed to receive Waste Collection Service for all material, then the property will not receive any Waste Collection Services. For example, a Multi-Residential Building that is designed to accommodate Garbage collection but not Recycling and/or Organic material collection, then the building will not receive collection of any material.

### 2.3 Eligible and Ineligible Properties

Properties that are eligible for Waste Collection Service through the Waste By-law include:

- Single-Family Residential Properties;
- Multi-Residential Properties;
- Commercial Properties that meet eligibility criteria;
- Other properties through an agreement with the City; and
- Other properties deemed eligible by the General Manager.

Property types not listed above are considered ineligible for Waste Collection Services. Notwithstanding that a property may be included in the list of eligible properties above, the property will not receive Waste Collection Services unless it has also been deemed serviceable through the Development Application process. Properties that are Mixed-Use Developments may contain property uses that are deemed eligible for Waste Collection Service and land uses that are ineligible for Waste Collection Service. For further details, please refer to section 3.12.

### 2.4 Transition of Recyclable Material Program

On June 3, 2021, the Ontario Ministry of Environment, Conservation and Parks approved the regulation under the Resource Recovery and Circular Economy Act, 2016 that will make producers responsible for blue box programs as part of the Province’s full producer responsibility framework. The Province is also proposing to make amendments to Regulation 101/94: Recycling and Composting of Municipal Waste to sunset municipal obligations to run blue box systems after transition to full producer responsibility ([ERO #019-2579](#)).

Developers are advised that the City of Hamilton Recyclable Material program, under direction by the provincial government, will be transitioned to the responsibility of the producers of Blue Box Recyclable Material. This transition may result in new requirements for the storage and collection of Blue Box Recyclable Material which may be different than the requirements that the City has established in the Design Requirements. The current date for when this transition will occur for the City is April 1, 2025; however, this transition may happen either before or after this date based on provincial direction.

### 2.5 How to Use This Document

Please use *Table 1: Applicable Sections for Development Types* to determine what sections of this document must be complied with when designing certain types of Developments. This document includes section 3.1 “Design Requirements for all Developments” that apply to all Development Applications.

Table 1: Applicable Sections for Development Types

<b>Dwelling/Building Type</b>	<b>Property Description and Associated Collection Method</b>	<b>Sections with Applicable Requirements</b>
Single Detached, Semi-Detached, Street Townhouse	Single-Family Residential Properties that receive Individual Curbside Collection Services on Streets or Private Roads. Includes Street Townhouses and Semi-Detached Dwelling Units. No limit to number of Dwelling Units in the development.	3.2 Design Requirements for Single-Family Residential Properties with Individual Curbside Waste Collection Service
Duplex, Multiple Dwelling	Buildings with two to five Dwelling Units (excluding Semi-Detached dwellings) are classified as Single-Family Properties and will receive Curbside Collection Services. Includes Townhouse Developments with less than 6 Dwelling Units.	3.3 Design Requirements for Buildings with Two to Five Dwelling Units
Multi-Residential Townhouses such as stacked Townhouses	Townhouse Developments with six or more Dwelling Units on Streets or Private Roads that lack sufficient area for individual waste storage and waste set out. Will receive Shared Waste Collection Services.	3.4 Design Requirements for Multi-Residential Townhouse Developments
Multi-Residential Building	Multi-family buildings with six or more Dwelling Units with Front-End Collection Services for Garbage.	3.5 Design Requirements for Multi-Residential Buildings
Small Commercial	Developments that are Small Commercial Properties generating six or less containers of Garbage per week. Will receive curbside waste collection.	3.6 Design Requirements for Serviceable Commercial Developments
Places of Worship	Developments serving ecclesiastical functions that are deemed either serviceable or non-serviceable by the City.	3.7 Design Requirements for Places of Worship
Large Commercial	Commercial Developments that will generate seven or more Garbage Containers per week are ineligible for Waste Collection Services through the City.	3.8 Design Requirements for Non-Serviceable Commercial and Institutional Properties
Institutional	Student residences, schools, day cares, long-term care facilities, retirement homes and other Institutional Properties that will not be serviced by the City.	3.8 Design Requirements for Non-Serviceable Commercial and Institutional Properties

Schools	Schools that receive public funds and have an agreement for Waste Collection Services with the City.	3.9 Design Requirements for Publicly Funded Schools
Municipal Buildings	Buildings that will be owned and/or operated by the City.	3.10 Design Requirements for Municipal Buildings
Manufacturing and Industrial Property	Developments that will serve manufacturing purposes as defined in Hamilton’s zoning by-law 05-200 or as amended.	3.11 Design Requirements for Industrial Buildings
Mixed-Use Developments	Developments that include more than one property use included in this table.	3.12 Design Requirements for Mixed-Use Developments
Live/Work	Dwelling Units that will also serve as a place of employment for at least one Occupant of the Dwelling Unit	3.13 Design Requirements for Live/Work Units

## 2.6 Relevant Legislation

This document is to be used in conjunction with, and not in place of the following legislation:

- Hamilton Solid Waste Management By-law 20-221
- The Environmental Protection Act (EPA), R.S.O. 1990
- The Waste Free Ontario Act, 2016
- Ontario Building Code
- The Environmental Assessment Act, R.S.O. 1990
- The Planning Act, R.S.O. 1990
- Ontario Fire Code, Regulation 213/07

When conflict occurs between the Design Requirements and the listed legislation, the relevant legislation shall take precedence. It is the responsibility of the applicant to comply with the most recent version of the applicable legislation or, in the case that legislation may be repealed and replaced, any new and applicable legislation.

## 2.7 Governing Department

The Waste Management Division of the Public Works Department reviews Development Applications and provides comments in respect to the Design Requirements. Any proposed changes to the location of Waste Collection Services, method of collection, structural changes and change in property classification or purpose must be reviewed for compliance by the Waste Management Division.

## 2.8 Effective Date

The Design Requirements will take effect on the day in which the Design Requirements are endorsed by Hamilton City Council. Complete Development Applications received by the City prior to the effective date will not be subject to the Design Requirements. Complete Development Applications received by the City on or after the effective date

will be required to meet the Design Requirements unless a complete Development Application for the Development had previously been received by the City.

### **3.0 DESIGN REQUIREMENTS**

#### **3.1 Design Requirements for all Developments**

This section identifies the requirements that apply to all new Developments and redevelopments regardless of the type of building/property. All new Developments that will receive Waste Collection Services from the City must be designed to accommodate four-stream Waste Collection Services (container Recyclable Material, fibre Recyclable Material, Organic Material, and Garbage). If the Development consists of only one dwelling or building type as per *Table 1: Applicable Sections for Development Types*, the collection method provided by the City will be consistent across the entire Development; for example, if the entire Development is made up of Street Townhouses, then all Dwelling Units in the Development will receive Individual Curbside Waste Collection Service. If the Development is made up of multiple dwelling or building types as per *Table 1: Applicable Sections for Development Types*, each dwelling or building type will be subject to its own applicable requirements. Additionally, Owners may procure Private Waste Collection Services to collect Garbage above the limit set out in the Waste By-Law.

Access to Waste Diversion Programs and disposal of Garbage must be equally accessible to all Occupants or, access to Waste Diversion Programs must be greater than access to disposal of Garbage. Developments must be designed and supplied with enough containers to store all types of Waste for a minimum of eight days.

The Design Requirements include specific requirements that should be satisfied when designing certain development types, however, staff will exercise on a case by case basis flexibility in applying the Design Requirements. This flexibility is intended to satisfy the purpose of Occupants receiving equal access to Waste Diversion Programs and Garbage collection in cases where application of the Design Requirements could result in a new development conflicting with the existing character of the street, the urban design and density objectives of the applicable land use policies, existing heritage features and/or the existing surrounding context. The City recognizes, in particular, that flexibility will be required in older urban areas as well as with respect to infill development where application of the Design Requirements could conflict with other City land use planning and urban design objectives.

##### **3.1.1 Waste Storage**

Waste Storage Areas must contain drainage, hose taps, electrical outputs, lighting, ventilation, rodent proofing, hose bibs, space for waste management signage, waste management program material and climate controls in accordance with the Ontario Building Code and all Fire Codes (where applicable).

### 3.1.2 Access Routes

- 1) If a new Development is proposed to be accessed by a Street and/or Laneway, the design of such Access Routes must be in accordance with the City's "Comprehensive Development Guidelines and Financial Policies Manual" and all other applicable standards generated by the Transportation Planning and Parking Division of the City.
- 2) For Developments proposed to be accessed by one or more Private Roads, the Development must be designed according to sections 3.1.2, 3.1.3 and 3.1.4 of the Design Requirements.
- 3) In all cases, for Waste Collection Vehicles to service Developments they must be able to enter and exit the Development in a forward motion. To meet this requirement, the City requires that Access Routes meet its specifications. Developments will not be serviced by Laneways that are not assumed and/or maintained by the City.

### 3.1.3 Private Access Route Dimensions

- 1) The City requires that two-way Access Routes have a minimum width of 6 metres and that one-way Access Routes on private property have a minimum width of 3 metres.
- 2) To receive Waste Collection Services, the maximum gradient of the road/Access Route must be no more than eight percent and the Access Route must have an overhead clearance of at least 4.4 metres throughout.
- 3) The Access Route must be constructed according to the City's Comprehensive Development Guidelines and Financial Policies and any part of the Access Route which is suspended must be able support a minimum overall load of 35,000 kg, and a 6000 kg point load.

### 3.1.4 Vehicle Movement Throughout the Access Route

#### 3.1.4.1 Access Route Dimensions

- 1) The Access Route should be designed to allow for continuous forward movement of Waste Collection Vehicles throughout the Development, including the radius of a cul-de-sac turning circle. The only exception to having continuous forward motion is when the Waste Collection Vehicle is entering or exiting a Loading Area as described in sections 3.4 *Design Requirements for Multi-Residential Townhouse Developments* and 3.5 *Design Requirements for Multi-Residential Buildings*.
- 2) Changes of direction on the Access Route must have turning radii of at least 10.4 metres for the inside of the curve, and 13 metres for the outside of the curve if the curb or sidewalk is higher than 0.375 metres.
- 3) The Access Route may have a Turning Radius of 9.4 metres for the inside of the curve and 12 metres for the outside of the curve if the curb is shorter than 0.375 metres and, if the City will permit a portion of the Waste Collection Vehicle to hang over areas not designated as Access Routes as indicated on plans during movement. Please refer to "Appendix 7: Turning Radius" for reference.

#### 3.1.4.2 Continuous Forward Motion

To confirm that Waste Collection Vehicles can travel throughout the Development in a forward motion, the Development Application must include a copy of the site plan with the travel path of the Waste Collection Vehicle throughout the Development. This travel path must be generated by software approved by the City (for example AutoTurn). The dimensions of City of Hamilton Waste Collection Vehicles are included in "Appendix 1: Diagram of Waste Collection Vehicle(s)". If, in the opinion of the City, continuous forward motion is not possible due to site constraints, Waste Collection Vehicles will be permitted to make a three-point turn using an approved turnaround area consistent with "Appendix 3: Acceptable Turnaround Designs". Use of a turnaround area will only be permitted on Developments that meet all the following criteria:

- Reversing of collection vehicles is only made on the turnaround area; and
- Collection of Waste from all Dwelling Units can occur by the Waste Collection Vehicle making no more than one three-point turn.

