

Construction Guidelines for Recycling and Waste Management

Introduction

The City of Fort Collins' municipal government strives to meet high standards for recycling and waste management in its own operations. All new buildings constructed by the City are required to include recycling storage and collection infrastructure in accordance with *LEED-NC MR: 1 - Standards for Materials and Resources*, to help ensure that full-range waste reduction and landfill diversion opportunities are available to City employees.

Contractors who are engaged by the City to construct buildings are also required to pursue LEED Innovation points for recycling. Contractors are urged to contact staff in the City's Natural Resources Department (970.221-6600) for more information about local recycling programs and how to optimize waste reduction and diversion efforts.

Internal Recycling Program - General Design

In order to reach the City's solid waste reduction and recycling goals, each new building must be constructed to allow optimal capability for placing recycling collection containers in designated areas. Four levels of collection are generally applied to the City's internal recycling program.

1. each office, employee break room, and other employee work areas will have desk-side and suite-oriented collection bins, especially in the copy rooms (approximately 5-30-gallon capacity)
2. centralized collection areas will be located on each floor where suite/office bins are taken to be emptied; these areas will feature larger bins and "polycart" (wheeled) bins ranging from 30-95 gallon in size.
3. publicly accessible areas where the City is able to provide recycling for visitors will be designed to have lobby-style bins that are compatible with trash collection bins that are specified for the building.
4. loading docks and/or outdoor enclosures will be sited at the rear entry to each building, where transport trucks intersect the materials that have been collected within the building and haul them to recycling plants.

Fort Collins Code Requirements for Outdoor Enclosures

Guidelines for outdoor trash/recycling enclosures, which are adopted standards in Fort Collins' Land Use Code, are found at <http://www.fcgov.com/recycling/pdf/enclosure-guidelines0804.pdf>. The City, like any other applicant to the Development Review process who is constructing a commercial building, must provide sufficient area for outdoor storage/collection, with good vehicular access for transport trucks, to accommodate recycling as well as trash collection.

Resource Recovery at Construction Sites

Construction sites and construction activities for new City buildings must be planned to implement recycling and landfill diversion for typical construction materials, including but not limited to: dimensional lumber; aggregate lumber products; cement/bricks/mortar; cardboard; sheet rock; wiring; and, buckets and cans. The City has established a goal for diverting 85% of its construction and demolition (C&D) material from landfill disposal, which contractors must substantiate using data gathered from receipts from certifiable recycling facilities, landfill gate tickets, or other sources of verifiable information.

Indoor Space Design for Recycling Infrastructure

Quantification

The amount of infrastructure and capacity needed in buildings will depend on the type of occupants and activities for each building's intended use. (See example below.) A recreation facility, for instance, may be likely to provide emphasis on collecting beverage containers (bottles and cans) from the public visitors, while an office building will also be oriented to capturing a significant amount of paper commodities from employees. Since cardboard is such a ubiquitous material, for all types of buildings, sufficient area must be intentionally designed so that collapsed boxes/cartons can be readily stored and collected.

Collection Area Specifications

The size and configuration of collection containers that are permanently or semi-permanently installed in new buildings should have enough flexibility to accommodate any future changes that could be made to collection approaches (e.g., single-stream versus dual-stream systems).

It is critical to give specific consideration to providing designated areas for signage (with instructions on how to recycle materials, etc.) in the immediate vicinity of collection bins.

Consideration should be given to aesthetics of the recycling collection area, including but not limited to: using light-weight (portable and/or adjustable) screening that clearly designates the recycling area; planning for ease of transport of material to a main collection location that is accessible for vehicle loading and transport; and, providing consistency with other design elements of the interior-scape such as paint colors. When possible, consideration should be given to designing built-in cabinets or free-standing containers that are compatible with the overall building design.

Location of Recycling containers and Areas

The placement and storage of centralized containers should be designed to be easily and conveniently accessible to staff and to service providers, preferably with one on each floor of the building. Large collection/staging containers (30-gallon capacity and above) should be stored in areas that are not physically or visually obtrusive whenever possible, such as mailrooms, custodial areas, supply rooms, or other designated areas.

Building designers should avoid using employee lunch or break rooms for central collection areas.

Educational Elements

Building designers are encouraged to provide the City with innovative suggestions about how to integrate recycling containers into areas that will be used by employees and those areas that are accessible to the public, and to consider finding creative ways to educate building users about the importance of waste reduction and recycling.

DESIGN EXAMPLE: capacity for recycling estimated for a typical office building similar to the office building at 215 North Mason (71,500 square feet with approximately 200 employees).

1. Public areas (foyers, lobby areas) – four (4) 55-gallon capacity recycling bins that feature aesthetic compatibility with interior color and design schemes
2. Employee collection locations – ten (10) 32-gallon bins and (2) 55-gallon polycarts (i.e., break rooms, copy room) that are selected for functionality and consistency with collection bins used throughout the rest of the City’s internal recycling program
3. Central storage area – nine (9) 95-gallon polycarts that are conveniently located in at least 2-3 areas throughout the building, with functionality and ease of collection for service providers
4. Truck collection area – if a loading dock is not available, an enclosed outdoor collection area should be constructed (see Fort Collins land use code for specifications)