

*Recycling plans are due
back to the City by January 1,
1993. See tear-out centerfold
for instructions.*

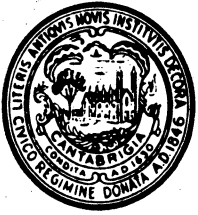
CAMBRIDGE COMMERCIAL RECYCLING GUIDE



**Cambridge Recycling Program
Department of Public Works
147 Hampshire Street
Cambridge, MA 02139**

349-4800

July 1992



CITY OF CAMBRIDGE

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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
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July, 1992

Dear Cambridge Business Owner/ Non-Profit Director:

In March of 1991, the City of Cambridge took a major step to protect the environment and to comply with bans on recyclable materials from Massachusetts landfills and incinerators. We passed the Mandatory Recycling Ordinance, Section 8.24.070 of the Municipal Code, which requires occupants of all residential and commercial buildings in Cambridge to implement recycling programs. By doing so, we joined a world-wide community of people who are working to preserve our irreplaceable environment, now, and for the future.

Cambridge citizens are doing their part in a successful curbside recycling program that is saving over 15% of residential trash from being thrown away. Now businesses and non-profit institutions have the opportunity to join this effort by developing their own recycling programs. Since the amount of trash generated by businesses and non-profits equals that generated by residents, recycling efforts by the private sector can reduce the trash stream significantly.

Many Cambridge businesses have already developed and implemented recycling programs. We applaud and encourage these efforts. Others may only need some guidance to get started. A recycling program can be an efficient and cost-effective process; it is environmentally responsible and it will bring your company into compliance with the State's landfill and incinerator bans on recyclable materials.

The City is pleased to provide you with the "Cambridge Commercial Recycling Guide", which was developed with a great deal of assistance from members of the business community and local recycling professionals. We stand ready to aid you in your recycling efforts with technical assistance and instructional workshops. In addition, we urge you to contact the businesses listed in this guide that have been recognized by the City for their exemplary recycling programs. They can share valuable lessons about how they made recycling a success. We look forward to having you on the recycling team.

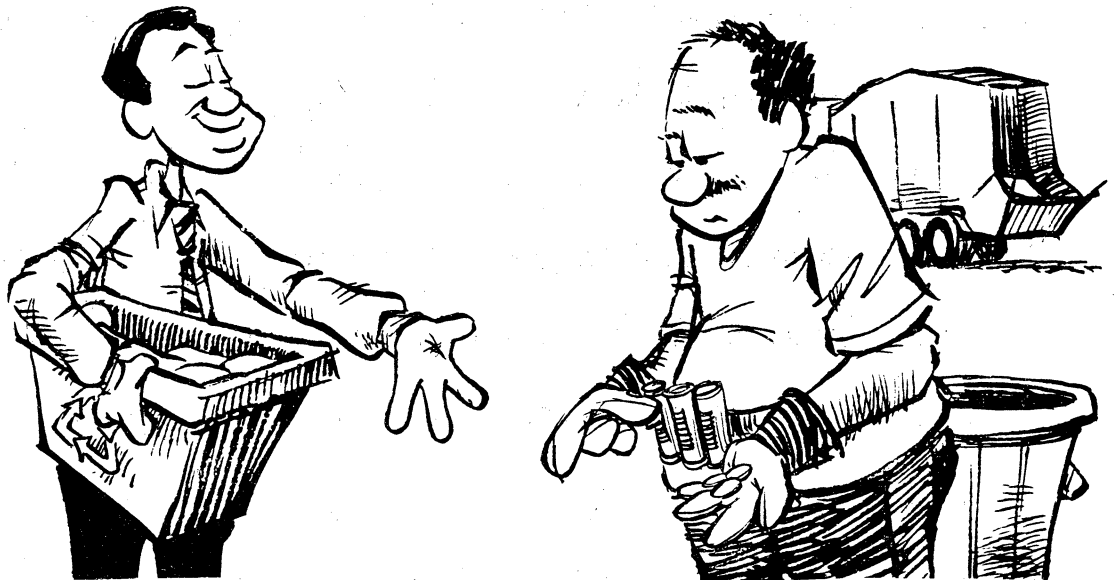
Sincerely,

Robert W. Healy
City Manager

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Watch sidebar boxes in margins for waste reduction tips throughout the Guide. Waste reduction is the best way to save resources and reduce trash and pollution generated in manufacturing materials.



***Recycling won't earn you revenue,
but it can cut trash disposal fees.***

Introduction

On March 18, 1991, the Cambridge City Council approved Section 8.24.070 of the Municipal Code, requiring businesses, institutions, and residents located in Cambridge to recycle their solid waste "to the fullest extent possible." To help carry out this mandate, the Cambridge Department of Public Works has set up a Technical Assistance Program. A series of commercial Recycling Workshops to help businesses and institutions get started with recycling will run this fall (see the back cover). This manual is another part of that program, and was produced with the help of Cambridge residents, business owners, and business employees. The Guide has four sections:

- Section 1:** The Recycling Ordinance: This section covers the basics of the recycling ordinance and its accompanying regulations, who is affected, what materials must be recycled, when the regulations become effective, and what the penalties are for non-compliance.
- Section 2:** Establishing a Recycling Program: This section offers step-by-step advice on establishing a recycling program in your business or institution. Information includes how to do a waste audit, what questions to ask a recycling company or waste hauler, how to let employees know about the new program, and how to monitor compliance.
- Section 3:** How to Fill Out a Recycling Plan: **THIS SECTION CONTAINS INFORMATION NECESSARY FOR COMPLIANCE WITH THE CAMBRIDGE MANDATORY RECYCLING ORDINANCE.** The Recycling Ordinance requires each business or institution to submit a Recycling Plan to the Department of Public Works identifying how it will comply with the Recycling Ordinance and regulations. A planning form is enclosed, along with complete instructions on what information should be included.
- Section 4:** Resource List: This section lists information on recyclers and waste haulers in the area, including what materials they collect.
- Appendices:** These resources are useful in planning, implementing, and sustaining a commercial recycling program.

For more information about the Technical Assistance Program, please contact Gerald Boyle, Commercial Recycling Assistant at 349-4836.

Section 1: The Recycling Ordinance

Background

The City of Cambridge has long been recognized as a leader when it comes to environmental protection. The Recycling Ordinance passed by the City Council in March, 1991 continues this tradition by extending mandatory recycling to include businesses and non-profit institutions, the source of more than 50% of all waste generated in the city.

The business mandate is in step with new regulations the Commonwealth of Massachusetts has implemented banning certain recyclable materials from landfills (as well as incinerators and transfer stations). The landfill bans take effect as follows:

- all leaf waste is banned from landfills as of **January 1, 1992**;
- all other yard waste, recyclable aluminum, and containers made from metal or glass are banned from landfills as of **January 1, 1993**;
- all grades of recyclable paper and single polymer plastics are banned from landfills as of **January 1, 1995**.

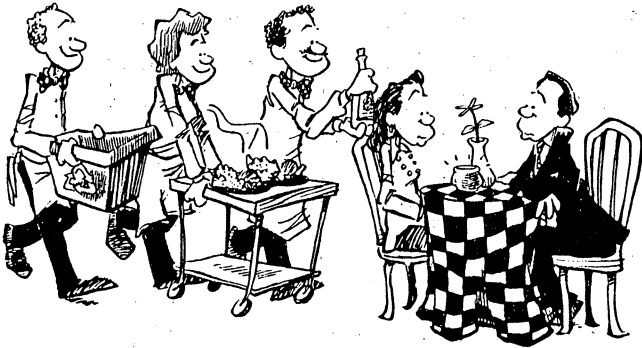
The recycling ordinance makes sense for many reasons:

•**Cambridge residents strongly support recycling.** They want to see their business neighbors do their share as well. For more than two years, local residents voluntarily staffed two drop-off recycling sites on a monthly basis, collecting more than 1000 tons of materials that otherwise would have been buried in a landfill. This enthusiasm is now displayed citywide, thanks to the curbside recycling program. In the first year of the program, Cambridge residents recycled over 15% of the residential waste stream. City government is doing its part, too. Twenty-five tons of office paper were recycled from City buildings in 1991.

•**It doesn't make sense to landfill materials that can be recycled into new products.** Creating new products out of recycled materials takes less energy and conserves increasingly scarce natural resources. For instance:

* Every ton of paper that is recycled saves 3.3 cubic yards of landfill space (a volume equivalent to five refrigerators) and 4100 kilowatt hours of energy (enough to power a television set for 31 hours). Producing recycled paper creates 74% less air pollution and 35% less water pollution than producing paper from virgin fibers.

Keep memos
and letters to
one page.
This saves
paper, cuts
the reader's
time, reduces
filing storage
space, and
promotes
better writing!



Cambridge residents want businesses to make recycling a routine part of their operations.

* Recycling aluminum saves 95% of the energy required to manufacture the metal from ore, and produces 95% less air pollution and 97% less water pollution.

* Recycling is sound inventory management. Recycling and related practices of re-use and waste reduction (see notes in margin sidebars) are ways of extracting full value from a given commodity. Making the most efficient use of resources not only helps the environment, it also helps cut costs.

• **Recycling makes good business sense.** Although you probably won't make money by recycling, it is possible that you can save money. Here's how: Depending on the amount of recyclable materials you generate, you will probably have to pay a recycler or waste hauler a small fee to pick up or to drop off your recyclables. But once you start recycling, your trash disposal costs may go down. You'll probably need smaller dumpsters to hold the rest of your trash or require less frequent pickup. This can translate into smaller waste disposal charges. In coming years, disposal fees should grow even higher, making recycling an even better deal. [See Worksheets on pages 22 and 23 for more information on calculating the costs/ savings from recycling.]

Many Cambridge businesses already have successful recycling programs in place. A number of these were recognized recently by the Cambridge Advisory Committee on Environmentally Desirable Practices. They are listed in Appendix F, including names and phone numbers of contact persons who can provide you with information on how they approached and overcame the obstacles to recycling. If you know of an outstanding program not on the list, please see the nomination procedure for the 1993 awards on the inside back cover.

Re-use boxes; collapse flat for storage and tape upright for re-use.

Encourage employees to use ceramic or reusable plastic coffee mugs instead of single-use paper or styrofoam cups.

What the Ordinance Requires

The mandatory recycling ordinance as it applies to businesses and non-profit institutions in Cambridge is Section 8.24.070 in the Municipal Code. The entire text is available from the Cambridge Recycling Program at 349-4836. The Mandatory Recycling Ordinance allows the Commissioner of Public Works to write regulations pursuant to the ordinance to give further guidance to businesses. These regulations are included in Appendix E.

Most taverns won't have to recycle office paper and most offices won't have to recycle cans.

- ***In brief, all businesses and institutions occupying property in Cambridge must first prepare a Recycling Plan, to be sent to the Public Works Commissioner by January 1, 1993.*** If you are a tenant, you and your landlord must both file plans as businesses operating in the City of Cambridge whether or not your landlord handles your trash disposal. Failure to file a plan will put your firm in violation of the ordinance and make you liable for a \$25 fine for each day you are not in compliance.
- After you receive notification that the Department of Public Works has approved your plan, you have four months (120 days) to begin recycling the designated materials.
- It is the intention of the Public Works Department that an establishment is only responsible for recycling materials it generates in significant quantities. **If a given commodity represents less than 5% by weight of your company's total trash stream, you are not mandated to develop a recycling plan for that commodity.** For instance, if your company occupies several offices but has no cafeteria, you are not obligated to hire a contractor to pick up the two or three cases of soft drink cans your employees may generate in a month. You would be expected to recycle the ten boxes of white copier paper you use, however. The opposite would be true if your business is a restaurant; beverage containers would represent a much larger fraction of your trash than white paper, and your Recycling Plan would have to provide a collection system for your cans and bottles but not necessarily for your white paper.
- Landlords offering gross lease arrangements are required to provide central storage containers and recycling service for any designated recyclable commodity generated in quantities of 5% or more by weight of the trash of any one tenant.
- The Public Works Department still encourages you to recycle the smaller quantities by making arrangements to drop off these materials when feasible. See Section 4 for a listing of recycling drop-off centers in the Cambridge area which can accommodate your materials. Many charity groups will pick up redeemable cans and bottles.

- Businesses should exclude demolition debris from their waste audits. Businesses are encouraged, but not required, to recycle or have contractors recycle this material. Some organizations require the recycling of waste materials from construction or demolition jobs in bidding specifications.
- Save receipts or tare sheets from pick-up or delivery of recyclable materials. Copies will be needed for completion of the Annual Update form, due by March 1, 1993 and every March 1 thereafter.

Special note regarding bottles and cans

It is important for larger generators of glass and metal to establish recycling arrangements prior to January 1, 1993. State regulations ban from that day forward the disposal of detectable quantities of these materials within Massachusetts. No landfill, incinerator, or waste transfer station may accept detectable quantities of them for disposal thereafter.

DESIGNATED MANDATORY RECYCLABLES

- Aluminum** cans, foils, trays, or other food packaging;
 - Corrugated cardboard** brown multi-layer containers with fluted middle layer;
 - Glass** food and beverage bottles and jars only (excludes plate glass, laboratory glass, dishware, and light bulbs);
 - Leaves and yard waste** including grass clippings, twigs, and branches;
 - Magazines** including other glossy papers;
 - Newspaper**;
 - Office paper** stationery, copier paper, and computer print-out;
 - Plastic beverage, food, and detergent bottles** labeled with #1, PETE or #2 HDPE (does not include plastic lab or chemical containers);
 - Scrap metal** ;
 - Steel cans** including "tin" cans (except for aerosol, paint or petroleum-based solvent cans);
 - Storage batteries** (lead-acid type for vehicles);
 - Waste oil** ;
 - White goods** (large metal appliances);
 - Wood waste** including pallets, logs, scrap lumber, stumps, and other wood not defined under yard waste; excludes demolition debris, creosoted or pressure-treated wood.
- Note:** More complete definitions may be found in Appendix E.

Save foam packing peanuts for re-use.

Limit use of "stick-em" notes, which are usually colored and hard to recycle.

SECTION 2: Establishing a Recycling Program in Your Organization

Establishing a recycling program in your company is not difficult, but it does take some time. Careful preliminary planning can prevent mistakes or problems that might affect the success of your program. Listed below are nine key steps to keep in mind as you plan a recycling program for your business.

Step 1: Create a Visible Role for Top Management

A visible commitment to recycling by top management tells employees that the company is firmly behind this program and establishes a visible role model: if the boss can change his/her habits, so can everyone else. A letter from the Owner/President to all employees is a good way to announce a new recycling program. (See sample memo, Appendix C). Presence of top management at planning meetings is another good way to lend prestige to the process, and keep it on track.

Share magazine subscriptions and catalogs.

Direct your cafeteria to use washable glasses, china, linen, and service-ware.

Step 2: Recruit a Planning Committee, and Select a Recycling Coordinator

It shouldn't be too difficult finding employees willing to participate in the planning process. Recycling has become a regular part of most of our lives, and many people are enthusiastic advocates. Previous recycling experience shouldn't be a prerequisite, however. Anyone willing to help should be welcomed!

Try to involve a wide range of participants in the planning process. By recruiting members from a variety of departments or job titles, you'll design a program that will meet the needs of the entire company, since different departments generate different materials. You'll also develop a team of committed local recycling advocates in all offices or work areas of the organization.

One unit that definitely should be represented is the custodians. Since they may be involved in the collection or storage of these materials, their understanding of the goals of the program is crucial to its success. An important ongoing function of the recycling committee will be to train and provide feedback to employees. People need to know not only how and what to recycle, but the reasons for the particular specifications as

well. Ultimately, updates on tonnage or volume recycled will be helpful information to give to employees.

Finally, a coordinator should be named. Most committees work best with one clear leader. This coordinator should have access to means of publicity and should be granted the authority to implement decisions made by the committee.

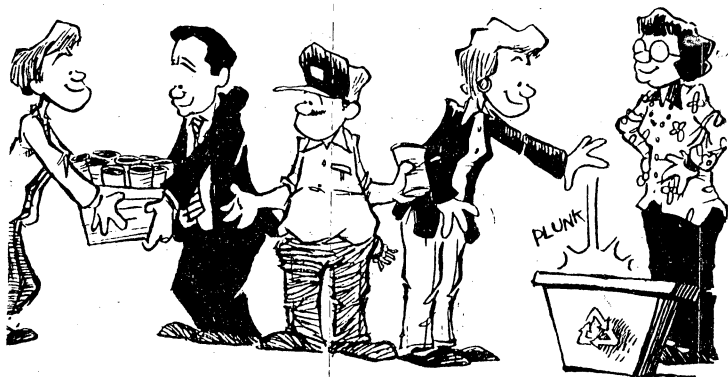
Role of the Landlord¹ on the Committee

If your company is located in a large commercial building, the landlord should also be included on the committee. You need to meet with your landlord to negotiate how recycling service will be established and maintained. If your landlord currently manages the arrangements for your trash (gross lease; see box summary, p. 12), then he or she should collaborate with you in writing your business's Recycling Plan. **You should write your plan by yourself only in the event that your company manages its trash by itself (net lease arrangement).** Net lease landlords must submit a Recycling Plan form for their building and a list of their tenants, but are not required to do a waste audit unless they occupy space in the building for management offices. In general, division of responsibilities between landlord and tenant for recycling should mirror arrangements for collection, conveyance, storage and disposition of trash.

Make two-sided photocopies. This not only saves paper, it can cut mailing costs, reduce the need for new filing cabinets, and allow smaller mailing envelopes to be used.

- The first part of the Recycling Plan is the waste audit. Gross lease tenants will need to survey their trash and tell their landlord which of the designated mandatory recyclable materials they generate, estimating how many tons of each recyclable they produce in a year.

- Second, the purchase, labeling, distribution, and siting of desk-side or centrally located recycling receptacles is another matter for discussion.



Your recycling committee should include a variety of representatives from key groups within your firm, including custodians and the landlord.

¹The term "landlord" refers to the owner, manager, and/or lessee.

- Then, landlords will need to be informed about how tenants plan to educate employees and others who generate waste at their site about procedures for collection, preparation, and transfer of recyclables.
- Finally, safe, convenient locations and schedules for emptying recycling containers need to be established.

In buildings with gross lease arrangements, the tenant is usually responsible for bringing trash to a designated receptacle or location and the landlord arranges to have it hauled away. **IN SUCH BUILDINGS, IT IS THE RESPONSIBILITY OF THE TENANT TO COLLECT RECYCLABLES WITHIN THE PLACE OF BUSINESS AND DELIVER THEM TO A DEDICATED CONTAINER OR OTHER DESIGNATED SITE; AND THE RESPONSIBILITY OF THE LANDLORD TO MAKE ARRANGEMENTS TO PROVIDE BULK STORAGE FOR RECYCLABLES AND TO HAVE THEM REMOVED FOR RECYCLING.** This also means that the landlord or a hired hauler/recycler must establish and post materials specifications for recyclables (See sample, Appendix D). The landlord would then communicate the precise "do's" and "don't's" set by the chosen hauler of the recyclables to a contact person in each business in the building. Can staples stay in white paper? Must corrugated cardboard boxes be flattened? Do cans and bottles have to be separated? Detailed answers to these and other questions must be written up on a recycling specification sheet and distributed to contact people and posted in prominent places throughout the building.

Turn scrap paper into scratch pads.

Use routing slips rather than making a copy for each employee.

Use reusable inter-office mailing envelopes.

Division of Duties in Gross Lease Arrangements	
<u>Tenant</u>	<u>Landlord</u>
<ul style="list-style-type: none"> --Audits in-house waste --Prepares Recycling Plan for business --Educates employees and clients about site-specific recycling procedures and specifications --Separates recyclables from trash --Transfers recyclables to landlord's central storage container (unless landlord provides custodial services on business premises. Then landlord transfers materials to central recycling containers). 	<ul style="list-style-type: none"> --Audits building-wide waste, either by totalling individual tenants' waste audits or by visually inspecting a representative sample of the building's refuse --Writes building recycling plan --Maintains central storage containers --Informs tenants of building-wide recycling procedures and specifications --Arranges pick-up or delivery of materials to recycling facility.

Step 3: Conduct a Waste Audit to Determine What's in Your Trash

A waste audit tells you the type and amount of materials thrown away by your business. This information is useful in projecting how much storage space you'll need. In addition, potential recyclers/haulers may request this information for use in preparing their quotes. Remember that the Recycling Plan form requires that you state amounts of recyclables in terms of weight and not volume. (See Appendix B for weight-to-volume conversion formulas.) There are a number of ways to perform a waste audit.

- Use standard industry estimates of the amount of office paper generated by the average office employee. For instance, it is estimated that the average office employee generates a half pound of high grade white paper per day. Therefore, a firm of 50 employees would generate [50 employees x 0.5 pound of paper x 240 work days] = 6000 pounds, or three tons of paper per year. [Note: Banks and insurance companies typically generate .75 pound of high grade white paper per employee per day.]

- For other materials, use the table in Appendix A (p. 31), the "Matrix of Waste Composition by Business Type," to predict the average amount of recyclable waste generated by your type of business. To use it, multiply the percentage estimates provided in the table by the total amount of solid waste you generate each year. (Your waste hauler can probably estimate how much trash you generate each week, month, etc.) **If your hauler gives you information in terms of volume or container size, you will have to convert it to weight in order to use the matrix.** As a rule of thumb, one cubic yard of uncompacted trash weighs 250 pounds or one eighth of a ton.

So a business with a four yard dumpster that is emptied weekly generates about 208 yards or 26 tons of trash per year. A rule of thumb for smaller volumes is that one 30-gallon trash bag weighs about 20 pounds. Thus if you put out 5 bags per week, that represents 100 pounds weekly or 2.6 tons per year.

Rent items needed temporarily: chairs for special events, furniture for temp employees, or equipment used only seasonally.



You don't have to be a "dumpster diver" to do a good waste audit!

Here's a detailed example. If a restaurant generates 10 tons or 20,000 pounds of trash per year, then it probably generates the following amounts of recyclable materials:

	Restaurant Industry <u>Average</u>	Your restaurant <u>(estimate)</u>
Corrugated cardboard boxes	16%	3,200 lbs
Office paper	<1%	---
Newspaper	2%	400 lbs
Magazines	1%	200 lbs
Glass bottles and jars	5%	1,000 lbs
Metal cans and foils	5%	1,000 lbs
Plastic containers	7%	1,400 lbs
Leaves and yard waste	1%	200 lbs
Wood waste	2%	400 lbs
Scrap metal	1%	200 lbs
Vehicle batteries	<1%	---
Waste oil	<1%	---
Non-recyclable trash	<u>59%</u>	<u>12,000 lbs</u>
TOTALS	100%	20,000 lbs

- A technique known as an inventory audit is also useful. This involves examining your purchase patterns to see how much potentially recyclable material you purchase on a regular basis. For instance, a bar may find that it goes through 10 cases of beer and 20 bottles of wine and liquor per week. Based on this information, it is relatively easy to calculate how much volume this amounts to. Similarly, restaurants may make similar calculations for canned food or condiments, or an office for white paper. You may want to use this technique to double-check any estimates you made using the Matrix of Waste Composition by Business Type.

- A final approach involves inspecting a single day's worth of trash. For maximum accuracy, this would involve sorting out and weighing the different recyclable materials. This can be messy, but it tends to be highly accurate and is useful in identifying other recyclable materials you didn't know you were generating. Again, Appendix B offers useful formulas for converting volume to weight.

It is important to ensure that the time period you select for your waste audit is fairly representative of the rest of the year. Conducting an audit during a particularly busy or slow period might cause you to exaggerate or underestimate the true volume and weight of recyclable materials you generate.

Step 4: Contact Waste Haulers and Recycling Companies

All haulers/recycling companies operate differently, and it is up to you to determine which company best provides the array of service options most suitable for your business. Some firms handle both trash and recyclable materials; others only handle recyclables. It may make sense to mix and match services; don't automatically assume that your current waste hauler is the one best suited to handle your recyclables as well.

Decide whether you want to use a recycling service that will pick up your materials, or whether you want to have an employee load and drive a company vehicle to deliver recyclables to a local transfer station or drop-off facility that accepts them. Pick-up is convenient, but perhaps may be too expensive or limited in flexibility for some businesses. Lists of collection companies and drop-off stations appear in Section 4. Cost will obviously be an important consideration, but it should not be your only one. Many recycling firms require you to collect and store a large volume of materials before they'll pick them up. Given space and storage constraints, this may or may not be a problem for you. Be sure to give consideration to convenience: will these firms pick up from inside your building, or must the materials be left outside on the curb? Do you prefer to patronize family or minority-owned businesses? What about non-profit companies that employ handicapped or disadvantaged individuals?



Each type of business or institution will see a characteristic and seasonal trash flow.

Periodically check distribution lists and purge names of those who no longer need the information.

Order supplies in bulk, reducing packaging.

Trade Your Trash

If your firm generates a steady flow of a particular type of industrial waste, you may find another industrial user who needs it. Generators and seekers of everything from "alkali alum waste" to "scrap butyl gloves" to "wood chips" to "yeast byproduct" are listed in the bi-monthly Northeast Industrial Waste Exchange, 90 Presidential Plaza, Suite 122; Syracuse, NY 13202. Telephone (315) 422-6572; Fax (315) 422-9051.

Think about what is important to you and your company, and add your own questions to the list suggested below.