#### 3.1.4.3 Use of Turnaround Areas

In addition to the criteria listed above, no Dwelling Units or parking is permitted to front onto or be directly adjacent to the portion of the turnaround area where the Waste Collection Vehicle will reverse. Dead-ends not equipped with an acceptable turnaround design will only be permitted for temporary situations in accordance with the City's "Comprehensive Development Guidelines and Financial Policies Manual" and all other applicable standards generated by the Transportation Planning and Parking Division of the City.

Turnaround areas will be used solely for the collection of Waste. No visitor parking, snow storage or any other accessory uses can occur within the turnaround area. Drawings must indicate how these accessory uses will be accommodated and that "no parking" signage will be included along the turnaround area.

#### 3.1.4.4 Safety Measures

Access Routes must include signage, pavement markings, mirrors and other methods to minimize conflicts with pedestrian traffic. The required methods to be used will be at the discretion of the City. Access Routes must be provided exclusive of any parking spaces or areas reserved for snow storage.

### 3.1.5 Requirements for Development Applications

The requirements for Waste Collection Services are considered during the Development Application process of all eligible Developments. All new eligible Developments must be designed to receive City Waste Collection Service.

All ineligible Developments must be designed according to applicable by-laws and ensure that waste is stored and collected according to the applicable Design Requirements.



The Design Requirements serve as a tool to assist Developers, architects and planners in navigating the application process to design their proposals in ways that satisfy the needs of Hamilton's Waste Collection Services. To ensure that proposed Developments meet all the applicable conditions in the Design Requirements, the associated Development Application must include, but is not limited to, the following details:

- Scale of diagram
- Dimensions of any unique features in the site plan (roads, buildings, waste containers, Storage Areas, etc.), vertical clearances of overhangs/balconies over the Access Route(s) and Loading Area(s)
- Use(s) of the Development must be explicitly stated
- The number of Dwelling Units and number of Storeys for each building
- Access Routes
- Illustration of the anticipated movement of Waste Collection Vehicles through the building site that includes turning radii i.e. preferably in a program such as AutoTurn
- Clear illustration of area(s) where waste will be collected (i.e. Set-Out Area, Staging Pad and Loading Area)
- Clear illustration of Storage Areas, including any additional Storage Area in Multi-Residential Buildings and the number of waste containers in Storage Areas
- The proposed route of Front-End Containers from the Storage Area to the Loading Area
- Any external enclosures to be used as Storage Areas on site plan
- The Developer must specify if a Garbage Compactor will be used

### **3.1.6 Private Waste Collection Services**

It is the responsibility of the Developer to inform the City in all Development Applications if there is a desire to retain Private Waste Collection Services for the Development. The City may allow for an eligible Development to be designed in a manner that does not conform to the Design Requirements and retain Private Waste Collection Services but only if staff determine the site has constraints that make it impossible for all the applicable requirements in the Design Requirements to be met without having a significant negative impact on the development with respect to the City's objectives related to land use, urban design and density..

The Developer shall provide a waste management plan identifying the waste design considerations for the Development and the proposed method of providing waste collection services. Information which should be included in the waste management plan includes the size and locations of internal and external storage areas, waste collection services to be provided, waste collection method, and collection frequency.

#### **3.1.6.1 Communication to Future Owners**

If staff determine that Private Waste Collection Services is appropriate for the development, the Developer will inform all purchasers of Dwelling Units that Waste

Collection Services for the Development will not be provided by the City and that all Dwelling Units in the development may be subject to future costs related Private Waste Collection Services. At minimum, wording must be included in the site plan, all purchase and sales agreements and condominium declarations, and include that this condition will remain in effect until such time that the Development is brought into compliance with the Design Requirements.

The Developer must provide a copy of the Purchase and Sale Agreement and a copy of the Condominium documents with the applicable clauses relating to Private Waste Collection Services as a condition of final approval.

#### 3.1.6.2 Denial of Private Waste Collection Services

If staff determine that a Development does not have site constraints that make it impossible to meet the applicable Design Requirements, then the request to retain Private Waste Collection Services will be denied and the Developer will be obligated to meet the applicable Design Requirements.

### **3.2 Design Requirements for Single-Family Residential Properties with Individual Curbside Waste Collection Services**

Sub-sections 3.2.1 and 3.2.2 describe the requirements for designing Developments with Dwelling Units Fronting a Street, Laneway, or Private Road and which can receive Curbside Collection Services for each Dwelling Unit. Single-Family Residential Properties must be built to accommodate Waste Collection using Dual Stream Rear Loading Waste Collection Vehicles, and Bulk Loading Waste Collection Vehicles. Waste Collection Service for Secondary Dwelling Units will be provided through the Single-Family Residential Property on/in which the Secondary Dwelling Unit is located. For further clarification, all set out limits will be applied to the entire property.

#### **3.2.1 Waste Storage**

Developers must provide at minimum, 2.5 square metres for waste storage for each Dwelling Unit to store waste between collection days. The Storage Area must be exclusive of living space, be fully enclosed, be large enough to accommodate two Blue Boxes, a Green Cart, a Garbage Container, and a Yard Waste Container and the layout will be at the discretion of the City. The Storage Area must not be in the front yard of the property. An acceptable Storage Area is the garage of each Dwelling Unit.

#### **3.2.2 Waste Set Out**

Waste shall be set out in front of each Dwelling Unit as close to the edge of the Roadway or Private Road as possible without being placed on the sidewalk (if one is present) or on the surface of the Roadway or Private Road. Examples of acceptable Set-Out Areas include:

- On the grassed area (if present) adjacent to the roadway or private road; or
- On private property adjacent to the curb or sidewalk.

Set-Out Areas must not interfere with pedestrian, bike traffic or any public services. A 2.5 square metre area for each Dwelling Unit on the boulevard or the Owner’s private property, shall be included in the design of the Set-Out Area. If the property backs onto a Private Road and receives Waste Collection Service from said Private Road, then the Dwelling Unit’s address must be clearly identifiable from the Private Road and the waste containers must be placed on the Owner’s property.

### **3.3 Design Requirements for Buildings with Two to Five Dwelling Units**

Sub-sections 3.3.1 and 3.3.2 describe the requirements for designing buildings Fronting a Street or Private Road which contain no less than two and no more than five Dwelling Units (excluding Semi-Detached dwellings). This includes Townhouse Developments with five or less Dwelling Units where each Dwelling Unit does not have sufficient individual Storage Areas and Set-Out Areas. Buildings with two to five Dwelling Units (inclusive) must be built to accommodate Curbside Waste Collection Services from Dual Stream Rear Loading Waste Collection Vehicles and Bulk Loading Waste Collection Vehicles.

#### **3.3.1 Waste Storage**

Submitted drawings must include a fully enclosed Storage Area, exclusive of living space, for the storage of waste between collection days that is to be shared by all Dwelling Units. The Storage Area must be large enough to accommodate at minimum, two Garbage Containers for each Dwelling Unit in the building, one Green Cart for every three Dwelling Units, and two Blue Boxes for every two Dwelling Units, in addition to Yard Waste Containers for the building. The configuration of the Storage Area will be at the discretion of the City and the dimensions of each container can be found in “Appendix 6: Container Dimensions”. Access to the Storage Area may be internally or externally from the building but must be equally convenient for Occupants in all Dwelling Units and all waste diversion streams must be equally accessible. The Storage Area must not be within the front yard of the property. Storage Areas must contain drainage, hose taps, electrical outputs, lighting, ventilation, rodent proofing, hose bibs, and climate controls at minimum, according to the Ontario Building Code. Storage Areas must adhere to the Ontario Fire Code.

#### **3.3.2 Waste Set Out**

Waste from the building shall be set out for collection in front of the building as close to the edge of the Roadway or Private Road as possible without being placed on the sidewalk (if one is present) or on the surface of the Roadway or Private Road.

Examples of acceptable Set-Out Areas include:

- On the grassed area (if present) adjacent to the roadway or private road; or
- On private property adjacent to the curb or sidewalk.

The minimum size of the Set-Out Area will be 2.5 square metres for buildings with up to three Dwelling Units and four square metres for buildings with up to five Dwelling Units. Set-Out Areas must not interfere with pedestrian, bike traffic or any public services and

the layout of the Set-Out Area will be at the discretion of the City. If the property is adjacent to a Laneway and receives Waste Collection Services from the Laneway, then the property's address must be clearly identifiable from the Laneway and the waste containers must be placed on the Owner's property or as close as possible to the Owner's property.

### 3.4 Design Requirements for Multi-Residential Townhouse Developments

Townhouse Developments where any Dwelling Unit cannot receive Individual Curbside Waste Collection Service must receive Shared Collection Services and are referred to as Multi-Residential Townhouses. To receive Curbside Collection Services, Dwelling Units must have both individual Storage Areas and Set-Out Areas for Waste that are of sufficient size (see section 3.2 *Design Requirements for Single-Family Residential Properties with Individual Curbside Waste Collection Services*). For Multi-Residential Townhouse Developments, the requirements of this section must be met. Review *Table 2: Container and Storage Requirements for Multi-Residential Townhouse Developments* for a summary of requirements for Multi-Residential Townhouse Developments.

Table 2: Container and Storage Requirements for Multi-Residential Townhouse Developments

Waste Stream	Waste Container	Minimum Storage Space per Container	In-ground Container Permitted?
Garbage	Front-End Container	5 square metres	Yes*
Recyclable Material	Blue Cart	1.1 square metre	No
Organic Material	Green Cart	0.53 square metre	No
Bulk Items	N/A	6 square metres for developments with 50 Dwelling Units or less, 10 square metres for developments with more than 50 Dwelling Units	No

\* - for more information on the permitted use of In-ground containers please refer to section 3.4.1

#### 3.4.1 Waste Storage

##### 3.4.1.1 Waste Storage Details

Submitted drawings must include a fully enclosed Storage Area, or multiple Storage Areas, for the storage of waste between collection days that is to be shared by all Dwelling Units. Shared waste Storage Areas may be:

- A dedicated room attached to the building
- A dedicated room within a parking structure (above or below grade)
- A fully enclosed Accessory Structure

### 3.4.1.2 Minimum Size of Storage Areas

The layout of the Storage Area is at the discretion of the City. To calculate the minimum required size of the Storage Area, use *Table 3: Minimum Container Requirements for Multi-Residential Townhouse Developments* and *Table 4: Maximum Number of Garbage Containers Collected by City for Multi-Residential Townhouse Developments* to determine the number of containers required and multiply the number of containers by the required storage space for each container in *Table 2: Container and Storage Requirements for Multi-Residential Townhouse Developments*.

Example: A Multi-Residential Townhouse Development with 50 Dwelling Units requires six Front-End Containers for Garbage, 34 Blue Carts for Recyclable Material, six Green Carts for Organic Material and space for Bulk Items. Minimum size of the waste Storage Area is therefore:

(6 Front-End Containers x 5 square metres) + (34 Blue Carts x 1.1 square metre) + (6 Green Carts x 0.53 square metre) + 10 square metres = 81 square metres

### 3.4.1.3 Garbage Compaction

It is assumed that Multi-Residential Townhouse Developments will have uncompacted Garbage. If a Garbage Compactor is planned to be used, submitted drawings must annotate this and the number of required Front-End Containers for Garbage will be reduced to one third (1/3) of what is detailed in *Table 4: Maximum Number of Garbage Containers Collected by City for Multi-Residential Townhouse Developments*. For example, a Multi-Residential Townhouse Development with 50 Dwelling Units requires six Front-End Containers for Garbage without a Compactor, but only two Front-End Containers if a Garbage Compactor is used. Access doors to the Storage Areas must have a minimum width of at least two metres. The Storage Area(s) require a minimum overhead clearance of 2.5 metres. Storage Areas must contain drainage, hose taps, electrical outputs, lighting, ventilation, rodent proofing, hose bibs, space for educational materials and climate controls.

