

Orange County Solid Waste Management Design Guidelines

I. General Purpose

These guidelines shall serve as general guidance to the development of waste collection and recycling infrastructure at new and expanding development projects within Orange County. Where projects are completed within the Towns of Hillsborough, Chapel Hill and Carrboro, Orange County Solid Waste (OCSW) Staff will defer decision on waste collection to the appropriate town. However, Orange County Staff will review and approve all recycling infrastructure prior to solid waste management plan approval. *Approval of a Solid Waste Management Plan by OCSW does not constitute the acceptance of the site for collection by OCSW.*

II. Waste and Recycling Generation Rates

Designer shall consider waste generation/recycling rates for the highest allowable use in each structure when allocated space for recycling and waste disposal. However, the following must be address:

1. Corrugated Cardboard
 - i. Dumpster or Compactor
 - ii. Alternative methods must be approved by OCSW
2. All Paper (included magazines, newspaper, office paper, chipboard etc)
 - i. Dumpster or Carts (96 gallon)
 - ii. Single Family, select Townhouse and Duplexes may be provided curbside service.
 - iii. Alternative methods must be approved by OCSW
3. Bottles, Jars and Cans
 - i. Carts (96 gallon)
 - ii. Single Family, select Townhouse and Duplexes may be provided curbside service.
 - iii. Alternative methods must be approved by OCSW
4. Industry Specific Waste
 - i. Food/Grease
 - ii. Industry Specific Byproducts

III. Access to Waste & Recycling Area

Access to all collection sites must be via a public roadway or private driveway constructed of heavy duty concrete.

- i. Private Roadway note: in cases on private gated communities with roadways designed below Public Road standards: Bulk Collection may be required in lieu of curbside collection.
- ii. MF/Commercial/Institutional sites: Access must be via heavy duty pavement and a waiver of damage must be placed on the approved plans: *"Orange County will not be responsible for any pavement damage that may result from service vehicles."*
- iii. Parking adjacent to the area should be limited to avoid blocking service areas.

- iv. Vehicle requirements: design must consider the County and its contractors' vehicle turn radii, height and width to allow access without unnecessary backing or maneuvering.
 1. Vehicle Length: average 33'
 2. Vehicle height: 24' (when fully extended)
 3. Inside turn radius: 32.5'
 4. Outside tire radius: 42.6'
 5. Overhang radius: 44.6'

IV. Bulk Collection

In multifamily, commercial and office/institutional uses; bulk collection of both trash and recyclables is required and shall meet or exceed the following design standards:

1. Dumpster Pad Design (See Detail on Following Pages):

Dumpster pads should be constructed of concrete with a minimum compressive strength of 3500 psi (5000 psi recommended). For a typical single dumpster the pad should be 12'¹ wide and 20' deep (see diagram 1). For two dumpsters the pad additional width or depth may be required (see Recycling Cart Layout options below). The pad apron should be a minimum of 8 inches thick. Two concrete filled 6" I.D. steel pipe bollards should be installed 4' apart and 1' from the rear edge of the pad behind each dumpster to protect the adjacent screening materials. These bollards should be set in concrete footings a minimum of 2' in depth.

2. Screening (See Detail on Following Pages):

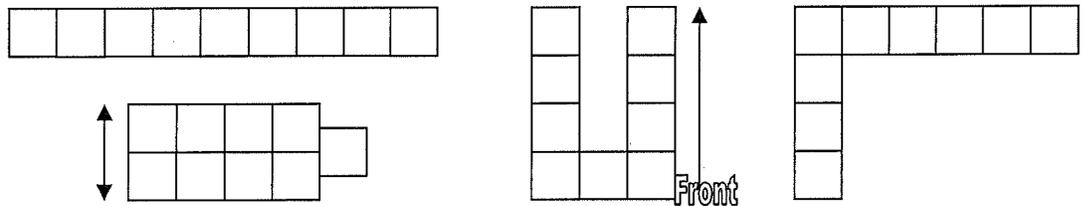
- i. Applicant should consult with local planning departments for screening requirements; however, the following shall be minimum requirements:
 1. All waste collection areas should be screened from view by landscaping or via a constructed opaque fence constructed of wood, concrete, cinderblock or brick.
 2. Screen shall extend 1 foot above the top of the tallest dumpster or cart. If carts are included with dumpster, minimum height is 7'. For enclosures containing only carts, the minimum height is 4'.
 3. Screening may be waived by OCSW if facility is located in such a manner to effectively screen the area from all public streets and adjacent property and reduce illegal dumping.