Also keep in mind that recycling haulers operating in Cambridge must follow existing trash hauling regulations stating that no material be picked up before 7 a.m. In addition, sidewalks must not be obstructed by trash, recyclables, or their receptacles.

Questions to ask waste haulers/recycling companies:

- 1) What recyclable materials do they handle?
- 2) Can some recyclable materials be mixed together, or must they all be kept separate from one another (e.g., may cans and bottles be commingled)?
- 3) Are there any other requirements on how the material must be prepared for collection (e.g. corrugated cardboard boxes flattened, caps removed from bottles, etc.)?
- 4) What are their rules on rejecting material due to excessive contamination?
- 5) What are the weekly collection costs for the volume of recyclable materials your company generates? How would these costs change if you went to less frequent/more frequent/on-call pick ups?
- 6) Do they have minimum quantity requirements for pick-up?
- 7) What is the incremental cost of extra pickup during busy periods?
- 8) Do they provide storage containers? Do these cost extra?
- 9) Would they provide a list of references in the neighborhood you can contact?
- 10) Does the hauler/recycler require a contract, or can it be an informal arrangement?
- 11) Would your trash hauler reduce charges if you cut your trash by recycling?
- 12) Would your current or a proposed trash contract penalize you financially for reducing your trash volume by recycling? If so, renegotiate it. If this is not possible, call the Recycling Program at 349-4836.

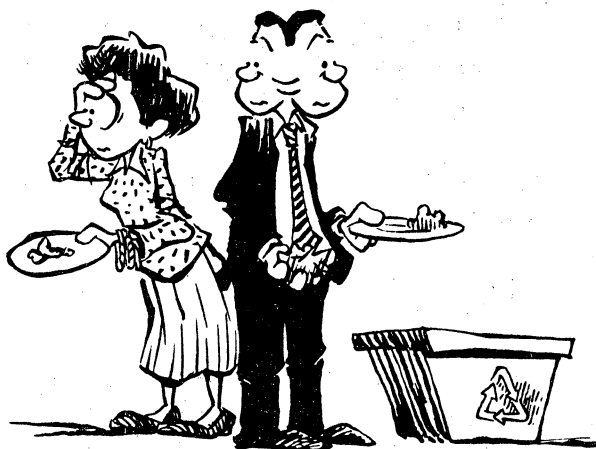
Remove your name from mailing lists for materials you no longer need. Write to Direct Marketing Associates, P.O. Box 3861, 11 West 42nd Street, New York, NY 10163-3861.

Questions to ask operators of recycling drop-off centers and transfer stations:

- 1) What recyclable materials do they accept?
- 2) Can some recyclable materials be mixed together or must they all be kept separate from one another (e.g., may cans and bottles be commingled)? Does the transfer station set-up allow your employees to separate the materials at the site, so that you can store them commingled at your business?
- 3) Are there any other requirements on how the material must be prepared for delivery? (e.g. corrugated cardboard boxes flattened, caps removed from bottles, etc.)
- 4) Are any minimum/maximum quantities established? Is material measured by weight or volume?
- 5) What vehicle restrictions exist, if any?
- 6) What are the hours of operation?
- 7) How is service paid for (e.g., annual sticker with unlimited access, multi-trip ticket punched with each delivery)?
- 8) Could the operator provide a list of references you can contact?
- 9) Does the operator require a contract, or can it be an informal arrangement?

Special Note for Non-Profit Organizations

Small non-profit organizations in Cambridge with 50 or fewer employees will be allowed to use the City's Residential Recyclables Drop-off Center at 147 Hampshire Street in Inman Square free of charge. They should submit a copy of their 501 (c) 3 status certificate with their Recycling Plan and be prepared to show identification to the Drop-off Monitor when they use the facility. Call 349-4836 for schedules and further information.



Make sure you provide a trash container wherever there is a recycling receptacle, and vice-versa.

Step 5: Set up Your Program and Sign the Contract

Now that you know what the haulers/recyclers are looking for, and you have an idea of what you generate, design your recycling program. Think about what type of collection scheme will work best in your firm:

- ¶ Should you have one central collection location or a number of smaller satellite locations (at each desk, for instance)?
- ¶ What type of collection containers should you use? (See box, p. 19)
- ¶ Will your custodial staff be responsible for collection, or will your employees have to empty their own bins when they are full?
- ¶ If custodians are responsible, what are the contractual or labor relations issues involved in adding to the custodian's job?
- ¶ Is there space next to your existing dumpster for containers for recyclables (barrels, bins etc.)?
- ¶ Are aesthetics a concern at this site?
- ¶ Will material be picked up or dropped off at a recycling station on a regular schedule, or on an as-needed basis?
- ¶ Does it make sense to share a recycling bin with a neighboring company so the volume of recyclables generated is higher (and collection costs are relatively cheaper)?
- ¶ **Will anything in these plans violate any health or fire codes?** Fire inspectors are particularly stringent about any blockage of exit routes. Consider this in siting containers.

Establish a start date for the program. Finalize your hauling arrangements.

Step 6: Prepare and Submit Recycling Plan

Remove and fill out recycling plan in the center of this booklet. Instructions for completing the plan accompany the form. Submit the completed plan to Gerald Boyle, Commercial Recycling Assistant, by January 1, 1993. If you have any questions, please call 349-4836. Upon approval of your recycling plan, you will be notified by the Department of Public Works. You then have four months (120 days) to implement your recycling program.

Step 7: Educate and Motivate your Employees

Once recycling containers arrive, internal collection procedures are established, and recycling pick-up arrangements are in place, it's time to kick off the program. Before distributing recycling containers, a kick-off memo announcing the start of the program should be posted or sent out to all employees. (See sample letter, Appendix C) Some companies set up a recycling hot line (usually the phone number of the recycling coordinator or someone on the planning committee) that employees can call to ask questions.



Be sure to consider access to emergency exits in siting storage for recyclables.

feel freer to ask the "dumb questions" (which never are) and have the opportunity to ask the coordinator about the recyclability of a commonly generated material. To ensure that new employees entering the company are aware of your recycling program, consider adding a new section to your orientation or training program where you discuss the company's recycling policy.

When, after all this, employees separate recyclables, custodians consolidate them and haulers take them away, you are on the way to having a successful recycling program.

Start-up memos released prior to this time may confuse employees and cause improper storage of recyclables in anticipation of recycling. The ideal program would start with an inspiring letter initiating official recycling one week later. Then, recycling containers would be delivered office-by-office by the program coordinator or a local site monitor.

Informal distribution is preferable to large meetings because employees

Contact your vendors and ask them to reduce the amount of packaging on their products. You should also ask them if they would be willing to take back boxes, pallets, and cable spools from you so they can be reused.

Buy Cambridge!

Collection and storage containers are available from many haulers and from office supply stores. Check the telephone directory and other guides you may have for local office supply stores. Paper yard waste bags are available in many Cambridge markets and hardware stores.

Step 8: Recycle!

Monitor participation, costs/savings, and recovery rates. Report findings to your staff. Don't worry if the first few days or weeks of your recycling program are a little rocky. It takes time to break old habits, but it can be done, with a little extra encouragement from you.

One problem you may face early on is the "contamination" of your designated recyclable materials. In recycling lingo, contamination refers to the introduction of non-recyclable or inappropriate items into a recycling bin: colored paper in the white-paper bin, or corrugated cardboard boxes not flattened.

If your material "flunks" your recycler's specifications, it may be rejected, or degraded to a lower value material and increase your collection costs. In either case, the efforts of the majority of your employees will have been spoiled by the carelessness of a few. The best way to prevent contamination is to make it easy to keep recyclables up to specification. Provide an obvious trash container next to the recycling bin so people have an easy means to discard unrecyclable material. Put a safety-blade sliding knife on a cord attached to a wall where corrugated cardboard boxes tend to accumulate. Signs or written instructions are helpful in identifying which materials go in which containers, but a significant number of people tend to ignore them. Sorting rules for recyclables have to be stunningly obvious to keep quality high.

We throw away what we are not clever enough to re-use.

Some companies have established regular monitoring programs to make sure everyone is using the appropriate recycling or waste receptacles. Other firms hold contests, with awards going to the unit with the "cleanest" material. You can also establish participation awards to be given to the employee or unit with the best compliance record.



When in doubt about the recyclability of any item, check it out! Contamination will spoil the entire load.

Regardless of the technique you select, remember that your employees will enjoy hearing about what they've accomplished. Your waste hauler/recycler should be able to provide you with periodic tonnage information, and can often translate that into the landfill space saved, avoided dumpster loads, and so on. Let your staff hear the good news! Company newsletters, signs, posters, paycheck stuffers, memos, and electronic mail are a few ways to spread recycling news in-house.

You'll also want to pay attention to the financial implications of your recycling program. Are you saving money? Congratulations! If you find that you're spending more money than you were before, then consider joining forces with a neighboring business to increase the volume of recyclable materials collected. Remember that as the volume of recyclable materials increases, the relative cost of collecting it tends to decrease. The City's Technical Assistance Program is also available to help your company devise a strategy to cut the cost of recycling. Call Gerald Boyle, the City's Commercial Recycling Staff Assistant at 349-4836 for more information.

Use the worksheets on pages 22 and 23 to calculate costs/savings of your recycling program. These worksheets are for your use only and should not be sent in with your Recycling Plan.



Make sure recycling instructions are extremely clear; otherwise you'll get recyclables in the trash and vice versa!

Step 9: Buy Recycled Products

Buy products made from recyclable materials in order to sustain demand for them. There is a wide assortment of products made with recycled commodities. Call your vendors and ask what recycled products they carry. Advertise your use of recycled paper by having "Recycled Paper" printed somewhere in your documents. Ensure that this label goes only on recycled paper that you use.

Send manufacturers the right message by recycling and buying recycled.

All major paper vendors now carry recycled paper.

RECYCLING COST ANALYSIS WORKSHEET (Optional; do not send in with Plan)

Start-up expenses

Preparation: Design, planning, consulting	_____
Storage space allocation	_____
Recycling containers (barrels, hampers, bins)	_____
Permanent signs, bin labels	_____
Outdoor dumpsters, lidded barrels	_____
TOTAL START-UP EXPENSES	_____

Annual Recycling Costs

Coordinator time (if necessary)	_____
Additional custodial time (if necessary)	_____
Replacement containers (assume 20% loss or theft)	_____
Publicity and education	_____
<u>If recyclables picked up:</u>	
Container rental	_____
Collection cost	_____
<u>If recyclables hauled to drop-off:</u>	
Employee time	_____
Vehicle time	_____
Drop-off fees	_____
TOTAL ANNUAL RECYCLING COSTS	_____

NET COSTS/BENEFITS OF RECYCLING

(1) Current annual trash costs without recycling	_____
(2) Anticipated annual costs of recycling	_____
(3) Anticipated annual disposal fee savings with recycling	_____
(4) TOTAL COST OF TRASH & RECYCLING (4) = (1) + (2) - (3)	_____
(5) Net saving (-) OR cost (+) of recycling (5) = (4) - (1)	_____

EXAMPLE

Note: While our example shows a net additional cost of \$60 per year on line (5), this figure could be a net savings for your business or institution. Your business or office location, layout, mix and value of recyclables generated, and other factors will determine whether recycling will represent a net cost or a net savings for you.

(1) Current annual trash costs without recycling Disposal contract = \$200/mo. for four 4-cu. yd. containers/mo. Total expenditure \$200/mo. x 12 months	\$2400 _____
(2) Anticipated annual costs of recycling Recycling contract = \$105/mo. for two 4-cu. yd. containers/mo Total expenditure \$105/mo. x 12 months	1260 _____
(3) Anticipated annual disposal fee savings with recycling Reduction in disposal contract \$100/mo. for elimination of two 4-cu. yd. containers/mo. Total savings = \$100/mo. x 12 months	1200 _____
(4) TOTAL COST OF TRASH & RECYCLING (4) = (1) + (2) - (3)	\$2460 _____
(5) Net saving (-) OR cost (+) of recycling (5) = (4) - (1)	+ \$60 _____

SECTION 3: How to Fill Out a Recycling Plan

Instructions for filling out a Recycling Plan and the forms necessary to do so are included in the centerfold of this Guide. Please tear out the form, follow the instructions that accompany them, and return to the Recycling Program by January 1, 1993.

Forms for the Annual Update are also included in this section. These are due on March 1 of each year beginning in 1994.





RECYCLING PLAN

In accordance with the requirements of Section 8.24.070 of the Cambridge Municipal Code, all commercial and non-profit establishments occupying property in the City of Cambridge are required to submit a Recycling Plan to the Commissioner of the Department of Public Works by January 1, 1993.

The Plan must include:

- Section 1: A waste audit (see pages 13-14 of the Guide).
- Section 2: A description of the process by which recyclable materials comprising greater than or equal to 5% of your total refuse are to be separated from your trash.
- Section 3a: Identification of how the recyclables will be collected and taken to market.
- Section 3b: A certification from your hauler or drop-off station that materials are being recycled (many haulers already have certification letters on file with the Department of Public Works).
- Section 4: Information on the process used to notify employees of the recycling requirements.

Please feel free to attach additional pages or documents if necessary. A filled-out sample Recycling Plan immediately follows this pull-out section.

Please tear out and fill in the first four sections of the form. Section 5 is optional. Failure to complete the plan by January 1, 1993 will put your organization in violation of Section 8.24.070 and make you liable for a fine of \$25 for each day you are not in compliance. If there are any areas which you are unable to answer, consult with others such as your waste hauler, custodians, or landlord to find the information.

- Each business in a building is responsible for filing a Recycling Plan.
- Landlords with gross lease arrangements with any or all tenants must either total all tenants' waste audit figures or do a building-wide waste audit to prepare one building-wide Recycling Plan.
- Landlords of buildings offering exclusively net lease arrangements must submit the information indicated in Section 1 of the Recycling Plan form, as well as a list of tenants.

Regular collection for recycling of all specified materials must begin within four months (120 days) of approval of your Recycling Plan by the Public Works Commissioner. Recycling Plans will be approved as quickly as possible, depending upon the number of plans under consideration at any one time.

Forms should be sent to Gerald R. Boyle, Commercial Recycling Staff Assistant, 147 Hampshire Street, Cambridge, MA 02139 by January 1, 1993. If you have any questions, call 349-4836.

- FOR QUESTIONS RELATED TO DIVISION OF RESPONSIBILITY BETWEEN LANDLORDS AND TENANTS, *see page 12 of the Guide.*
- FOR QUESTIONS RELATED TO DEFINITIONS OF RECYCLABLE MATERIALS, *see page 9 of the Guide.*
- FOR A COMPREHENSIVE LIST OF HAULERS OR DROP-OFF SITES FOR RECYCLABLE MATERIALS, *see page 25 of the Guide.*

RECYCLING PLAN

Section 1. Please return this form, with other information or documentation necessary, to Gerald Boyle, Department of Public Works, 147 Hampshire Street, Cambridge, MA 02139. Please type or print neatly. Feel free to call 349-4836.¹

COMPANY/INSTITUTION _____ ADDRESS _____ For Profit _____ Non-Profit _____ DATE _____

TYPE OF BUSINESS: Office ___ Industry ___ Retail ___ Restaurant ___ Institution ___ RECYCLING CONTACT _____ JOB TITLE OF CONTACT _____

SQUARE FOOTAGE _____ No. EMPLOYEES _____ TELEPHONE _____ FAX _____ Do you manage collection and removal of your company's trash? Yes ___ No ___

If another party such as your landlord, owner, lessee or management company manages trash, identify them here and fill the form out in conjunction with him or her. Name _____

Company _____ Address _____ Phone _____ Fax _____

Landlords of buildings offering exclusively net lease arrangements are not obligated to fill out the remainder of this plan, nor are they required to assemble and submit plans prepared by individual tenants. Such landlords must, however, submit a list of all commercial tenants of such buildings.

MATERIALS (defined on p. 9)	Percentage of total waste ² (even if <5%)	Tons per year even if < 5% (by weight of your trash)	Hauler/drop off site	VOLUME to WEIGHT RATIOS ³
Corrugated cardboard boxes	_____	_____	_____	Corrugated : 1 yard = 285 lbs; 1 ton = 7.018 yards
Office paper	_____	_____	_____	Office paper: 1 yard = 500 lbs; 1 ton = 4 yards
Newspaper	_____	_____	_____	Newspaper: 1 yard = 600 lbs; 1 ton = 3.33 yards
Magazines	_____	_____	_____	Magazines: 1 yard = 900 lbs; 1 ton = 2.22 yards
Glass bottles and jars: (excludes labware, light bulbs, dishware, etc.)	_____	_____	_____	Glass: 1 yard = 600 lbs; 1 ton = 3.33 yards
Metal cans and foils	_____	_____	_____	Metal cans: 1 yard = 150 lbs; 1 ton = 13.33 yards
Plastic containers, #1 PETE or #2 HDPE (excludes lab, automobile products)	_____	_____	_____	Plastic: 1 yard = 50 lbs; 1 ton = 80 cubic yards
Leaves and yard waste	_____	_____	_____	Leaves: 1 yard = 250 lbs; 1 ton = 5.174 cubic yards; Grass clippings: 1 yard = 404 lbs; 1 ton = 4.95 yards
Wood waste (excludes demolition debris)	_____	_____	_____	Wood waste: 1 yard = 500 lbs; 1 ton = 4 yards
Scrap metal	_____	_____	_____	Scrap metal: 1 yard = 850 lbs; 1 ton = 3.53 yards
Vehicle batteries	_____	_____	_____	Batteries: 1 battery = 33 lbs; 60.6 batteries = 1 ton
Waste Oil	_____	_____	_____	Waste oil: 7 lbs = 1 gallon; 285 gallons = 1 ton
TRASH	_____	_____	_____	
TOTALS	_____	_____	_____	

Notes
 1. See sample Recycling Plan form in the Cambridge Commercial Recycling Guide.
 2. Although all materials must be listed in this waste audit, recycling is mandatory only for materials comprising greater than or equal to 5% by weight of your total rubbish.
 3. As a rule of thumb, one cubic yard of uncompacted trash weighs 250 pounds or one eighth of a ton, and one 30-gallon trash bag weighs about 20 pounds.

=====

Section 2. Describe the process by which recyclable materials will be collected and stored within your business or institution.

Section 3a. Identify how the recyclables will be collected and transported to market.

Section 3b: Please attach certification that your hauler is, in fact, recycling the materials being picked up. If your recycling hauler or drop-off station has certification of this type on file with the Department of Public Works, check here: ___

Section 4. Indicate how your employees will be notified about recycling requirements. How will you inform them what, where, how, and why to recycle? How will you provide follow-up education on employees' role in recycling and update them on the progress of recycling in your business?

Section 5. COMMENTS

RECYCLING PLAN--FILLED-OUT SAMPLE

Section 1. Please return this form, with other information or documentation necessary, to Gerald Boyle, Department of Public Works, 147 Hampshire Street, Cambridge, MA 02139. Please type or print neatly. Feel free to call 349-4836.¹

COMPANY/INSTITUTION Dwight Realty Trust ADDRESS 123 Bay State Road, Cambridge MA 02140 For Profit Non-Profit DATE 11/1/92
 TYPE OF BUSINESS Office Industry Retail Restaurant Institution RECYCLING CONTACT Stewart Miller JOB TITLE OF CONTACT Building Manager
 SQUARE FOOTAGE 15,260 No. EMPLOYEES 42 TELEPHONE 868-1234 FAX 868-4657 Do you manage collection and removal of your company's trash? Yes No

If another party such as your landlord, owner, lessee or management company manages trash, identify them here and fill the form out in conjunction with him or her. Name _____

Company _____ Address _____ Phone _____ Fax _____

Landlords of buildings offering exclusively net lease arrangements are not obligated to fill out the remainder of this plan, nor are they required to assemble and submit plans proposed by individual tenants. Such landlords must, however, submit a list of all commercial tenants of such buildings.

MATERIALS (defined on p. 9)	Percentage of total waste ² (even if <5%)	Tons per yyear even if <5% (by weight of your trash)	Hauler/drop off site	VOLUME to WEIGHT RATIOS ³
Corrugated cardboard boxes	<u>40</u>	<u>20</u>	<u>ABC Waste Systems</u>	Corrugated cardboard: 1 yard = 285 lbs; 1 ton = 7.018 yards
Office paper	<u>20</u>	<u>10</u>	<u>" " "</u>	Office paper: 1 yard = 500 lbs; 1 ton = 4 yards
Newspaper	<u>2</u>	<u>1</u>	<u>_____</u>	Newspaper: 1 yard = 600 lbs; 1 ton = 3.33 yards
Magazines	<u><1</u>	<u><1</u>	<u>_____</u>	Magazines: 1 yard = 900 lbs; 1 ton = 2.22 yards
Glass bottles and jars: (excludes labware, light bulbs, dishware, etc.)	<u><1</u>	<u><1</u>	<u>_____</u>	Glass: 1 yard = 600 lbs; 1 ton = 3.33 yards
Metal cans	<u>6</u>	<u>2</u>	<u>Deposit cans and bottles picked up by vendor and check sent to charity</u>	Metal cans: 1 yard = 150 lbs; 1 ton = 13.33 yards
Plastic containers, #1 PETE or #2 HDPE (excludes lab, automobile products)	<u>1</u>	<u>1</u>	<u>_____</u>	Plastic 1 yard = 50 lbs; 1 ton = 80 cubic yards
Leaves and yard waste	<u><1</u>	<u><1</u>	<u>_____</u>	Leaves: 1 yard = 250 lbs; 1 ton = 5.174 cubic yards Grass clippings: 1 yard = 404 lbs; 1 ton = 4.95 yard
Wood waste (excludes demolition debris)	<u><1</u>	<u><1</u>	<u>_____</u>	Wood waste: 1 yard = 500 lbs; 1 ton = 4 yards
Scrap metal	<u><1</u>	<u><1</u>	<u>_____</u>	Scrap metal: 1 yard = 850 lbs ; 1 ton = 3.53 yards
Vehicle batteries	<u><1</u>	<u><1</u>	<u>_____</u>	Vehicle batteries: 1 battery = 33 lbs; 60.6 batteries = 1 ton
Waste Oil	<u>0</u>	<u>0</u>	<u>_____</u>	Waste oil: 7 lbs = 1 gallon; 285 gallons = 1 ton
TRASH	<u>25</u>	<u>12.5</u>	<u>ABC Waste Systems</u>	
TOTALS	<u>100</u>	<u>52.5</u>		

Notes

- See sample Recycling Plan form in the Cambridge Commercial Recycling Guide.
- Although all materials must be listed in this waste audit, recycling is mandatory only for materials comprising greater than or equal to 5% by weight of your total rubbish.
- As a rule of thumb, one cubic yard of uncompacted trash weighs 250 pounds or one eighth of a ton, and one 30-gallon trash bag weighs about 20 pounds.

=====
Section 2. Describe the process by which recyclable materials will be collected and stored within your business or institution.

Corrugated cardboard boxes are generated by two retail establishments on street level. These stores will flatten and store the boxes in a special dumpster only for cardboard. The three principal office-paper generating tenants have put receptacles next to copy machines and desks. Employees and customers will place paper in these and custodians empty them into two large blue barrels provided by our vendor in the basement. Cans will also be collected in blue barrels. The retailer (a cafe within a food market) will rinse the cans and collect them in bag-lined barrels. Full bags will then be placed in the barrels, also in the basement, for weekly pick-up.

Section 3a. Identify how the recyclables will be collected and transported to market.

ABC Waste Systems will come once per week to take away the cardboard in the dumpster and once per month they will swap empty white paper and steel can collection barrels for our full ones.

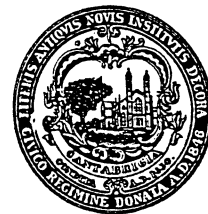
Section 3b: Please attach certification that your hauler is, in fact, recycling the materials being picked up. If your recycling hauler or drop-off station has certification of this type on file with the Department of Public Works, check here: X

Section 4. Indicate how your employees will be notified about recycling requirements. How will you inform them what, where, how, and why to recycle? How will you provide follow-up education on employees' role in recycling and update them on the progress of recycling in your business?

After our waste audit, we determined that corrugated cardboard, white paper, and cans would have to be recycled in our building. We informed all tenants about the Mandatory Recycling Ordinance and about the recycling procedures in this building with flyers tucked under doors in September. Verbal reminders are given to recycle and separate cardboard, white paper, and steel cans. If custodians see any of these materials in our trash dumpster, the generator will be notified and reminded about mandatory recycling.

Section 5. COMMENTS

Recycling is turning out to be easier than we thought so far! It was a nuisance at first but we've gotten great cooperation from our tenants.



ANNUAL UPDATE to RECYCLING PLAN

In accordance with the requirements of regulations written pursuant to Section 8.24.070 of the Cambridge Municipal Code, all commercial and non-profit establishments occupying property in the City of Cambridge are required to submit a Recycling Plan Update to the Commissioner of the Department of Public Works by March 1 of each year reporting any changes in recycling or trash hauling vendor, significant changes in percentages of the waste stream occupied by each commodity listed during the previous calendar year, or changes in materials recycled.

The Annual Update must include a waste audit and documentation that your materials have been and are being recycled (such as photocopies of contracts or receipts). Please feel free to attach additional pages or documents if necessary.

Forms should be sent to Commercial Recycling Staff Assistant, Department of Public Works, 147 Hampshire Street, Cambridge MA 02139 by March 1 of each year. If you have any questions, call Gerald Boyle at 349-4836.