### 3.4.1.4 Waste Container Requirements

Use the following tables as a reference for the required number of containers for Waste storage.

Table 3: Minimum Container Requirements for Multi-Residential Townhouse Developments

No. of Units	Minimum Number of Blue Carts	No. of Units	Minimum Number of Green Carts
6 to 10	4	1 to 9	2
11 to 19	6	10 to 18	3
20 to 29	8	19 to 27	4
30 to 39	10	28 to 36	5
40 to 49	12	37 to 45	6
50 to 59	14	46 to 54	7

60 to 69	16	55 to 63	8
70 to 79	18	64 to 72	9
80 to 89	20	73 to 81	10
90 to 99	22	82 to 90	11
100 to 109	24	91 to 99	12
110 to 119	26	100 to 108	13

Table 4: Maximum Number of Garbage Containers Collected by City for Multi-Residential Townhouse Developments

<b>No. of Dwelling Units</b>	<b>Maximum Number of Front-End Containers for Garbage (Based on Uncompacted 3yd<sup>3</sup> Containers)</b>
6 to 9	1
10 to 18	2
19 to 27	3
28 to 36	4
37 to 45	5
46 to 54	6
55 to 63	7
64 to 72	8
73 to 81	9
82 to 90	10

#### 3.4.1.5 In-Ground Containers

As an alternative to Front-End Containers, In-ground Containers may be permitted at the City's discretion for Garbage collection at Multi-Residential Townhouse Developments. To be permitted, In-ground Containers must be compatible with Front-End Waste Collection Vehicles used to provide Waste Collection Services on behalf of the City. Currently, the only In-ground Containers being contemplated by the City are Earth Bins, however the City reserves the right to update this. In-Ground Containers must not exceed eight cubic yards in volume for loose material. Please see "Appendix 5: Recommended Dimensions for In-ground Containers" for an example of a compatible system. Separate Storage Areas will be required for any Waste not collected through In-ground Containers and these Storage Areas must be directly adjacent to the In-ground Containers and meet the minimum size requirements detailed in this section.

#### 3.4.1.6 Accessibility to Storage Areas

Access to the Storage Area (or In-ground Containers) must be convenient for all Dwelling Units with no Occupant having to travel more than 100 metres on a round trip to reach it based on using walkways illustrated on submitted drawings. Multiple Storage Areas may be used to meet this requirement. Within each Storage Area all waste streams must be equally accessible. Storage Areas must have signage indicating storage amenities, material type of containers, and container locations. Other signage

may be required as per direction from the City. Storage Areas must contain drainage, electrical outputs, hose taps, lighting, ventilation, rodent proofing, hose bibs, and climate controls at minimum, according to the Ontario Building Code. Storage Areas must adhere to the Ontario Fire Code.

The location of the Storage Area must be communicated to all Owners of Dwelling Units through sales and lease agreements.

### **3.4.2 Waste Loading Areas**

#### **3.4.2.1 Loading Area Requirements**

Submitted drawings must include details for Waste Collection Services including:

- A Loading Area for the collection of Front-End Containers by a Front-End Loading Waste Collection Vehicle
- A Staging Pad adjacent to the Loading Area if more than one Front-End Container will be set out
- A Set-Out Area where Blue Carts and Green Carts will be collected by an Automatic Cart Side Loading Collection Vehicle
- A Set-Out Area where Bulk Items will be collected by a Bulk Loading Waste Collection vehicle

A paved route must connect the Loading Area with the Storage Area and the travel route of the Front-End Containers to the Loading Area must be indicated on submitted drawings. Movement of Front-End Containers on public property is not permitted. The Loading Area must be located on private property within the Development with an Access Route meeting the City's Access Route requirements.

#### **3.4.2.2 Loading Area Dimensions**

The Loading Area must be at grade and the Staging Pad can be raised a maximum of one metre higher than the Loading Area. The Loading Area must be constructed of reinforced concrete with a minimum depth of 0.02 metres. The Loading Area must be at minimum, 3.5 metres in width and 13.0 metres in length and have a minimum vertical clearance of seven metres over the entire Loading Area (please see "Appendix 4: Diagram of Staging and Loading Area" for an example).

### **3.4.3 Staging Pads**

The Staging Pad must be at minimum five square metres in size for each container that will be collected on collection day (minus one). The Loading Area and Staging Pad location and layout will be at the discretion of the City and must not interfere with pedestrians, bike traffic or any public services. The City may require signage, mirrors and other safety measures to reduce risks.

### **3.4.4 Set-Out Areas for Multi-Residential Townhouse Developments**

The Set-Out Area must be located on private property and be located as close as possible to the Private Road. The minimum required size of the Set-Out Area for Blue Carts, Green Carts and Bulk Items is:

- 0.9 metres x 0.65 metres for each Blue Cart
- 0.6 metres x 0.5 metres for each Green Cart
- 10 square metres for Bulk Items

The layout of the Set-Out Area will be at the discretion of the City and the Set-Out Area must be constructed of a hard surface approved by the City and may be asphalt, concrete or pavers.

### **3.5 Design Requirements for Multi-Residential Buildings**

#### **3.5.1 Waste Separation**

##### **3.5.1.1 Multi-Residential Building Types**

For the purposes of this document, Multi-Residential Buildings that have 30 or more Dwelling Units and are greater than six Storeys in height, will be referred to as large Multi-Residential Buildings and Multi-Residential Buildings that are six or less Storeys in height and/or contain less than 30 Dwelling Units will be referred to as small Multi-Residential Buildings.

##### **3.5.1.2 Configuration of Waste Chutes**

Large Multi-Residential Buildings are required to have a Waste separation system that includes three separate chutes, one for each Waste stream. For greater clarity, one chute is required for Garbage, one chute for Organic Material, and one chute for Recyclable Material. The chute for Recyclable Material must be equipped with a bi-sorter to divide material into fibres and containers. Each floor must be equipped with a chute room and the door for each chute in each chute room is required to be colour coded in the following manner:

- The chute for Garbage will have a black door
- The chute for Organic Material will have a green door
- The chute for Recyclable Material will have a blue door

Each chute must terminate into a Storage Area within the building where all Waste will be stored in between collection days in Front-End Containers. Waste chutes must be equipped with lock out mechanisms and chute washing systems as per Section 3.6.33 of the Ontario Building Code.

##### **3.5.1.3 Chute Limitations**

Small Multi-Residential Buildings are not required to have a Waste separation system that includes separate chutes but may include this system if they wish and the City approves the use of such a system for the building. Multi-Residential Buildings are not permitted to be designed with a chute that is for Garbage only or equipped with a tri-sorter. In cases where small Multi-Residential Buildings opt to not utilize a Waste separation system with separate chutes, or the City does not approve the use of such a system for the building, the building must be designed to have a Storage Area for all Waste that is accessible to all residents. Please refer to *Table 5: Container and Storage*



*Requirements for Multi-Residential Buildings* for the container and storage requirements for all Multi-Residential Buildings.

### **3.5.2 Waste Storage**

#### **3.5.2.1 Storage Area Details**

For large Multi-Residential Buildings, the Storage Area must be large enough to accommodate the required number of Front-End Containers for Garbage, Recyclable Material and Organic Material. *Table 7: Number of Garbage Containers for Multi-Residential Buildings*, has been calculated based on the use of a Garbage Compactor. Submitted drawings must include whether a Garbage Compactor is planned to be used. The Storage Area will require an overhead clearance of at least 3.1 metres and submitted drawings must annotate the vertical clearance of the Storage Area. In addition, Multi-Residential buildings must be equipped with a drop off area for Bulk Items and for large Recyclable Material not suitable to be disposed of in chutes (i.e. cardboard). The drop-off area shall be in a separate room adjacent to the Storage Area or may be included as part of the Storage Area.

#### **3.5.2.2 Minimum Size of Storage Areas**

Please use *Table 5: Container and Storage Requirements for Multi-Residential Buildings* to determine the appropriate Waste container for each Waste stream as well as the minimum required Storage Area requirements for each type of Waste container. Please use *Table 6: Minimum Container Requirements for Waste Diversion Program at Multi-Residential Buildings Equipped with Separate Waste Chutes* and *Table 7: Number of Garbage Containers for Multi-Residential Buildings* to determine the minimum required number of Waste containers based on the number of Dwelling Units. Note that the minimum number of Front-End Containers considers that, a Front-End Container must be located at the bottom of each chute at all times. Use the information in *Table 5: Container and Storage Requirements for Multi-Residential Buildings*, *Table 6: Minimum Container Requirements for Waste Diversion Program at Multi-Residential Buildings Equipped with Separate Waste Chutes* and *Table 7: Number of Garbage Containers for Multi-Residential Buildings* to determine the minimum required size of the Storage Area.

Example: A Multi-Residential Building with 200 Dwelling Units requires five Front-End Containers for Garbage, ten Front-End Containers for Recyclable Material, two Front-End Containers for Organic Material and space for Bulk Items. Minimum size of the Storage Area is therefore:

(5 Front-End Containers for Garbage x 5 square metres) + (10 Front-End Containers for Recyclable Material x 5 square metres) + (2 Front-End Containers for Organic Material x 5 square metres) + 10 square metres for Bulk Items = 95 square metres

#### **3.5.2.3 Layout of Storage Areas**

The layout of the Storage Area will be at the discretion of the City and submitted drawings must clearly indicate at the bottom of each chute a Front-End Container and at

the bottom of the Garbage chute a Front-End Container and the Garbage Compactor, if one is planned, to confirm sufficient space has been provided to manoeuvre containers. Occupants are not permitted to have access to Garbage Compactors and as such, if the Storage Area contains both a Garbage Compactor and the drop-off area, then drawings must indicate how the Garbage Compactor will be inaccessible when dropping off material. Storage Areas must contain drainage, electrical outputs, lighting, ventilation, rodent proofing, hose bibs and climate controls.

#### 3.5.2.4 Multi-Residential Buildings Without Chutes

For small Multi-Residential Buildings that do not include a chute system, a Garbage Compactor will not be used and therefore the Garbage will be uncompacted. The Storage Area must be large enough to accommodate a sufficient number of Front-End Containers for Garbage, Blue Carts for Recyclable Material and Green Carts for Organic Material. Please use *Table 7: Number of Garbage Containers for Multi-Residential Buildings* to determine the required number of Front-End Containers for Garbage and *Table 8: Minimum Container Requirements for Waste Diversion Program at Multi-Residential Buildings Not Equipped with Separate Waste Chutes* to determine the minimum required number of Blue Carts and Green Carts.