3. Recycling Cart Configurations (See Below):

- i. There should be a minimum of 9 roll-carts per recycling site (1 each for Green Glass, Brown Glass, Clear Glass, Aluminum/Steel Cans, Plastic Bottles (PETE #1), Plastic Bottles (HDPE #2), Newspapers/magazines, and 2 for overflow).
- ii. Carts may be arranged in any manner so front of each cart is accessible for deposit of materials and each cart may be removed individually for collection.
- iii. Carts may be placed inside dumpster enclosure, on back or side of enclosure, or may be in own enclosure.
- iv. If carts are collocated behind dumpsters, allow additional space to allow the cart to pass between the dumpster, bollards and side of enclosure. It is recommended that a 4' isle be provided.
- v. Width = 3' per cart, allowing for spacing between carts

¹ 12' clearance must include any gate retainers.

- vi. Depth = 4' (w/ handles)
- vii. Height = 4'
- viii. Access isle: clearance around the carts should be at least 3' to allow for users to access the site and staff to service the carts.
- ix. Access to the carts may be through a separate entrance or by walking around the dumpsters.
- x. Adequate lighting should be provided to reduce shadows and dark areas in and around the collection site for safety purposes
- xi. Hygiene: It is suggested that water be provided near the site to allow building or complex staff to clean carts periodically to reduce any odor or vectors.
- xii. Cart Placement Examples Below (3' x 4' carts in configurations of 9):



4. Collection Program Eligibility:

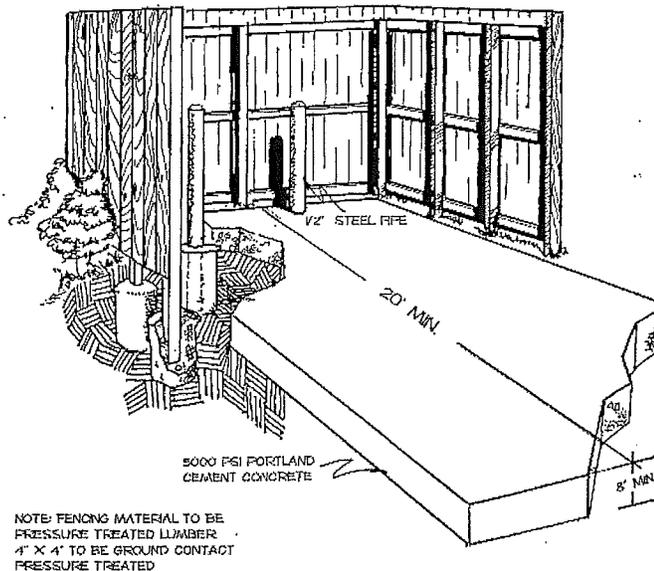
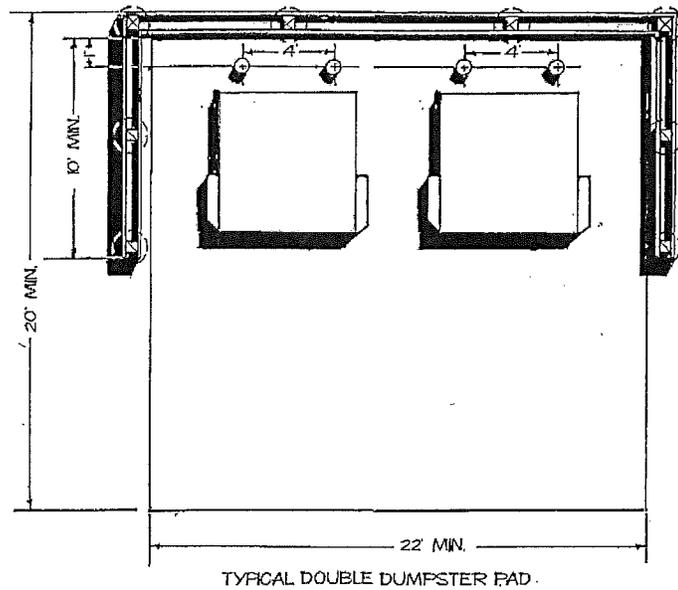
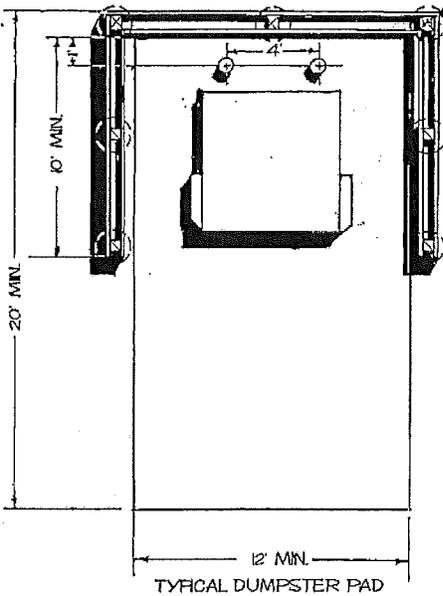
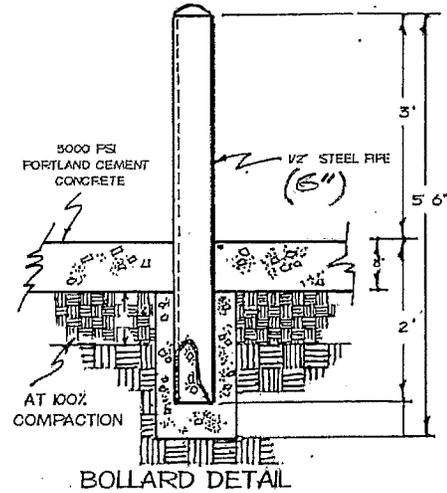
Orange County Solid Waste Management may provide curbside collections to all single family residences within predetermined service areas outside of incorporated municipalities and to all single family dwelling accessed by public streets within incorporated municipalities. Garden style town homes (in groups of no more than 6) and duplexes **may** also receive curbside collection if they are located along public right of ways and if it would be mutually beneficial to the County and developer.

