



Public Works Department

Solid Waste Design Standards

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1. Purpose

The City of Goodyear Solid Waste Design Standards guide developers in the early planning stages to design their projects properly and safely for solid waste disposal, collection, and storage. This document includes standards for residential, commercial, and industrial container services, vehicle access, and charts to determine the appropriate collection type and minimum levels of service and space requirements.

2. General Standards

A. Collection Route Engineering

- All solid waste/recycle collection routes must meet engineering design criteria to allow collection vehicles to safely access and lift bins without obstructions at ground or aerial levels.
- Collection vehicle route shall be a minimum of 28'-0" curb to curb.
- Minimum collection vehicle turning radius: 44'-0" outside turning radius and 28'-6" inside turning radius.
- Collection vehicles should not have to back up more than 50' after servicing a bin for safety.

B. Vehicle Specifications

- Collection vehicle is 30'-0" long and weighs approximately 20 tons when fully loaded. Collection routes shall be engineered to support collection vehicles.

C. Route Efficiency

- Collection route through a site should ensure that the vehicle travels through the site once without backtracking. (Refer to Figure A)

D. Obstruction-Free Routes

- Routes must be clear of all obstructions. No awning or building projections are allowed in the collection vehicle route. Minimum overhead clearance of 14'-0" is required for the collection route and 25'-0" over the bin enclosure area from steel safety posts back 50'-0".
- All curbs shall align on the outside of the enclosure walls and shall not interfere with the route of the solid waste collection vehicle.

E. Tree Planting Guidelines

- For streets designated for curbside barrel collection, trees should not be planted within ten (10) feet of the curb and should be spaced to avoid creating aerial obstructions for barrel dumping at full growth dimensions.

F. Safety Considerations & Enclosure Placement

- Bin enclosures must be located away from entrances and exits to avoid creating safety hazards by blocking incoming or outgoing traffic.
- Bin enclosures should be angled no more than 30 degrees from the centerline of the collection vehicle route. (Refer to Figure B)
- Bin enclosures should be a minimum of 3'-0" from any planned or existing non-combustible structure and 5'-0" from any planned or existing combustible structure.

G. Collection Easements

For City of Goodyear collection, a refuse collection easement will be required to be a dedicated full roadway width for any portion of the collection route not located in public right of way.

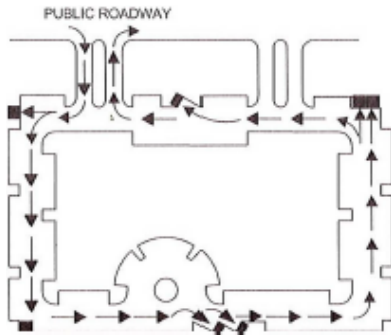


FIGURE A. ROUTE EFFICIENCY

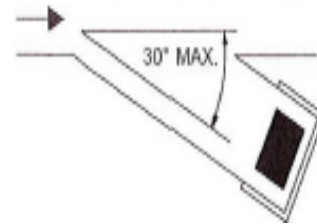


FIGURE B. MAX BIN DEVIATION

3. Containment Standards

A. Screening & Gate Requirements

- Trash and recycling bin areas must be screened with a minimum 6'-0" masonry wall as per Figures C and D. The exterior finish of walls should be architecturally integrated with the primary building.
- All enclosures shall have gates that screen the bins from public view. Gates shall be installed to provide a net enclosure opening of 12'-0" per bin. Gates, Hinges and Mounting hardware shall not project into minimum net enclosure opening. Double or triple wide enclosures need not have a demising wall between bins, but must maintain required net clear opening width for each bin to be served. (Figures C and F)

B. Enclosure Specifications

- Gates must open 90°.
- Gates, hinges, mounting hardware, and safety posts should create a minimum 9'-0" depth in the enclosure. (Refer to Figure C)

- Provide a 3'-0" pedestrian access gate into the enclosure, which may be lockable. (Refer to Figure C)
- Enclosure gates must have drop pins and holes drilled in the concrete at open and closed positions.
- Use 6" reflective engineer's tape (3M High Density Yellow Pressure Sensitive Tape or equivalent).

C. Safety Posts & Concrete Standards

- Bin enclosures should have two 4" diameter steel safety posts installed in the back. Safety posts should be a minimum of 6'-0" or equal to the height of the back screen wall and placed 4" from the wall. (Refer to Figures C and E)
- Use Class "A" concrete except as noted in the safety post detail in Figure E.
- Steel reinforcement should be grade 40.
- Steel posts should be 4" or 6" diameter, 8.5' long, schedule 40, galvanized or painted.
- Expansion joint filler should be ½" bituminous type preformed expansion joint filler per ASTM D-1751.

D. Soil Compaction

- Soil below the wall footer and concrete pad must be compacted to a depth of 6 inches and to a minimum dry density of 90% per ASTM D-2922 and D-3017 after rock correction.

E. Site Appurtenances

- Site appurtenances like landscaping control boxes and lighting may be placed on the outside of enclosure walls.

