In-Ground Waste Containers: Where They Are Trending & Why

SWANA Northern Lights
May 2015

Dave Hallman, P. Eng.
President, EB Products
Presentation Synopsis

• Centralized, communal waste & recycling storage and collection is gaining popularity with developers and property managers now that in-ground container systems can be serviced by a *standard* front load truck.

• Understand the operational & financial savings over older "crane style" systems and climate-controlled buildings.

• Understand the “change drivers” - the benefits from a sustainability, environmental, urban design, property management and user perspective.

• Understand the planning & servicing issues with centralized, communal designs and the potential impact of this design trend to the current status quo (particularly residential curb side collection).

• See examples from new developments, and retrofits to existing properties - demonstrating “problems solved” installations.
Environmental & Operating Costs

Operating costs: service costs, consumable costs, clean up costs

Environmental: faster tip times = lower CO\textsuperscript{2}, GHG
Front-Load Truck Compatible Design

Serviced by any front load truck.
Front-Load Truck Servicing
Typical Dimensions

Ground Level

Feed Height 42”-55”

48”-72”

Elevation View

80” Standard Truck
Typical Features

Service door (lid)

Feed door

Automatic Gravity Latch

Feed Door Handle w/ Lock
Typical Features

- Locking Feed Doors (Front and Back)
- Automatic Locking Lid
- One Piece Body
- Heavy Duty Galvanized Sleeves
- Recycled Plastic Panels
- In-ground Sleeve
- Concrete Pad
- Gravel Backfill
- Concrete Anchor
- Galvanized Anchor Pins
Community Housing & ICI properties have switched to in-ground containers to minimize illegal dumping.
Property Managers have switched to in-ground containers to increase available parking, add drive-thru lane.
Typical Bin Enclosure - Angled
Typical Bin Enclosure - Angled

Space Claim

In-Grounds 15.1 m²
Typical (2 bins) 42.9 m²

Capital Cost

In-Grounds ~$25,000
Typical (2 bins) ~$45,000
Typical Bin Enclosure - Straight
Space Claim

In-Grounds  11.6 m²
Typical (2 bins)  29.8 m²

Capital Cost

In-Grounds  ~$25,000
Typical (2 bins)  ~$35,000
Reduce Maintenance

Eliminate enclosures to reduce maintenance & operational costs, associated liability
Efficiency of Servicing

Garbage rooms & wheeled bins
Odour Control

- Natural geothermal temperature control eliminates odours
- Control lids to seal in odours
Parks, Restaurants, Campgrounds & Golf Courses control pests by eliminating the odours that attract them.
• Lower feed height is more ergonomic
• Dual feed doors can offer safer loading away from truck access & traffic
Graffiti Prevention

Smaller, textured plastic surface & architectural panels not a suitable “canvas”
Site Aesthetics

- Immovable - maintains site design integrity
- Unobtrusive, lower profile in plain site
Branding

Reinforce branding through customization
Existing properties are removing enclosures; evaluating switch from curb side to centralized collection
Urban Design - Communal Collection

New developments designed with communal collection - not curb side

<table>
<thead>
<tr>
<th>Service</th>
<th>Rate (per unit per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curbside Service</td>
<td>$82</td>
</tr>
<tr>
<td>Bin Service</td>
<td>$40</td>
</tr>
</tbody>
</table>
Urban Design - Communal Collection

Existing properties are removing enclosures; evaluating switch from curb side to communal
Condo - Waste Room Alternative

In-Ground Bins
Mid-Rise Multi-Res Plan with Garbage Rooms
Thank-you.