Multifamily complexes may receive services under the OCSW Multifamily recycling program. Recycling site must conform to the standards above and be approved by the Recycling Program Manager prior to establishment of service.

Commercial, Industrial and Office/Institutional recycling may be available from OCSW. Any new site must meet the standards above and be pre-approved by the Director of OCSW.

Dumpster Pad Design

Dumpster pads should be constructed of concrete with a minimum compressive strength of 3500 psi (5000 psi recommended). For a typical single dumpster the pad should be 12' wide and 20' deep (see diagram 1). For two dumpsters the pad should be 22' wide and 20' deep (see diagram 2). The pad apron should be a minimum of 8 inches thick. Two concrete filled 6" I.D. steel pipe bollards should be installed 4' apart and 1' from the rear edge of the pad behind each dumpster to protect the adjacent screening materials. These bollards should be set in concrete footings a minimum of 2' in depth.

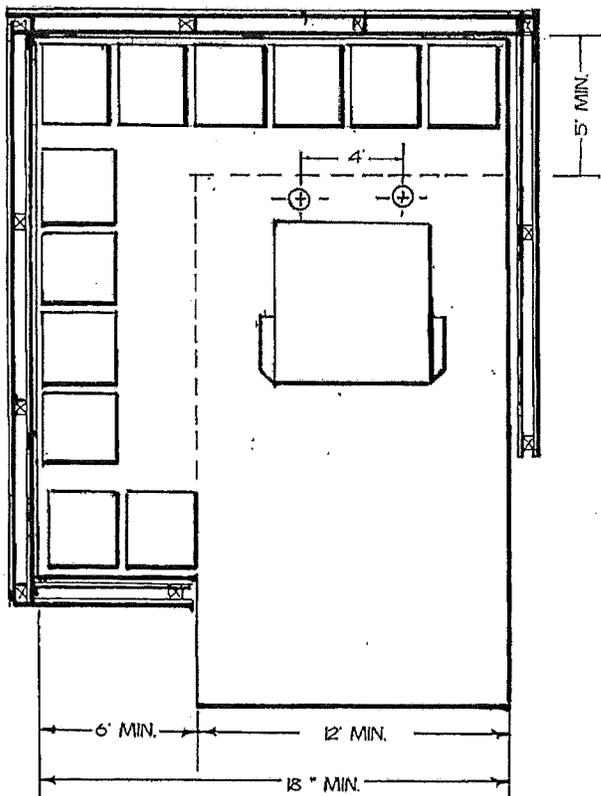
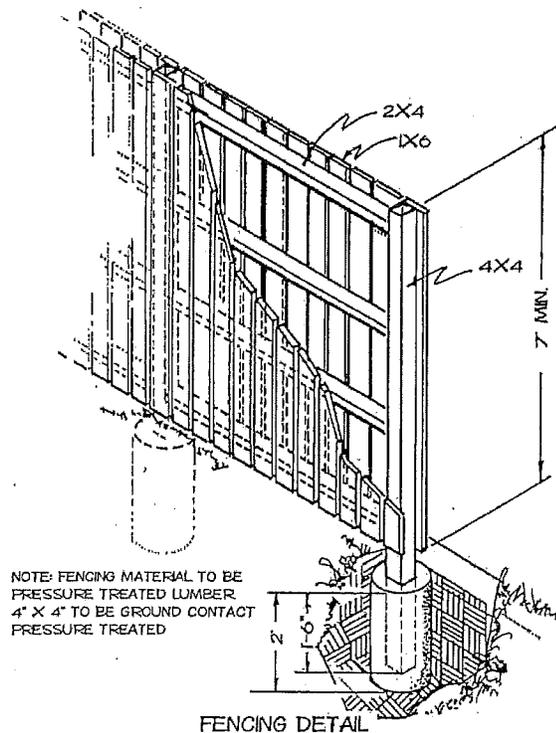