ANNUAL UPDATE TO RECYCLING PLAN

Section 1. Please return this form, with other information or documentation necessary, to Gerald Boyle, Department of Public Works, 147 Hampshire Street, Cambridge, MA 02139. Please type or print neatly. Feel free to call 349-4836.¹

COMPANY/INSTITUTION _____ ADDRESS _____ For Profit _____ Non-Profit _____ DATE _____

TYPE OF BUSINESS: Office ___ Industry ___ Retail ___ Restaurant ___ Institution ___ RECYCLING CONTACT _____ JOB TITLE OF CONTACT _____

SQUARE FOOTAGE _____ No. EMPLOYEES _____ TELEPHONE _____ FAX _____ Do you manage collection and removal of your company's trash? Yes ___ No ___

If another party such as your landlord, owner, lessee or management company manages trash, identify them here and fill the form out in conjunction with him or her. Name _____

Company _____ Address _____ Phone _____ Fax _____

Landlords of buildings offering exclusively net lease arrangements are not obligated to fill out the remainder of this plan, nor are they required to assemble and submit plans prepared by individual tenants. Such landlords must, however, submit a list of all commercial tenants of such buildings.

<u>MATERIALS</u> <u>(defined on p. 9)</u>	Percentage of total waste ² <u>(even if <5%)</u>	Tons per year even if < 5% <u>(by weight of your trash)</u>	<u>Hauler/drop off site</u>	<u>VOLUME to WEIGHT RATIOS³</u>
Corrugated cardboard boxes	_____	_____	_____	Corrugated : 1 yard = 285 lbs; 1 ton = 7.018 yards
Office paper	_____	_____	_____	Office paper: 1 yard = 500 lbs; 1 ton = 4 yards
Newspaper	_____	_____	_____	Newspaper: 1 yard = 600 lbs; 1 ton = 3.33 yards
Magazines	_____	_____	_____	Magazines: 1 yard = 900 lbs; 1 ton = 2.22 yards
Glass bottles and jars: (excludes labware, light bulbs, dishware, etc.)	_____	_____	_____	Glass: 1 yard = 600 lbs; 1 ton = 3.33 yards
Metal cans and foils	_____	_____	_____	Metal cans: 1 yard = 150 lbs; 1 ton = 13.33 yards
Plastic containers, #1 PETE or #2 HDPE (excludes lab, automobile products)	_____	_____	_____	Plastic: 1 yard = 50 lbs; 1 ton = 80 cubic yards
Leaves and yard waste	_____	_____	_____	Leaves: 1 yard = 250 lbs; 1 ton = 5.174 cubic yards; Grass clippings: 1 yard = 404 lbs; 1 ton = 4.95 yards
Wood waste (excludes demolition debris)	_____	_____	_____	Wood waste: 1 yard = 500 lbs; 1 ton = 4 yards
Scrap metal	_____	_____	_____	Scrap metal: 1 yard = 850 lbs; 1 ton = 3.53 yards
Vehicle batteries	_____	_____	_____	Batteries: 1 battery = 33 lbs; 60.6 batteries = 1 ton
Waste Oil	_____	_____	_____	Waste oil: 7 lbs = 1 gallon; 285 gallons = 1 ton
TRASH	_____	_____	_____	
TOTALS	_____	_____	_____	

Notes

1. See sample Recycling Plan form in the Cambridge Commercial Recycling Guide.
2. Although all materials must be listed in this waste audit, recycling is mandatory only for materials comprising greater than or equal to 5% by weight of your total rubbish.
3. As a rule of thumb, one cubic yard of uncompacted trash weighs 250 pounds or one eighth of a ton, and one 30-gallon trash bag weighs about 20 pounds.

Section 2. If your hauler is new within the past year, please attach certification that your hauler is, in fact, recycling the materials being picked up. If your recycling hauler or drop-off station has certification of this type on file with the Department of Public Works, check here:

Section 2. Describe the process by which recyclable materials will be collected and stored within your business or institution.

Section 3a. Identify how the recyclables will be collected and transported to market.

Section 3b: Please attach certification that your hauler is, in fact, recycling the materials being picked up. If your recycling hauler or drop-off station has certification of this type on file with the Department of Public Works, check here:

Section 4. Indicate how your employees will be notified about recycling requirements. How will you inform them what, where, how, and why to recycle? How will you provide follow-up education on employees' role in recycling and update them on the progress of recycling in your business?

Section 5. COMMENTS

SECTION 4: Resource List

This section contains a comprehensive list of recycling companies and waste haulers in Eastern Massachusetts. Inclusion in no way represents an endorsement by the City of Cambridge, nor does it imply a certain minimum quality of service. **In addition to this list, see the Boston Yellow Pages under "Recycling Centers," "Rubbish and Garbage Disposal," and "Waste Paper."**

We suggest that you ask each company for a list of some of their customers before you sign a contract. Other information may be available from the Better Business Bureau at 482-9151. For information on recycling vehicle storage batteries, composting yard waste, or other unlisted commodities, call the Recycling Program at 349-4836.

This list was compiled from data supplied by Earthworm, Inc., the Eastern Massachusetts Recycling Association, MassRecycle, and the Massachusetts Department of Environmental Protection.

The list is divided into three sections: Drop-off Recycling Stations, Haulers of Recyclable Materials, and Consultants.

•**Drop-offs:** You need to arrange transportation of recyclables to these locations on your own. Facilities accepting only deposit beverage containers or scrap metal are not listed; check the Boston Yellow Pages under "Redemption Centers" and "Scrap Metals" to recycle these commodities. Services picking up deposit beverage containers are listed, however, under the "Haulers" category.

•**Haulers** will come to your business site to pick up and transport the material for recycling. Be sure to ask prospective haulers about minimum quantities, separation specifications, and receptacle types.

•**Consultants** accept or haul no recyclable materials, but will help design, implement, and sustain recycling programs.

DROP-OFF RECYCLING STATIONS

<u>Company</u>	<u>Tel.</u>	<u>Accepts</u>
Basic Waste Systems 15 Cooper St. Medford, MA 02155	396-1177	Office paper
B. F. I. Browning-Ferris Ind. 29 East Street Cambridge, MA 02141	227-7672	Office paper, newspaper, corrugated boxes, glass, metal, plastic
F. M. Fibers 53 Jefferson Ave. Salem, MA 01970	242-0809	Office paper, newspaper, and corrugated boxes
Foster Forbes 1 National St. Milford, MA 01757	(508) 478-2500	Glass
Watertown Recycling Ctr. Grove St. Watertown, MA 02172	972-6413	Office paper, glass, and metal (Saturday and Sunday only, 10 am - 3 pm)

HAULERS OF RECYCLABLE MATERIALS

<u>Hauler/Location</u>	<u>Materials picked up</u>
All Brands Redmptn. Ctr./Everett 389-0004	Deposit beverage containers
American Paper Recycling Co./Mansfield 508-339-5551	Office paper, newspaper, and corrugated boxes
Avon Fibres/Avon 508-588-7866	Office paper, corrugated boxes
Better Bottle and Can Redemption Burlington/273-1373	Deposit beverage containers
Boston Can/Boston 247-3120	Deposit beverage containers
Brighton Redemption/Brighton 782-2050	Deposit beverage containers
Browning-Ferris Industries (B.F.I.)/Brighton 254-1800	Office paper, newspaper, corrugated boxes, glass, metal, plastic

<u>Hauler/location</u>	<u>Materials picked up</u>
C & J Trucking Co Londonderry, NH/603-434-4680	Office paper, newspaper, corrugated boxes
Capital Paper Recycling Plympton/585-4901	Office paper
Clean Environments, Inc. N. Billerica/508-667-0096	Glass, metal, plastic, deposit beverage containers
Conigliaro Industries Framingham/508-655-5251	Corrugated boxes, glass, metal, plastic
Container Services Walpole/508-660-1804	Glass, metal, plastic, deposit beverage containers
Earthworm, Inc./Greater Boston Recyclers Somerville/426-73443	Office paper, glass, metal, plastic
Essex Waste Paper/P & T Container/Lawrence/508-682-5226	Office paper
F. M. Fibers/Salem 242-0809	Office paper, newspaper and corrugated boxes
Frank Miller & Son/N. Attleboro 508-695-0211	Office paper, newspaper and corrugated boxes
Ginsberg & Company/Boston 617-426-5698	Office paper and aluminum
Greenblatt Co./Lowell 508-453-5111	Office paper and corrugated boxes
Hanna Paper Recycling/Sharon 784-5155, MA	Office paper and corrugated boxes
E. L. Harvey & Son/Westborough 508-366-4123	Office paper, newspaper, corrugated boxes, metal, glass, plastic, and other materials
Jet-A-Way / Kemble Waste/Boston 617-288-7131, ext. 237	Office paper, newspaper, corrugated boxes, metal, glass, plastic, and other materials
Laidlaw Waste Syst. Inc./Revere 289-0500	Office paper, newspaper, corrugated boxes, metal, glass, plastic, and other materials
Laser Perf. Products, Inc./Ipswich 800-344-6137	Small quantities of office paper, other materials

<u>Hauler/Location</u>	<u>Materials picked up</u>
Lenox/Dorchester 288-2841	Office paper
McGinnis Paper Recycling/Quincy 773-9901	Office paper
National Recycling, Inc./Attleboro 508-226-1700	Office paper
North Atlantic Recycling/N. Andover 682-5422	Office paper
Office Paper Recovery/Wilmington 508-694-1450	Office paper
Office Paper Recycling/Data Destr. Woburn/800-762-6765	Shreds for confidentiality and recycles office paper
Recycling Enterprises/Oxford 949-2797	Office paper
Save That Stuff/Boston 482-3878	Corrugated cardboard
Spiegel Co., Inc./Brockton 963-7757	Office paper
Triple A Computer/Arvco/Oxford MA 508-987-0186	Office paper, newspaper, and corrugated boxes
Turner Trucking & Salvage/Lynn 595-3741	White goods and newspaper
Vel-A-Tram/N. Billerica 508-663-7266	Office paper
Vining Disposal/Medford 279-0006	Office paper, newspaper, glass, metal, and plastic
Waste Management Inc./Wakefield 776-1000	Office paper, newspaper, corrugated boxes, metal, glass, plastic
Waverly Redemption/Waltham (Fernald School for the Retarded) 894-3600 ext. 2369	Deposit beverage containers
Youth at Work/Boston 338-1318	Office paper

CONSULTANTS

<u>Company</u>	<u>Telephone</u>
Alternative Resources, Inc. 9 Pond Lane Concord, MA 01742	508-371-2054
Corporate Conservation 4 Brattle St. Cambridge, MA 02138	868-6864
Eco-Log 9 1/2 Maple St. Maynard, MA 01754	800-734-6537
Hammer Environmental Consulting P. O. Box 2241 Cambridge, MA 02238	547-9447
Scientific Applications International 221 Third St. Newport, RI 02840	401-847-4210
Tellus Institute 89 Broad St. Boston, MA	426-5844
Waste Not Recycling Inc. 60 Wyoming Rd. Newton, MA	630-9131

APPENDICES

Appendix A: Matrix of Recyclable Materials by Business Type

Appendix B: Conversion of Volume to Weight for Recyclable Materials

Appendix C: Sample Kick-Off Memo

Appendix D: Sample Building Recycling Instructions

Appendix E: Cambridge Recycling Regulations

Appendix F: Recipients of Business Recycling Awards

APPENDIX A

MATRIX OF WASTE COMPOSITION BY BUSINESS TYPE

NOTES: 1. Percentages express weight, not volume. Highlighted numbers indicate materials a given industry would be expected to generate in quantities of greater than or equal to 5%, which must be recycled. If your trash figures are in volume, see Appendix B to convert to weight. 2. **Businesses falling outside these categories will not follow the same patterns.** A business may generate unusual quantities of a given recyclable material. If you suspect this is the case, consult your custodians. You may need to make a more detailed analysis. Consider inspecting a typical day's trash. 3. Matrix excludes demolition debris.

Material	Office	Industry	Retail	Restaurant	Institution
Corrugated card. boxes	11%	20%	30%	16%	14%
Office paper	16%	5%	2%	<1%	6%
Newspaper	3%	4%	2%	2%	6%
Magazines	2%	1%	2%	1%	3%
Glass bottles and jars	3%	2%	2%	5%	4%
Metal cans and foils	3%	2%	3%	5%	3%
Plastic containers	2%	1%	2%	7%	5%
Leaves and yard waste	2%	1%	1%	1%	2%
Wood waste	1%	1%	2%	2%	2%
Scrap metal	1%	4%	1%	1%	3%
Vehicle batteries	<1%	<1%	<1%	<1%	<1%
Waste oil	<1%	<1%	<1%	<1%	<1%
Total recyclables, avg.	40%	39%	48%	41%	48%
Non-recyclable trash, avg.	60%	61%	52%	59%	52%

DEFINITIONS

- Corrugated cardboard boxes** include brown multi-layer boxes with a fluted middle layer between two flat layers.
- Office paper** is non-glossy white paper such as copier paper, stationery, and computer print-out.
- Newspaper** includes clean newsprint-grade paper, including the glossy advertisement insert sections.
- Metal cans and foils** include aluminum, steel, and tin-coated steel cans, foils, trays, etc.
- Plastic containers** include recyclable #1 PETE and #2 HDPE jars and bottles **but not** film bags, wrappings, or foams.
- Glass** includes recyclable bottles and jars **but not** non-recyclable light bulbs, windows, lab glass, dishes, or ceramics.
- Leaves and yard waste** includes leaves, grass clippings, branches, and twigs.
- Wood waste** includes pallets, logs, trees, branches, boards, stumps, and other wood not defined as yard waste.
- Scrap metal** includes used or discarded metal appliances, furniture, vehicle parts, and other items.
- Vehicle batteries** are those used in automobiles, trucks, and all other lead-acid batteries.
- Waste oil** is crankcase oil that has been utilized in internal combustion engines.

Sources:

1. D. Cerrato and B. Riley, "Developing Recycling Programs for Commercial Establishments," Malcolm Pirnie, 1989
2. Earthworm, Inc.: "How to Set Up a Commercial Recycling Program," 1990.
3. Washington State Department of Ecology, "Best Management Practices for Solid Waste: Recycling and Waste Survey," 1987.

APPENDIX B

CONVERSION OF VOLUME TO WEIGHT FOR RECYCLABLES

Newspaper

1 cubic yard = 600 lbs
3.333 cubic yards = 1 ton
One 12" stack = 35 lbs

Corrugated cardboard

(uncompacted)
1 cubic yard = 285 lbs
7.018 cubic yards = 1 ton

Glass

(loose, whole bottles)
1 cubic yard = 600 lbs
3.333 cubic yards = 1 ton
One grocery bag = 16 lbs
One case = 10 lbs
(manually broken)
1 cubic yard = 1000 lbs
2 cubic yards = 1 ton

Organic material

Leaves (dry, uncomposted)
1 cubic yard = 250 lbs
8 cubic yards = 1 ton

Grass clippings

1 cubic yard = 404 lbs
4.95 cubic yards = 1 ton

Plastic (uncrushed)

PETE #1 (soda bottle-type)
1 cubic yard = 30 lbs
66.66 cubic yards = 1 ton
HDPE #2 (milk jug-type)
1 cubic yard = 25 lbs
80 cubic yards = 1 ton

Office paper

1 copier paper box = 20 lbs
One 33 gal. bag, 1/4 full = 20 lbs
One 96 gal. barrel = 250 lbs
1 cubic yard hamper = 500 lbs

Aluminum cans

25 cans = 1 lb
1 cubic yard = 74 lbs
1 grocery bag = 1.5 lbs

Steel cans

One #10 can = 1 lb
1 cubic yard = 150 lbs
2.353 cubic yards = 1 ton

Scrap metal

1 cubic yard = 850 lbs
3.53 cubic yards = 1 ton

Mixed Commercial Trash

1 trash bag (30 gal.) = 20 lbs
1 cubic yard = 250 lbs
8 cubic yards = 1 ton
(For service businesses; manufacturing industries generate trash with higher density)

NOTE: Information obtained from New Jersey Department of Environmental Protection, Office of Recycling, 1989; Solid Waste Information Clearinghouse, 1992.

APPENDIX C

SAMPLE RECYCLING ANNOUNCEMENT MEMO

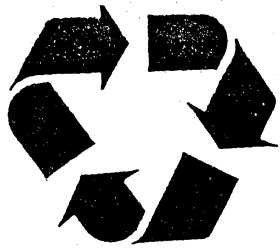
TO: All employees
FROM: [Manager or owner]
SUBJECT: Recycling
DATE: 1 December 1992

Recycle your office paper, corrugated cardboard boxes, and beverage containers beginning next week at [our company]!

Starting this Monday, blue recycling baskets will be placed beside every desk and copier to collect white paper for recycling. Please put any white non-glossy paper in these containers and they will be emptied by the custodian for recycling weekly. Barrels to collect cans and bottles will be placed in the cafeteria; sort out your empty containers according to the posted signs on the barrels. A hamper to collect flattened corrugated cardboard boxes will be located on the rear loading dock.

We have a chance to show our customers and our neighbors that we are reducing our trash. We have a chance to save natural resources and reduce landfill consumption. Finally, we have a chance to keep [our company's] environmental record clean by obeying Cambridge's mandatory recycling ordinance, which will go into effect on 1 January 1993.

Let's all pull together to recycle! We'll help the environment and also make more effective use of [our company's] resources. If you have any questions, call [our recycling coordinator].

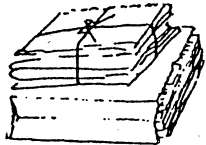


OFFICE RECYCLING SPECIFICATIONS (7/92)

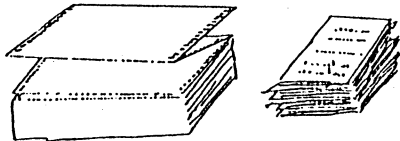


MATERIAL:

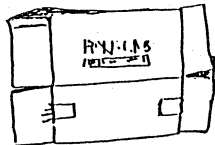
Newspaper



White paper



Corrugated cardboard



Containers
(glass, metal, plastic)



INSTRUCTIONS:

Place loose into 96 gallon barrels on street level or loading dock (elevator or ramp access required) OR place in an indoor, sheltered location stuffed into paper bags or twine-tied.

Place loose or in clear plastic bags into 96-gallon barrels on street level or loading dock (elevator or ramp access required) OR place in an indoor sheltered location in < 30 gallon clear plastic bags, cardboard boxes, or hampers.

Break down flat and place in barrels or hampers on street level or loading dock (elevator or ramp access required) OR break down and place in an indoor sheltered location twine-tied or stuffed into intact boxes.

Place loose or in clear plastic bags into 96-gallon barrels on street level or loading dock (elevator or ramp access required) OR place in an indoor sheltered location in < 30 gallon clear plastic bags. Include clear and colored glass jars and bottles; metal cans and foils; and clear and colored plastic bottles, #1 (PETE) and #2 (HDPE) resins only.



NOT ACCEPTABLE:

Magazines, phone books

Colored paper, fax paper, glossy paper, window envelopes, sticky labels, napkins, newspaper

Waxed or Asian cardboard

Glass mirrors, drinking glasses, light bulbs;

Metal items other than cans or foils, paint cans, aerosol cans, jar lids;

Plastic bags, unidentified resin numbers, any other plastic items

PHONE BOOKS, TONER CARTRIDGES, PLASTIC PACKING PEANUTS, DEPOSIT CONTAINERS FOR DONATION TO CHARITY, WOVEN FIBER MAIL SACKS, CLOTHING, AND CERTAIN OTHER MATERIALS CAN BE RECYCLED THROUGH FMD. CALL THE RECYCLING HOTLINE

APPENDIX E

CAMBRIDGE COMMERCIAL RECYCLING REGULATIONS

In accordance with the requirements of Section 8.24.070 of the Cambridge Municipal Code, the Commissioner of the Department of Public Works hereby adopts the following rules establishing recycling requirements for commercial establishments.

- A) **Purpose and Declaration of Policy:** In March, 1991, the Cambridge City Council passed an ordinance requiring residents and commercial establishments in the City of Cambridge to recycle certain materials rather than dispose of these materials as refuse. Under the ordinance, the Commissioner of the Department of Public Works may promulgate regulations regarding recycling practices of commercial establishments operating in Cambridge. These regulations written pursuant to the ordinance are designed to give businesses further guidance regarding recycling requirements.
- B) **Definitions:** The following definitions shall apply in these regulations:
- 1) **Aluminum**--Aluminum cans, aluminum foil, and aluminum containers or trays used in packaging, preparation, or cooking of food.
 - 2) **Commercial establishment**--Any non-residential building, including, but not limited to, those used for retail, wholesale, industrial, manufacturing, dining, offices, professional services, automobile service, hotels and motels, restaurants, or shipping and receiving areas.
 - 3) **Contracting agent**--The entity who contracts for the private collection and disposal of refuse for a commercial establishment. This may either be the owner of the property (who either passes along collection/disposal costs as part of the rent or as a separate charge), his/her agent, or the tenant/lessor. The circumstances will vary depending on the property agreement.
 - 4) **Corrugated cardboard**--Paper in which a portion has been made to have a wavy surface (alternating ridges and grooves) and is placed between two flat surfaces for the sake of strength, and which is commonly used to form cartons. Does not include linerboard or paperboard such as cereal boxes or clothing liners.
 - 5) **Glass containers**--Bottles and jars, made of silica, sand, soda ash, and limestone, being transparent or translucent, and used for packing or bottling of various materials. This does not include plastics or glass products such as laboratory glass, window glass, blue glass, flat glass, mirrors, plate glass, light bulbs, dishes or ceramics.
 - 6) **Landlord**--owner, manager, and/or lessee.
 - 7) **Leaves** -- Deciduous and coniferous seasonal disposition from trees.
 - 8) **Magazines**--Publications printed on glossy, clay coated paper.
 - 9) **Newspaper**--Newsprint-grade paper, the common, inexpensive machine-finished paper made chiefly from wood pulp, which is printed and distributed, and includes all newspaper advertisement, comics and enclosures. This does not include newspaper soiled by food, paint, petroleum products, oil or oil solvents, or other solid wastes that are not recyclable.

- 10) **Office paper**--Printed or unprinted sheets, shavings, and cuttings of white sulphite or sulphate ledger, bond, writing, and other papers which have a similar fiber and filler content, and which are free of treated, coated, padded and heavily printed paper, carbon paper, and non-paper materials. Includes computer and laser printout.
- 11) **Person** -- any firm, institution, partnership, association or corporation, public or private, organized or existing under the laws of the state or other states, including federal corporations.
- 12) **Plastic containers** -- Clear and colored bottles and jugs for food, beverage, and laundry materials made from high density polyethylene (HDPE) and polyethylene terephthalate (PET) plastics, excluding containers for use in chemical, laboratory, or automotive applications, and excluding caps and lids.
- 13) **Recyclable materials** -- Any type of refuse designated by the Cambridge Commissioner of Public Works through rules and regulations issued under this section to be separated for recycling.
- 14) **Refuse** -- rubbish and recyclable materials.
- 15) **Rubbish** -- All perishable and non-perishable refuse generated by commercial establishments excluding items designated as recyclable.
- 16) **Scrap metal** -- Used or discarded items which consist predominantly of ferrous metals, aluminum, brass, copper, lead, chromium, tin, nickel or alloys thereof, including, but not limited to large appliances such as refrigerators and stoves.
- 17) **Steel** -- All containers composed in whole of iron or steel (so-called tin cans) used as containers for the packaging or storage of various food and non-food items, except containers of paint or petroleum based solvents, and any pressurized aerosol cans.
- 18) **Storage battery** -- Batteries used in motor vehicles, airplanes, boats, recreational vehicles, tractors, and like application, or other lead-acid batteries.
- 19) **Waste oil** -- Crankcase oil that has been used in internal combustion engines.
- 20) **Wood waste** -- Wood pallets, logs, large branches, boards, stumps and other wood not defined under yard waste.
- 21) **Yard waste** -- Grass clippings, weeds, hedge clippings, garden waste, and twigs and brush not longer than two feet in length and one half inch in diameter.

C) Applicability of Regulations

These regulations apply to any person who generates refuse in Cambridge.

D) Designated Recyclable Materials

The following materials shall be designated as recyclable materials:

- | | | |
|--------------------------------|--|-------------------------|
| -- Office paper | --Aluminum (cans, foil, trays, and containers) | --Leaves and yard waste |
| -- Newspaper | | --Waste oil |
| -- Magazines | --Glass containers (clear, green, and brown) | --Storage batteries |
| -- Corrugated cardboard | | --Scrap metal |
| -- Ferrous cans (steel or tin) | --Plastic containers | --Wood waste |

The City reserves the right to add or remove recyclable materials as defined in these regulations at any time.