Example: A Multi-Residential Building with 25 Dwelling Units requires two Front-End Containers for Garbage, four Blue Carts for Recyclable Material, two Green Carts for Organic Material and space for Bulk Items. Minimum size of the Storage Area is therefore:

$(2 \text{ Front-End Container} \times 5 \text{ square metres}) + (6 \text{ Blue Carts} \times 1.1 \text{ square metre}) + (3 \text{ Green Carts} \times 0.53 \text{ square metre}) + 6 \text{ square metres} = 24 \text{ square metres}$

#### 3.5.2.5 Waste Container and Storage Requirements

Use the following tables as a reference for the required number of containers for Waste storage.

Table 5: Container and Storage Requirements for Multi-Residential Buildings

	Waste Stream	Waste Container	Minimum Storage Space per Container
Large Multi-Residential Buildings	Garbage	Front-End Container	5 square metres
	Recyclable Material	Front-End Container	5 square metres
	Organic Material	Front-End Container (only 2yd <sup>3</sup> permitted)	5 square metres
Small Multi-Residential Buildings	Garbage	Front-End Container	5 square metres
	Recyclable Material	Blue Cart	1.1 square metre
	Organic Material	Green Cart	0.53 square metre
All Multi-Residential Buildings	Bulk Items	N/A	6 square metres for buildings with 50 Dwelling Units or less, 10 square

			metres for buildings with more than 50 Dwelling Units
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Table 6: Minimum Container Requirements for Waste Diversion Program at Multi-Residential Buildings Equipped with Separate Waste Chutes

No. of Units	Minimum Number of Front-End Containers for Recyclable Material (based on 3yd <sup>3</sup> containers)	No. of Units	Minimum Number of Front-End Containers for Organic Material (based on 2yd <sup>3</sup> containers)
30 to 90	4	30 to 215	2
90 to 135	6	216 to 430	3
136 to 180	8		
181 to 225	10		
226 to 270	12		
270 to 315	14		
316 to 360	16		
361 to 405	18		

Table 7: Number of Garbage Containers for Multi-Residential Buildings

No. of Dwelling Units	Number of Front-End Containers for Garbage (based on compacted 3yd <sup>3</sup> containers)	No. of Dwelling Units	Number of Front-End Containers for Garbage (based on uncompacted 3yd <sup>3</sup> containers)
First 50	2	First 17	1
51 to 100	3	18 to 34	2
101 to 150	4	35 to 51	3
151 to 200	5	52 to 68	4
201 to 250	6	69 to 85	5
		86 to 102	6
		103 to 119	7
		120 to 136	8
		137 to 153	9
		154 to 170	10
		171 to 187	11
		188 to 204	12

Table 8: Minimum Container Requirements for Waste Diversion Program at Multi-Residential Buildings Not Equipped with Separate Waste Chutes

No. of Units	Minimum Number of Blue Carts	No. of Units	Minimum Number of Green Carts
6 to 13	4	1 to 17	2
14 to 27	6	18 to 35	3
28 to 41	8	35 to 51	4
42 to 55	10	52 to 68	5
56 to 69	12	69 to 82	6
70 to 83	14	83 to 99	7
84 to 97	16	100 to 116	8

### 3.5.3 Waste Loading Areas

#### 3.5.3.1 Requirements for Loading Areas

Large Multi-Residential Buildings will receive Front-End Collection Services for all Waste and small Multi-Residential Buildings will receive Front-End Collection Services for Garbage. Submitted drawings must include for all Multi-Residential Buildings a Loading Area that can be serviced by a Front-End Loading Waste Collection Vehicle as well as Bulk Loading Waste Collection Vehicles. A paved route on private property connecting the Loading Area with the Storage Area and the travel route of the Front-End Containers from the Storage Area to the Loading Area must be indicated on submitted drawings. Movement of Front-End Containers over public property is not permitted. Requirements of the Loading Area that must be included in submitted drawings include (refer to "Appendix 4: Diagram of Staging and Loading Area" for more details):

- Constructed of reinforced concrete with a minimum depth of 0.02 metres
- Minimum dimensions of 3.5 metres wide and 13 metres long
- Minimum vertical clearance over entire Loading Area of seven metres
- Minimum size of the Staging Pad is five square metres per Front-End Container
- Staging Pad may be a maximum of one metre higher than the Loading Area

#### 3.5.3.2 Location of Loading Areas

The Loading Area must be located on private property within the Development with an Access Route meeting the City's Access Route requirements. If the Loading Area is to be located below grade, submitted drawings must indicate Access Routes do not exceed an 8% grade and include a cross-sectional drawing(s) showing a Waste Collection Vehicle travelling throughout the Access Route. The Loading Area location and layout will be at the discretion of the City and must not interfere with pedestrian traffic, vehicular traffic, bike traffic or any public services. The City may require signage, mirrors and other safety measures to reduce risks. The Loading Area may be located within the building and/or underground if all Waste Loading and Access Route

requirements are met. In all cases, Loading Areas and should be screened and positioned in a way that keeps them from conspicuous public view.

### **3.5.4 Staging Pads**

- 1) Submitted drawings must include a Staging Pad for all large Multi-Residential Buildings and for small Multi-Residential Buildings that require more than one Front-End Container for Garbage. The Staging Pad for large Multi-Residential Buildings must be of sufficient size to accommodate Front-End Containers for all Waste streams. The Staging Pad for small Multi-Residential Buildings must be of sufficient size to accommodate Front-End Containers for Garbage.
- 2) The Staging Pad must be located on private property within the Development with an Access Route meeting the City's Access Route requirements. The Staging Pad location and layout will be at the discretion of the City and must not interfere with pedestrian traffic, vehicular traffic, bike traffic or any public services.
- 3) The City may require signage, mirrors and other safety measures to reduce risks to pedestrians and motorists.
- 4) The Staging Pad may be located within the building and/or underground if all Access Route requirements are met. In all cases, Staging Pads should be screened and positioned in a way that keeps them from conspicuous public view.

### **3.5.5 Set-Out Area for Small Multi-Residential Buildings**

For small Multi-Residential Buildings not utilizing a chute system, drawings must include a Set-Out Area for the collection of Blue Carts, Green Carts and Bulk Items. The Set-Out Area must be located on private property and be located as close as possible to the Right of Way. The minimum required size of the Set-Out Area for Blue Carts, Green Carts and Bulk Items is:

- 0.9 metres x 0.65 metres for each Blue Cart
- 0.6 metres x 0.5 metres for each Green Cart
- For bulk items, 6 square metres for buildings with 50 Dwelling Units or less, or 10 square metres for buildings with more than 50 Dwelling Units

The layout of the Set-Out Area will be at the discretion of the City and the Set-Out Area must be constructed of a hard surface approved by the City and may be asphalt, concrete or pavers. The location of the Set-Out Area must not interfere with any public services.

### **3.5.6 Shared Loading Areas**

The City may, at its discretion, allow for multiple Multi-Residential Buildings within one Development to share a Loading Area and Staging Pad to receive Front-End Collection Services. This sharing of facilities will be contingent on at minimum, the following:

- That easements for the use of the Loading Area has been secured for the buildings that do not own the property that the Loading Area and Staging Pad are situated on;

- That all buildings proposed to use the Loading Area have active Development Applications filed with the City; and
- That the Staging Pad is large enough to accommodate the Front-End Containers for all buildings being proposed to use it at the same time.

### 3.5.7 City's Discretion for Waste Collection Services

Notwithstanding the different requirements for small and large Multi-Residential Buildings detailed throughout section 3.5, the City may, at its discretion, use flexibility in applying the Design Requirements to these types of developments. Two examples of how this could be applied have been provided. Example a) is a small Multi-Residential Building not using chutes receiving Front-End Collection Services for Organic Material and Recyclable Material. Changing the requirement for small Multi-Residential Buildings will be based on operational efficiencies for waste collection. This could occur with a Multi-Residential Building with four storeys containing 150 Dwelling Units. This building would require 20 Blue Carts and 10 Green Carts under the requirements for small Multi-Residential Buildings, however, using Front-End Containers to collect these materials would result in significant efficiencies realized by the City. This is because only 6 Front-End Containers for Recyclable Material and 1 Front-End Container for Organic Material would be required.

	Carts	Front-End Containers
Organic Material	10 – 5.3m <sup>2</sup>	1 – 5m <sup>2</sup>
Recyclable Material	20 – 22m <sup>2</sup>	6 – 30m <sup>2</sup>
Required Storage Space	27.3	35

Example b) is a small Multi-Residential Building with six or more Dwelling Units that, if designed to accommodate Front-End Collection Services, would conflict with the existing character of the street and the urban design objectives of the City. In this example, the City may determine that providing Curbside Collection Services would best serve the property and the objectives of the City.

## 3.6 Design Requirements for Serviceable Commercial Properties

### 3.6.1 Serviceability

Commercial properties with three or less Storeys that are not part of a shopping centre, strip mall etc., are, for the purposes of this document, considered to be Small Commercial Properties and may receive Waste Collection Services through the City. For the purposes of this document, mezzanines are considered a Storey. To receive Waste Collection Services through the City, these properties must comply with the requirements for Waste storage and set out as outlined in this section. Serviceable Commercial Properties must not generate more than six Garbage Containers per collection day. Commercial properties that City staff anticipate will generate more than six Garbage Containers per collection day will not be serviced by the City and will be

required to retain Private Waste Collection Services for all Waste. The City may, at its discretion, determine a commercial property not serviceable based on the proposed use and size of the property.

### **3.6.2 Waste Storage**

Commercial properties that are deemed serviceable by the City will receive Waste Collection Services with Blue Boxes for Recyclable Material, Green Carts for Organic Material and Garbage Containers consistent with those permitted for Single-Family Residential Properties as detailed in the Waste By-law. Submitted drawings must include a fully enclosed Storage Area for the storage of waste between collection days which must be either a dedicated room inside the proposed building, a fully enclosed Storage Area (including a roof) attached to an external wall of the building (other than a front wall), or a fully enclosed Accessory Structure (including a roof). The Storage Area must provide at minimum, one square metre for each Garbage Container, 0.9 metres x 0.65 metres for each Blue Box and 0.6 metres x 0.5 metres for each Green Cart, and the layout of the Storage Area will be at the discretion of the City.

### **3.6.3 Waste Set Out**

Waste shall be set out in front of the property on the boulevard or sidewalk adjacent to the Roadway (whichever is closest to the curb). The size of the Set-Out Area will be based on the anticipated amount of Waste to be generated by the building but will be at minimum, 2.5 square metres. The location and layout of the Set-Out Area will be at the discretion of the City. If no boulevard or sidewalk adjacent to the Roadway exists, then the Owner's private property shall be used for the Set-Out Area. Waste Set-Out Areas must not interfere with pedestrians, vehicular traffic, bike traffic or any public services.

## **3.7 Design Requirements for Places of Worship**

Places of Worship may receive Waste Collection Services from the City. Waste Collection Services will only be provided to buildings (or portions therein) that are dedicated to religious functions. The remaining building uses of the Place of Worship will only receive Waste Collection Services at the discretion of the City. Submitted drawings for Places of Worship must include information detailing the uses of the building. If City staff anticipate a Place of Worship will generate more than six Garbage Containers per week, the building may be required to retain Private Waste Collection Services for all waste.