Dumpster Pad Screening

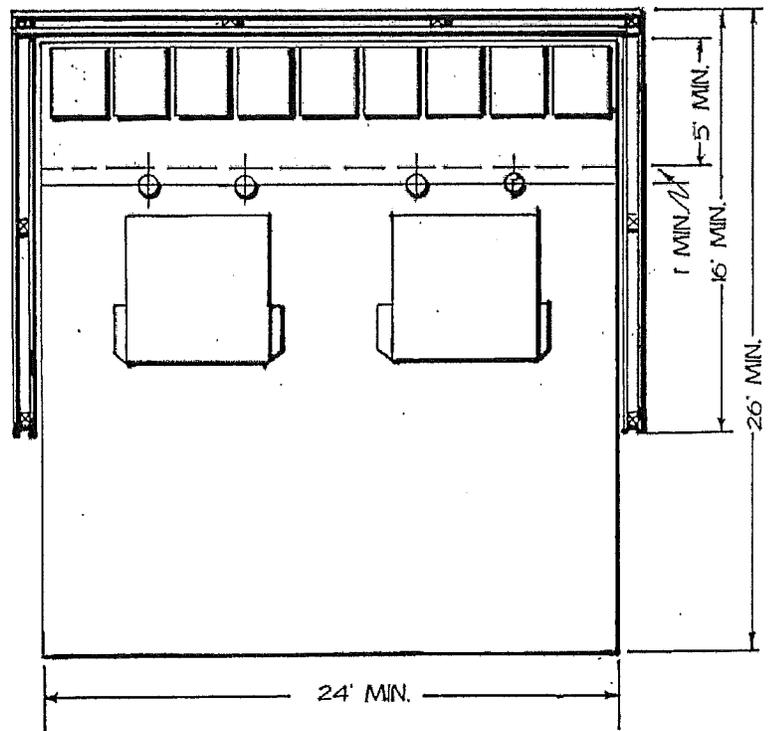
All dumpsters are required to be screened on three sides. Typically this includes screening the full width of the rear of the pad and 10' along either side. If gates are proposed to screen the front of the dumpster (s) they should be installed with retainers to keep the gates in the open position during servicing and the use of this hardware should be noted on the development plans. All gates should be dimensioned to provide a minimum clear width of 12' to service each dumpster.

Screening can consist of stone, block, brick, wood or a combination of these materials. The screen should be designed and landscaped so that it is consistent with the Town's Landscaping Standards. The screen should be a minimum of 7' in height and should be located directly adjacent to the

dumpster pad. In some cases, the use of plantings alone to screen the dumpster may be acceptable if they are planted at a size that will permit them to reach the required minimum height within one growing season. The most common type of screening used is a wooden privacy fence.



TYPICAL SINGLE WITH ROLL CART



TYPICAL DOUBLE WITH ROLLOUT CARTS

* Note: Pad width is 2' wider than standard double dumpster pad to allow rollcart access.