E) Responsibilities of Generators of Recyclable Materials

- 1) **Recycling Requirement:** All commercial establishments shall be required to separate designated recyclable materials generated on the premises which represent greater than five percent by weight of the establishment's total refuse and shall arrange for the collection for recycling of these materials. These materials must be source separated and kept in a condition to meet minimum market standards. Tenants in a commercial building must recycle any designated mandatory recyclable material that represents greater than or equal to 5% by weight of their trash, even if that material is less than 5% of the building's total trash. Landlords with gross lease arrangements with any or all tenants must either total all tenants' waste audit figures or do a building-wide waste audit to submit one building plan. Landlords offering gross lease arrangements must provide centralized storage containers and recycling service for any designated recyclable material generated in quantities of 5% or more by weight of the refuse of any one tenant. Landlords offering exclusively net lease arrangements must submit the information indicated on the Recycling Plan form and a list of all tenants.
- 2) **Program Responsibility:** Program development, implementation and operation shall be the responsibility of each commercial establishment. Each landlord must also submit a Recycling Plan for the building. In cases where the landlord is the contracting agent for refuse disposal in a building, the landlord shares joint responsibility for developing, implementing, and operating the recycling program in conjunction with commercial tenants.
- 3) **Recycling Plan:** Each commercial establishment and each landlord of a building housing a commercial establishment shall submit a Recycling Plan to the Commissioner of Public Works by January 1, 1993 using the forms provided by the City. These plans, unless otherwise noted, shall include a waste audit, a description of the process by which recyclable materials are to be segregated from the waste, identification of how the recyclables will be collected and transported to market, and certification that the hauler is a bona fide recycler. Information on the process used to notify tenants/employees of the recycling requirements, including what materials are to be separated, must also be submitted as part of the Recycling Plan.
- 4) **Annual Update to Recycling Plan:** On an annual basis, each commercial establishment and each landlord of a building housing a commercial establishment operating in Cambridge shall submit an Annual Update to the Recycling Plan to the Commissioner of the Department of Public Works. The plan shall be submitted by the commercial establishment and its landlord.

The first Update shall be submitted to the Commissioner of Public Works on March 1, 1994. Subsequent reports will be due thereafter on March 1 of each year. Forms and instructions for each report will be provided initially by the City. The report shall include the following information:

- total tonnages of waste generated and recyclable materials recovered by the establishment or building;
 - the type and weight of individual recyclable materials recovered;
 - hauler or drop-off center for the recyclable materials.
- 5) **Storage of Designated Recyclable Materials:** It shall be the responsibility of the commercial establishment and/or landlord to provide and keep, at its own cost, a sufficient number of containers to hold all designated recyclable materials which may accumulate during the intervals between collection of such recyclable materials. Any such containers, or any designated storage locations, shall not interfere with public or private sidewalks, walkways, driveways, roads, streets, highways or entrances and exits of public or private buildings and shall be in compliance with all applicable laws, including Fire and Health laws. Containers shall be of sufficient quality and design so as to maintain the marketability of the recyclable materials.
- 6) **Education Program:** It shall be the responsibility of all commercial establishments to adequately inform all employees and/or resident users and patrons of the requirements of the recycling program. The required educational program, at a minimum, shall include written instructions to all parties identifying the materials to be recycled, how the materials are to be prepared, how to use the collection system, and updates detailing any changes in the program.
- 7) **Penalties:** Commercial establishments failing to adhere to any of these requirements will be subject to administrative penalties outlined in Section 8.24.070(J) of the Cambridge Municipal Code.

F. Severability

The provision of these rules shall be severable and if any phrase, clause, sentence, paragraph, subsection or section of these rules, or the applicability thereof to any person or circumstance, shall be held invalid, the remainder of these rules and the application thereof shall not be affected thereby.

APPENDIX F

Recipients of Business Recycling Awards
Presented by Cambridge Advisory Committee on Environmentally Desirable
Practices, 13 March, 1992

<u>Business or Institution</u>	<u>Contact</u>	<u>Telephone</u>
Arthur D. Little, Inc.	Conrad Martin	864-5770
Biogen, Inc.	Susan Lee	252-9200
Bob Slate Stationer	Mallory Slate	547-8624
The Body Shop	Cathy Stephenson	876-6334
Buckingham, Browne & Nichols School	Warren Richards	547-6100 x 115
Cambridge Natural Foods	Kent Mitchell	492-4452
Classic Copy & Printing	Anne Shuhler/ John Dietrich	868-4140
Computer Corporation of America	Sarah Weinstein	492-8860
Good Good the Elephant	M. Millis McLaughlin	547-9691
Harvard Book Stores, Inc.	Pamela Krackow	661-1248
La Groceria Ristorante Italiano	Frank Mastromauro	876-4162
The Lincoln Institute of Land Policy	Carolyn Ruhe	661-3016
Lotus Development Corp.	Mary Jordan	577-8500
Massachusetts Institute of Technology	Sarah Eusden	253-0942
MDF/Moto	Jude Silver	491-2789
Mount Auburn Hospital	Timothy Neale	492-3500
Phase One Office Products	Keith Castle	547-0700
Star Market Company	Garey Scott	661-2200
Trinity Property Management	Michael Obert	354-0835
Urban Outfitters	Michael Hager	864-0070
WordsWorth Books	Sanj K	354-5201
YMCA	Maurie Martin	661-9622

DISCLAIMER

This guide is designed to assist you in preparing and implementing a Recycling Plan for your business or institution. The City of Cambridge is not responsible for any liability arising as a result of the use of this guide. Its contents do not override any existing or future contractual rights between parties involved in commercial recycling arrangements. Vendor and equipment listings constitute no endorsement or guarantee of product or service quality and are provided for your information only.

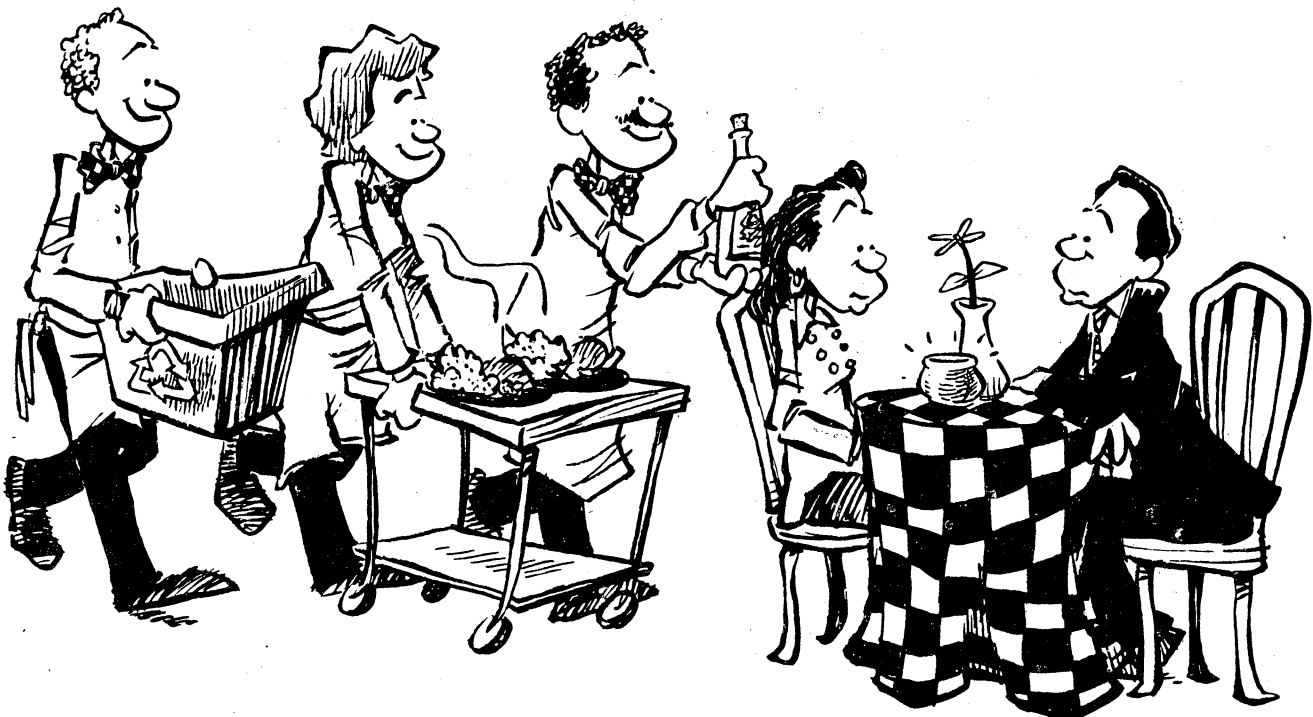
This Guide was prepared for the Cambridge Department of Public Works by:

Stephen Hammer
Hammer Environmental Consulting
P.O. Box 2241
Cambridge, MA 02238

and:

Rob Gogan
Eco-Log
9 1/2 Maple Street
Maynard, MA 01754

--Illustrations by John Klossner--



1992 Awards for Outstanding Commercial Recycling and Waste Reduction Programs

The Cambridge Advisory Committee on Environmentally Desirable Practices will be accepting nominations until March 1, 1993 of Cambridge businesses and institutions demonstrating recycling excellence. Self nominations will be accepted.

In order to be eligible, a business or institution must have an operating recycling program in place. Criteria will include number of materials recycled, percentage of waste stream recycled, types of supplies used made from recycled materials and demonstrated commitment to waste reduction.

Send nominations to the Committee via Gerald Boyle, Commercial Recycling Assistant, Cambridge Recycling Program, 147 Hampshire Street, Cambridge, MA 02139.

COMMERCIAL RECYCLING WORKSHOP SCHEDULE

Monday, September 14, 1992 -- 10:00 AM

Central Square Library, 45 Pearl Street

Thursday, September 17, 1992 -- 10:00 AM

Volpe Transportation Building, 55 Broadway (Kendall Square)

Thursday, September 24, 1992 -- 3:00 PM

Cambridge Rindge & Latin School Auditorium, 459 Broadway
(Parking is available in the CRLS garage on Ellery Street after 3:00 PM)

Thursday, October 1, 1992 -- 3:00 PM

Fitzgerald School Auditorium, 70 Rindge Avenue

Thursday, October 8, 1992 -- 8:00 AM

Department of Public Works Building, 147 Hampshire Street

Thursday, October 15, 1992 -- 3:00 PM

Harrington School Auditorium, 850 Cambridge Street

Thursday, November 19, 1992 -- 12:00 PM

Chamber of Commerce, 859 Massachusetts Avenue

Thursday, December 10, 1992 -- 8:00 AM

Department of Public Works Building, 147 Hampshire Street

Questions about recycling? These workshops offer you a chance to talk to:

- Recyclables haulers and drop-off station operators
- Business people with successful recycling programs
- City recycling officials

Call 349-4836 for further information about the workshops.



October 14, 1992

To: Robert W. Healy
City Manager

From: *David A. Haley*
David A. Haley, Commissioner
Public Works Department

Subject: Council Order #16, Dated 9/21/92

Re: **Status of mandatory recycling activity in Cambridge**

David A. Haley
Commissioner

147 Hampshire Street
Cambridge
Massachusetts 02139
617-349-4800

SCOPE AND SCALE OF THE PROGRAM

In March, 1991, the Cambridge City Council passed a recycling ordinance making recycling mandatory for all residents, municipal offices, commercial businesses, and non-profit institutions in the City. Since that time, program development and implementation have occurred in the following program areas:

- Curbside Recycling
- Recycling in Multi-family Dwellings
- Commercial Recycling
- Recycling in City Buildings
- Drop-off Recycling

Curbside Recycling

A curbside collection program for 25,500 households in buildings with 12 or fewer units began on July 15, 1991. Newspaper, glass containers, metal cans, foil and trays and HDPE and PET plastic containers were the initial materials collected in the blue box program. In October, 1991, leaf and yard waste collection was added to the curbside recycling program. Fall leaf and yard waste collection continued until December 14, 1991.

The recycling program staff publicized separate Christmas tree pick up that was carried out for two weeks in January 1992 by the Department of Public Works Parks and Forestry Division. The Christmas trees were



mulched and sent to Miles River Co. in Ipswich, MA, which reuses the material. Christmas trees will be collected for recycling again this winter.

In April, 1992, Spring/Summer leaf and yard waste collection was launched and continued into FY93. Separate leaf and yard waste collection will end this year on December 11.

In June of 1992, magazines were added to the list of materials that Cambridge residents could recycle at the curb.

In October, 1992, the Department of Public Works reached an agreement with Laidlaw Waste Systems to add paper bags to the list of materials that residents can recycle at curbside. A press release announcing this addition to the program is attached.

Recycling in Multi-Family Dwellings

With volunteer help, DPW recycling staff prepared a "Guide to Preparing Recycling Plans for Multi-Family Dwellings" and distributed the Guide to owners and managers of 340 residential buildings with thirteen or more units in Cambridge. A copy of the Guide is enclosed. Each building owner is required to complete a recycling plan and submit it to the City by January, 1993. An informational workshop was held on July 16, 1992 to address concerns of owners and managers.

The 340 buildings with thirteen or more units contain approximately 16,000 housing units. Eight thousand of these units receive City trash collection. Working with owners and managers of buildings that receive City trash collection, recycling staff has already implemented recycling programs in 88 buildings containing a total of 3,598 housing units. This includes two Cambridge Housing Authority Developments -- River Howard Homes and Washington Elms. It is expected that recycling programs will be implemented in all large buildings receiving City trash collection (approx. 220 buildings) by June 30, 1993. Recycling programs will be implemented in the 120 buildings with private trash collection beginning in July, 1993.

Commercial Recycling

With volunteer and consulting help, recycling staff developed a plan for implementing the commercial recycling component of the Mandatory Ordinance. A "Guide to Commercial Recycling" was prepared and has

been distributed to the 4,000 businesses and institutions that operate in Cambridge. A copy of the Guide and a list of common questions and answers regarding the commercial recycling program are enclosed. Each business is required to complete a recycling plan and submit it to the City by January, 1993. In each subsequent year, annual updates accompanied by receipts showing quantities recycled must be submitted. Eight commercial recycling workshops have been scheduled during September - November, 1992 to provide additional assistance to businesses. Fifty-four recycling plans have already been submitted to the Department of Public Works since the Guide went out in early September.

Recycling staff also planned and carried out an award ceremony in March, 1992 for the Cambridge Advisory Committee on Environmentally Desirable Practices. The ceremony recognized twenty-two Cambridge businesses for excellence in recycling and waste reduction. The second annual excellence in recycling award ceremony will take place in April, 1993. Nominations are currently being accepted.

Recycling in City Buildings

Office paper recycling programs have been implemented in 18 City buildings and newspaper, magazines, glass, plastics and metals recycling in 8 buildings. One building, Neville Manor, receives collection of cardboard through the City's program. Twenty-five tons of office paper were recovered from City buildings in FY92. All city buildings will receive full recycling services by July, 1993.

Drop-off Recycling

The Cambridge Recycling Drop-off Center located in the Public Works Yard maintains four day per week operation to serve residents living in buildings with 13 or more units that do not yet have in-house programs. During winter 1991, the Drop-off Center accepted 20 tons of old phone books from Cambridge residents and businesses in a new program sponsored by NYNEX Information Systems, Inc. and Laidlaw Waste Systems. Although sponsorship by NYNEX and Laidlaw will not continue into a second year, the Department of Public Works and the Cambridge Chamber of Commerce have agreed to share the cost of a drop-off phone book recycling program that is accessible to all residents and businesses in the City.

Christmas tree mulch was made available to residents at the Recycling Drop-off Center during the month of January, 1992. In June 1992, the Drop-off Center began accepting corrugated cardboard and white and colored office-type paper from residents City-wide. The recycling staff also works with a group of volunteers to set up a system for marketing backyard composters to Cambridge residents at discount prices. The composters are distributed from the drop-off center.

Finally, the waste oil collection tank in the Public Works Yard continues to be utilized by Cambridge residents, with approximately 1,927 gallons of oil collected in FY92.

MARKETING THE PROGRAM TO THE PUBLIC

In the Spring of 1991, a City-wide publicity program was carried out by recycling staff and volunteers to inform and educate residents about the upcoming curbside recycling program.

Our ongoing publicity strategy includes the following:

- Regular recycling newsletters that are mailed to all Cambridge households and owners of Cambridge residential buildings who live outside the City. Copies of our February 1992 and May 1992 newsletters are enclosed. Each newsletter went to approximately 45,000 households.
- Periodic curbside recycling contests in which randomly chosen curbside households are monitored. Ten households found to be recycling correctly in March and April, 1992 were recognized at a ceremony in June. Origins Cosmetics Store in Cambridge donated the prizes. The next contest is scheduled for November and December of 1992 and will be sponsored by Wordsworth Bookstore of Harvard Square.
- Block and Building Representative programs. Over sixty Cambridge residents function as block or building recycling representatives. These individuals volunteer to serve as sources of information about recycling in their neighborhoods. The City provides them with lists of common questions and answers about recycling and with "business cards" that they distribute to their neighbors. During Winter, 1992, block representatives will be carrying out a door-to-door survey designed to give City recycling

staff information about residents' attitudes toward and understanding of the program.

- Distribution of instructional and promotional literature in blue boxes. A brochure announcing the addition of magazines to the curbside recycling program was left in all blue boxes emptied by the City's recyclables collection contractor. A "thank you" brochure that is enclosed was distributed in this manner in September, 1992.
- Brochures announcing changes or additions to the program are translated into Spanish, Portuguese and Haitian-Creole; printed in quantity and supplied to advocacy organizations for these language groups.
- Brochures describing the City's recycling program are being distributed with resident sticker renewals by the Department of Traffic and Parking.
- Large signs at key rotaries and intersections in the City announce changes in the recycling program.
- A one half hour video showing recyclables collection, processing and typical end markets is being developed for use on the municipal cable station and in the schools.
- Recycling staff are currently working with teachers and officials from the School Department to introduce solid waste management curricula at one elementary school grade level and to present a motivational message about recycling to all public school students.
- A variety of other media are used on an ongoing basis as well, including two weekly newspapers, the new City Weekly section of the Boston Globe, the municipal cable TV station and recycling exhibits and activities at fairs and festivals.

ENFORCEMENT

The recycling staff will begin enforcing the mandatory recycling ordinance in November, 1992. Non-participants in the curbside recycling program will receive warning letters and subsequently, fines, if they continue to throw recyclable materials in the trash. The upcoming enforcement program will be publicized as widely as possible before fines are levied in

order to give residents the opportunity to comply if they are not doing so at the present time.

PERCENTAGE OF WASTE STREAM DIVERTED FROM LANDFILLS AND INCINERATION

Cambridge's Mandatory Recycling Ordinance set a recycling diversion target of 15% of the total municipally collected solid waste within two years of the initiation of a curbside collection program, and 25% of the municipally collected solid waste stream within five years.

In the first year of the curbside recycling program, Cambridge residents in curbside households and multi-family dwellings recycled 5,158.30 tons of news, magazines, metal, glass and plastic containers and leaves and yard waste; 15.73% of the trash stream collected by the Department of Public Works. A total of 112 tons of material were recycled at the drop-off center, of which approximately 57 tons were diverted from the trash stream collected by the City, bringing the percentage to 15.88%. Adding the 25 tons of office paper diverted from City buildings and approximately 10 tons of phone books diverted from the residential waste stream, the total percentage diverted from the trash stream collected by the DPW is 15.97%.

In the initial months of year 2 of the curbside recycling program, diversion rates are averaging 18.85%

REUSE OF DIVERTED MATERIAL

The Cambridge Recycling Program utilizes a number of safeguards to ensure that materials diverted from the waste stream are actually reused. Laidlaw Waste Systems, the City's recyclables collection contractor, is responsible for marketing as well as collecting the materials. The City's contract with Laidlaw allows us to assess damages of \$2,000 per occurrence for landfilling or incinerating of recyclable materials. Laidlaw delivers recyclables from Cambridge to Jet-A-Way, Inc. in Roxbury for processing and marketing. A letter of guarantee from Jet-A-Way regarding the recycling of materials from Cambridge is attached. Jet-A-Way has also provided a list of typical end uses for recyclable materials.

Businesses in the City are required as part of their recycling plan to list the names of their recyclables haulers and to present certification from their haulers that the material is being taken to a bona fide recycling

outlet rather than being landfilled or incinerated. Furthermore, as part of a required annual update, businesses are required to enclose copies of receipts or weight slips for recyclables picked up or dropped off from their site.

ACCOUNTING PROFILE -- COST OF SOLID WASTE DISPOSAL

An accounting profile of the cost of waste disposal to the City of Cambridge since the beginning of mandatory recycling is provided and is matched against the cost of waste disposal for the year prior to implementation of the recycling ordinance.

	Pre-Mandatory Recycling (FY91)	Year 1 of Mandatory Recycling (FY92)
Cost of Recycling	\$22,097	4,321 tons bottles, cans and news @ \$79.99 = \$345,598 844 tons yard waste @\$77.49 = \$65,410 Staff salaries and education = \$160,547 Total Cost of Recycling = <u>\$571,555</u>
Cost of Trash Collection and Disposal	38,281 tons @ \$125.51/ton = \$4,804,648	31,062 tons @ \$121.68/ton = \$3,779,624
Total Recycling and Trash Collection and Disposal Costs	\$4,826,745	\$4,351,179



FOR IMMEDIATE RELEASE

October 13, 1992
CONTACT: JAN ACETI
349-4866

David A. Haley
Commissioner

**CAMBRIDGE ADDS PAPER BAGS
TO CURBSIDE RECYCLING PROGRAM!**

147 Hampshire Street
Cambridge
Massachusetts 02139
617-349-4800

"I have piles of paper bags in my kitchen that I can't bear to throw away, but have no use for. Can I recycle them?"

The City of Cambridge has an answer to this common question. The most environmentally sound answer is not to use the paper bags at all! Canvas or string shopping bags are now available from many retail outlets, including some supermarkets. Reusing the paper bags, for example, for trash bags, is the next best alternative. Put a section of the daily newspaper underneath the bag to catch any leaks.

Finally, if neither eliminating use of the bags entirely or reusing them is an option, the bags can be recycled in the City's curbside recycling program. As always, paper bags can be used to package newspaper for recycling. If you have extras bags, bundle with string or pack them all tightly inside a paper bag and set out beside your blue box along with your newspaper. Please do not put loose bags out on the curb. Loose bags become a litter problem.

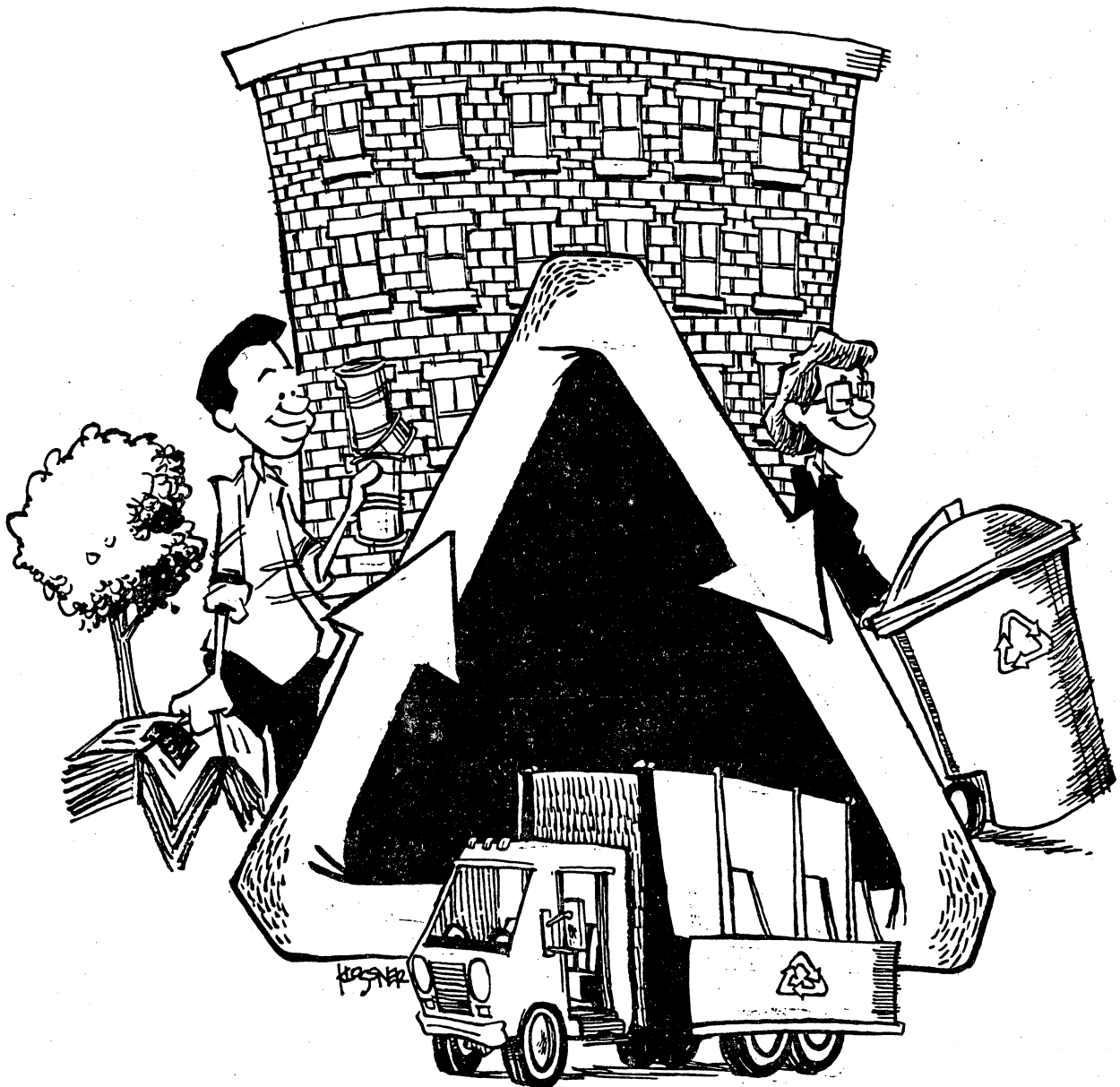


Residents in large apartment or condominium buildings where recycling programs exist should put packed paper bags into the newspaper toter in their building. Paper bags of any color are ok. Do NOT include paper bags with handles. Do NOT pack bags in cardboard boxes or include any other type of paper. Do NOT include plastic bags.

