

1.0 **GENERAL**

1.1 Related Work and UBC Guidelines

- .1 Section 10 00 10 Special Room requirements – for interior waste room requirements
- .2 UBC Vancouver Solid Waste Infrastructure Guidelines
- .3 UBCV and UBCO Campus Plan
- .4 For hazmat waste storage and pickup requirements, coordinate with UBC Safety and Risk Services

1.2 Description

- .1 Section provides information on exterior waste enclosures, waste and recycling infrastructure dimensions, dimensions of waste trucks used on UBC campuses and access route provisions required.

1.3 Coordination

1. The Guidelines apply to all work completed within buildings on both UBC Vancouver and UBC Okanagan campuses unless stated otherwise.
2. In instances where conflicts are found between these guidelines and provincial regulations or codes, please notify the UBCV Technical Review Team Architect and UBCO Facilities Management.
3. These guidelines are intended to be read by design consultants and their content integrated into construction drawings and specifications. Construction documents are not to reference the technical guidelines directly.
4. The Coordinating Registered Professional (CRP) is required to coordinate these requirements with other disciplines.
5. Any proposed waste management systems or equipment within the building that differ from the standard equipment types listed in this TG section, or any anticipated need to recycle or dispose any significant amount of “specialty” waste materials that would require additional storage or handling equipment are to be identified for UBC Facilities review. The UBCV Facilities Technical Review Team Architect or UBCO Facilities Management is to be contacted for assistance with coordination of the review by UBC Facilities staff at the design development stage.

2.0 **DESIGN AND PERFORMANCE REQUIREMENTS**

2.1 Design Requirements

.1 Loading Docks / Loading Area

Building designs need to allow adequate exterior service area space for garbage and recycling containers to be stored and collected or emptied with UBC Facilities waste management vehicles. Containers and vehicles are described in 3.0 below. Minimum requirements for most buildings include:

- .1 Concrete pad for placement of front-load waste containers to prevent long-term surface damage.
- .2 Direct in-line service access to front-load waste containers at least 1.5 times the length of an industry standard front-load compactor truck.

- .3 Outside service area to allow for recycling cart pickup using an industry standard side-load truck which loads from the right side only.
- .4 Ramp or ground level access from the interior waste and recycling storage area to the exterior service area to be provided to allow recycling carts to be wheeled easily to the designated outside pickup area. Refer to Section 10 00 10 for coordination with the interior waste and recycling storage area requirements.
- .5 Service lane widths, turning radii and load bearing capability sufficient to accommodate all waste collection vehicles noted above. Fire truck access standards are typically sufficient and work well for UBC waste trucks.
- .6 Minimum vertical clearance above waste containers to be 23' (feet).

.2 Exterior Waste Enclosures

- .1 3-sided enclosure around concrete pad such that waste bins are visible only from the direction of service vehicle approach. Design to be as per the UBCV/UBCO Campus Plan.
- .2 Minimum access width of 12' (feet) to any front-loading waste container enclosures.
- .3 Refer to the UBC Solid Waste Infrastructure Guidelines, Section 5.1 for additional requirements.

.3 Access Route

- .1 The access route and loading area must be designed in such a way as to allow collection vehicles to enter the site, collect the waste and exit without the need to back up onto a public street.
- .2 Access driveways must be a minimum of 6 meters wide at the point of ingress/egress to the site and a minimum of 4.5 meters wide throughout the site with an unencumbered vertical clearance of 4.4 meters. Consideration should be made regarding width requirements for right or left-hand turns.
- .3 A turnaround area allowing for a three-point turn of not more than one truck length or a drive through access route are acceptable options. The approximate dimensions of the collection vehicle that must be accommodated are presented in paragraph 2.2.
- .4 Turning radii of 9.5 meters inside and 14 meters outside should be available throughout the access route. The slope of the access route shall not exceed 8% and provide adequate vertical clearance throughout the access route.
- .5 Where delivery trucks and waste management trucks have to pass under building overhangs or canopies, provide a minimum of 2' (610mm) clearance above trucks to underside of finished soffit or canopy.

2.2 Performance Requirements (Not Used)

3.0 MATERIALS (EQUIPMENT)

3.1 Waste Containers and Recycling Bins

UBC Municipal Services uses a number of standard waste management containers and utilizes the same types throughout UBC's campuses. Refer to the UBC Solid Waste Infrastructure Guidelines, Section 5.2 for detailed information.

