City of Plano

Site Design Standards for Solid Waste Containers
Site Design Standards for Solid Waste Containers

1. General

This document is a supplement to Section 20.400 (Requirements for Solid Waste Collection) of Article 20 (Screening, Fence, and Wall Regulations) of the Zoning Ordinance.

A. Enclosures for containers must only be used for purposes related to solid waste programs as authorized by the City of Plano’s Code of Ordinances, as amended.

B. Containers include compactors and front-end loaders.

C. Additional container space may be necessary for some nonresidential uses beyond the minimum required in Subsection 20.400.2.A of the Zoning Ordinance. Environmental Waste Services staff is available to meet and assist with determining specific servicing needs throughout plan review.

2. Placement

A. Containers must be placed behind the front façade of the primary building and outside of any easements and rights-of-way, unless expressly permitted by the City of Plano.

B. Containers and their screening enclosures must be placed outside of required parking. However, the number of required parking spaces may be reduced to accommodate commercial recycling and community recycling containers for sites developed prior to July 22, 2002. Required parking shall not be reduced without submittal and approval of an amended site plan.

3. Access

A. A 40-foot unobstructed vehicular path/service drive must be maintained as measured from the truck collection side of an enclosure or container placement area.

B. A minimum 24-foot height clearance must be maintained along the 15 feet of vehicular path closest to the servicing side of the solid waste container or enclosure. This allows overhead lifting of the container for servicing. The remaining length of the unobstructed vehicular path must maintain a minimum 16-foot height clearance.

C. A minimum outside turning radius of 45 feet must be maintained from the travel lane to the truck collection side of the enclosure or container placement area.
D. A minimum 24-foot height clearance over containers must be maintained to allow overhead lifting of the container for servicing.

E. Containers and enclosures located perpendicular to or along a service drive must have no less than a 30-degree angle to the drive aisle.

4. Screening

A. Containers must be screened from view of adjacent streets and properties, unless exempted in Section 4.B of this Design Standards document. Screening must be accomplished by concealed placement and/or construction of an enclosure. With the exception of landscaping, screening must be compatible in material and color to the primary building on the lot.

   i. Concealed Placement – containers must be placed in a service area that is screened from view by buildings, wing walls, other screening walls, and/or irrigated evergreen living screen. A service area is an area generally at the rear of the building and designated for discreet service functions including deliveries, loading of goods, staging, solid waste collection and compaction, and similar activities supporting operations onsite.

   ii. Enclosure Construction – containers must be enclosed as required below:

       a. Enclosures must be constructed of stone, brick, cast concrete, or concrete block, unless using a material permitted within Subsection 4.A.ii.b or 4.A.ii.c below. Brick veneer and exterior plasters, as defined in the City of Plano Building Code, shall be acceptable as a finish. Combinations of these materials are also acceptable.

       b. Upon approval of landscape materials by the Director of Planning or designee, enclosures may be constructed as specified below:

           i. Primed and painted tubular steel or wrought iron-style fence with an irrigated evergreen living screen surrounding the fence. The evergreen living screen must reach a minimum height of container within 2 years of installation; or,

           ii. Irrigated evergreen living screen that must reach a minimum height of container within 2 years of installation.

       c. An alternative equivalent screening method as approved by the Director of Planning or designee, excluding prohibited materials,
as listed in Subsection 4.A.ii.e of this standards document. When considering alternate materials, staff will consider durability, maintenance, effectiveness of screening, and aesthetics to determine whether a method is equivalent.

d. Staff denial of an irrigated living screen or alternative equivalent may be appealed to the Planning & Zoning Commission with consideration of the site plan or revised site plan.

e. The following are prohibited materials that cannot be utilized as structural components of solid waste enclosures:

   i. Wood
   ii. Vinyl
   iii. Chain-link, with or without slats
   iv. Cementitious boards, panels, or shingles
   v. 3-Step stucco or plaster
   vi. EIFS
   vii. Wood-grain or wood-flour and thermoplastic composites

f. Solid metal gates of an equal height to the enclosure height must be provided on the truck collection side of the enclosure.

g. All screening devices must be continually maintained in a state of good repair. Living screens must be maintained in compliance with Section 17.400 (Landscape Compliance) of Article 17 (Landscaping and Tree Preservation).

