



Sustainable Building Sourcebook

Supplement to the Green Building Program

A Program of the City of Austin

January 2000

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First Edition

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We

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Second Edition

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Our Green Building Program members are the best! We thank them all for their support and enthusiasm. Special kudos go to Shellie Reott, Dennis Brown, and Jim Walker for their writing and editing assistance. Contributors from City of Austin staff include Dick Peterson, John Gleason, and Patrick Hartigan. Further rewrites and new contributions were made by the current Green Building Program Staff:

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COMMERCIAL RECYCLING

INTRODUCTION:

Recycling is a system of collecting, sorting, and processing solid waste and other discarded materials for use as raw materials in the manufacture of new products. As indicated by the three arrows on a recycling symbol, recycling is a three-step process that includes:

- Collecting and separating materials,
- Manufacturing and reprocessing, and
- Purchasing of recycled content products.

Austin area citizens generate enough trash to fill the Erwin Special Events Center every four months, and every day, American businesses generate enough paper to circle the earth 20 times. Recycling materials, instead of landfilling them, extends local landfill life, preserves natural resources, reduces pollution, and saves energy.

The Austin City Council passed the Commercial and Multi-family Recycling Ordinance on October 22, 1998 with an effective date of April 15, 1999. The ordinance is designed to enhance access to the benefits of recycling and waste reduction for Austin-area businesses and multi-family (apartment/condominium) residents.

From an economic standpoint, businesses and multi-family properties should be able to produce large enough volumes of recyclable materials to minimize or offset the additional cost of adding the recycling service. This additional cost is offset not only by the revenue received from recycled materials but also from the reduction in waste disposal costs as volumes are diverted from landfilling to recycling.

(CSI Number: 02870 Site and Street Furnishings, 11170 Solid Waste Handling Equipment)

AT-A-GLANCE NOTES:

TECHNOLOGY: Many options exist for storage and collection containers. A full range of sizes and materials are available from small desk side boxes to vehicle-emptied containers.

SUPPLIERS: There are local suppliers of recycling containers, including office supply stores and recycling service providers.

COST: Cost varies widely depending on the number and size of containers selected. Some recycling service providers include the cost of containers with the cost of hauling and collecting. Desk side containers are similar in price as wastebaskets (~\$5.00 each). Discounts for quantity purchases can be also obtained. Hauling and collection costs are negotiated depending on container size, frequency of pickup, material value, and anticipated volume.

FINANCING: Available.

PUBLIC ACCEPTANCE: Most citizens favor recycling and consider it a necessary, worthy task. Strong, continued participation in a recycling program results from an easy to use, convenient system. Initial training and ongoing education reinforce the program parameters.

COMMERCIAL RECYCLING

AT-A-GLANCE NOTES, continued

REGULATORY: City of Austin Ordinance 981022-P Chapter 12-3, Article VI, Commercial and Multi-Family Recycling requires that all multi-family communities with 100 or more units and businesses with 100 employees or more, or buildings with an aggregate of at least 100 employees that have a single garbage collection service, shall establish an on-site recycling program and recycle a minimum of two designated materials (See *Guidelines* below). All business owners must provide a Recycling Plan on the form provided by the City of Austin within 14 days of beginning operations.

CONSIDERATIONS:

A recycling program should be designed to be as easy and convenient for employees/tenants as possible. In order to make a recycling program effective, a thorough analysis of the waste stream (or potential waste stream) for the business or building needs to be undertaken. This study will involve estimating quantities and types of collected materials (See *Guidelines* below) and evaluating available markets for these materials. Locating a recycling service provider (see *Resources* below) and determining the disposal costs should also be part of the study. Soliciting bids from several service providers can help ensure that a competitive rate is secured.

The waste stream analysis will also include planning for the collection and storage of these materials – both inside and outside the building. Containers located outdoors must be covered to minimize the chance of pilfering, contamination, and being damaged by the weather. Covered containers also help maintain a neat appearance for the recycling area.

Once this initial analysis is complete, designers need to incorporate the plan into the overall design or renovation of the building as early as possible, including allocating space for collection containers and considering how the materials will be transported to the outside collection area. Designers should con-

sider where the materials will be generated in order to locate convenient central collection containers. Spaces such as copy centers, breakrooms, receiving and shipping areas, and loading docks should be given special attention when planning for collection and storage.

Desktop or deskside bins are normally placed at employees' desks for the collection of office paper. Collection containers for other recyclables such as newspaper, corrugated cardboard, magazines, office paper, etc., should be placed in a central location. Bins for glass, tin, aluminum, and plastic food and beverage containers should be located in the employee breakrooms and kitchen areas. Bins are usually emptied into larger, central collection containers, either by employees or maintenance staff. Indoor common-area collection/storage areas should be designed in accordance with appropriate City of Austin fire and/or safety codes. Interior storage and collection containers of various sizes (including 13 quart desk side boxes, 32 gallon central collection containers, and 96 gallon wheeled collection carts) are available. Containers can be made of cardboard, plastic, or metal. When selecting containers, look for recycled content products. Commercial cabinetry is available with recycling centers or custom cabinetry can be designed to accommodate recyclables. Exterior recyclables stor-

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CONSIDERATIONS, continued

age areas should be designed in accordance with City of Austin requirements for solid waste enclosures.