### **3.7.1 Waste Storage**

- 1) Places of Worship that are deemed serviceable by the City will receive Waste Collection Services with Blue Boxes for Recyclable Material, Green Carts for Organic Material and Garbage Containers consistent with those permitted for Single-Family Residential Properties as detailed in the Waste By-law.
- 2) Submitted drawings must include a fully enclosed Storage Area for the storage of waste between collection days which must be either a dedicated room inside the proposed building, a fully enclosed (including a roof) Storage Area attached to an

external wall of the building (other than a front wall) or a fully enclosed (including a roof) Accessory Structure.

- 3) The Storage Area must provide at minimum, one square metre for each Garbage Container, 0.9 metres x 0.65 metres for each Blue Box and 0.6 metres x 0.5 metres for each Green Cart.

### **3.7.2 Waste Set Out**

- 1) Places of Worship that are deemed serviceable by the City shall set out waste in front of the property for collection on the boulevard or sidewalk adjacent to the Roadway (whichever is closest to the curb).
- 2) The size of the Set-Out Area will be based on the anticipated amount of Waste to be generated by the building but will be at minimum, 2.5 square metres in size. The location and the layout of the Set-Out Area will be at the discretion of the City. If no boulevard or sidewalk adjacent to the Roadway exists, then the Owner's private property shall be used for the Set-Out Area. Set-Out Areas must not interfere with pedestrian, bike traffic or any public services.
- 3) For Places of Worship (or portions thereof) that are not deemed serviceable by the City, all Waste will be collected on private property.

### **3.8 Design Requirements for Non-Serviceable Commercial and Institutional Properties**

Commercial and Institutional Properties that do not meet serviceability requirements for City Waste Collection Services must retain Private Waste Collection Services. This includes, but is not limited to, Large Commercial Properties, student residences, long-term care facilities, private schools and commercial properties with more than three Storeys. Submitted drawings must include a Storage Area to store Waste between collection days which must be either a dedicated room inside the proposed building, or a fully enclosed (including a roof) Accessory Structure. All Waste will be collected on private property and no waste is permitted to be placed on the Right of Way at any time for the purpose of collection. Submitted drawings must indicate where Waste Collection Services will be carried out on private property.

### **3.9 Design Requirements for Publicly Funded Schools**

- 1) Publicly funded elementary and secondary schools may receive Waste Collection Services for Recyclable Material and Organic Material through the City, provided that an agreement has been established between the City and the school board. The collection of all other Waste must be through Private Waste Collection Services.
- 2) Regardless of whether the property is serviced by the City, submitted drawings must include a fully enclosed Storage Area for the storage of Waste between collection days which must be either a dedicated room inside the proposed building or a fully enclosed (including a roof) Accessory Structure, or both. The Storage Area (or areas) must be large enough to accommodate at minimum:
  - Two Green Carts for Organic Material;
  - Four Blue Carts for container Recyclable Material;



- One Front-End Container for Garbage; and
  - One Front-End Container for fibre Recyclable Material.
- 3) All Waste will be collected on the school property. No Waste is permitted to be placed on the public Right of Way at any time for the purpose of collection. Submitted drawings must indicate where waste will be set out on private property for collection including the Loading Area for the Front-End Containers. The Loading Area must be exclusive of any on-site parking. The Loading Area location and layout will be at the discretion of the City and must not interfere with pedestrians, vehicular traffic, bike traffic or any public services and the City may require signage, mirrors and other safety measures to reduce risks.

### **3.10 Design Requirements for Municipal Buildings**

Buildings that are proposed for City uses and to be owned and/or operated by the City (i.e. arenas, community centres, libraries etc.) will be provided with Waste Collection Services through the City.

Submitted drawings must include a fully enclosed Storage Area for the storage of Waste between collection days which must be either a dedicated room inside the proposed building or a fully enclosed Accessory Structure (including a roof), or both. The required size of the Storage Area (or areas) will be determined on a case by case basis based on the proposed use(s) and size of the building. Additionally, the proposed uses will determine the appropriate Waste containers and the corresponding appropriate set out requirements. Municipal buildings must have Loading Areas and Staging Pads screened and positioned in a way that keeps them from conspicuous public view.

Waste set out must not interfere with pedestrian traffic, bike traffic or any public services and may require signage, mirrors and other safety measures to reduce risks.

### **3.11 Design Requirements for Industrial Properties**

Industrial Properties are not eligible for Waste Collection Services through the City and will be required to retain Private Waste Collection Services. All Storage Areas, Loading Areas, Staging Pads, and Set-Out Areas must be located on private property and according to any applicable by-laws.

### **3.12 Design Requirements for Mixed-Use Developments**

Each use of a Mixed-Use Development will be reviewed as a separate Development Application for the purposes of Waste storage and collection, and the requirements for each use can be found in the different sections of the Design Requirements. For example, if a Development Application is proposing a Multi-Residential Building with 10 Storeys and 100 Dwelling Units with ground floor commercial units, then submitted drawings must indicate that the residential portion complies with section 3.5 *Design Requirements for Multi-Residential Buildings* and that the commercial portion complies with section 3.8 *Design Requirements for Non-Serviceable Commercial and Institutional Properties*. This will result in separate Waste storage facilities for each Development use. Waste Loading Areas may be shared by multiple uses of the Development,

however on collection days for residential Waste, the Loading Area will be dedicated to the use of the City.

### **3.13 Design Requirements for Live/Work Units**

Live/Work units may receive Waste Collection Services through the City. These Dwelling Units will be classified as residential and must not exceed the set out limits for Garbage from residential Dwelling Units. If, in the opinion of the City, the Live/Work unit is projected to exceed the set out limit for Garbage, then the Development will need to retain Private Waste Collection Services. Additionally, if in the opinion of the City it is possible to separate the waste from each property use, then separate waste storage facilities will be required.

### **3.14 Design Requirements for Development Types Not Addressed**

Development types that have not been mentioned in the Design Requirements will be reviewed on a case by case basis.

## **4.0 SERVICING REQUIREMENTS**

### **4.1 Requirements for New Developments to Receive Collection**

This section outlines the requirements for Developments to receive Waste Collection Services through the City. The City will not provide Waste Collection Services to the property if, during the Development Application process the Development was not deemed both eligible AND serviceable. The Owner is responsible for securing Waste Collection Services for new Developments until such time that the City commences Waste Collection Services. The City will not assume Waste Collection Services for any residential Development prior to the Owner providing confirmation that at minimum, 70% occupancy has been achieved.

### **4.2 Servicing Requirements for Single-Family Residential Properties Receiving Curbside Waste Collection**

The requirements that must be met for Single-Family Residential Properties on Laneways, Streets or Private Roads to receive Curbside Collection Services through the City include, but are not limited to:

- Addresses are identifiable and visible;
- All boulevards are rough-graded;
- All curbs are installed;
- All roads are completed to at minimum, base curb and base asphalt with no raised maintenance/service covers;
- Winter maintenance is provided for all roads;
- Waste Set-Out Areas must be free of any construction equipment, debris and waste;
- All roads are free from obstruction related to construction including, but not limited to, vehicles, equipment and supplies; and

- If "no parking signs" are indicated on the site plan these must be installed prior to collection commencing.

#### **4.3 Servicing Requirements for Townhouse Developments Receiving Shared Waste Collection Services and Multi-Residential Buildings**

The requirements that must be met for Townhouse Developments receiving Shared Waste Collection Services and Multi-Residential Buildings to commence with Waste Collection Services through the City include, but are not limited to:

- All chute systems are fully operational and maintained as per the City's Property Standards By-Law;
- All required Front-End Containers have been provided to the Development by the Owner/Developer and are compatible with City Waste Collection vehicles;
- All required Blue Carts and Green Carts have been provided to the Development by the City, or, if they are procured separately by the Owner, these are of sufficient number and are compatible with City Waste Collection Vehicles;
- Winter maintenance is provided for all Access Routes, Loading Areas, Staging Pads, Set-Out Areas and walkways (if applicable);
- Access Routes and Loading Areas are free of any construction equipment, debris and waste;
- If "no parking signs" are indicated on the site plan these must be installed prior to collection commencing;
- Each unit must receive the applicable in-unit waste containers/bags. These containers will be provided by the City; however, the Owner/Property Manager is responsible for distributing them; and
- If the Loading Area and/or any part of the Access Route is a supported structure, a letter certified by a structural engineer must be provided to the City detailing the weight restrictions of the supported structure.

#### **4.4 Requirements for Developments to Maintain Waste Collection Services**

Once Waste Collection Services through the City have commenced, it is the Owner's responsibility to meet all requirements to maintain Waste Collection Services. If the Owner fails to meet these requirements, the City reserves the right to cease Waste Collection Services to the property.

The requirements to maintain service are detailed in the Waste By-Law and the Agreement for On-Site Collection of Municipal Solid Waste and these requirements include, but are not limited to:

- The Owner and/or Property Manager must provide all required assistance during Garbage collection to maneuver and manipulate Front-End Containers;
- Property Managers must distribute, or post communications provided by the City to/for Occupants;
- Maintaining waste streams that are free of contamination;

- Loading Areas must be accessible on collection day and not occupied or blocked by vehicles or any other obstruction and/or cleared of any snow or ice; and
- If the Loading Area is shared between different property uses, on collection day the Loading Area will only be used for the collection of Waste by the City.

#### **4.5 Application for Service**

All new Developments must apply for Waste Collection Services to be provided by the City. Developers must contact Waste Management Customer Service through email at [wastemanagement@hamilton.ca](mailto:wastemanagement@hamilton.ca) or by calling the City's Contact Centre at 905-546-CITY to request and schedule the start of Waste Collection Services. In addition to requesting Waste Collection Services, if the Service requires Waste Collection Vehicles to enter private property, then an “Agreement for On-Site Collection of Municipal Solid Waste” must be completed and provided to the City. This form is found in Schedule “F” of the Waste By-Law.

Prior to an application being approved, City staff will inspect the property to confirm that it has been constructed as per the approved drawings. If the site has either not been constructed as per drawings and/or does not satisfy the servicing requirements for the property, the application for service will be denied. If the application is denied, the Developer/Developer/Owner may reapply for service at a later date, when the site condition requirements have been met.