The paper bags will be picked up by Laidlaw Waste Systems, the City's recyclables collection contractor, and taken to Jet-A-Way Inc., where they are baled and sold. The bags are made into new paper bags or into corrugated cardboard.

aceti:brownpaperbags

GUIDE TO PREPARING RECYCLING PLANS FOR MULTI-FAMILY DWELLINGS



CAMBRIDGE RECYCLING PROGRAM - CAMBRIDGE, MA

GUIDE TO PREPARING RECYCLING PLANS FOR MULTI-FAMILY DWELLINGS

Recycling plans for multi-family dwellings must be submitted to the City by January 1, 1993. See instructions inside.

**Cambridge Recycling Program
Department of Public Works
147 Hampshire St.
Cambridge, MA 02139
349-4800**

DISCLAIMER

This guide is designed to familiarize you with the City of Cambridge's program for Recycling in Multi-family dwellings. Its contents do not override any contractual rights between the participants in the Program. The City of Cambridge is not responsible for any liability arising as a result of the use of this guide.

Printed on recycled paper



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139

TEL 349-4300

FAX 349-4307

EXECUTIVE DEPARTMENT

ROBERT W. HEALY

City Manager

RICHARD C. ROSSI

Deputy City Manager

May 1992

Dear Cambridge Property Owner:

In March of 1991, the City of Cambridge took a major step to protect the environment and to comply with bans on recyclable materials from Massachusetts landfills and incinerators. We passed the Mandatory Recycling Ordinance, Section 8.24.070 of the Municipal code, which requires all residential and commercial buildings in the City to implement recycling programs. By doing so, we joined a world-wide community of people who are working to preserve our irreplaceable environment, now, and for the future.

Our successful curbside recycling program is already saving over 15 percent of our trash from being thrown away. But if recycling is to be really effective, it needs to be extended to all households and to include the many people who live in multi-family housing such as large apartment buildings and condominiums. The numerous calls we have received in the past several months from building residents, owners, managers and superintendents indicate that many of you are eager to do your part to help the environment.

The City of Cambridge is pleased to provide you with this "Guide to Preparing Recycling Plan for Multi-Family Dwellings," and we stand ready to assist you as you implement your recycling program. We look forward to having you on the recycling team!

Sincerely,

Robert W. Healy
City Manager

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ACKNOWLEDGMENTS

This Guide could not have been completed without the assistance of:

- The volunteer Multi-Family Dwelling Recycling Committee
- The building owners and managers and the haulers who reviewed early drafts
- The Recycling Program staff
- Other staff members of the Department of Public Works
- John Klossner's illustrations

In addition, material from the following published documents was used in the preparation of this Guide with permission from the authors:

Bergen County Utilities Authority, Bergen County, New Jersey, 1988, "Bergen County Apartment Recycling Manual."

Ocean State Clean-up and Recycling Program, Department of Environmental Management, Providence, RI. "Guide for Preparing Solid Waste Reduction and Recycling Plans for Multi-Family Residential Units."

St. Paul Neighborhood Consortium, St. Paul, Minnesota, January 1991, "Developing a Multi-Family Recycling Program."

Waste Reduction Advisory Committee, Hamilton, Ontario, April 1990, "How-to Manual for Planning and Implementing Recycling Programs for Apartment Buildings."

INTRODUCTION

The City of Cambridge's Mandatory Recycling Ordinance (Section 8.24.070 of the Municipal Code) and the Commonwealth's ban on certain materials from landfills and incinerators require you to establish recycling programs in the buildings that you own. The need to conserve landfill space, reduce the need for incinerator capacity and preserve natural resources underlies the recycling requirements. The City's Mandatory Recycling Ordinance and regulations require the following materials to be recycled in residential buildings:

- Newspaper
- Magazines as of June 8, 1992
- Glass containers
- Plastics labelled #1 and #2
- Aluminum cans and trays
- Tin cans
- Leaves and yard waste
- Large appliances (white goods)

The Cambridge City Council passed the Mandatory Recycling Ordinance in March 1991 for several reasons: 1) To remove banned materials from trash collected and disposed of by the City; 2) to encourage building owners not served by City trash collection to plan for compliance with the state bans; and 3) To fulfill its commitment to environmental protection.

The Mandatory Recycling Ordinance and regulations written pursuant to the ordinance are included in Appendix A for your reference.

The City's Recycling Ordinance requires you to:

- Submit a recycling plan for your building(s) to the City by January 1, 1993 using Forms 1, 2 (3 for buildings not served by City trash collection), and 4 included in this booklet.
- Implement the plan within four months of receiving City approval.

All recycling plans must answer the following questions:

- 1) Where will you locate recyclables storage containers?
- 2) How will recyclable materials be carried from dwelling units to storage containers?
- 3) How will improperly prepared and unrecyclable items be kept out of the storage containers?
- 4) How will storage containers be moved to the curb each week for emptying and later retrieved?
- 5) How will information be distributed to current and new residents regarding their role in the program?

For buildings not served by City trash collection, recycling plans must address additional questions:

- 1) How will recyclables be removed from your building(s)?
- 2) Who will remove recyclables from your building(s)?

- 3) How often will recyclables be removed from your building(s)?
- 4) Where are the recyclables taken?
- 5) How will your hauler guarantee that materials collected are remanufactured into new products? This can be a letter from the facility where the recyclables are taken.

Implementing a recycling program in your building(s) involves:

- Planning the program
- Informing and educating residents
- Starting the program
- Ongoing monitoring and promotion

Nationwide, many other cities recycle portions of their waste -- some as much as 40 percent. The Mandatory Recycling Ordinance has established a goal for Cambridge to recycle 25 percent by July 1996; a goal that can be met only

with the participation of your building(s) residents.

This Guide will help you comply with ordinance requirements by providing step-by-step instructions for setting up and running a recycling program in your building(s). Recycling is neither difficult nor time-consuming; it just requires people to change their behaviors. Once building residents and staff understand their roles, recycling will become second-nature.

Section I guides you through the processes involved with planning your building(s) program.

Section II more specifically explains what the City will do and what you need to do to get your program up and running successfully.

Section III will address the special needs of owners of buildings that do not receive City trash collection.

STATE BANS OF RECYCLABLE MATERIALS

<u>Material</u>	<u>Effective Date</u>
Leaves	12/31/91
Unshredded Tires (from landfills only)	12/31/91
White Goods (large appliances, such as stoves, refrigerators, washing machines, etc.)	12/31/91
Aluminum Materials	12/31/92
Metal and Glass Containers	12/31/92
Other Yard Waste (grass clippings, branches, weeds, etc.)	12/31/92
Single Polymer Plastics (products made out of only one type of plastic)	12/31/94

Section IV provides troubleshooting tips and suggestions for improving the quality and quantity of your building(s)' recycling efforts..

Section V gives instructions for obtaining approval for your building(s)' recycling program and provides the required forms.

The Department of Public Works Recycling Program staff is ready to assist you in planning, implementing, and maintaining your program. For your convenience, here is a list of phone numbers for the DPW Recycling Staff. Additional DPW phone numbers are listed in Appendix G.

Recycling Coordinator

Jan Aceti 349-4866

Recycling Program Assistant

Joanne Bissetta 349-4815
*(your primary contact for assistance with
planning your program)*

Business Recycling Program Assistant

Gerald Boyle 349-4836

Recycling InfoLine 349-4005

(answering machine will record your questions and comments)

Section I

PLANNING YOUR PROGRAM

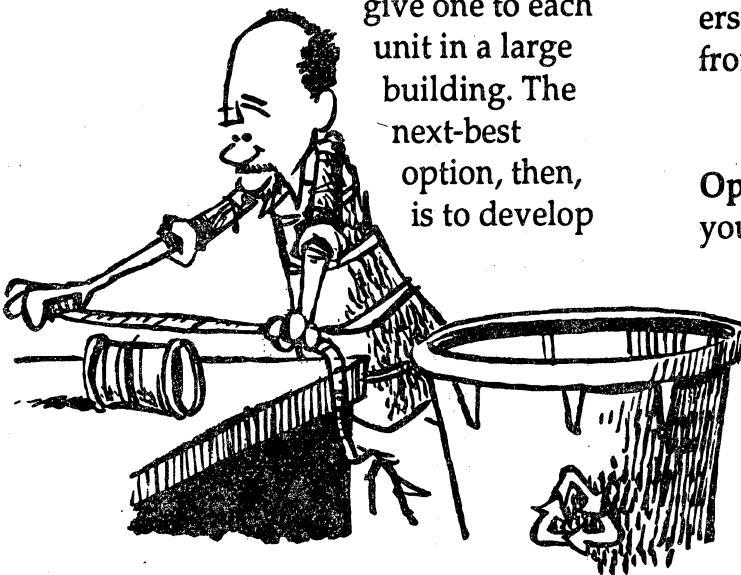
While there are many items to consider in planning a recycling program for your building(s), it is especially important for you to consider the following:

- 1) How convenient the program will be for residents to use.
- 2) Compliance with fire and safety regulations.
- 3) How to effectively educate residents about the program.

Convenience for Residents

Residents are more likely to participate in the program if recycling is convenient for them. Although most residents may believe that having their own small blue box to recycle at curbside is the most convenient for them, it is

impractical to give one to each unit in a large building. The next-best option, then, is to develop



a system that either mirrors the way residents dispose of their trash or is an equally accessible method.

Option A - Central collection: Most recycling programs in large buildings use some sort of central storage containers that are placed in a convenient location indoors or outside. Residents carry the recyclables from their individual units to the designated collection location.

Inside: Convenient locations include a trash room, or a common use area such as the laundry room or lounge. Fire prevention codes must be considered, and sufficient space must be available.

Outside: Convenient locations include a trash shed or near trash cans that are located outdoors.

Option B - Buildings with compactor chute rooms on each floor: Small plastic blue boxes, similar to the type used for curbside collection, can be placed in the chute rooms for residents' convenience. Staff can collect material from the rooms on a daily or semi-weekly basis and deposit it into the larger storage containers. Fire prevention codes prohibit paper from accumulating in these rooms.

Option C - Door to door collection: If your building has door-to-door collection, trash and recyclables are left outside the door of each unit on certain days and collected by a staff person who takes them to storage containers located in a central storage location, inside or outside the building. You must be sure to adhere to fire and safety codes.

Option D - Curbside collection: If the units or buildings in your complex are spread out, and individual residents place their trash at the curb for collection, then curbside collection of recyclables in small boxes is an option. This can be indicated on Form 2.

The times when the recyclables storage containers are accessible to residents is important, too. If trash containers are accessible at all times, residents will be more likely to recycle if the recycling containers are also continually accessible. If residents have been instructed to put out their trash at one time during the week, however, residents are likely to find it convenient to put their recyclables out at the same time.

Health and Fire Regulations

Health and fire regulations are important issues for recycling programs collecting food containers and combustible materials. Making sure that residents are aware of the need to rinse out food and beverage containers and keeping storage containers covered will prevent pests and odors.

Fire prevention and public health regulations are included in Appendix B to this document. Some general fire prevention guidelines are:

- Make sure the large storage containers are in well lit areas if they are available

around the clock. This is also important for resident safety.

- Fire hazards are minimized by locating the storage containers outside. Preferable outdoor locations are away from buildings. If storage containers are sited near buildings, it is required that you place them next to a wall without any windows.

- If you locate storage containers inside the building, they must be placed in a room that conforms to the fire prevention and health codes in Appendix B. They cannot be placed in a stairwell or under stairs. All fire doors in the vicinity of the storage containers should be closed.

- Do not place storage containers in exit corridors.

- If the storage containers will only be available at a specific time, such as on collection day, they should be stored in a secured and closed area, away from utility connections and meters. All flammable materials should be removed from the storage area, and all fire doors in the area should be closed.

Education and Promotion

The importance of promoting the recycling program in your building cannot be overstated. A study of 12 buildings in five southern Ontario cities revealed that the most important factor affecting participation was awareness of the program by residents.

The City's Recycling Program Assistant will be able to provide you with

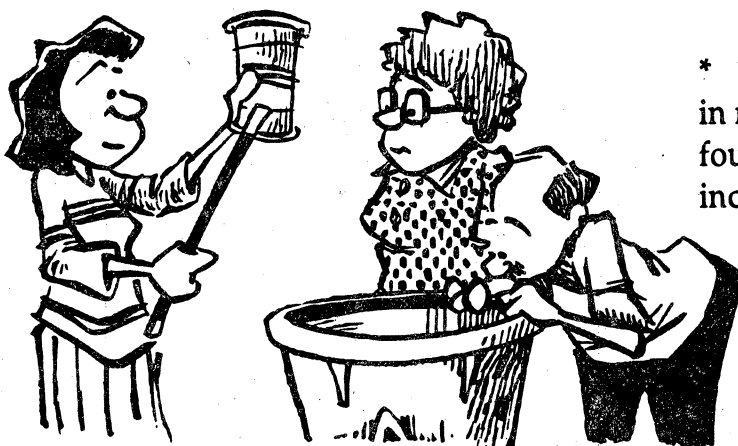
substantial assistance in promoting the program in your building.

Initial Education

Building owners, managers, or lessees must distribute a brochure or flyer describing the building's program to each resident. The brochure is most effective when distributed to residents with a letter from the management about two weeks before the program starts. The brochure, which can be produced for you by the recycling staff and customized for your building, should provide the following information:

- How the program works.
- What materials are recycled.
- How to prepare recyclables properly.
- Where to take the recyclables.

The City will also supply you with announcement posters that you are responsible for posting about one week before the program starts. Samples of the brochure, letter, and poster are included in Appendix C.



You are encouraged to promote the recycling program to your residents through any other means that are available to you. For example:

- * Have a ceremony, reception or party for everyone in the building to help them learn about the program, and to create a fun, upbeat tone. Resident volunteers can be instrumental in organizing this kick-off event. For buildings receiving City trash collection, a recycling staffperson or volunteer committee member can present information at this event.

INITIAL EDUCATION

- Letter from management
- Brochures
- Posters
- Presentation at resident meeting
- Person-to-person contact

- * Placing notices on a bulletin board is a good way to educate residents about the program and provide ongoing information.

- * Including recycling responsibilities in residents' lease agreements has been found to be a highly effective way to increase participation.

Section II

IMPLEMENTING YOUR PROGRAM

Once you decide on a method for gathering and storing recyclables that is both convenient for residents and staff to use and complies with fire and safety codes, you are ready to put your program in place. Generally, there are several steps involved to get the program up and running successfully:

- 1) Determine the number of storage containers you need.
- 2) Find a location for the storage containers.
- 3) Set up a system to ensure that only recyclables are placed into the storage containers.

Buildings Served by City Trash Collection

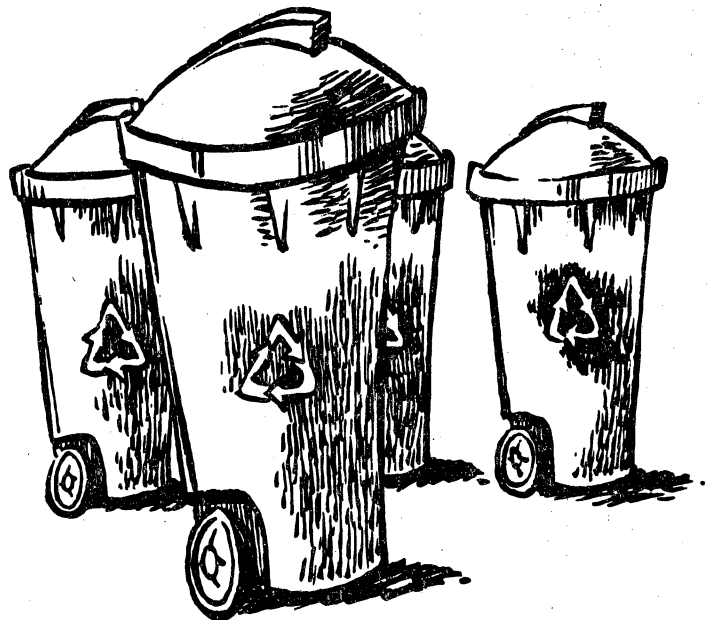
The majority of large multi-unit buildings in Cambridge have City trash service. Currently, the City pays a private hauler to collect, transport and market the City's recyclables. Due to contractual and budgetary reasons, the City can only provide recycling services for those buildings that have City trash service.

The following information applies directly to buildings that receive City trash collection. Owners, managers, and lessees of other buildings, however, may find much of this information useful when planning their buildings' recycling programs. Owners, managers, and lessees of buildings not receiving City trash service should go to page 12.

If your building has Cambridge DPW trash collection, we will give you recyclables storage containers called toters, which are large plastic barrel-like containers with wheels, handle and lid. The toters are designed for easy maneuverability even when full, and are compatible with the collection vehicles used by the City's recyclables hauler. Small bins will not be provided to individual apartment units.

The dimensions of the toters are as follows:

	<u>Height</u>	<u>Width</u>	<u>Depth</u>
68 g.	42.25"	26.38"	29.50"
95 g.	46.50"	26.38"	33.62"



STEP 1: Determining the number of toters needed

Clear glass, colored glass, plastics and metals can be mingled together in the same toter. Newspapers and magazines are stored in a separate toter. The toters are available in 68 and 95 gallon sizes.

NEWSPAPERS AND MAGAZINES

<u>Number of Units</u>	<u># of Toters Needed</u>	<u>Size of Toters</u>
26 or fewer	1	68 gal
27 - 37	1	95 gal
38 - 75	2	95 gal
76 - 113	3	95 gal
114 - 151	4	95 gal
152 - 189	5	95 gal
190 - 227	6	95 gal

GLASS/METAL/PLASTIC CONTAINERS

<u>Number of Units</u>	<u>Number of Toters</u>	<u>Size of Toters</u>
30 or fewer	1	68 gal
31 - 43	1	95 gal
44 - 87	2	95 gal
88 - 131	3	95 gal
132 - 175	4	95 gal
176 - 219	5	95 gal

Your building will need enough toters to store all recyclables collected between each weekly pick up. To determine how many toters are needed in your building, use the charts on the following page.

If there is absolutely no space for toters, and your building has fewer than 20 units, you may be able to provide sufficient storage capacity by placing 4 or 5 blue boxes in a convenient, safe location. Newspaper bundles can be stacked nearby. All residents can then add their materials to the communal boxes. It is the owner's, manager's, or lessee's responsibility to see that the boxes and bundles are set out at the curb and later retrieved.

STEP 2: Finding a location for the toters

We request that you estimate the number of toters needed so you can determine where there is enough space for the toters to be stored. The City of Cambridge reserves the right to make the final determination of the number of toters needed for the building.

In addition to locating enough space to accommodate the toters, you should also consider the ease of moving toters to the curb each week for pick-up. Ideally, you should locate toters at or near street level because newspaper and magazine toters are very heavy when full.

A 68-gallon toter of newspaper and magazines weighs about 200 pounds and a 95-gallon toter of newspaper weighs about 300 pounds. Toters full of glass, metal cans and plastics are relatively light. If stairs are involved, a ramp may have to be constructed in order to negotiate the stairs with a full toter. If moving full toters proves to be a very difficult problem, the City may be able to provide extras, so the toters are only partially full when they need to be moved.

The City's recyclables hauler will collect recyclables on a weekly basis from multi-unit buildings on trash day.

Since the recycling truck comes at a different time of day than the trash truck, it is important to have the toters on the curb by 7:00 am to be sure they are emptied. Toters may be out on the curb only between 3:00 P.M. the day before collection and 6:00 P.M. the day of collection.



POINTS TO CONSIDER:

CONTAINER LOCATION

- Safety, fire codes, aesthetics
 - Ease of resident access
 - Ability to move easily to curb
 - Winter weather
 - Scavengers
 - Multiple sites for larger, spread out complexes
 - Likelihood of attracting outside garbage
-

In order to ensure the success of your recycling program, the City requires an on-site visit be conducted to review with you the chosen location for the toters. The site visit will be performed by Cambridge Recycling staff or a volunteer and will be scheduled with you in advance. If your building's toter location seems to present a problem in terms of health or fire prevention codes, you are responsible for arranging an inspection by the Fire Department and Inspectional Services. If such an inspection appears to be warranted, your program cannot be approved until the inspection is done. The building owner, manager, or lessee is ultimately responsible for ensuring that all health and fire prevention codes are followed.

Fire Prevention Officer
 349-4918
Capt. William Ridgely
Inspectional Services
 349-6100
 Michael Nicoloro

Division of Responsibilities

As you think ahead to the implementation of your program, it will help to understand how responsibilities will be divided among the City's recycling program, the City's recyclables collection contractor, the building residents, and the building management.

City of Cambridge Recycling Program

- Provide totes for central collection, blue boxes for intermediate inspection and sorting, written promotional material (instructional brochures for residents, posters, etc.).
- Provide labels for totes.
- Assist in additional promotion to residents where necessary.
- Assist in troubleshooting problems.
- Monitor programs for correct operation.

Building Residents

- Separate recyclable materials from trash, rinse and prepare materials correctly and deposit in intermediate containers or in totes.

Recyclables Collection Contractor

- Deliver totes and blue boxes before start up.
- Empty totes at curb each week on trash day.

Building Management

(A complete listing of management responsibilities is included in the Release Agreement section of the Multi-Family Recycling Regulations in Appendix A)

- Inform new residents about the program.
- Distribute advance promotional material to residents.
- Monitor and remove improperly prepared and unrecyclable items.
- Move full totes to curb weekly and return them to their storage location after pickup.
- Secure totes from theft with lock and chain if located outside.
- Lock totes in situations where garbage might be put into them.
- Replace totes if damaged or stolen by purchasing from City wholesale.
- Maintain the totes (or smaller recycling boxes) and the area around them so it is a clean, safe, and attractive place for residents to bring their recyclables.

STEP 3: Monitoring for Contamination

Building owners, managers, and lessees are responsible for ensuring that **only properly prepared recyclables are deposited in totes**. Companies that use recycled materials to manufacture new products will not accept contaminated material. Contaminated materials must be cleaned up at high cost or landfilled. Not everything your residents want to recycle can be recycled at this time, since

markets for many materials are still being developed. In order to ensure that the materials your building collects will actually be recycled rather than thrown away, contamination must be minimized.

Contamination can be:

- 1) Dirt or food waste on recyclable materials OR
- 2) Materials in a tote which cannot be recycled, such as:

- Glass bottles with metal rings still attached;
- Wine bottles with metal or plastic wrap around necks;
- Recyclable plastics with lids or tops still attached;
- Junk mail stuffed inside newspapers.
- Items that cannot yet be recycled in the program, such as plastic bags or cardboard.

The most effective way to prevent contamination is to educate your residents before your program starts about how to prepare the materials, monitor materials while they are being collected, and provide feedback to residents about common errors.

You are required to have a system in place for monitoring and removing contamination before your program can be approved by the City. If an alternative to one of the following systems is proposed, it must meet City approval.

System #1:

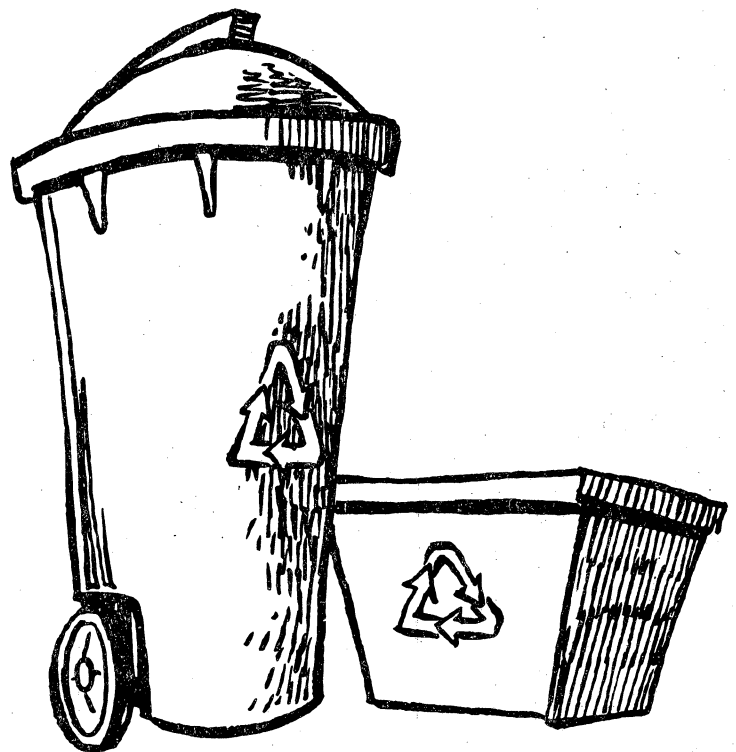
If space is available, place smaller containers near the toters where residents can leave recyclables to be inspected and placed in toters by the appropriate staff person. The boxes should be emptied frequently so large amounts of newspaper do not become a fire hazard.

Also, you can locate toters outside but place small recycling boxes in the area where residents dispose of their trash, making it convenient for residents to use. Utilizing smaller recycling containers allows maintenance staff to easily inspect the materials and remove contaminants.

