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## SOLID WASTE AND RECYCLING CONTAINER ENCLOSURES

### Municipal Code Chapter 8-08 and LDC Section 6.03.130

### STANDARDS AND GUIDELINES

**Standards** (in bold) are explicit requirements identified with City code references in parentheses. Chapter 8-08 of the Municipal Code requires enclosures. Enclosure standards are contained in Section 6.03.130 of the Livermore Development Code.

**Guidelines** (*in italics*), although not explicit requirements, will be required where they further the intent of avoiding public nuisances associated with improper control of trash storage, which is the policy intent of Livermore Municipal Code 8-08-010-A, and implementing state waste management requirements (8.08.010-B, 8.08.700).

#### General Notes:

- Recycling is required of all residences and businesses (8-08-040-B, 8.08.020). The purpose of requiring enclosures includes implementing state recycling requirements (6.03.130).
- Enclosures are required to consolidate solid waste, recycling, and composting activities to ensure the public health safety and welfare (8.08.700.E). Bins must be stored within enclosures (8.08.040.E.3).
- Additional capacity for enclosures over specified minimums may be required depending on size and type of uses, as determined by the Community Development Director (6.03.130). Storage of waste piled above the top of the waste container is not permitted (8-08-040-D).
- See separate information for dimensions of trash bins, trucks, and compactors. **Note: Bins over four cubic yards have no wheels.** Information is subject to change – check with franchise hauler for current sizes.

#### Exemptions to exterior enclosure requirements:

- Residential uses of 3 units or less per parcel with curbside cart collection service. See Section 7 (curbside cart service) below.
- Waste containers stored in a building. Business recycling bins in a building in facilities equivalent to those required for exterior enclosures, with prior written signed agreement between business and authorized collection company. Interior space and access must be adequate and meet fire protection requirements. Durable and cleanable surfaces and walls, and floor drain may be required. Check with City staff, franchise hauler, and County Health (if applicable) in early stages of design.
- Enclosures approved prior to July 27, 1994 may be exempt subject to meeting specific criteria in section 6.03.130.
- Retail or wholesale certified recyclers or processors.

**REQUIREMENTS AND GUIDELINES CHECKLIST**  
**WITH SPECIFICATIONS**

Requirements and <i>Guidelines</i>	Shown on plans?
<b>1. Development Standards</b> <b>(See other sections below for additional requirements.)</b>	
<b>Enclosures must be adequate in capacity, number and distribution to serve present and future occupants of premises (i.e., to serve any permitted uses).</b> <ul style="list-style-type: none"> <li>• <i>Show bin outlines in enclosures on plans. Design space inside as follows:</i> <ul style="list-style-type: none"> <li>• <i>One foot from bin to front gates and inside walls</i></li> <li>• <i>Two and a half feet between bins</i></li> </ul> </li> <li>• <i>Err on the side of larger enclosures. Under-sizing enclosures to “save” parking spaces typically results in bins “parked” in parking stalls, causing blight and reducing available parking stalls anyway.</i></li> </ul>	
<i>Enclosed on four sides, one of which is a solid door.</i> <ul style="list-style-type: none"> <li>• <i>Design extra space for food cooking businesses’ tallow (grease) bins which typically range in size from 2 to 4 square feet.</i></li> <li>• <i>A building wall may be used as one side, subject to all building codes and collection access.</i></li> <li>• <i>State regulations under consideration, but not yet adopted, may require separate containers for “wet waste” (e.g., discarded food waste). Consider creating additional space to anticipate these future requirements for locations where food uses are permitted.</i></li> </ul>	
<b>Six inch protective curb inside.</b>	
<b>Doors hinged on the outside with cane bolts to hold doors open.</b> <ul style="list-style-type: none"> <li>• <i>Design a nine-foot wide gate opening for most situations. Opened gates’ dimensions should allow adequate clearance (approximately 18 inches clear on either side of bins) for mechanized truck access or manual maneuvering of bins. Each bin has an approximately half-foot wide truck-fork slot on either side.</i></li> <li>• <i>Design a smaller number of larger gate openings, instead of more numerous small gates.</i></li> <li>• <i>Use “heavy duty” doors. Consider wheels to increase hinge durability.</i></li> </ul>	
<b>Concrete pad to be provided in front of enclosure, sized and oriented to allow collection trucks to rest on it, that is at least five inch aggregate base plus six inches of Portland cement.</b>	