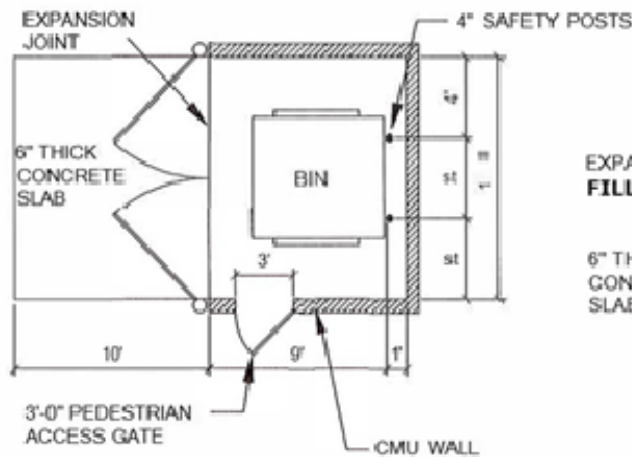


FIGURE C

Figure C: Enclosure Specifications

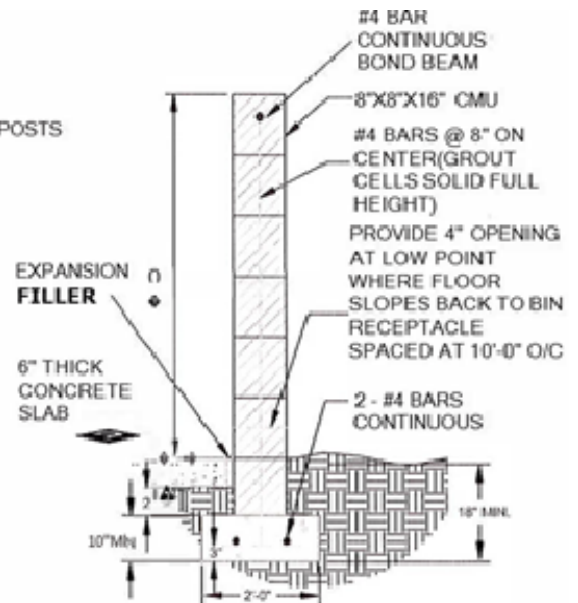


FIGURE D

Figure D: CMU Wall Specifications

E. Commercial Property Design

- Provide a refuse enclosure for every 20,000 square feet of building space.

5. Residential and Commercial Container Dimensions

SIZE	HEIGHT	WIDTH	LENGTH	FOOTPRINT
				(rounded)
35-gallon cart	38.50 inches	18.88 inches	22.50 inches	3 sq. feet
65-gallon cart	42.12 inches	25.25 inches	26.38 inches	5 sq. feet
96-gallon cart	46.50 inches	26.38 inches	33.62 inches	6 sq. feet
2- yard front-load bin	41.50 inches	29.50 inches	72.00 (*) inches	15 sq. feet
3- yard front-load bin	50.50 inches	34.50 inches	72.00 (*) inches	17 sq. feet
4- yard front-load bin	57.00 inches	41.50 inches	72.00 (*) inches	21 sq. feet
6- yard front-load bin	71.00 inches	58.00 inches	72.00 (*) inches	29 sq. feet
8- yard front-load bin	89.00 inches	58.00 inches	72.00 (*) inches	29 sq. feet
10-yard roll-off box	3.25 feet	8.00 feet	12.00 feet	96 sq. feet
20-yard roll-off box	4.00 feet	8.00 feet	18.00 feet	144 sq. feet
30-yard roll-off box	5.50 feet	8.00 feet	20.00 feet	160 sq. feet
40-yard roll-off box	7.25 feet	8.00 feet	20.00 feet	160 sq. feet

6. Small Lot/Shared Driveway Collection

A. Barrel Locations & Parking

- Predetermined location for at least 2 barrels per unit where street parking is prohibited. Locations must be shown on site plan.
- Barrels should be placed within 100 feet of the parcel and not near cluster mailbox locations.

- Barrel collection locations must be included in the homeowner's association's conditions, covenants, and restrictions.
- B. Tree & Structure Restrictions**
 - Trees should be planted at least ten (10) feet from the barrel location to avoid aerial obstructions.
 - No structure should be within 4' horizontal of barrel collection locations.
- C. Garage or Storage Areas**
 - Garages or storage areas must accommodate one 90-gallon refuse container and one 90-gallon recycling container.
 - Gates or doors must allow for container passage approximately 33 inches in width.
- D. Sidewalk Encroachment**
 - Barrel collection areas must not encroach onto sidewalks.
- E. Street Width & Service Areas**
 - Streets must be a minimum of 28' from face of curb to face of curb for curbside collection. (Asphalt minimum 24' width).
 - Barrels must remain on the same street.
 - Barrel service location must be at least 34' from any community exit gate when opened or closed.
 - Two-barrel collection locations per residential unit are required, split between the shared driveway.
- F. Sign Adjustments**
 - No parking sign locations may need adjustment for fire hydrants, mailboxes, intersections, or other obstructions.