System #2:

Maintenance staff can regularly check material that has been deposited directly into toters by residents and retrieve any improperly prepared or unrecyclable items.

It is critical that a building staff person such as the superintendent or maintenance person be trained to monitor for contamination and to educate residents about proper material preparation. Resident volunteers also can be helpful in monitoring recyclables and educating their neighbors about contamination.



Section III

BUILDINGS WITH PRIVATE TRASH COLLECTION

Owners, managers, and lessees of buildings not receiving City trash collection are responsible for providing recycling services to building residents, as stipulated in Section 8.24.070 of the Cambridge Municipal Code (the Mandatory Recycling Ordinance). Building owners, managers, and lessees are responsible for the costs of separating and collecting recyclables.

Potential benefits of recycling are:

- Successful recycling programs will result in less regular trash requiring disposal.
- In buildings with trash compactor units, recycling can reduce maintenance costs for compactors and extend their useful life. This is because newspaper can clog the compactor and damage the hammer arms and broken glass can wear through the compactor's steel plating over time.
- There will be reduced injuries to maintenance staff from handling broken glass in plastic garbage bags.

All property owners are required to submit recycling plans to the Recycling Coordinator for approval by January 1, 1993. Please use Form 3 at the end of this guide, "Recycling Plan for Buildings Not Receiving City Trash Collection," to create your plan. In addition, please

submit Form 1, "Description of Property and Trash Collection System," with Form 3.

The City's recycling staff is ready to help you with producing written promotional material and planning your program. You may find that much of the information pertaining to buildings with City trash collection applies to your buildings as well. An important point to keep in mind when planning and implementing your building's recycling program is that it should mirror the way regular trash is handled and collected as much as possible and comply with fire and safety codes.

Tips for Establishing a Recycling Program in Your Building

In addition to the information outlined in section II of this guide, "Planning Your Program," owners/managers of buildings not receiving City collection services should consider the following:

- 1) *Recruit a recycling committee* - Recycling is quite popular here in Cambridge, and finding residents willing to participate in the planning process should not be too difficult. **Be sure to include the staff person/people who handle trash disposal.** See the explanation in the following section describing possible roles volunteer building representatives could play.
- 2) *Shop around for a hauler to collect your recyclables* - Ask your current waste hauler whether they provide recycling services. All haulers and recycling companies operate differently, so it is up to you to find a company that suits your needs. Some haulers handle both trash and recyclables, others just recyclables. Don't assume your current trash hauler is the one best suited to pick up your recyclables as well. (Appendix E contains a list of

Questions to ask potential haulers

- What recyclable materials do they handle? (By law, you are required to recycle newspaper, magazines, aluminum, tin, glass, plastics, see regulations in Appendix A)
- Can all materials be mixed together (commingled) or are they to be separated?
- How are the materials to be prepared?
- What are their rules on rejecting pick-up due to excessive contamination?
- What are the weekly collection costs? How would these change if you decide on less frequent/more frequent/on-call pick-ups?
- Do they provide storage containers? Do they cost extra?
- List of other multi-unit building owners you can contact for reference.

haulers who provide services in Eastern Massachusetts. This list does not imply that the City recommends these haulers, nor is it meant to be exhaustive).

3) *Decide on the collection scheme that best suits your building* - Refer to the items in Section I, "Planning Your Program," that outlines convenience for residents and staff and compliance with health and fire regulations.

4) *Promote the program* - The City will provide you with informational brochures if your hauler doesn't. Monitor regularly for contamination (see previous section), since your hauler may either reject materials you have collected or "regrade" your recyclables to a lower value, thus increasing your collection costs. It's important to reinforce the message at least twice a year with brochures, newsletters, posters, etc. Be sure to notify new residents when they move in.

You may want to consider cooperating with other owners/managers of buildings not receiving City collection services to increase the volume of recyclables collected, since as the volume of recyclables increases, the collection cost should decrease. The recycling staff will help facilitate such cooperation.

Section IV

FINE-TUNING

The responsibilities of a recycling program do not end when the storage containers are delivered to your apartment or condominium building. Monitoring for contamination, for example, is an ongoing task. To ensure the success of your building's recycling program and keep resident participation high, it is a good idea to utilize resident volunteers to help monitor and promote the program.

Resident Representative

For many buildings, an interested resident has already contacted the recycling staff to ask when a recycling program will be starting in his/her building. Many of them agreed to serve as resident representatives for their buildings once the programs got started. The resident representative will volunteer his/her time to help you make the important personal contact with each resident.

Study after study of recycling programs reveal that the most effective program promotion is word of mouth. Personal contact by a fellow resident seemed to have more effect on participation than any other program component.

Building owners, managers, and lessees, of course, have final authority over program operation on the property. We suggest, however, that you contact the resident representative in your building early on and keep him or her informed of what you plan to do. He or she may have

good ideas and may be willing to share some of the work involved in getting the program going.

The City of Cambridge has a Building Representative Program that trains residents how to contact their neighbors personally to explain how recycling helps the environment; to let residents know what happens to their recyclables; to provide updates on the materials collected and to let residents know how they can volunteer to work in the building's recycling program, or get involved in the recycling effort in other ways. Contact the Recycling Staff Assistant at 349-4815 for more information.

We are in the process of recruiting additional resident representatives, so if we have not already identified one for your building, we will inform you when we do. You may also let us know if there is a resident who is interested in performing this function in your building. We hope each building will have a resident representative. If there is more than one resident who is interested, the duties can be shared. The amount of activity that a volunteer resident representative will want to be involved in will vary from person to person.

Possible responsibilities include:

*Contact each resident personally, if possible, before the program starts to encourage them to participate and to answer any questions that they have.

*Contact new residents to explain how the program works. This will, of course, be an ongoing responsibility as residents move in and out.

EDUCATING RESIDENTS ABOUT CONTAMINATION

- * Consider designing a "Reject Shelf" near the tofers where the residents and staff who monitor the tofers leave improperly prepared, unrecyclable, and contaminated materials. This shows people their mistakes in a non-accusatory way so that everyone can learn from them.
- * Install the "Reject Shelf" and display common mistakes before the program starts.
- * Distribute a list to residents of the types of improperly prepared or non-recyclable items found in the storage containers.

*Make themselves available to answer questions from fellow residents on an ongoing basis. (Cambridge Recycling will provide resident representatives with "business cards" that have spaces for their name and phone number. The resident representative can distribute these if they choose.)

Resident representatives may also be willing to:

- *Organize a start up event to celebrate the beginning of the recycling program.
- *Assist with monitoring for contamination and providing residents with feedback on how to improve materials preparation. Building owners/managers are, however, ultimately responsible for monitoring for contamination.
- *Conduct periodic events or personal contacts with residents to encourage them to continue to recycle, or to start if they're not participating.

Keeping an Eye out for Contamination

Even the most conscientious recyclers sometimes forget what the rules are, thus it can be helpful to periodically (twice a year) reinforce the importance of properly preparing materials.

Recycling processors are concerned about all contamination, but improperly prepared glass causes big problems. Metal caps, rings and collars, dishware and ceramics are unacceptable. Securing a pair of diagonal wire cutters or snips near the recycling containers will increase the chances that residents will remove rings and collars from containers.

Section V

OBTAINING APPROVAL FOR YOUR PROGRAM

Follow this process to obtain approval for your program. The Recycling Staff Assistant, Joanne Bissetta, will be your primary contact throughout this process. She can be reached at 349-4815.

1) Complete the planning forms in the next section and send them to the address below. Owners of buildings receiving City trash service are to fill out Forms 1,2, and 4; owners of buildings not receiving City trash service should fill out Forms 1,3, and 4. The City will acknowledge your submission and, for buildings with City trash service, call you to arrange an on-site visit. If requested, the recycling staff assistant will conduct site visits for buildings that do not receive City trash collection.

2) Upon completion of the site visit, the City will either approve your program plan or inform you of any deficiencies that have to be corrected.

3) Upon plan approval, the recycling staff will work out a program implementation schedule with you for your building. A sample implementation schedule is included in Appendix D.

If you own more than one property, a separate plan must be completed for each property.

Mail the completed plan with an edited resident instruction brochure to:

Recycling Program
for Multi-Family Dwellings
Department of Public Works
147 Hampshire Street
Cambridge, MA 02139

Leaf and Yard Waste Collection for Composting

Leaves and yard waste should be handled as described in Section E(2) of the Recycling Regulations for Multi-Unit dwellings in Appendix A, and as described in Appendix F.

White Goods Recycling

White goods (refrigerators, stoves, air conditioners, etc.) should be handled as described in Appendix F.



FORM 1

Please complete both sides and sign

MULTI-FAMILY DWELLING RECYCLING PLAN

DESCRIPTION OF PROPERTY AND TRASH COLLECTION SYSTEM

1. BUILDING NAME: _____
ADDRESS: _____

2. NAME OF OWNER OR CHAIR OF BOARD OF TRUSTEES:
ADDRESS: _____

TELEPHONE: _____

3. PROPERTY MANAGER: _____
MANAGEMENT COMPANY: _____
ADDRESS: _____

TELEPHONE: _____

4. CONTACT PERSON: _____
ADDRESS: _____

TELEPHONE: _____

5. PERSON COMPLETING PLAN: _____
ADDRESS: _____

TELEPHONE: _____

6. NUMBER OF BUILDINGS: _____ TOTAL UNITS: _____

7. NUMBER OF FLOORS PER BUILDING: _____

FORM 1 CONTINUED

8. TRASH DAY(S) _____

9. RESIDENTS TAKE TRASH TO (check all that apply):

Indoor Containers:

- _____ chutes
- _____ garbage cans
- _____ other _____

Outdoor Containers:

- _____ dumpster
- _____ garbage cans
- _____ other _____

Number of Collection sites: _____

10. WHO COLLECTS TRASH: _____

11. Certification:

I certify that the information given in this plan is correct.

Signature

Date

FORM 2

Please complete both sides and sign

RECYCLING PLAN FOR BUILDINGS RECEIVING CITY TRASH SERVICES

1. Estimated number of toters needed for your building _____

	<u>Number</u>	<u>Size</u>
Newspaper & Magazines	_____	_____
Bottles/Cans	_____	_____

2 Describe location of toters.

3. Describe how unrecyclable and improperly prepared materials will be monitored for and removed.

4. Will residents be asked to deposit recyclables in small plastic boxes in order to facilitate monitoring and removal of contaminants? _____ If so, describe where the boxes will be located, how many you will need, and how often they will be emptied.

5 Are either boxes or toters near an area that residents use frequently, such as the trash disposal area?

FORM 2 CONTINUED

6. Describe features of the totter location that indicate that it meets fire prevention codes.

7. Describe how totters will be conveyed to curb and later retrieved (staff involved, any stairs to be negotiated?).

8. If your building has fewer than 20 units and has no room for totters, describe areas where approximately 5 boxes and paper bundles will be located.

9. If your building employs a commercial landscaping company, please describe where leaf and yard waste will be composted.

10. If your proposed recycling set up differs considerably from the standard totter or box set up, please describe it here.

I/We agree to follow the above plan and to notify the City if plan is altered.

Signature

Date

Signature

Date

FORM 3

Please complete both sides and sign

RECYCLING PLAN FOR BUILDINGS NOT SERVED BY CITY TRASH COLLECTION

1. Who will collect recyclables from the building?

Name of company _____

Address _____

Contact Name _____

Phone _____

2. How often will recyclables be collected?

3. Which materials will be collected? (By law, you are required to separate for recycling newspaper, magazines, glass containers, plastic containers, metal cans and aluminum items. See ordinance and regulations in Appendix A).

4. Where does your hauler take your recyclables?

5. Please attach a letter from your hauler that guarantees your building(s) recyclables will be remanufactured into new products?

6. Where will storage containers be located? (Be sure location complies with fire and safety codes).

7. How will recyclable materials be carried from dwelling units to storage containers?

FORM 3 CONTINUED

8. How will recyclables be monitored for contamination?

9. How do you plan to promote the program to residents and what sorts of follow up education will you provide?

10. What do you do with leaf and yard waste (if any)? If you hire a commercial landscaping company, where do they compost your building's leaf and yard waste?

I/We agree to follow the above plan and to notify the City if it is altered.

Signature

Date

Signature

Date

FORM 4

PROMOTION

Please remove the instructional brochure from Appendix C and read it carefully. The bottom of side one and the top of side two can be edited to describe your program. The space above the word "Questions?" on side two can be used to display additional information about your program if needed. Please write the information pertaining to your building neatly on both sides of the brochure.

Include your edited version when you send in your plan. The Recycling Staff will use this information to produce copies of a customized brochure for your building.

1. Number of posters to affix to walls, doors and fences, trash rooms and sheds (*can be laminated for outdoor use*). _____

Address to send resident brochures and posters to:

2. Have you identified any residents who are interested in volunteering to help promote the program in your building? (use back of page if necessary)

Name, Address, Phone # _____

3. How will publicity items provided by the City be distributed to residents? What are other types of follow-up promotion and education that you plan to do? (i.e., "rejection shelf, quarterly letters to residents, postings on community bulletins boards, etc.)

4. How will information about the recycling program be distributed to new residents?

5. Do you need information in other languages? _____ Which one(s)?

ANNUAL REPORT

To ensure compliance with the Mandatory Recycling Ordinance (Section 8.24.070 of the Cambridge Municipal Code), this report must be completed and filed with the City annually on January 1.

1. Building address: _____

2. Number of units: _____ Rental apts. or condominiums (circle one).

3. Who collects building's recyclables? _____ City, or _____ private hauler?

Name of private hauler: _____

Address: _____

Telephone: _____ Contact Name: _____

4. Number of toters: _____ 68-gal., _____ 95-gal., _____ other collection method.

5. If building does not have toters, please describe recyclables collection method, including the size of collection container.

6. How many times a month are toters emptied? _____ News/mags. _____ Commingled.

7. If building's recyclables are separated into different containers, how often are they emptied? _____ News. _____ Mags. _____ Clear glass
 _____ Colored glass _____ Plastics _____ Aluminum _____ Tin.

8. Has anything regarding your building's recycling program changed in the last year?
 _____ Yes _____ No. If so, please describe (use back if necessary).

I certify that everything in this report is accurate.

 Signature Date

 Print Name Affiliation (trustee, owner, manager, etc.)

APPENDIX A

REGULATIONS FOR RECYCLING IN MULTI-FAMILY DWELLINGS

MANDATORY RECYCLING ORDINANCE

RELEASE AGREEMENT

Regulations for Recycling in Multi-Family Dwellings

In accordance with Section 8.24.070 of the Cambridge Municipal Code (the Mandatory Recycling Ordinance), the Commissioner of the Department of Public Works (DPW) hereby adopts the following rules establishing requirements for multi-family dwellings.

- A) Purpose and Declaration of Policy: In March 1991, the Cambridge City Council passed an ordinance requiring residents and commercial establishments in the City of Cambridge to recycle certain recyclable materials rather than dispose of these materials as solid waste. Under the ordinance, the Commissioner of the Department of Public Works may issue regulations regarding recycling practices of multi-family dwellings in Cambridge.
- B) Definitions: The following definitions shall apply in these regulations:
- 1) Aluminum -- Aluminum cans, and aluminum containers or trays used in packaging, preparation or cooking of food.
 - 2) Cans -- All containers composed in whole of iron or steel (so called tin cans) used as containers for the packaging or storage of various food and non-food items, except containers that contain paint or petroleum based solvents, and any pressurized aerosol cans.
 - 3) Contamination -- 1) dirt or food waste or other materials on recyclable items that render them unrecyclable; 2) items not recyclable in the Cambridge residential recycling program.
 - 4) Glass Containers -- Bottles and jars made of silica, sand, soda ash, and limestone, being transparent or translucent and used for packing or bottling of various materials. This does not include plastics or glass products such as window glass, blue glass, flat glass, mirrors, plate glass, light bulbs, dishware, ceramics, cookware, or pyrex.
 - 5) Household Recycling Receptacle - A rectangular plastic box of approximately 10 to 20 gallons, designed for use by one household.
 - 6) Leaves -- Deciduous and coniferous seasonal deposition from trees.
 - 7) Magazines -- Publications printed on glossy, clay coated paper.
 - 8) Multi-family dwelling -- Any place of residence with thirteen or more dwelling units, including apartments, cooperatives, condominiums, group houses, rooming houses, or boarding houses.
 - 9) Newspapers -- Newsprint-grade paper, the common, inexpensive machine-finished paper made chiefly from wood pulp, which is printed and distributed, and includes all newspaper advertisements, comics and enclosures. This does not include newspapers soiled by food, paint, petroleum products, oil or oil solvents, or other solid wastes.
 - 10) Paper Leaf Bag -- a paper leaf bag shall be a Sanitary Kraft Paper Sack or equal of thirty (30) gallon capacity, two (2) ply fifty (50) pound wet strength with decomposing glue and reinforced self-supporting square bottom

enclosure.

- 11) Plastics -- clear and colored rigid containers made from high density polyethylene (HDPE) and polyethylene terephthalate (PET) plastics, excluding caps and lids. HDPE and PET rigid plastic containers are labeled on the bottom with a "2" or "1", respectively, inside a triangle of three chasing arrows.
- 12) Recyclable materials -- Any type of refuse designated by the Cambridge Commissioner of Public Works through these rules and regulations. Should the federal EPA designate certain materials as recyclable, recyclable materials shall mean those materials designated by the EPA.
- 13) Toter -- A barrel of approximately 60 to 100 gallons with wheels and a lid used for storage of recyclables, and compatible with collection equipment used by the City's recyclables contractor.
- 14) Rubbish -- All perishable and non-perishable solid waste generated by multi-family dwellings excluding items designated as recyclable.
- 15) White goods -- Major kitchen and laundry appliances including, but not limited to stoves, washers, refrigerators and dryers. Nothing in this definition shall waive compliance with the rules and regulations for the generation, transportation, storage and disposal of hazardous waste.
- 16) Yard Waste -- Grass clippings, weeds, hedge clippings, garden waste and twigs and brush not longer than two feet in length and one half inch in diameter.

C) Applicability of Regulations

These regulations apply to owners/managers/lessees of multi-family dwellings in Cambridge, and owners/managers/lessees of buildings with twelve or fewer units that do not receive City rubbish collection.

D) Designated Recyclable Materials

The following materials shall be designated as recyclable materials:

- aluminum
- cans
- glass containers
- leaves
- magazines
- newspapers
- plastics
- white goods
- yard waste

The City reserves the right to add or remove recyclable materials as defined in these regulations at any time.

E) Responsibilities of owners/managers/lessees of buildings that receive City rubbish collection service.

- 1) Recycling Requirement: All owners/managers/lessees shall be required to arrange for the separation of all designated recyclable materials generated on the premises. These materials must be separated by residents and/or staff and kept in a condition to meet the standards described in the resident instruction brochure in Appendix C of the "Guide to Preparing a Recycling plan for Multi-Family Dwellings".
- 2) Program Responsibility: The responsibilities of owners/managers/lessees are

outlined in the attached release agreement, to be signed upon receipt of toters or household recycling receptacles for use on the premises. The toters or receptacles are to be used for aluminum, cans, glass containers, newspapers, magazines and plastics.

Leaves and yard waste will be collected separately by the City from buildings that traditionally put leaves and yard waste out for City pick-up. Leaves and yard waste must be set out in paper leaf bags, labeled barrels or tied bundles of less than 2 feet in length. Leaves and yard waste must be prepared in this manner from early April to mid-December, the exact dates to be published by the City on an annual basis.

Buildings that have a landscaping company handling their leaves and yard waste should instruct the company to remove the material from the property and arrange for it to be composted. The Cambridge Recycling Program can provide landscapers with a list of area composting facilities.

Owners/managers/lessees wishing to dispose of white goods must purchase a special sticker for each appliance. Appliances are to be placed on the curb in the same location regular rubbish is placed for City collection. Stickers can be purchased at the Department of Public Works, 147 Hampshire Street during normal business hours. The DPW will inform the purchaser when the special white goods collection will take place. Appliances without stickers will not be collected.

- 3) Recycling Plan: Using the planning forms included in the "Guide to Preparing a Recycling Plan for Multi-Family Dwellings," each owner/manager/lessee shall submit a recycling plan for his/her multi-family dwelling to the Commissioner of Public Works by January 1, 1993. The plan must be implemented within four months of approval by the City. These plans shall include:
- a) a description of the property and its rubbish collection system;
 - b) a description of the location where recyclables storage containers will be kept;
 - c) a description of the process by which recyclable materials are to be transferred from each unit to a central storage location;
 - d) a description of how City-provided instructional materials will be distributed to new residents and how residents will receive updated information on the requirements of the recycling program; and
 - e) a description of the system that will be used to monitor and remove contaminants from the recyclables.

F) Responsibilities of owners/managers/lessees of buildings that do not receive City rubbish collection service.

- 1) Recycling Requirement: All owners/managers/lessees shall be required to arrange for the separation of all designated recyclable materials generated on the premises. These materials must be separated by residents and/or staff.
- 2) Program Responsibility: The owners/managers/lessees of such buildings are responsible for providing recycling receptacles for the materials designated in Section D. They are also responsible for costs of recyclables separation and collection, including yard waste and white goods.

Owners/managers/lessees of such buildings should continue to have their private hauler or landscaping company pick up leaves and yard waste and arrange for it to be composted. The Cambridge Recycling Program can provide landscapers with a list of area composting facilities.

Owners/managers/lessees of such buildings are responsible for arranging, either through their hauler or with a permitted handler, the proper removal and disposal of white goods from their buildings.

- 3) Recycling Plan: Using the planning forms included in the "Guide to Preparing a Recycling Plan for Multi-Family Dwellings," each owner/manager/lessee shall submit a recycling plan for his/her multi-family

dwelling to the Commissioner of Public Works by January 1, 1993. The plan must be implemented within four months of approval by the City. These plans shall include:

- a) a description of the property and its rubbish collection system;
- b) a description of the location where recyclables storage containers will be kept;
- c) a description of the process by which recyclable materials are to be transferred from each unit to a central storage location;
- d) a description of how instructional materials will be distributed to new residents and how residents will receive updated information on the requirements of the recycling program;
- e) the name of the company who will collect the recyclables; and
- f) certification that the recyclables are being remanufactured into new products.

G) Penalties: Owners/managers/lessees failing to adhere to any of these requirements will be subject to administrative penalties of \$25 per violation as outlined in Section 8.24.070(J) of the Cambridge Municipal Code.

H) Severability

The provision of these rules shall be severable and if any phrase, clause, sentence, paragraph, subsection or section of these rules, or the applicability thereof to any person or circumstance, shall be held invalid, the remainder of these rules and the application thereof shall not be affected thereby.

In amendment to an ordinance designated as the "Cambridge Municipal Code."

- WHEREAS The City of Cambridge now disposes of its solid waste by landfilling at sites that have a short remaining useful life;
- WHEREAS The Commonwealth of Massachusetts has scheduled landfill disposal bans of various materials, i.e., leaf waste by the end of 1991; yard waste, recyclable aluminum, metals and glass by the end of 1992; and all grades of recyclable paper and single polymer plastics by the end of 1994;
- WHEREAS The potential solution to the impending solid waste disposal problem is through reduction of the amount of solid waste by reducing the amount of solid waste generated and by recycling recyclable materials to the fullest extent possible;
- WHEREAS Public support for recycling has been demonstrated through the City's volunteer driven monthly drop-off program, collecting newspaper, aluminum, glass and plastic, which diverted from the municipally collected waste stream approximately 210 tons in 1989 and approximately 925 tons in 1990.

THEREFORE be it declared by the City Council of Cambridge that the following policies are hereby adopted by the City of Cambridge with respect to management of the solid waste disposal problem, for the promotion of health and welfare of its citizens and for the protection of the environment:

1. The City of Cambridge hereby declares its goal of encouraging all residents, municipal offices, commercial businesses, and non-profit institutions to reduce the amount of solid waste they produce by reducing the amount of solid waste generated and by recycling recyclable materials to the fullest extent possible.
2. The City of Cambridge further declares its goal of reducing the municipally collected solid waste stream by diversion of a substantial portion from landfilling by source reduction and by productive use through recycling recyclable materials to the fullest extent possible.
3. The City of Cambridge declares that its recycling diversion target is 15 percent of the total municipally collected solid waste stream within two years from the initiation of a curbside collection program, and 25 percent of the municipally collected solid waste stream within five years.
4. The City of Cambridge further declares that implementation of these policies shall proceed, within the bounds of sound fiscal management and in contemplation of advances in solid waste management technology, in an orderly fashion with all due speed.

THEREFORE, IN CONSIDERATION OF THE FOREGOING, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CAMBRIDGE AS FOLLOWS:

Chapter 8.24 of the Code (Rubbish, Garbage and Litter) is hereby amended by striking out section 8.24.070 and substituting therefore for the following new section 8.24.070 (Mandatory Recycling):

- 8.24.070 Mandatory Recycling
- A. Purpose and declaration of policy
 - B. Establishment of program
 - C. Definitions
 - D. Mandatory separation of recyclable materials
 - E. Collection of recyclable materials
 - F. Recycling plans
 - G. Recyclable materials

- H. Recycling advisory committee
- I. Rules and regulations
- J. Enforcement and penalties
- K. Repeal of inconsistent laws
- L. Severability
- M. Effective date of this section

A. Purpose and declaration of policy

This section has been created because of the great interest of the people of Cambridge in preserving the environment by reducing the amount of refuse sent to landfills and incinerators. It shall be the policy of the City of Cambridge to reduce the amount of solid waste generated and to require the recycling of recyclable materials to the fullest extent possible.