3.2 Typical Recycling, Garbage and Cardboard Collection Vehicles

Standard dimensions of waste collection vehicles are as follows:

Vehicle Type	Size (W x D x H)	Gross Vehicle Weight (kg)
Front-Load Compactor Truck	8.5 x 32.5 x 13.5'	25,000
Roll-Off Container Truck	9.75 x 33.3 x 9.75'	25,000
Side-Load Recycle Truck	9.5 x 31.5 x 12.5'	17,000
Side-Load Truck Extended	12.5 x 31.5 x 16.0'	-

- .1 Typical dimensions for collection trucks used on campus are provided below together with diagrams:

Front Loading Collection Truck

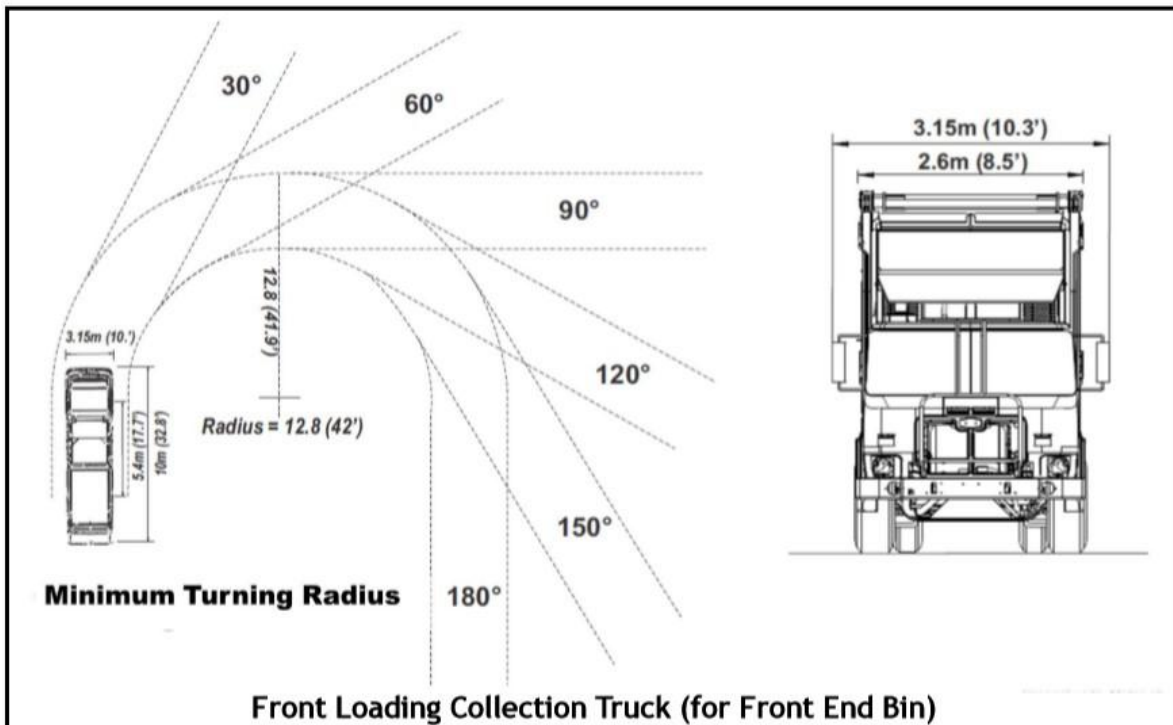
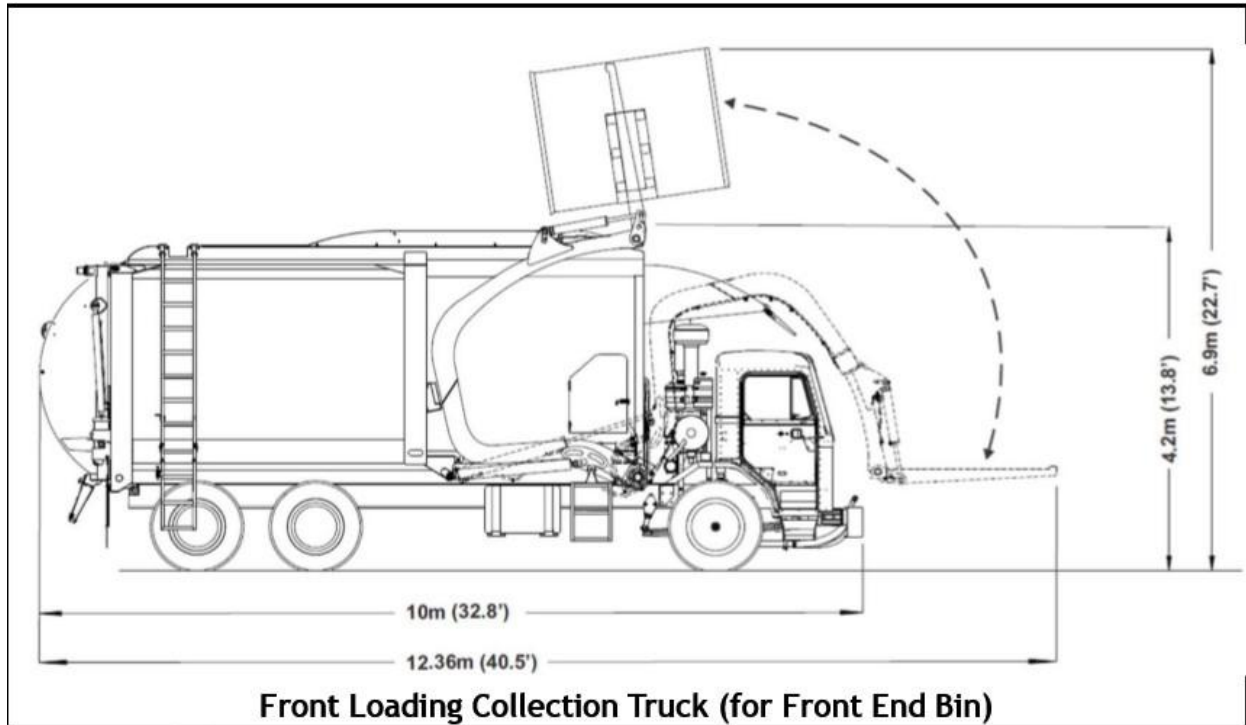
- (approximate) Length 10.0 m - 12.4 m
- Width 3.2 m Minimum inside turning radius 10.0 m
- Minimum outside turning radius 12.8 m
- Height clearance 6.5 m - 7.5 m
- Width clearance 4.0 m
- Length clearance 15.2 m