Central collection containers (usually located outdoors or on the loading dock) are often made of metal or plastic and must have tight fitting lids. Manually emptied containers include 30 – 100 gallon wheeled collection carts. Vehicle-emptied containers, such as dumpsters, range in size from 3 to 12 cubic yards and require a concrete pad and vehicle access. Overhead clearances for tipping and truck turning radiuses may also have to be considered. In addition, for areas with high volume collection, mechanical compactors and balers require electricity and operator

training.

The next steps involve planning for employee education and promotion of the recycling program. Finding the right person to be the facility's recycling coordinator is a key element to the program's success. Early involvement of employees/tenants is also a key component. Consider inviting employees/tenants to an information meeting or asking them to serve on the recycling committee. A continuing education program is essential to convey information on how the program works – this could be part of new employee/tenant orientation. In order to close the recycling loop, implement plans for purchasing products made from recycled content materials.

GUIDELINES:

The City of Austin Recycling Ordinance requires that business owners provide on-site recycling opportunities to their employees in much the same way that the City of Austin has provided this opportunity to single-family homes through curbside recycling. As is the case with the City of Austin's curbside program, the participation of each employee/tenant is voluntary.

The business shall recycle a minimum of two materials listed below or other non-listed materials that are approved by the Director of Solid Waste Services:

- Aluminum cans
- Tin/Steel cans
- Glass bottles
- Plastic containers
- Newspaper
- Corrugated cardboard
- Mixed office paper

The City of Austin reserves the authority to

add or delete other materials to the above list.

All businesses required to provide recycling services must file a quarterly volume report on the amount of recyclable material collected on January 1, April 1, July 1, and October 1 of each year. In addition, businesses subject to this ordinance are responsible for notifying and continually educating their employees on recycling issues and practices through a formal and ongoing education campaign.

The City of Austin also offers businesses free technical assistance through its Commercial Waste Reduction Assistance Program (WRAP). City staff persons are available to visit your workplace, assess your waste streams, and help you develop a recycling program tailored specifically to your company. You can also receive assistance over the telephone at any step along the way—

COMMERCIAL RECYCLING

GUIDELINES, continued

from writing your recycling plan to implementing your program.

In addition to assisting with recycling programs, the Commercial Waste Reduction As-

sistance Program also provides hazardous waste disposal services for Conditionally-Exempt Small Quantity Generators (CESQG) (i.e., businesses generating less than 220 pounds of hazardous waste in a

RESOURCES:

PROFESSIONAL ASSISTANCE:

Austin Corporate Recycling Council (ACRC)
PO Box 753
Austin, TX 78767
(512) 867-3687
A non-profit public partnership of members promoting recycling and waste reduction efforts in the Austin area. ACRC holds monthly meetings that can include a program, field trip, or special event.

COMPONENTS/MATERIALS/SYSTEMS:

Balcones Recycling
2416 E. 6th St.
Austin, TX 78702
(512) 472-6200, www.if-it-tears.com

BFI
3424 S. FM 973
Del Valle, TX 78617
(512) 247-5647

Greater Austin Security Shredding, Inc.
P.O. Box 160554
Austin, TX 78716
(512) 328-4429

Longhorn Community Disposal
(Waste Management)
9708 Giles Road
Austin, TX 78754
(512) 272-4341

Recycling Services Inc.
P.O. Box 1264
Georgetown, TX 78727
(512) 250-0360

Tri-Recycling
P.O. Box 26499
Austin, TX 78755
(512) 329-0172

Recycling Drop Off Centers:
Balcones Recycling
2416 E. 6th St.
Austin, TX 78702
(512) 472-6200, www.if-it-tears.com

Ecology Action of Texas
707 E. 9th St.
Austin, TX 78701
(512) 322-0000, www.ecology-action.org

COMMERCIAL RECYCLING

RESOURCES, continued

Austin, TX 78702
(512) 385-7600

BFI Recyclery
4712 Bolm Road

GENERAL ASSISTANCE:

City of Austin Solid Waste Services
Commercial Waste Reduction Assistance
Program (WRAP)
Bob Fernandez
P.O. Box 1088
Austin, Texas 78767
(512) 499-2737, www.ci.austin.tx.us/sws/commercial.htm
ordinance details, planning and reporting forms,
and more information can be found at:
www.ci.austin.tx.us/sws/recyclerules.htm