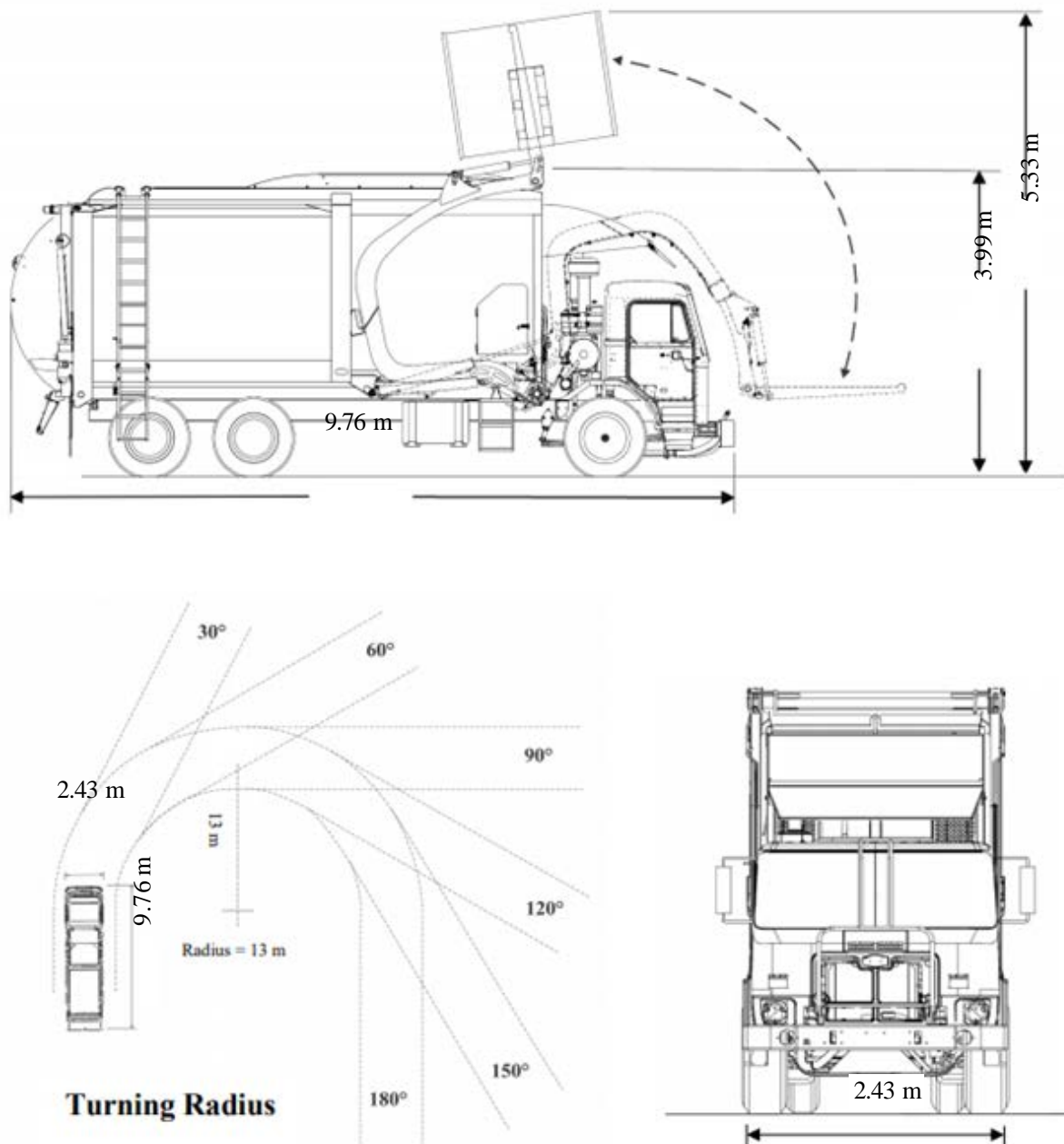
Following the approval of an Application for Service, the City will provide a collection commencement date, as well as further details concerning collection for the Development. The Property Manager or Developer must inform Occupants of the commencement date for Waste Collection Services.

## APPENDICES

### Appendix 1: Diagrams of Waste Collection Vehicles

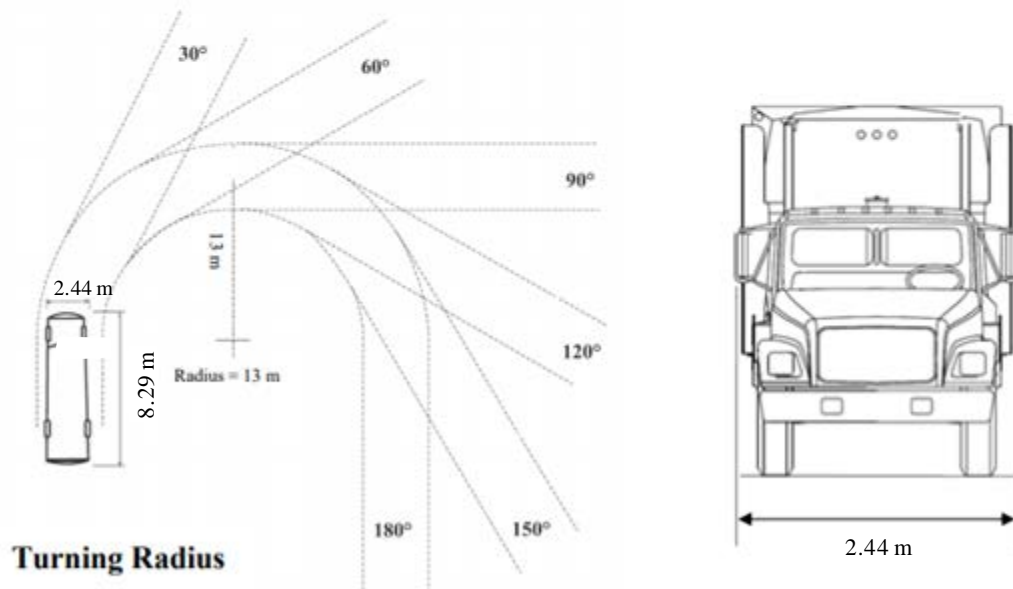
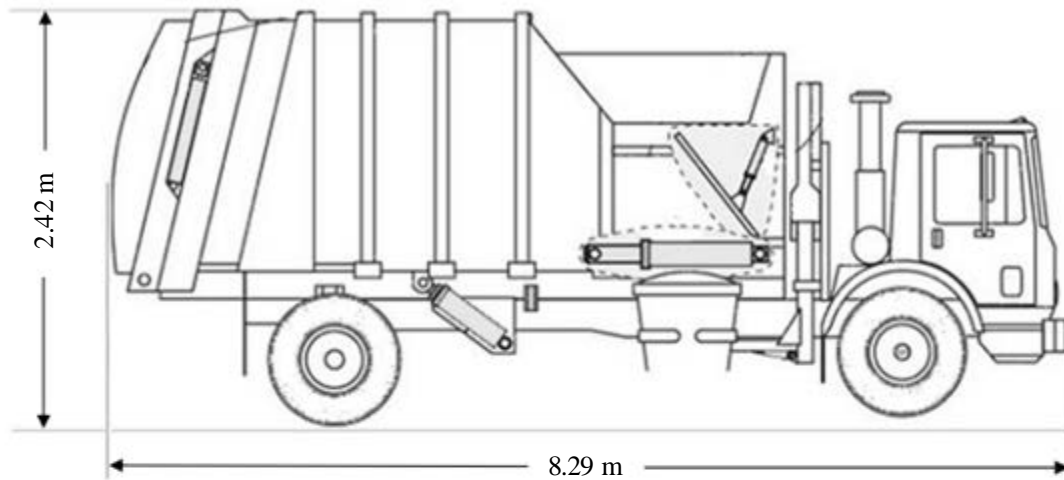
#### Front-End Waste Collection Vehicle

##### Front-End Bin Loading Waste Collection Vehicle



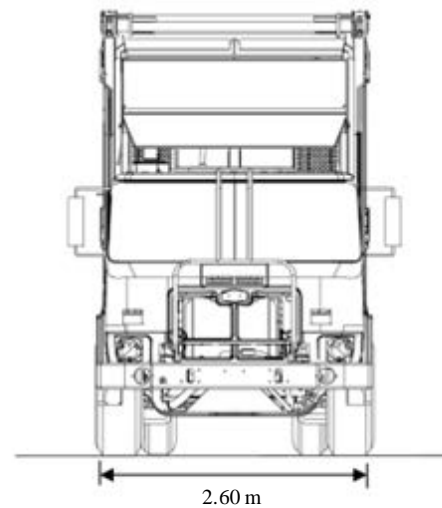
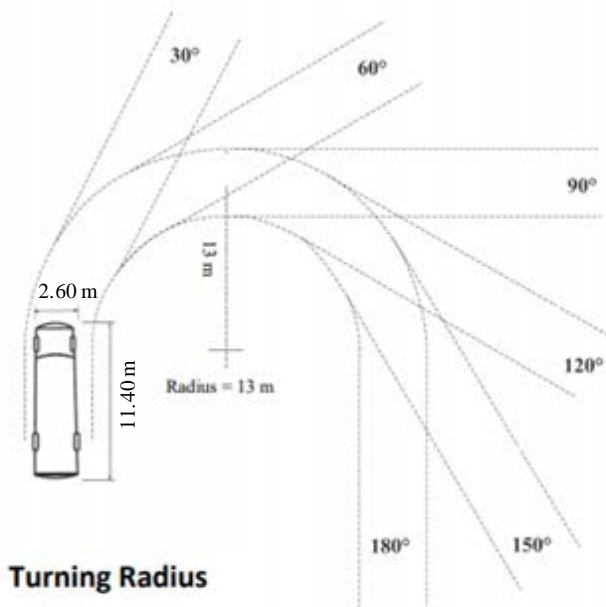
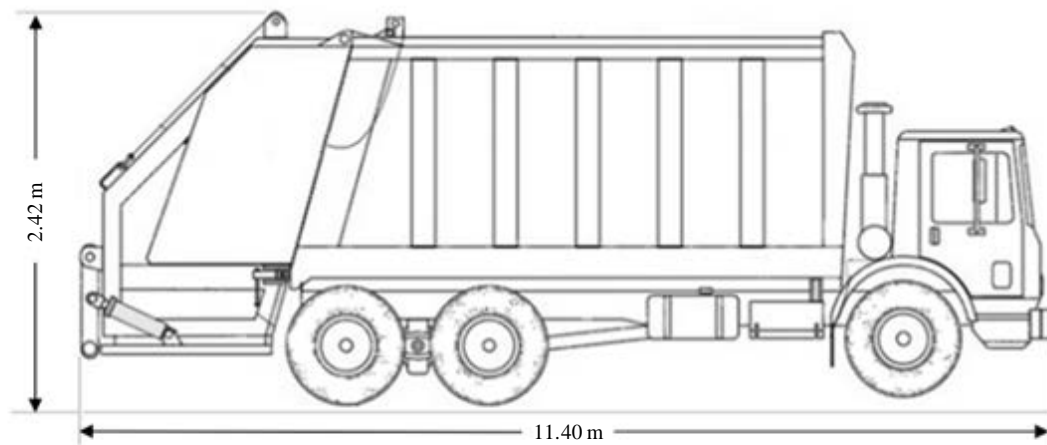
Note: Drawings are not to scale. Actual dimensions may vary depending on the make and model of vehicles used by the City of Hamilton's Contractor, which vary from time to time.

**Automated Side Loading Cart Waste Collection Vehicle**



Note: Drawings are not to scale. Actual dimensions may vary depending on the make and model of vehicles used by the City of Hamilton's Contractor, which vary from time to time.

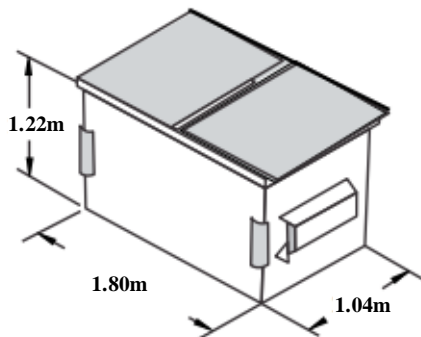
**Rear Packer Waste Collection Vehicle**



Note: Drawings are not to scale. Actual dimensions may vary depending on the make and model of vehicles used by the City of Hamilton's Contractor, which vary from time to time.