Requirements and <i>Guidelines</i>	Shown on plans?
<ul style="list-style-type: none"> <li>Extend pad 10 feet in front of gates.</li> <li>Include concrete pad inside enclosure to prevent damage to ground surfaces from filled containers.</li> </ul>	
<p><b>Concrete pad in front of enclosure is level (minimal slope to still allow drainage).</b></p> <ul style="list-style-type: none"> <li>Design less than 2% slope. Slope pad down away from enclosure, in case bins need to be pushed out when full.</li> </ul>	
<p><b>If a water supply for washing is required per County Health Department requirements or otherwise, a sanitary sewer drain that discharges through an oil-water separator is also required.</b></p> <ul style="list-style-type: none"> <li>For new retail centers with food uses permitted, plan ahead with large wash areas and large capacity oil-water separators so additional future food tenants can be accommodated in the center.</li> <li>In retrofitting an existing enclosure with no sewer drain, confer with County Health Department to consider alternatives to outside washing (for example designing interior wash areas).</li> </ul>	
<p><i>Wall height is between five and ten feet and fully screens contents from public view.</i></p> <ul style="list-style-type: none"> <li>High waste generators (e.g., multi-tenant commercial or mixed use buildings, grocer, "big box" store, etc.) may use compactors, which must be fully screened.</li> </ul>	
<p><b>2. Location and Access</b></p>	
<p><b>Not located within a required parking or setback area.</b></p>	
<p><b>Location blends with building and site architecture.</b></p> <ul style="list-style-type: none"> <li>Locate enclosures to be inconspicuous.</li> <li>Locate and design enclosures to maximize users' convenience. Provide person doorways. Show access ways from users to enclosures on plans.</li> <li>Landscape to integrate the enclosure into the site's landscape design with screen and/or accent plantings.</li> <li>Locate enclosures so as to minimize collection noise impacts to residential uses.</li> <li>If security lighting is needed, design to a minimum one foot candle at ground level, integrate into the site design, shield, and locate as low to the ground as possible.</li> </ul>	
<p><b>Vertical clearance along collection truck access way to enclosures minimum 15 feet.</b></p>	
<p><b>Vertical clearance at enclosure for (collection truck) loading operations a minimum 22 feet.</b></p>	
<ul style="list-style-type: none"> <li>Provide this vertical clearance back from the gates for 37 feet (the approximate length of collection trucks).</li> </ul>	

Requirements and <i>Guidelines</i>	Shown on plans?
<p><b>Driveways and drive aisles leading to enclosures minimum 16 feet wide.</b></p> <p><b>Note: This provision supersedes smaller parking aisle widths allowed by the parking code.</b></p> <ul style="list-style-type: none"> <li>• <i>Commercial front-end loader collection truck turning radius is 62 feet.</i></li> <li>• <i>Face enclosure doors to an approach drive aisle.</i></li> <li>• <i>Provide a minimum 50 foot straight approach for access to stationary (no wheels) bins.</i></li> <li>• <i>Design enclosure so each bin can be removed and replaced without having to take out other bins, to avoid stacking and to maximize access.</i></li> <li>• <i>If wheeling (i.e., manually pushing) bins from enclosure to a truck collection area is anticipated, provide minimum ten foot wide concrete pathway with slope less than 2%.</i></li> </ul>	
<p><b>If no through route for trucks, provide a collection vehicle turn around.</b></p> <ul style="list-style-type: none"> <li>• <i>The turn around area should be a minimum 38 feet square in front of the enclosure, with a straight 16-foot wide 50 foot deep approach. Check with franchise hauler.</i></li> <li>• <i>If parking lot space is limited and bins with wheels will be used, consider enclosures on double loaded 90 degree parking aisles, with gates opening on opposite sides.</i></li> <li>• <i>If adjacent to a heavily traveled roadway, design for trash collection from a side street, alleyway, or parking area, to avoid collection trucks needing to maneuver in busy roadways.</i></li> </ul>	
<p><b>3. Multifamily Residential (four or more units and any residential using bins)</b></p> <p><b>(Standards in addition to those above.)</b></p>	
<p><b>Walls wood or masonry.</b></p>	
<p><b>Door a solid material.</b></p>	
<p><b>Design is compatible with the main structure's design.</b></p>	
<p><b>Minimum capacity: Must be able to hold one 4-cubic yard bin and two 96-gallon carts.</b></p> <ul style="list-style-type: none"> <li>• <i>A person should be able to access all bins and carts easily.</i></li> </ul>	
<p><b>Multifamily enclosures must be a maximum of 250 feet from the nearest point of each unit.</b></p>	
<ul style="list-style-type: none"> <li>• <i>Measure 250 feet as the pedestrian path of travel.</i></li> <li>• <i>Locate enclosures at least 15 feet from front entrances.</i></li> <li>• <i>Waste or recycling areas, or chutes designed on upper floors of multistory developments must be fire-proof, cleanable, and secure.</i></li> </ul>	