B. Establishment of program

There is hereby established a program for the mandatory separation of certain recyclable materials from refuse which shall apply to all buildings in Cambridge, and shall be carried out under the supervision of the Commissioner of the Cambridge Department of Public Works (DPW).

C. Definitions

The following definitions shall apply in this section:

1. Aluminum - Aluminum cans, aluminum foil, and aluminum containers or trays used in packaging, preparation or cooking of food.
2. Cans - All containers composed in whole of iron or steel (so-called tin cans) used as containers for the packaging or storage of various food and non-food items, except containers that contain paint or petroleum based solvents, and any pressurized aerosol cans.
3. Commercial establishment - Any non-residential building, including, but not limited to, those used for retail, wholesale, industrial, manufacturing, dining, offices, professional services, automobile service, hotels and motels, restaurants, or shipping and receiving areas.
4. Corrugated cardboard - Paper in which a portion has been made to have a wavy surface (alternating ridges and grooves) and is placed between two flat surfaces for the sake of strength, and which is commonly used to form cartons.
5. Glass - Bottles and jars, made of silica, sand, soda ash, and limestone, being transparent or translucent, and used for packaging or bottling various materials. This does not include plastics or glass products such as window glass, blue glass, flat glass, mirrors, plate glass, light bulbs, dishes or ceramics.
6. Household recycling receptacle - A rectangular plastic box of approximately 10 to 20 gallons, designed for use by one household.
7. Leaves - Deciduous and coniferous seasonal deposition.

8. Magazines - publications printed on glossy, clay coated paper.
9. Multi-family dwelling - Any place of residence with thirteen or more dwelling units, including apartments, cooperatives, condominiums, group houses, rooming houses or boarding houses.
10. Newspaper - Newsprint-grade paper, the common, inexpensive machine-finished paper made chiefly from wood pulp, which is printed and distributed, and includes all newspaper advertisement, comics and enclosures. This does not include newspaper soiled by food, paint, petroleum products, oil or oil solvents, or other solid wastes that are not recyclable.
11. Nonprofit organization - An established organization or foundation dedicated to public service or culture, including, but not limited to, religious, educational, and health care functions.
12. Occupier of land - Any owner, lessee or tenant of any residential dwelling, commercial establishment or nonprofit organization in Cambridge.
13. Paper leaf bag - A paper leaf bag shall be a Sanitary Kraft Paper Sack or equal of thirty (30) gallon capacity, two (2) ply fifty (50) pound wet strength with decomposing glue and reinforced self-supporting, square bottom closure.
14. Plastic - Clear and colored bottles and jugs made from high density polyethylene (HDPE) and polyethylene terephthalate (PET) plastics, excluding caps and lids.
15. Recyclable materials - Any type of refuse designated by the Cambridge Commissioner of Public Works through rules and regulations issued under this section to be separated for recycling.
16. Refuse - All solid waste generated by occupiers of land in Cambridge.
17. Residential dwelling - Any residential building, including single-family homes, apartment buildings, buildings containing cooperatives and condominiums, group houses, rooming houses or boarding houses.
18. Sorted office paper - Printed or unprinted sheets, shavings and cuttings of colored or white sulphite or sulphate ledger, bond, writing and other paper which have a similar fiber and filler content, and which are free of treated, coated, padded and heavily printed paper, carbon paper and non-paper materials.
19. Toter - A barrel of approximately 60 to 100 gallons with wheels and a lid used for storage of recyclables, and compatible with collection equipment used by the City's recyclables collection contractor.
20. Yard waste - Grass clippings, weeds, hedge clippings, garden waste, and twigs and brush not longer than two feet in length and one half inch in diameter.
21. White goods - Major kitchen and laundry appliances including, but not limited to stoves, washers, refrigerators and dryers. Nothing in this definition shall waive compliance with the rules and regulations for the generation, transportation, storage and disposal of hazardous waste.

D. Mandatory separation of recyclable materials

It shall be mandatory for each occupier of land in Cambridge to separate all designated recyclable materials from other refuse in accordance with the provisions of this section:

The timetable for compliance shall be as follows:

1. Buildings which receive City solid waste collection services

On and after the effective date of this section, it shall be mandatory for each owner, lessee or tenant of a building which receives City solid waste collection services to separate from other refuse all recyclable materials designated by the Commissioner in rules and regulations issued under this section, provided, however that this requirement shall be delayed with regard to owners, lessees or tenants of multi-family dwellings. Owners of multi-family dwellings shall submit a recycling plan to the Commissioner or his or her designee in accordance with subsection F. This requirement shall also apply to all City-owned buildings, including schools.

2. Buildings which do not receive City solid waste collection services

It shall be mandatory for each owner, lessee or tenant of a building which does not receive City solid waste collection to separate all designated recyclable materials from other refuse in accordance with a recycling plan to be submitted to the Commissioner or his or her designee, in accordance with subsection F.

E. Collection of recyclable materials

1. Buildings which receive City solid waste collection services

a) As long as funds are available, the City will provide one household recycling receptacle to each dwelling unit in buildings with twelve or fewer units that receive city trash collection. The City shall retain ownership of all its household recycling receptacles and the resident of each dwelling unit shall take proper care to protect such receptacle from loss or damage. Receptacles that are lost or stolen will be replaced by the City as long as the City's supplies last. After City supplies are depleted, it shall be the responsibility of the resident of each dwelling unit to obtain a suitable replacement within 45 days. In such buildings, the materials designated for recycling in rules and regulations promulgated by the Commissioner shall be placed in said household recycling receptacles.

b) As long as funds are available, the City will provide a suitable number of household recycling receptacles and/or toters to buildings with thirteen or more units that receive City trash collection. The number of household recycling receptacles and/or toters to be provided shall be determined by the City for each individual building. The City shall retain ownership of all its household recycling receptacles and toters and the owner or owners of the building shall take proper care to protect such containers from loss or damage. If the containers are lost or stolen, it is the responsibility of the owner or owners of the building to obtain a suitable replacement within 45 days in accordance with rules and regulations to be issued by the Commissioner under this section. In such buildings, the materials designated for recycling in rules and regulations promulgated by the Commissioner shall be placed in said household recycling receptacles and/or toters.

c) During the leaf and yard waste collection season, owners, lessees or tenants shall place their leaves and yard waste in Paper Leaf Bags (as defined in subsection C), open barrels or boxes to be provided by the owner, lessee or tenant. However, if the owner, lessee or tenant employs a commercial landscaping company, the landscaping company is responsible for hauling away the leaves and yard waste from the owner's property.

d) The preparation and placement of recyclables shall be accomplished in accordance with rules and regulations to be issued by the Commissioner under this section.

e) All recycling containers and receptacles shall be placed for collection on the outer edge of the sidewalk, so as not to obstruct the free passage of pedestrians, or in such other place and on days specified by the Commissioner in rules and regulations to be issued under this section.

f) Recyclables shall not be placed in plastic garbage bags for collection, removal or disposal. Recyclables shall not be placed in the same refuse containers as other solid waste or mixed with other forms of solid waste for collection, removal or

disposal. If separation of recyclable materials from other refuse does not take place, the City may decide not to collect said other refuse.

g) Upon placement of recyclables for the City or its contractor at the curbside, pursuant to this subsection, such recyclables shall become the property of the City. It shall be a violation of this section if any person, other than authorized agents of the City acting in the course of their employment or contract, collects or causes to be collected any recyclables so placed. Each and every such collection in violation hereof from one or more locations shall constitute a separate and distinct offense. In addition to the penalty provided in subsection J, any violator of this subsection E shall make restitution to the City for the value of recyclables illegally removed.

2. Buildings which do not receive City solid waste collection services

In buildings which do not receive City solid waste collection services, the materials designated for recycling in rules and regulations promulgated by the Commissioner shall be placed in recycling receptacles provided by the owner or owners of such building. The Owner or owners of such buildings shall be responsible for the costs of recyclables separation and collection. Any savings in solid waste disposal realized due to recycling shall accrue to the owner or owners of such buildings.

The owner or owners of such buildings shall submit recycling plans to the Commissioner in accordance with subsection F. The Commissioner shall have the authority to require documentation from the City's recyclables collection contractors and from any owner, lessee or tenant of a building which does not receive City solid waste collection services, that recyclables are being delivered to a broker or end market that causes the material to be recycled or composted rather than landfilled or incinerated.

F. Recycling plans

1. All property owners required to submit recycling plans to the Commissioner shall do so by the date set for plan submissions in the rules and regulations promulgated by the Commissioner under this section. Separation and collection of recyclables in such building shall begin within 120 days of plan approval by the Commissioner.

2. Contents of plan

Each recycling plan will cover the following items:

- a) Which recyclables will be put out for collection
- b) Frequency of collection
- c) Methods to be used for collection, including types of containers
- d) Any other items which may be specified in rules and regulations promulgated by the Commissioner under this section.

Plans shall be submitted in a format to be specified in rules and regulations promulgated by the Commissioner under this section.

G. Recyclable materials

The recyclables materials to be separated shall be designated by the Commissioner in rules and regulations to be issued under this section.

H. Recycling advisory committee

There is hereby established a Recycling Advisory Committee. The Committee, as requested, shall provide advice, assistance and recommendations to the Commissioner regarding the recycling program.

The Committee shall be appointed by the City Manager, and shall consist of at least 9 persons with a demonstrated interest in recycling, at least six of whom are residents of Cambridge. At least one member shall be chosen from volunteers in the City's monthly recycling drop-off program, one member shall represent the private real estate industry (apartment management), and one member shall be a designee of the Cambridge Housing Authority. One member shall represent the business community, and one member shall represent non-profit institutions. The term shall be three years.

The Commissioner, or his or her designee, shall be an ex-officio member of the Committee.

I. Rules and regulations

The Commissioner, with the approval of the City Manager, may promulgate rules and regulations for the implementation of this section.

J. Enforcement and penalties

Whoever violates any provision of this section, including any rule or regulation promulgated under subsection G., may be penalized by a noncriminal disposition as provided in G.L. c. 40, S. 21D. For purposes of this section, the following officials shall be enforcing persons: designated staff of the Cambridge Department of Public Works. The penalty for each violation shall be \$25.00.

A penalty will be assessed under this section only after the violator receives a written warning regarding the violation indicating the method of correction.

K. Repeal of inconsistent laws

All ordinances, resolutions, regulations or other documents inconsistent with the provisions of this section are hereby repealed to the extent of such inconsistency.

L. Severability

This section and the various parts, sentences and clauses thereof are hereby declared to be severable. If any part, sentence or clause is adjudged to be invalid, the remainder of this section shall not be affected thereby.

M. Effective date of this section

This 8.24.070 shall take effect when notice of the effective date is published by the Commissioner in a newspaper of general circulation in Cambridge.

Cambridge Multi-Family Dwelling Recycling Program

Release Agreement

In order to assist you in complying with City Ordinance 1117, the Mandatory Recycling Ordinance, (Section 8.24.070 of the Municipal code) the City of Cambridge is pleased to provide you with central collection containers (hereafter referred to as "toters"), household recycling receptacles where needed, and recyclables collection service for your multi-unit building. Sufficient toters will be supplied to store glass, plastics, and metals mingled together, and newspaper and magazines together. Building owners, managers, or lessees are responsible for moving the toters to curbside for collection on trash day.

Date Submitted

Name of Building

Address of Building

Type of building ownership: Rental apartments____ Condominiums____ Cooperative____
Town Houses____ Other_____

Number of units_____

Owner, lessee, or a representative:

Name:_____

Address:_____

Telephone:_____

Management Company (If none, please state the name of either an individual manager or the owner or some other entity or person responsible for the maintenance of the property.)

Name:_____

Address:_____

City/Town/State:_____

Phone:_____

Office

Emergency

As the owner, lessee and/or legal representative of the owner or lessee, I (We) authorize the City of Cambridge to:

1. Implement a recycling program on the herein-named site(s) and provide collection services.
2. Retain final authority over placement of the recycling totes and equipment.
3. Provide recycling educational materials for distribution to residents.
4. Visit the site(s) and contact the on-site manager, tenants, or owners to do follow-up survey work after the recycling system is in place.

In my (our) capacity as the owner(s), lessee(s) and/or legal representative(s), I (we) hereby acknowledge that:

A. I (We) have accepted ___95 gallon totes and ___68 gallon totes from the City of Cambridge for the purpose of recycling. The serial numbers of the containers are _____

B. The City of Cambridge is providing the facilities and services mentioned above to encourage recycling and that the totes will be used for the sole purpose of recycling.

C. The City of Cambridge retains ownership of the totes described in Section A.

D. In the event the totes are used for purposes other than recycling: (1) I (We) assume full responsibility for any and all liability arising from such use; (2) the City of Cambridge may remove those totes from the property; (3) I (We) may be subject to administrative penalties as outlined in Section 8.24.070(J) of the Municipal Code and (4) the City will be held harmless and indemnified with regard to any liability arising from the use of the totes.

E. It is the duty of the owner(s) or lessee(s) and the residents to use reasonable care to maintain the totes in good and safe condition. If located outside, the totes must, at a minimum, be chained together to decrease the possibility of theft.

F. At no time will any non-recyclable items, including but not limited to hazardous and/or toxic wastes, be disposed of in the totes.

G. I (We) agree to abide by all fire prevention and health codes in placement and maintenance of the totes.

H. I (We) agree to indemnify and hold harmless the City of Cambridge, together with all of its officers, agents, or employees, from all claims arising from the recycling activities on these premises.

I. I (We) understand that it is our duty to monitor the recycling system and work with the hauler and residents to ensure that the system is accessible and well-used on an ongoing basis.

J. I (We) accept responsibility for maintaining a City-approved system for monitoring the condition of the recyclables; for removing contaminants and improperly prepared materials and for notifying residents of the contaminants and improperly prepared materials that are found.

K. I (We) understand that I (we) am responsible for disposing of recyclables that cannot be collected because of improper preparation or contamination and that I(We) are subject to administrative penalties outlined in Section 8.24.070(J) of the Cambridge Municipal Code if a container

of recyclables is uncollectible due to contamination.

L. I (We) agree to arrange for recycling instructions to be distributed to residents and for any City-provided updates or additional publicity items to be provided to all residents.

M. I (We) agree to keep records on the recycling program such as the City may require and to provide them to the City upon request.

N. If there is any problem with recyclables not being picked up often enough after the system is established, I (We) understand it is our responsibility to contact the Recycling Coordinator of the City of Cambridge for assistance at 349-4800.

O. I (We) accept ongoing responsibility for moving the toters to the curb for pickup on trash day in accordance with Section 8.24.090 of the Municipal Code, which specifies that receptacles can be placed at the curb no earlier than 3 pm of the day immediately prior to the day of collection and must be removed from the sidewalk no later than 6 pm of the day of collection.

P. In the event the toters provided by the City of Cambridge are lost, stolen or damaged, I (We) will purchase replacements from the City for a set fee.

Q. Placement of recycling toters on a property does not guarantee that such toters will meet future City requirements for provision of recycling systems at multi-family properties. The City will provide instructions to multi-family property owners and lessees regarding any changed or added regulations.

R. I (We) have read and understood the above information about recycling in multi-unit buildings.

S. I (We) understand that failure to comply with these conditions may make us subject to administrative penalties of \$25 per violation as outlined in Section 8.24.070(J) of the Cambridge Municipal Code.

If rental building, signature of building owner Date

If condo/coop building, Date
signature of chair of board of trustees.

Signature of building manager/superintendent. Date

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APPENDIX B

FIRE AND HEALTH REGULATIONS

527 CMR 10.00: PREVENTION OF FIRE IN BUILDINGS AND IN OR ON SHIPS

Section

- 10.01: Definitions
- 10.02: Fire Extinguishers
- 10.03: General Provisions
- 10.04: Containers
- 10.05: Safety Cans
- 10.06: Storage and Fumigation
- 10.07: Smoking
- 10.08: Hospitals
- 10.09: Schools
- 10.10: Theatres
- 10.11: Housing for the Elderly
- 10.12: General Use Buildings
- 10.13: Miscellaneous Provisions

10.01: Definitions

Approved. Approved by the State Fire Marshal.

Hospital. A building used as a hospital or sanatorium, a convalescent or nursing home, or an infirmary, as such terms are defined in M. G. L. Chapter 111, s. 71, and licensed as such.

Occupancies.

High Hazard Occupancies. High hazard occupancies shall be classified as those having contents which are liable to burn with extreme rapidity or from which poisonous fumes or explosions are to be feared in the event of fire.

Low Hazard Occupancies. Low hazard occupancies shall be classified as those having contents of such low combustibility that no self propagating fire therein can occur and that consequently the only probable danger will be from panic, fumes or smoke, or fire from some external source.

Ordinary Hazard Occupancies. Ordinary hazard occupancies shall be classified as those having contents which are liable to burn with moderate rapidity and to give off a considerable volume of smoke, but from which neither poisonous fumes nor explosions are to be feared in case of fire.

Refuse Room. Any room or area utilized for the storage of flammable refuse in any building used for habitation shall be equipped with a storage facility as follows:

- (a) The refuse room in a building used for the storage of the equivalent of six (6) or less fifty gallon containers may be considered as any segregated part of the cellar or first floor of such building provided that such area shall be within twenty-five (25) feet of an exit door and shall be kept orderly at all times.
- (b) Refuse room in any building used for the storage of the equivalent of between seven (7) and fifteen (15) fifty gallon containers shall be an enclosed area in cellar or first floor of such building, such enclosure to be of one hour fire resistant construction and to be equipped with a self-closing, self-latching one hour fire resisting door.
- (c) The refuse room in any building used for the storage of refuse in quantities in excess of the equivalent of more than fifteen (15) fifty gallon containers shall be of sufficient size to contain the volume of rubbish kept in the building at any time and shall be a separate enclosed room of one hour fire resistant construction. Such room shall be located on the first floor or basement of the building and shall be equipped with a self-closing, self-latching door. Such room shall be equipped with a system of automatic sprinklers and sprinkler alarm or heat activating devices and alarm to be in sufficient number to give adequate protection to the room as directed by the head of the fire department.

School. Any building or premises in which a regular course of public or private instruction is afforded to not less than ten (10) pupils at one time, or to kindergartens, preprimary or nursery schools where ten or more children are enrolled for instruction or care.

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10.02: Fire Extinguishers

(1) Any building or other premises, which, due to its location, construction, character or occupancy, or the manner of conducting business therein or thereupon is such that it is considered necessary by the head of the fire department, shall be provided with portable fire extinguishers or other fire extinguishing devices by the occupant thereof who shall maintain them in proper condition at all times so that they shall be available for immediate use. The head of the fire department shall prescribe the number and situation of such devices.

(a) Marking of locations. Extinguishers and first aid standpipes shall not be obstructed or obscured from view. In any given area and in certain locations where visual obstructions cannot be completely avoided or where such extinguishers or standpipes are located in recessed cabinets, a means shall be provided to indicate the location of the devices conspicuously. Such means shall include a sign with the words "FIRE EXTINGUISHER" or "FIRE HOSE" on a distinctive red and white sign at least seven (7) inches by ten (10) inches or not less than seventy (70) square inches, which sign shall also include an arrow pointing to such devices. The lettering required by this rule shall be in proportion to the dimensions of the sign and readable to a person with normal vision from a distance of fifty (50) feet. Any extinguisher shall be so mounted that no portion of it shall exceed sixty (60) inches above floor level.

(b) Effective as of September 1, 1975, every school chemistry laboratory classroom, or any room used for similar purposes wherein flammable liquids are handled and open-flame devices are used by students, shall be equipped with one or more permanently installed cold water spray heads or deluge showers. Each permanent spray head shall be connected to a hose of sufficient length such that it will reach five (5) feet beyond the point of the experiment being conducted. The permanent position of any spray head on the coiled hose shall be within twenty (20) feet of the experiment, and the hose shall be long enough to encompass the experiment area even though it may go around fixed impediments such as laboratory benches. The other end of the hose shall be connected to a separate cold water supply so arranged that the water may be turned on by a spring or lever control valve at the head without turning on any other valve. The spray head shall be of the approved type and shall be installed in accordance with 248 CMR 2.00 (State Plumbing Code) requirements. If permanent deluge showers are provided in lieu of spray heads, at least one such deluge shower shall be located within fifty (50) feet of the experiment being conducted and shall be capable of discharging a continuous spray at the rate of thirty (30) gallons per minute.

Each laboratory referred to above shall also be equipped with at least one fire blanket of approved type to be located within thirty (30) feet of the experiment area. The location of the permanent spray heads or deluge showers and the fire blankets shall be clearly indicated by red and white signs of at least seventy (70) square inches in area bearing the words "EMERGENCY WATER SPRAY" and "FIRE BLANKET." Every student shall be advised of the location and proper use of the spray heads or deluge showers and fire blankets by the teacher, instructor, or person in charge of the class before the first experiment is conducted. Each student shall also be instructed in the proper procedure for the extinguishment of clothing fires at least twice during each course as directed by the head of the fire department. The water spray and fire blanket units required by this regulation shall be installed and in operating condition prior to the commencement of any class conducting laboratory experiments utilizing flammable liquids and open-flame devices on or after the effective date.

(2) Each extinguisher or device shall be inspected by weighing, recharging, etc., at least once each year or immediately after its use by a responsible person who shall note such inspection by his initials and the date.

10.03: General Provisions

(1) Any obstacle which may interfere with the means of egress or escape from any building or other premises, or with the access to any part of said building or premises by the fire department, in case of fire, shall be removed from aisles,

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10.03: continued

floors, halls, stairways and fire escapes. Doors and windows designated as exits shall be kept clear at all times.

(2) Such aisles, floors, halls, stairways, fire escapes, doors and windows shall be kept in good repair and ready for use, and shall be kept properly lighted as required by lawful authority.

(3) Any vessel moored to or anchored near any dock or pier or located within the jurisdiction of any harbor or on any other water of the Commonwealth, which vessel is a danger by reason of explosion or fire, shall remain secure or be secured to such dock, mooring, or anchorage until the fire has been suppressed or the removal is ordered by the head of the fire department or his designated representative.

(4) Chimney flues or vent pipes connected to a permanent heating device or incinerator shall be inspected, and cleaned when required, by the owner or his designee at least once each year. Such person shall inspect, maintain and clean, when necessary, each incinerator at least once each six months.

(5) Suitable spark arresters shall be installed and maintained in incinerators and in chimneys connected with permanent wood-burning furnaces.

(6) On complaint of a violation of the above two rules, the head of the fire department shall investigate and report same to the proper authorities.

10.04: Containers

(1) Except as hereinafter provided, no containers other than covered metal containers shall be used as receptacles for waste paper, oily rags, flammable metal turnings, oily waste, other flammable or combustible waste materials, or any material subject to spontaneous ignition. Metal containers shall be provided for ashes. The location, number and capacity of such metal containers shall be designated by the head of the fire department.

(2) Rigid, molded, nonmetallic containers in capacities not exceeding ten (10) gallons may be used for the disposal of ordinary waste paper and combustible rubbish in low and ordinary hazard occupancies.

(3) Rigid, molded, nonmetallic containers having a capacity of less than fifty (50) gallons shall be considered the equivalent of covered metal containers provided that such nonmetallic containers are equipped with a tight fitting cover which is kept in position except during the filling and emptying operations. Such container may be used only for the storage of ordinary waste paper and combustible rubbish in low and ordinary hazard occupancies.

(4) All other types of nonmetallic containers including plastic bags and cardboard cartons shall be considered the equivalent of an uncovered nonmetallic or metallic container. Such containers shall be kept at all times in a refuse room as defined in this regulation.

(5) Self-closing covered metal containers or self-closing rigid, molded, non-metallic containers shall be used in any washroom frequented by the public.

10.05: Safety Cans

(1) They may be of various designs provided they are substantially constructed to avoid the danger of leakage and designed to minimize the likelihood of spillage.

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10.05: continued

(2) In quantities less than 55 gallons, portable tanks may be used in a building already approved for handling flammable liquids. Such tanks shall have openings only in the top, and shall be provided with an approved pump for withdrawing liquid.

(3) Typical safety cans of 5 gallons capacity or less shall be provided with pouring outlets with tight-fitting caps or valves normally closed by springs, except when held open by hand so that the contents will not be spilled if the can is tipped over. The caps shall be so designed as to provide an emergency vent when the cans are exposed to fire or heat source.

(4) The gauge thickness of safety cans shall be of an approved thickness for capacity of said container.

10.06: Storage and Fumigation

(1) Crating, storage, piling, etc., of empty packing boxes, cases, or barrels of a combustible nature shall be restricted to segregated areas in separate buildings or separate fire areas.

(2) Areas for outdoor storage shall be approved where the following are available: adequate municipal fire and police protection; access roads for use by fire apparatus; adequate water supply; and, no exposure hazard.

(3) Entire storage site shall be kept free from unnecessary accumulation of combustible materials. Weeds or grass and dry vegetation shall be kept down and a regular procedure provided for the periodic cleanup of the entire area.

(4) Tarpaulins used for the protection of storage against the weather shall be flameproofed.

(5) The entire premises shall be approved by the head of the fire department.

(6) No warehouse, factory or commercial building shall be fumigated by the use of any volatile flammable liquid, toxic substance, or any material requiring flame, unless a permit has been obtained therefor from the head of the fire department. Any building being so fumigated shall be conspicuously posted to give warning of the fumigant hazard at all entrances during the entire fumigating operation.