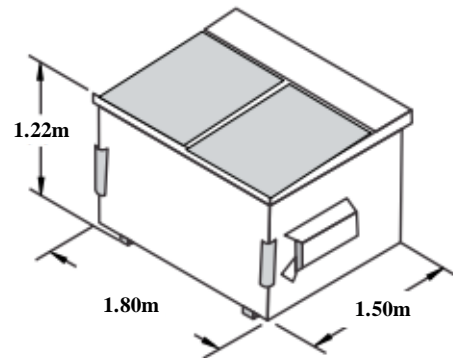
## Appendix 2: Front-End Container Details

3-Cubic Yard



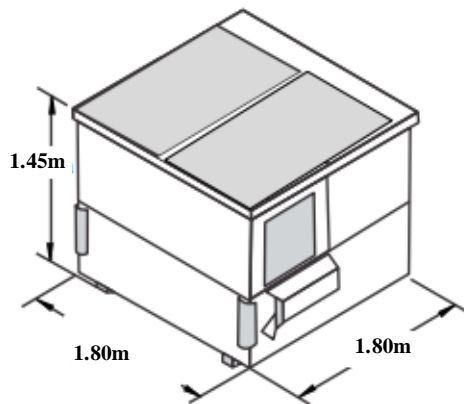
3-yard Front-End Container  
1.22 metres high, 1.80 metres wide, 1.04 metres deep

4-Cubic Yard



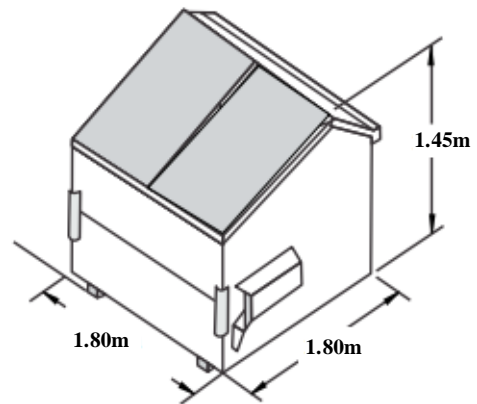
4-yard Front-End Container  
1.22 metres high, 1.80 metres wide, 1.50 meters deep

6-Cubic Yard



6-yard Front-End Container  
1.45 metres high, 1.80 meters wide, 1.80 metres deep

6-Cubic Yard Slant



**Note:**

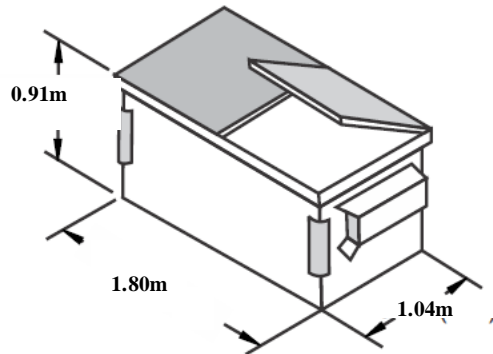
\*3- & 4-cubic yard bins include casters.

\*\*Garbage receptacle model and dimensions may vary depending on model and manufacturer.

\*\*\*Drawing is not to scale



2-Cubic Yard (Organic Material Only)

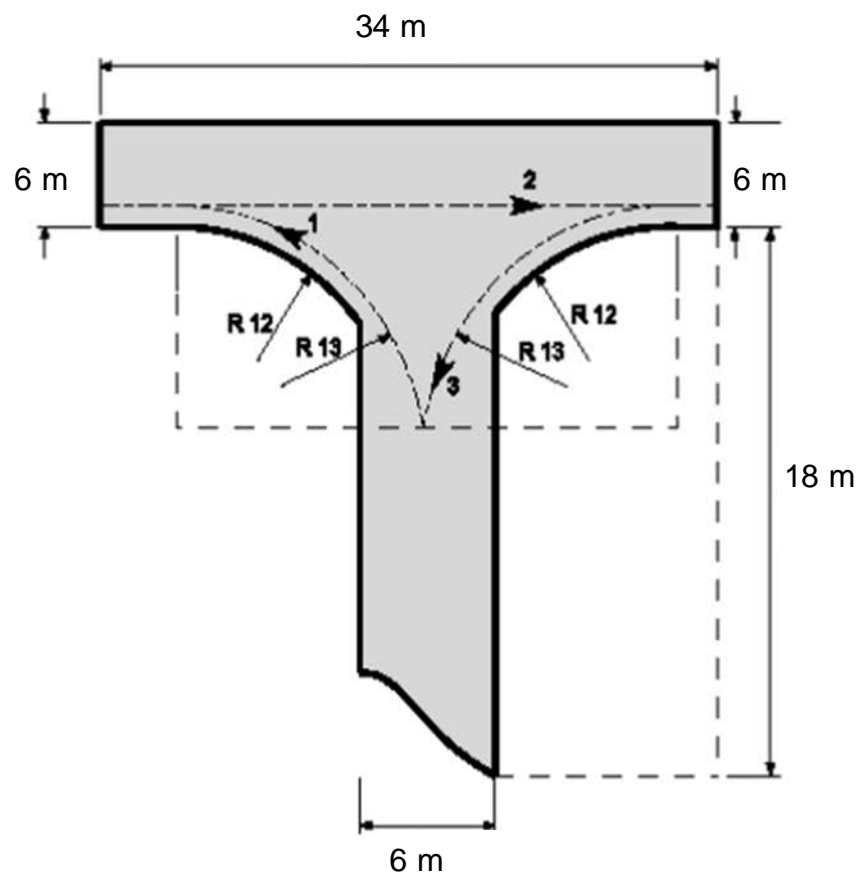


2-yard Front-End Container  
0.91 metres high, 1.80 meters wide, 1.04  
metres deep

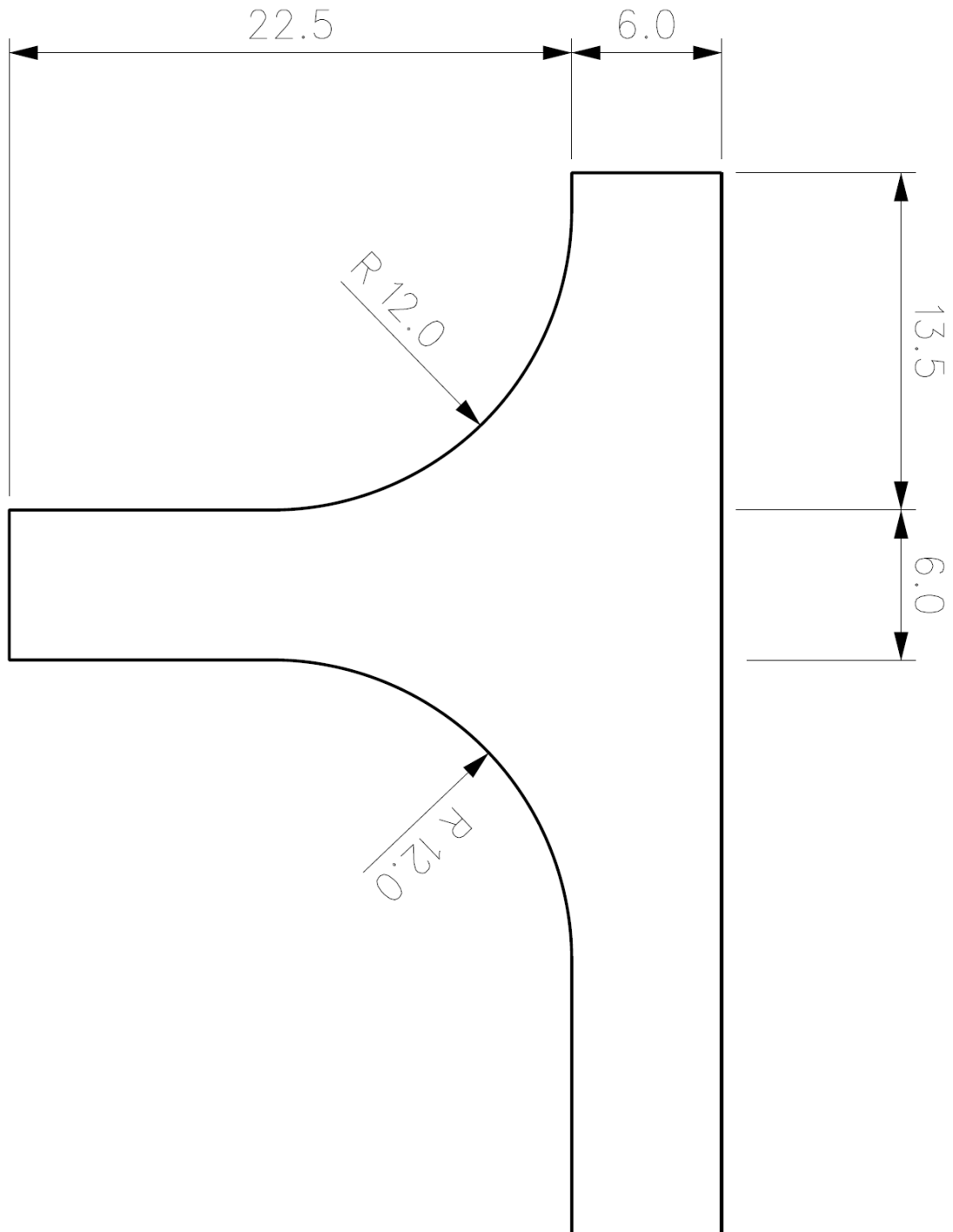
### Appendix 3: Acceptable Turnaround Designs