B. The following are partially exempt from screening requirements:

   i. Developments in the Light Industrial-1 (LI-1) and Light Industrial-2 (LI-2) zoning districts are not required to screen containers from the view of adjacent properties that are also zoned LI-1 or LI-2.

   ii. Containers placed in designated service areas behind buildings are not required to be screened from an adjacent property’s designated service area in all nonresidential and mixed-use zoning districts.
5. Dimensional Requirements for Enclosures

A. Container Enclosures

i. Single Enclosure (designed to accommodate one container)
   a. Minimum interior finished dimensions of 12 feet wide by 11 feet deep, with a minimum wall height of 7 feet.
   b. Minimum 2.5 feet side-to-side clearance between containers and enclosure walls.
   c. Minimum 2 feet front-to-back clearance between container and enclosure walls/gates.
   d. Minimum of two bollards per container. Bollards must be placed 1 foot from the interior back wall of the enclosure and 4 feet from the interior sides. The minimum bollard height is 5 feet above grade.
   e. Minimum entrance clearance width of 11.5 feet per container, after installation of gates, poles, and/or other hardware.
   f. Minimum 24-foot height clearance over container must be maintained to permit overhead lifting of the container for servicing.
   g. Concrete pad must maintain a slope between 0.5%-1.0%.

ii. Dual Enclosure (designed to accommodate two containers)
   a. Minimum interior finished dimensions of 23 feet wide by 11 feet deep, with a minimum wall height of 7 feet.
   b. Minimum 2.5 feet side-to-side clearance between containers and between containers and enclosure walls or dividers.
   c. Minimum 2 feet front-to-back clearance between containers and enclosure walls/gates.
   d. Minimum of two bollards per container. Bollard must be placed 1 foot from the interior back wall of the enclosure and 4 feet from the interior sides. The minimum bollard height is 5 feet above grade.
   e. Minimum entrance clearance width of 11.5 feet per container, after installation of gates, poles, and/or other hardware.
f. Minimum 24-foot height clearance over containers must be maintained to allow overhead lifting of the container for servicing.

g. Concrete pad must maintain a slope between 0.5%-1.0%.

B. Compactor Enclosures

Below are the minimum compactor enclosure dimensions. Environmental Waste Services staff is available to meet and assist with determining specific servicing needs.

i. Minimum interior finished dimensions of 12 feet wide by 24 feet deep, with a minimum wall height of 8 feet.

ii. Minimum entrance clearance width of 12 feet after installation of gates, poles, and/or other hardware.

iii. Must not be placed on an elevated platform (dock placement) exceeding 54 inches in height.

iv. Concrete pad must maintain a slope between 0.5%-1.0%.

v. Must include an open conduit for future electrical service, if not included at the time of compactor installation.

Appendices

Appendix 1: Container Enclosure Drawings

Appendix 2: Site Design Standards for Solid Waste Containers Checklist
APPENDIX 1: CONTAINER ENCLOSURE DRAWINGS

**SINGLE CONTAINER ENCLOSURE**
SINGLE CONTAINER ENCLOSURE

BOLLARD

EXTERIOR SECTION

PERSPECTIVE

Concrete Pad Slope 0.5%-1.0%

5' CLEARANCE
Concrete Pad
Slope 0.5%-1.0%.

EXTERIOR SECTION

PERSPECTIVE

DOUBLES CONTAINER ENCLOSURE
EXTERIOR SECTION

Concrete Pad Slope 0.5%-1.0%

24' HEIGHT CLEARANCE

24' INTERIOR

OPTIONAL ACCESS DOOR

PLAN

0.5%-1.0% GRADE

CONDUIT FOR FUTURE ELECTRICAL SERVICE

COMPACTOR

COMPACTOR ENCLOSURE
EXTERIOR SECTION

Concrete Pad Slope 0.5%-1.0%.

24' HEIGHT CLEARANCE

24' INTERIOR

OPTIONAL ACCESS DOOR

PERSPECTIVE

Concrete Pad Slope 0.5%-1.0%.

24' INTERIOR

8' INTERIOR

8' INTERIOR

24' INTERIOR

OPTIONAL ACCESS DOOR

SCALE

FEET
PLAN - FRONT LOAD

15' OF UNOBLSTRUCTED PATH CLOSEST TO DUMPSTER GATES MUST HAVE 24' VERTICAL CLEARANCE FOR LIFTING CONTAINERS

24' CLEARANCE HEIGHT FROM THE BACK WALL OF ENCLOSURE

25' OF PATH: 16' CLEARANCE

25' MIN: 24' HEIGHT CLEARANCE

40' UNOBLSTRUCTED VEHICULAR PATH FROM GATE

COLLECTION VEHICLE FRONT
PLAN - TURNING RADIUS

PLAN - TURNING ANGLE

COLLECTION VEHICLE APPROACH
**Site Design Standards for Solid Waste Containers Checklist**

The following is a partial listing of Site Design Standards for Solid Waste Containers for nonresidential and multifamily developments as found in Plano’s development regulations and policies. A completed checklist must be submitted with each application for preliminary site plans and site plans/revised site plans. Applicants shall indicate compliance with standards by checking the box adjacent to the standard. Failure to comply with standards could result in rejection of application and/or delay of the preliminary site plan or site plan/revised site plan approval.