Side Loading Recycling Truck

- (approximate) Length 10.0 m - 12.4 m
- Width 3.2 m Minimum inside turning radius 10.0 m
- Minimum outside turning radius 12.8 m
- Height clearance 6.5 m - 7.5 m
- Width clearance 4.0 m
- Length clearance 15.2 m

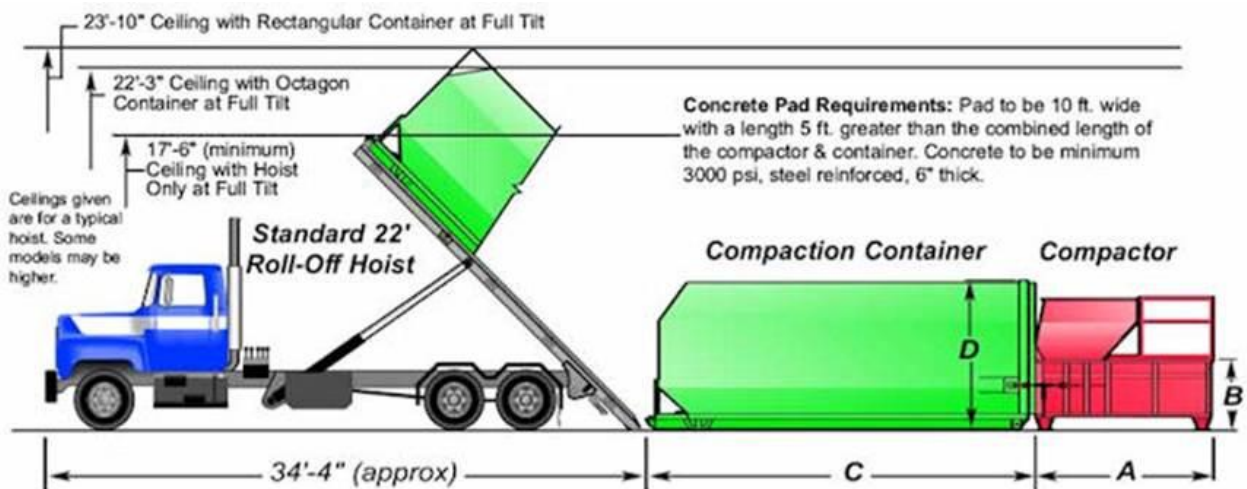
Compactor, Roll-Off Bin and Collection Truck

- (approximate) Length 10.0 m - 12.4 m
- Width 3.2 m Minimum inside turning radius 10.0 m
- Minimum outside turning radius 12.8 m
- Height clearance 6.5 m - 7.5 m
- Width clearance 4.0 m
- Length clearance 15.2 m





Typical Compactor, roll-off bin and collection truck dimensions





	Left Turn	Right Turn	Tolerance
Wall to Wall Diameter (ft)	90.1	80.3	+/- 3.0
Curb to Curb Diameter (ft)	88.6	78.6	+/- 3.0
Turning Radius (ft)	43.6	38.6	+/- 1.5

END OF SECTION