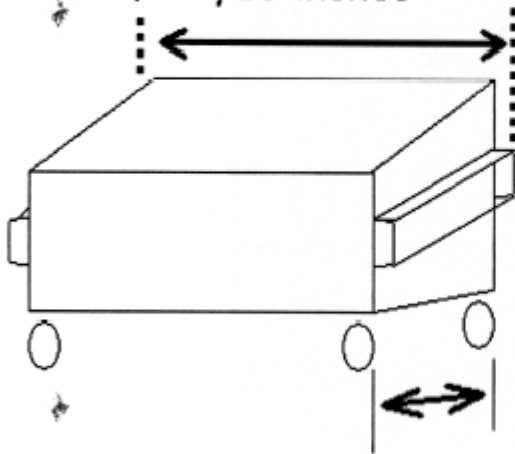
Requirements and <i>Guidelines</i>	Shown on plans?
<p><b>4. Commercial and Industrial Uses</b></p> <p>(Standards in addition to those above.)</p>	
<p><b>Masonry walls.</b></p>	
<p><b>Exterior finish matches main structure.</b></p>	
<p><b>Door solid steel.</b></p>	
<p><b>Minimum capacity: Two 7-yard bins and three 96-gallon carts.</b></p> <ul style="list-style-type: none"> <li>• <i>A person should be able to access all bins and carts easily.</i></li> </ul>	
<p><b>Minimum interior dimension ten by eighteen feet.</b></p> <ul style="list-style-type: none"> <li>• <i>Measure these dimensions between inside curbs.</i></li> </ul>	
<p><b>Four inch bollards each side of all gates.</b></p> <ul style="list-style-type: none"> <li>• <i>Gates should open a minimum of 120 degrees.</i></li> </ul>	
<p><b>5. Compactors</b></p>	
<p><b>Located with a sanitary sewer drain.</b></p> <ul style="list-style-type: none"> <li>• <i>Provide a dedicated enclosure to accommodate the mass, bulk, and collection access needs of trash compactors. Such enclosure is in addition to any other enclosures required for storing recycling and other containers. The enclosure must be masonry material with solid metal doors.</i></li> </ul>	
<p><b>Area around compactor slopes away from the sanitary sewer drain, or is otherwise roofed.</b></p> <ul style="list-style-type: none"> <li>• <i>Typically, the sewer drain is under the compactor. Slope downward toward drain from a perimeter that is two to three feet outside the compactor's footprint. Slope downward out from this perimeter.</i></li> </ul>	
<p><b>6. Roofs</b></p>	
<p><b>Ten foot vertical clearance from ground to underside of roofs.</b></p> <ul style="list-style-type: none"> <li>• <i>Roofs are required as a Best Management Practice to comply with Livermore Municipal Code 13-45-110.</i></li> <li>• <i>A fire sprinkler system may be required. Check with staff.</i></li> <li>• <i>Design roofs in highly visible locations to complement the project buildings' roof style and colors.</i></li> <li>• <i>Provide roofs for cart storage areas visible from any upper story in a residential or mixed use project on or off-site.</i></li> </ul>	

Requirements and <i>Guidelines</i>	Shown on plans?
<p><b>7. Curbside Cart Service</b>                      (Note: Available to residential uses of three units or less per parcel.)</p>	
<p><b>Cart storage screened from public views.</b></p> <ul style="list-style-type: none"> <li>• <i>Allow approximately 15 linear feet of space per dwelling. This allows trash (2 feet wide), recycling (2 feet), and yard waste (3 feet) carts with three feet in between and space on either side (sizes approximate). Design this space adjacent to street curbs, not within shared driveways.</i></li> <li>• <i>Provide roofs for cart storage areas visible from any upper story in a residential or mixed use project on or off-site.</i></li> </ul>	
<p><b>Note:</b> Curbside collection service may be considered on a case by case basis for small businesses (i.e., under approximately 2,000 square feet), that are located adjacent to streets on which curbside collection service can be approved by the City and franchise hauler. Enclosure requirements and curbside collection guidelines noted above would still apply.</p>	
<p><b>8. Dangerous Waste</b></p>	
<p><b>Infectious waste (regulated by Alameda County Health Department) will not be placed with regular solid waste (i.e., separate containers and possible separate enclosure may be needed). (8-08-080-A)</b></p>	
<p><b>Hazardous, flammable, radioactive waste to be removed by properly licensed processing company, possibly with separate containers and enclosures. (8-08-080-B)</b></p>	
<p><b>Animal waste to be removed by separate collection service by a properly licensed collection company with possibly separate containers and enclosure (Note: Does not apply to household pets' waste.). (8-08-080-C)</b></p>	
<p><b>9. Outdoor Storage at Large Scale Operations</b></p>	
<p><b>Where the scale of operations results in very large size compactors and/or large quantities of recyclable materials: Compactors and recyclable materials can be considered outdoor storage subject to being fully screened from publicly viewable areas per Section 6.03-140 of the Livermore Development Code.</b></p>	

### Bin sizes and dimensions

May 2003. Check with franchise hauler for current information

Width: 6 feet, 10 inches



Depth:

<u>Cubic yds.</u>	<u>Depth(ft.)</u>
2	3
3	4
4	5.5
6	6
8	6.7