### Plan Format & General Standards (check if provided; indicate NA if not applicable)

- Solid waste container and compactor enclosures are identified on preliminary site plans and site plans/revised site plans.
- Containers are located behind the front building setback line and outside of any easements and rights-of-way, unless expressly permitted by the City of Plano.
- Compactors are not be located between the front building setback, line and the front façade of the building.
- Containers, compactors, and their screening enclosures are located outside of required parking. Required parking shall not be reduced without submittal and approval of a revised site plan.
- Minimum of two container spaces are provided per lot to accommodate both refuse and recycling. One or more required container locations may be dedicated offsite by recorded easement within 150 feet of the building.
- Label and dimension minimum 30-degree angle to the drive aisle if the container/compactor and enclosure are located perpendicular to or along a service drive.
- Label and dimension 40-foot unobstructed vehicular path/service drive measured from the truck collection side of an enclosure or container placement area.
- Label and dimension minimum outside turning radius of 45-feet from the travel lane to the truck collection side of the enclosure or container/compactor placement area.
- Label minimum 24-foot height clearance over the enclosure and along the 15 feet of vehicular path closest to the servicing side of the solid waste container, and label minimum 16-foot height clearance along the remainder of the vehicular path.
- Label and dimension the “Dimensional Requirements for Enclosures” as found below.
- Label all materials and finishes for enclosure/screening walls. Materials and colors must match main building(s) and meet material standards as found in 4.A.ii.a of Site Design Standards for Solid Waste Containers and in “Material Requirements for Enclosures” below.
- Solid waste containers, including compactors, are screened consistent with the Site Design Standards for Solid Waste Containers.
- Enclosures for containers or compactors are only used for purposes related to solid waste programs as authorized by the City of Plano’s Code of Ordinances, as amended.
- All screening devices will be permanently and continually maintained in a state of good repair as a condition of use.
### Dimensional Requirements for Enclosures

(check if provided; indicate NA if not applicable)

<table>
<thead>
<tr>
<th>Enclosure Type</th>
<th>□ Single-container</th>
<th>□ Dual-container</th>
<th>□ Compactor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>12 feet</td>
<td>23 feet</td>
<td>12 feet</td>
</tr>
<tr>
<td>Depth</td>
<td>11 feet</td>
<td>11 feet</td>
<td>24 feet</td>
</tr>
<tr>
<td>Height</td>
<td>7 feet</td>
<td>7 feet</td>
<td>8 feet</td>
</tr>
<tr>
<td># of bollards</td>
<td>2</td>
<td>2 per container</td>
<td>N/A</td>
</tr>
<tr>
<td>Min. bollard height above grade</td>
<td>5 feet</td>
<td>5 feet</td>
<td>N/A</td>
</tr>
<tr>
<td>Distance between bollard and wall</td>
<td>1 foot</td>
<td>1 foot</td>
<td>N/A</td>
</tr>
<tr>
<td>Distance between containers or interior walls</td>
<td>N/A</td>
<td>2 ½ feet</td>
<td>N/A</td>
</tr>
<tr>
<td>Distance from container to wall/gates</td>
<td>2 feet</td>
<td>2 feet</td>
<td>N/A</td>
</tr>
<tr>
<td>Min./max. slope of pad</td>
<td>0.5-1.0%</td>
<td>0.5-1.0%</td>
<td>0.5-1.0%</td>
</tr>
<tr>
<td>Min. entrance clearance after installation of gates, poles and/or other hardware</td>
<td>11 ½ feet</td>
<td>11 ½ feet per container</td>
<td>12 feet</td>
</tr>
<tr>
<td>Min. unobstructed height above enclosure</td>
<td>24 feet</td>
<td>24 feet</td>
<td>24 feet</td>
</tr>
</tbody>
</table>

*Compactor Enclosures must also adhere to the following:

□ Not placed on an elevated platform (dock placement) exceeding 54-inches in height.

□ Includes an open conduit for future electrical service.

### Material Requirements for Enclosures

(check if provided; indicate NA if not applicable)

□ Solid waste enclosures are constructed of stone, brick, cast concrete, concrete block, or alternative materials, such as evergreen living screens, as approved by the Director of Planning or designee.

□ Solid waste enclosure structural components do NOT include wood, vinyl, chain-link (with or without slats), cementitious boards/panels/shingles, 3-step stucco or plaster, EIFS, nor wood-flour and thermoplastic composites.

□ Gates are constructed of solid metal and are of equal height to the enclosure.

### Exemptions for Enclosures

(check if provided; indicate N/A if not applicable)

If exempt, containers and compactors must still be identified on preliminary site plans and site plans/revised site plans.

□ Concealed Placement – If screening by concealed placement, containers and compactors must be placed in a service area that is screened from view by buildings, wing walls, and/or other screening walls.

□ Developments in the Light Industrial-1 (LI-1) and Light Industrial-2 (LI-2) zoning districts are not required to screen containers or compactors from the view of adjacent properties that are also zoned LI-1 or LI-2.

□ Containers and compactors placed in designated service areas behind buildings are not required to be screened from an adjacent property’s designated service area in all nonresidential and mixed-use zoning districts.