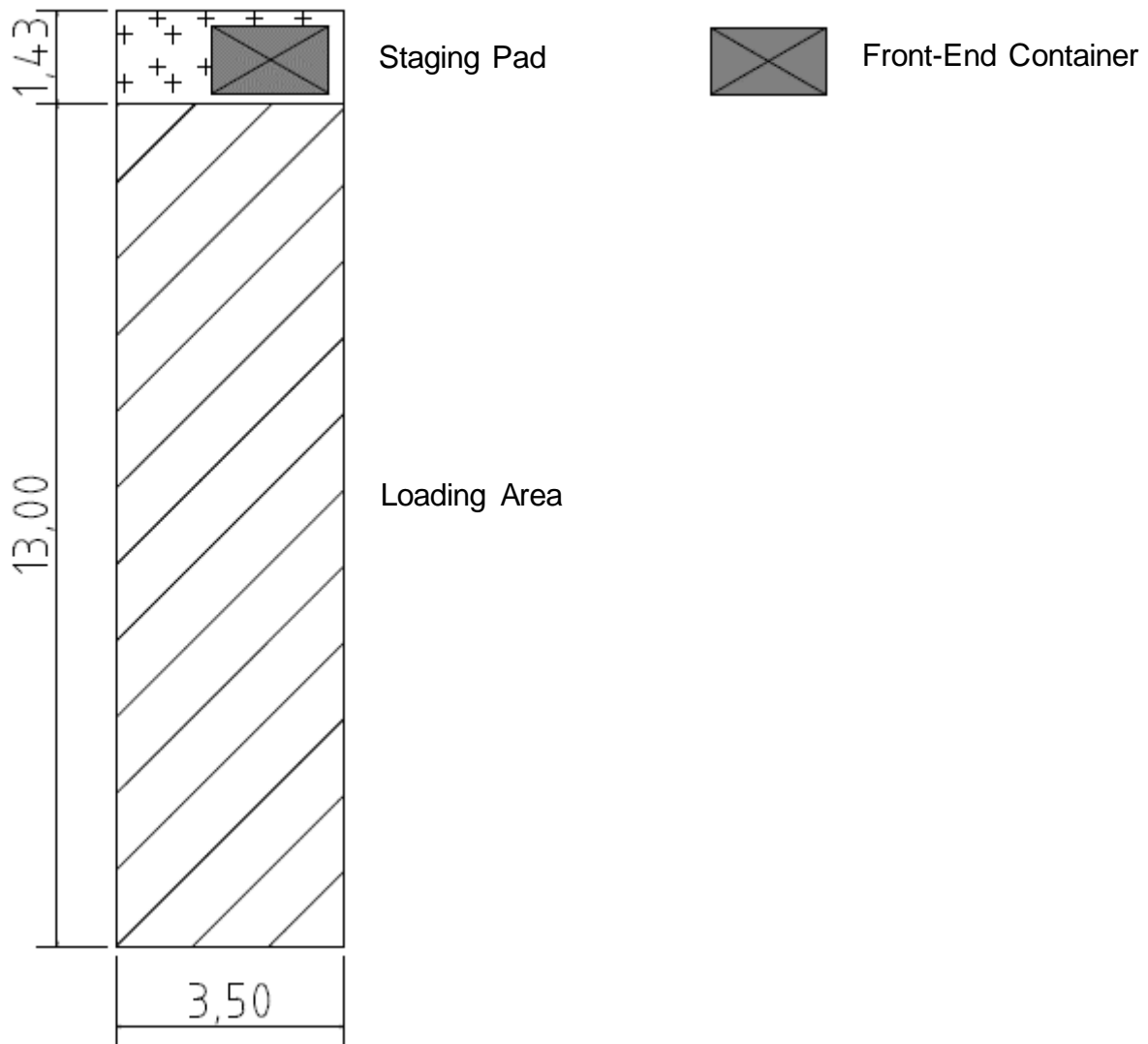
#### "T" Turnaround Specification



Note: All dimensions are in metres, not to scale



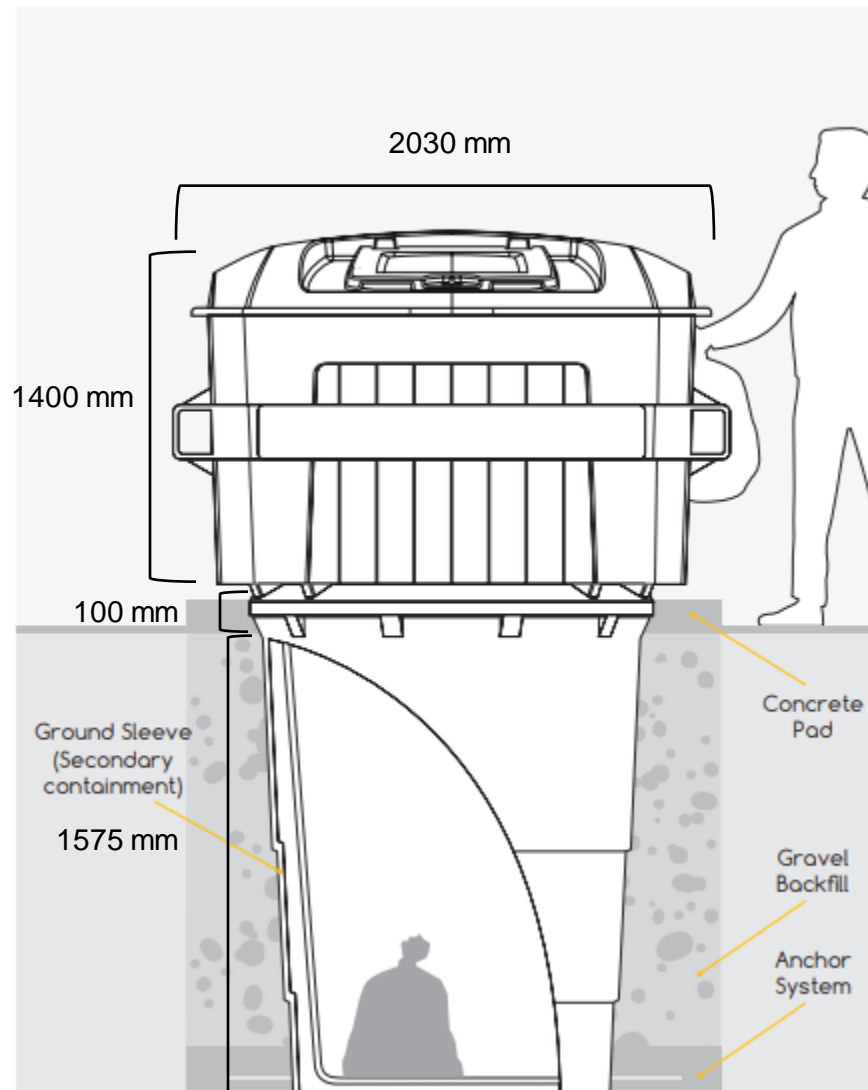
**Appendix 4: Diagram of Staging and Loading Areas**



All dimensions included in Appendix 4 are in metres.

## Appendix 5: Recommended Dimensions for In-ground Containers

Diagram provided by Earth Bin



## Appendix 6: Curbside Container Dimensions

### Blue Box Dimensions



### Green Bin Dimensions



### Blue Cart Dimensions

Recycling container for Multi-residential buildings

Side view, depth 89 cm

Front view, width 61 cm



### Green Cart Dimensions

Organics container for Multi-residential buildings

Side view, depth 55 cm

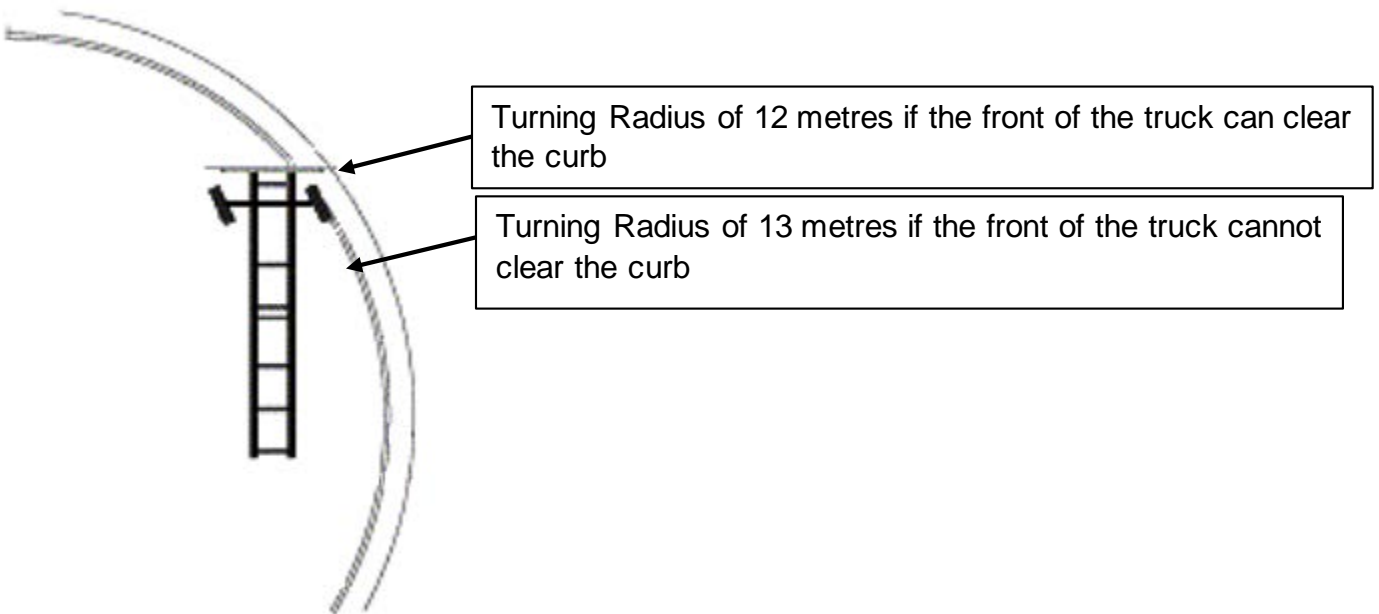


Front view, width 48 cm



Height 93 cm

## Appendix 7: Turning Radius





## Appendix 8: Access Route Examples

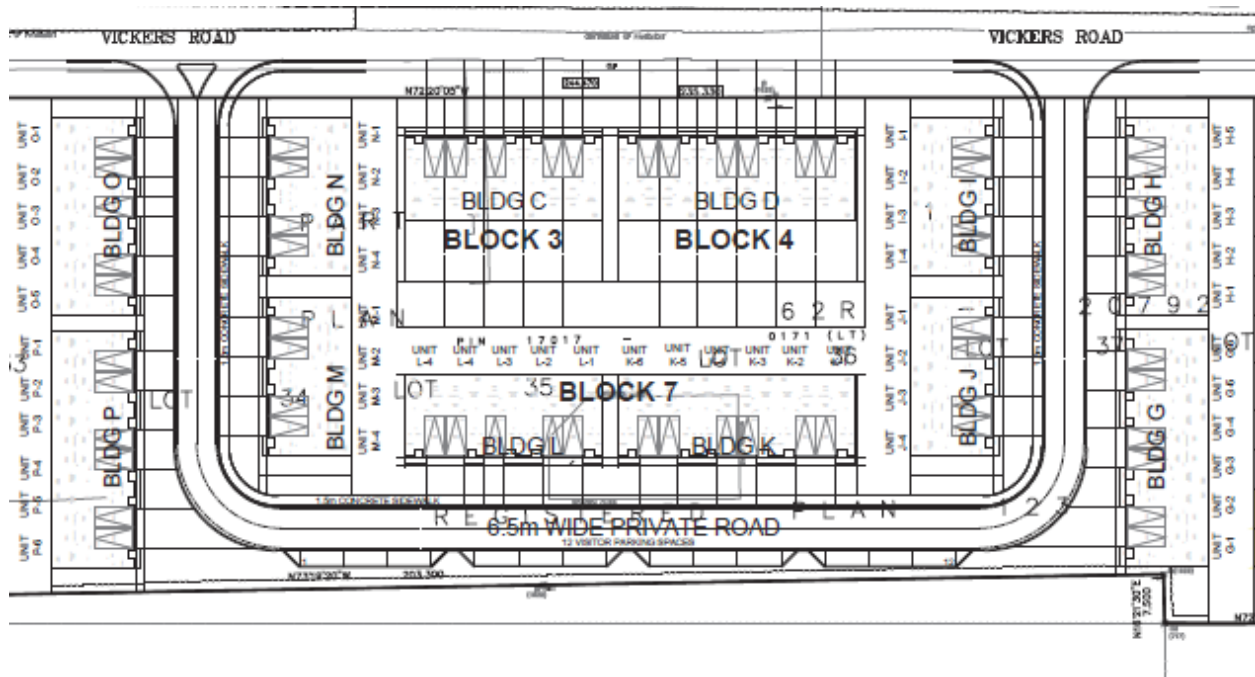


Figure 1: Townhouse Development showing an Access Route with continuous forward motion acceptable for Waste Collection



Figure 2: Satellite image showing a T-Turn in a subdivision which would be acceptable to Waste Collections. Diagram is not to scale.