10.07: Smoking

(1) Smoking shall be defined as smoking or possessing a lighted cigarette, cigar, pipe, or other smoking article.

(2) Smoking shall be prohibited in factories, workshops, mercantile establishments or warehouses, where the material being handled in and about such structure is of a flammable nature or where such structures are of a combustible construction which may, in the opinion of the head of the fire department, constitute a fire hazard. Such structures shall be provided with a smoking area or areas for employees, to be approved by the head of the fire department.

(3) Smoking shall be prohibited in every assembly theatre classified in USE GROUP A-1-A or in USE GROUP A-1-B in the State Building Code (780 CMR 2.03.2).

Such structures shall be provided with a room or area to be designated as a "Smoking Area." Such room or area shall be of a size suitable to accommodate the number of smokers requiring such facility. The head of the fire department shall approve such areas.

(4) Smoking shall be prohibited in schools, colleges, universities, public buildings and institutions except that smoking shall be permitted in designated areas. Such areas shall be approved by the head of the fire department. Such

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10.07: continued

room or area shall be of a size suitable to accommodate the number of smokers requiring such facility.

(5) Smoking shall be prohibited on all docks, wharves and waterfront areas, except that smoking may be permitted in smoking areas so designated and approved by the head of the fire department.

(6) Smoking may be permitted in "No Smoking Areas" of public halls and special halls only when they are not being used as auditoriums requiring fixed seats and aisles, if the head of the fire department so approves.

(7) Each smoking area shall be equipped with at least the following items: a bucket of sand or other suitable receptacles for the disposal of smoking articles; a fire extinguisher for Class A fires; a fire blanket for the extinguishment of clothing fires. The head of the fire department may require an increase in the number of the above items or additional safety appliances before approving such smoking areas.

(8) Durable red and white signs with the words "NO SMOKING" in letters not less than three inches in height, shall be conspicuously posted in and about the "no smoking areas" referred to in 527 CMR 10.07(2) through 10.07(4).

(9) Durable green and white signs with the words "SMOKING AREA" in letters not less than three inches in height, shall be conspicuously posted in and about the smoking areas designated in 527 CMR 10.07(2) through 10.07(5).

10.08: Hospitals

(1) All hospitals shall conform to the following fire drill regulations:

(a) Each hospital shall formulate a plan for the protection and evacuation of all persons in event of fire; such plan to be presented to and approved by the head of the fire department. All employees shall be kept informed of their duties under such plan.

(b) The head of the fire department shall visit each hospital at least four times each year for the purpose of ascertaining whether the supervisors, attendants and other personnel are familiar with the approved plan of evacuation.

(2) Use and storage of combustible foam cellular plastic decubitus mattress pads shall conform to the following:

(a) The foam used for the pads shall meet the flammability regulations of California Bureau of Home Furnishings Bulletin 117 (1981), and the package shall be labeled accordingly.

(b) The use of such pads shall be limited to patients for whom the pads are a medical necessity.

(c) No smoking or smoking materials shall be allowed by patients, visitors, or hospital employees in any room or area where decubitus pads are stored or used.

(d) Decubitus pads shall be disposed of in a safe manner acceptable to the head of the fire department. Only covered refuse containers shall be used. The disposal shall be such that the pads are not mixed with ordinary combustible rubbish inside the hospital.

(e) The bulk storage shall be only in a room protected by automatic sprinklers or in a separate storage building.

(f) Decubitus pads shall not be washed and reused and shall bear warning label so stating.

10.09: Schools

All schools shall conform to the following fire drill regulations:

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10.09: continued

- (1) The responsible school official in charge of the school or the school system shall formulate a plan for the protection and evacuation of all persons in the event of fire, and shall include alternate means of egress for all persons involved; such plan to be presented to and approved by the head of the fire department.
- (2) The headmaster or person in charge of each school shall see that each class instructor or supervisor shall receive proper instructions on the fire drill procedure specified for the room or area in which that person carries out his duties before he assumes such duties.
- (3) Every student in all schools shall be advised of the fire drill procedure or shall take part in a fire drill within three days after entering such school.
- (4) The head of the fire department, or person designated by him, shall visit each school at least four times each year for the purpose of conducting fire drills and questioning the teachers and supervisors. These drills shall be conducted without advance warning to the school personnel other than the person in charge of the school at the time.

10.10: Theatres

- (1) Each theatre shall formulate a plan for the protection and evacuation of all persons in event of fire; such plan to be presented to and approved by the head of the fire department. All employees shall be kept informed of their duties under such plan.
- (2) The head of the fire department shall visit each theatre at least four times each year for the purpose of ascertaining whether the manager and other personnel are familiar with the approved plan of evacuation.

10.11: Housing for the Elderly

- (1) All housing for the elderly complexes comprised of six or more dwelling units shall conform to the following fire drill regulations:
 - (a) Each such housing complex administrator shall formulate a plan for the protection and evacuation of all persons in event of fire, such plan to be presented to and approved by the head of the fire department. All employees and residents shall be kept informed of their plan of action and/or evacuation route under such plan.
 - (b) The head of the fire department shall visit each such complex at least four times each year to:
 1. conduct a fire drill; or
 2. if he deems a fire drill inadvisable because of the advanced age or degree of physical disability of its residents, to ascertain if all occupants are familiar with the approved plan of evacuation.

10.12: General Use Buildings

- (1) Any inner court not protected by a roof which will support a load of 40 lbs. per square foot shall have a substantial parapet or barrier at least 30 inches high. A skylight shall be constructed to support 40 lbs. per square foot or shall have a substantial parapet or barrier at least 30 inches high.
- (2) (Deleted by emergency regulation filed and therefore effective February 18, 1976. See 527 CMR 21.00 for regulations on flammable decorations.)
- (3) The head of the fire department shall, when he has knowledge, or that in his opinion any electrical wiring or equipment in or about any building or other structure is defective or improper, report the same in writing to the proper authority or authorities for enforcement of the laws relative thereto.
- (4) The basement and each story of a building which is subject to M.G.L. c. 143, s. 21, as amended, shall be supplied with means of extinguishing fire, consisting

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10.12: continued

of a hose attached to a suitable water supply and capable of reaching any part of such basement or story, unless the building has otherwise been provided with such portable apparatus as the inspector shall direct. Such appliances shall be kept at all times ready for use and in good condition.

Note: In this rule "Inspector" means an Inspector of the Division of Inspection of the Department of Public Safety.

- (5) (a) Any person, firm, corporation, society, association or partnership who keeps an unregistered motor vehicle in running condition which is equipped with a gasoline tank shall make certain that the vehicle is garaged or kept under surveillance in the same manner as a registered vehicle.
- (b) Any person, firm, corporation, society, association or partnership who keeps a motor vehicle outside of a garage for a period in excess of thirty (30) days, which, in the opinion of the head of the fire department or an inspector designated by him, is in such repair that it cannot be used or that it appears to him that it is not intended to be used, said person, firm, corporation, society, association or partnership shall be responsible for draining the gasoline from the fuel tank and immediately filling said tank with water or with a volume of trichloroethylene or other non-flammable volatile liquid equal to at least five percent (5%) of the volume of the tank within twenty-four (24) hours after written notification by the head of the fire department or inspector so designated.
- (c) Any person, firm, corporation, society, association or partnership who removes a fuel tank from a motor vehicle shall make certain that such tank has been drained prior to removal from said vehicle.
- (d) Any person, firm, corporation, society, association or partnership who keeps or disposes of a fuel tank which has been detached from a motor vehicle, shall immediately make certain that such tank is drained and filled with water or a non-flammable volatile liquid equal to at least five percent (5%) of the volume of the tank.

10.13: Miscellaneous Provisions

(1) Any person having control of a mercantile, commercial or industrial establishment wherein canine guards are maintained shall notify the head of the fire department of the district, city or town within which such establishment is located that such canine guard is maintained therein. The head of the fire department and the person giving such notification shall cooperate in determining the procedure to be taken for the safety of authorized persons entering such mercantile, commercial or industrial establishment.

[(2): Reserved]

(3) Any person removing a fuel oil tank from inside a building for a purpose other than replacement or repair, shall remove or securely cap both ends of all fill and vent pipes previously connected to said tank.

(4) Any person using a torch or other flame-producing device for the removal of paint or the application or removal of roofing material from any building or structure shall provide one approved fire extinguisher or water hose connected to an adequate water supply on the property where such burning is done. In all cases, the person doing the work shall remain on the premises for one hour after each use of the torch or other flame-producing device. A permit must be obtained from the head of the fire department prior to the use of a torch or other flame-producing device.

REGULATORY AUTHORITY

527 CMR 10.00: M.G.L. c. 148, s. 28.

105 CMR: DEPARTMENT OF PUBLIC HEALTH

410.553: Installation of Screens

The owner shall provide and install screens as required in 105 CMR 410.551 and 410.552 so that they shall be in place during the period between April first to October thirtieth, both inclusive, in each year.

GARBAGE AND RUBBISH STORAGE AND DISPOSAL

Section

- 410.600: Storage of Garbage and Rubbish
- 410.601: Collection of Garbage and Rubbish
- 410.602: Maintenance of Areas Free from Garbage and Rubbish
 - (A) Land
 - (B) Dwelling Units
 - (C) Dwelling Containing Less than Three Dwelling Units
 - (D) Common Areas
- (410.603 through 410.619: Reserved)

GARBAGE AND RUBBISH STORAGE AND DISPOSAL

410.600: Storage of Garbage and Rubbish

(A) Garbage or mixed garbage and rubbish shall be stored in watertight receptacles with tight-fitting covers. Said receptacles and covers shall be of metal or other durable, rodent-proof material. Rubbish shall be stored in receptacles of metal or other durable, rodent-proof material. Garbage and rubbish shall be put out for collection no earlier than the day of collection.

(B) Plastic bags shall be used to store garbage or mixed rubbish and garbage only if used as a liner in watertight receptacles with tight-fitting covers as required in 105 CMR 410.600(A), provided that the plastic bags may be put out for collection except in those places where such practice is prohibited by local rule or ordinance or except in those cases where the Department of Public Health determines that such practice constitutes a health problem. For purposes of the preceding sentence, in making its determination the Department shall consider, among other things, evidence of strewn garbage, torn garbage bags, or evidence of rodents.

(C) The owner of any dwelling that contains three or more dwelling units, the owner of any rooming house, and the occupant of any other dwelling place shall be responsible for providing as many receptacles for the storage of garbage and rubbish as are sufficient to contain the accumulation before final collection or ultimate disposal, and shall so locate them to be convenient to the tenant that no objectionable odors enter any dwelling.

(D) The occupants of each dwelling, dwelling unit, and rooming unit shall be responsible for the proper placement of his garbage and rubbish in the receptacles required in 105 CMR 410.600(C) or at the point of collection by the owner.

410.601: Collection of Garbage and Rubbish

The owner of any dwelling that contains three or more dwelling units, the owner of any rooming house, and the occupant of any other dwelling place shall be responsible for the final collection or ultimate disposal or incineration of garbage and rubbish by means of:

- (A) the regular municipal collection system; or
- (B) any other collection system approved by the board of health; or
- (C) when otherwise lawful, a garbage grinder which grinds garbage into the kitchen sink drain finely enough to ensure its free passage, and is otherwise maintained in a sanitary condition; or

105 CMR: DEPARTMENT OF PUBLIC HEALTH

410.601: continued

(D) when otherwise lawful, a garbage or rubbish incinerator located within the dwelling which is properly installed and which is maintained so as not to create a safety or health hazard; or

(E) any other method of disposal which does not endanger any person and which is approved in writing by the board of health. (See 105 CMR 410.840.)

410.602: Maintenance of Areas Free from Garbage and Rubbish

(A) Land. The owner of any parcel of land, vacant or otherwise, shall be responsible for maintaining such parcel of land in a clean and sanitary condition and free from garbage, rubbish or other refuse. The owner of such parcel of land shall correct any condition caused by or on such parcel or its appurtenance which affects the health or safety, and well-being of the occupants of any dwelling or of the general public.

(B) Dwelling Units. The occupant of any dwelling unit shall be responsible for maintaining in a clean and sanitary condition and free of garbage, rubbish, other filth or causes of sickness that part of the dwelling which he exclusively occupies or controls.

(C) Dwellings Containing Less than Three Dwelling Units. In a dwelling that contains less than three dwelling units, the occupant shall be responsible for maintaining in a clean and sanitary condition, free of garbage, rubbish, other filth or causes of sickness the stairs or stairways leading to his dwelling unit and the landing adjacent to his dwelling unit if the stairs, stairways or landing are not used by another occupant.

(D) Common Areas. In any dwelling, the owner shall be responsible for maintaining in a clean and sanitary condition free of garbage, rubbish, other filth or causes of sickness that part of the dwelling which is used in common by the occupants and which is not occupied or controlled by one occupant exclusively.

(i) The owner of any dwelling abutting a private passageway or right-of-way owned or used in common with other dwellings or which the owner or occupants under his control have the right to use or are in fact using shall be responsible for maintaining in a clean and sanitary condition free of garbage, rubbish, other filth or causes of sickness that part of the passageway or right-of-way which abuts his property and which he or the occupants under his control have the right to use, or are in fact using, or which he owns.

CURTAILMENT OF SERVICE

410.620: Curtailment Prohibited
(410.621 through 410.699: Reserved)

CURTAILMENT OF SERVICE

410.620: Curtailment Prohibited

No owner or occupant shall cause any service, facility, equipment, or utility which is required to be made available by 105 CMR 410.000 to be removed from or shut off from any occupied dwelling except for such temporary period as may be necessary during actual repairs or alterations and where reasonable notice of curtailment of service is given to the occupant, or during temporary emergencies when curtailment of service is approved by the board of health. If any such service or facility that a person is required to provide by 105 CMR 410.000 or has agreed to supply by a written letting agreement becomes curtailed, that person shall take immediate steps to cause its restoration. (See M.G.L. c. 186, s. 14.)

VIOLATIONS WHICH MAY ENDANGER OR MATERIALLY IMPAIR THE HEALTH OR SAFETY AND WELL-BEING OF AN OCCUPANT

APPENDIX C
PROMOTIONAL MATERIAL

(Sample letter to residents in buldings with City rubbish collection)

Dear Resident,

We are pleased to inform you that a recycling program is beginning at [building address] at [date]. Having recycling facilities located here on the property makes recycling as convenient as possible for you, the resident. The City is providing recyclables storage containers and collection service to buildings like [building address] that receive City trash collection. As of [start date], City Ordinance requires that you separate newspaper, magazines, glass containers, metal cans and some plastics from your trash and deposit them in the recycling containers located [location of containers].

The enclosed brochure describes exactly what materials can be recycled and how to prepare them. Please read it carefully. The most important thing is that you participate in the program. If you have any questions about how to participate, please contact [management or resident rep. or both] at [phone #'s].

In conjunction with the City of Cambridge, we are pleased to provide you with this convenient way to comply with the City's Mandatory Recycling Ordinance.

Sincerely,

[The management]

(Sample letter to residents in buildings with private rubbish collection)

Dear Resident,

We are pleased to inform you that a recycling program is starting at [building address] on [date]. Having recycling facilities located here on the property makes recycling as convenient as possible for you. We are providing recyclables storage containers and collection service to this building. City Ordinance requires that you separate newspaper, magazines, glass containers, metal cans, and some plastics from your trash and deposit them in the recycling containers located [location of containers].


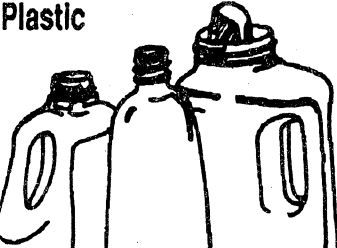


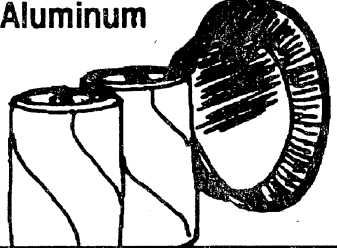

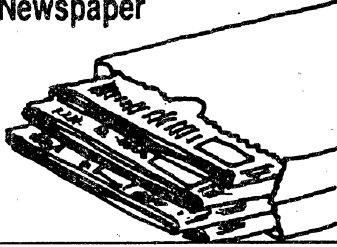
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We are pleased to provide you with this convenient way to comply with the City's Mandatory Recycling Ordinance.

Sincerely,

[Management]

City of Cambridge

MATERIAL	WHAT TO RECYCLE	HOW TO PREPARE	DO NOT INCLUDE
Glass Clear Colored 	<ul style="list-style-type: none"> Bottles and jars only (clear and colored) Deposit and non-deposit 	<ul style="list-style-type: none"> Rinse clean Remove all corks and metal or plastic lids and rings Remove styrofoam, plastic, and metal foil neck wrapping Labels may be left on 	<ul style="list-style-type: none"> No broken glass No plate or other glass items (lightbulbs, Pyrex, crystal, and so on) No dishware or ceramics
Plastic 	<ul style="list-style-type: none"> Milk, water & juice jugs Rigid containers (yogurt, detergent, etc) marked on the bottom with a  or  	<ul style="list-style-type: none"> Rinse clean Remove metal or plastic caps, rings and spigots Containers may be crushed or nested Labels may be left on 	<ul style="list-style-type: none"> No unmarked containers No containers with 3, 4, 5, 6, or 7 on the bottom No plastic bags
Aluminum 	<ul style="list-style-type: none"> Deposit and non-deposit aluminum cans Pie plates Aluminum trays 	<ul style="list-style-type: none"> Rinse clean 	<ul style="list-style-type: none"> No bottle and jar lids No other aluminum items
Metal Cans 	<ul style="list-style-type: none"> Metal "tin" cans only 	<ul style="list-style-type: none"> Rinse clean Remove labels Cans may be nested or flattened 	<ul style="list-style-type: none"> No cans with plastic paper parts (such as frozen juice cans) No paint or aerosol cans No other metal items
Newspaper 	<ul style="list-style-type: none"> Newspapers (advertising inserts and Sunday supplements ok) 	<ul style="list-style-type: none"> Put in paper (not plastic) bags or use twine to tie in bundles Can be placed loose directly into toters 	<ul style="list-style-type: none"> No magazines or other glossy papers No soiled newspapers No other paper items
Magazines	<ul style="list-style-type: none"> Magazines Glossy catalogues 	<ul style="list-style-type: none"> String-tied bundles only (NO BAGS) Do not bundle with newspaper 	<ul style="list-style-type: none"> No phonebooks No non-glossy magazines Do not put magazines in bags

Please...only newspapers can be placed in paper bags -- no plastic bags.

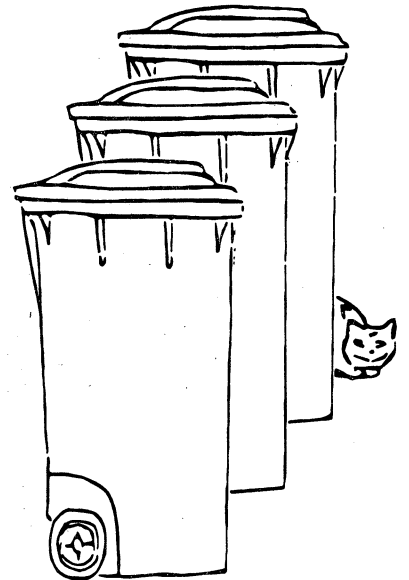
Our building, _____, has been provided with containers for collection of recyclables on trash day. Please place your *properly prepared* newspapers, magazines, glass bottles, tin cans, aluminum containers, and plastic containers (#1 & #2) in the containers located

Two containers, called toters, are for newspapers and magazines, and the other is for everything else. Help your recyclables avoid the landfill by taking the time to learn and follow carefully the procedures described in the chart.

Recycling will only take you a few minutes a week, but it is important you understand that recycling companies will not accept contaminated materials, for example: glass bottles with metal rings left on them, steel pet food cans that have not been washed out.

Questions?

If you have any questions, please call your building representative, _____ at _____; the building superintendent, _____ at _____; or Cambridge Recycling at 349-4860 for missed pick ups or other problems with the operation of the program. Call the Recycling Hotline, 349-4005, for general information.



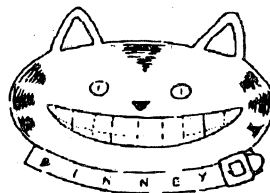
Mandatory Recycling began July 15, 1991

Mandatory recycling began for small buildings in the City of Cambridge on July 15, 1991. Large buildings are being phased in gradually. Why is mandatory recycling a new law? Because we can all help keep the environment clear. *And* because Massachusetts landfills will stop accepting:

- leaves and yard waste by the end of 1992.
- recyclable aluminum, metals, and glass by the end of 1992.
- all grades of recyclable paper and recyclable plastics by the end of 1994.

By recycling some of your trash, you can help reduce the problem of solid waste disposal.

Your glass containers will be remelted and made into new glass containers. Your plastic containers are made into lumber and carpet fibers. Steel and aluminum cans are remelted and made into new metal containers, and newspaper is made into new newsprint or cardboard.



BIG NEWS

Recycling in BIG buildings has begun.

For information about recycling in this building, please contact:

Name _____

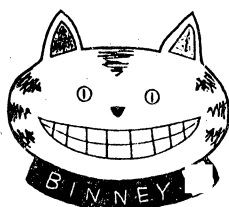
Phone _____

Starting date for this building _____

"Recycle in Cambridge, give something back."

Free brochures will be made available on how to recycle:

- Newspapers
- Metal Cans
- Plastics
- Glass



"Give your trash 9 lives."

APPENDIX D

DRAFT PROGRAM IMPLEMENTATION SCHEDULE

<u>ACTIVITY</u>	<u>TO BE COMPLETED BY</u>
1. Brochures and posters delivered to manager	1-2 wks before start
2. Brochures dist. to residents w/ letter from management	1-2 wks before start
3. Posters put up	1 wk before start
4. Resident meeting held if one is planned	1 wk before start
5. Toters delivered	at start
6. Release agreement signed	at start
7. First collection occurs	1 week after start

The implementation schedule for a particular building may vary from the one shown here depending on individual circumstances. A customized schedule for each building will be worked out with management once the recycling plan is approved.

APPENDIX E

HAULERS/RECYCLING COMPANIES IN EASTERN MASS.

(This is a partial list of companies that collect recyclable materials. It is not a complete resource list for the City and does not represent an endorsement by the City of Cambridge Recycling Program)

Conigliaro Industries 701 Waverly St. Framingham, MA 01710	508-872-9668 Rose Lothrop
LaidLaw Waste Systems 320 Charger St. Revere, MA 02151	445-8383 Patrick O'Brien
Browning Ferris Industries 164 Market St. Brighton, MA 02135	254-1800 Paul O'Brien
E.L. Harvey & Sons Route 135 P.O. Box 1243 Westboro, MA 01581	508-836-3000 Ben Harvey
Jet-A-Way 47 Kemble St. P.O. Box 861 Boston, MA 02119	541-4000 John Kelso X225
Waste Management 22 N. Maple St. Woburn, MA 01801 (Boston North office)	1-800-649-2945 Patrick Malloy

APPENDIX F**LEAF AND YARD WASTE COLLECTION****WHITE GOODS COLLECTION**

Leaf and yard waste is defined as leaves, grass clippings, weeds, hedge clippings, garden waste and twigs and brush not longer than two feet in length and one-half inch in diameter.

White goods are major kitchen and laundry appliances, including, but not limited to, stoves, washers, refrigerators and dryers.

For buildings with City rubbish collection...

Leaves and yard waste will be collected separately by the City from buildings that traditionally put leaves and yard waste out for City pick-up. Leaves and yard waste must be set out in paper leaf bags, labeled barrels or tied bundles of less than two feet long. Leaves and yard waste must be prepared in this manner from early April to mid-December, the exact dates to be published by the City on an annual basis. Starting June 1, 1992, leaves and yard waste will be collected on the same day as trash until mid-December. In order to provide better service, the City is eliminating the Monday-only collection schedule that began in April 1992.

Owners/managers/lessees wishing to dispose of white goods must purchase a special sticker for each appliance. Appliances are to be placed on the curb in the same location regular rubbish is placed for City collection. Stickers can be purchased at the Department of Public Works, 147 Hampshire Street, during normal business hours. The DPW will inform the purchaser when the special collection will take place. Appliances without stickers will not be collected.

For buildings with private rubbish collection...

Owners/managers/lessees of such buildings should continue to have their private hauler or landscaping company collect leaves and yard waste and arrange to have it composted. The Cambridge Recycling Program can provide landscapers with a list of area composting facilities.

Owners/managers/lessees of such buildings are responsible for arranging, either through their hauler or with a permitted handler, the proper removal and disposal of white goods from their buildings.

APPENDIX G

DEPARTMENT OF PUBLIC WORKS PHONE NUMBERS

Recycling Coordinator Jan Aceti	349-4866
Recycling Program Assistant Joanne Bissetta	X4815
Recycling Program Assistant Gerald Boyle	X4836
Recycling Hotline (answering machine to record message)	X4005
Ordinance Violations Dan Evans	X4830
Pothole Complaint Line	X4854
Dig Safe Line	X4856
Switchboard	X4800
Commissioner David Haley	X4806;4807
Deputy Commissioner Jeffrey Nutting	X4810
Architect Paul Feloney	X4823
Construction supervisor John Lavash	X4811
Business Manager Paul Langley	X4818
Building Maintenance Robert Simard	X4840
Cemetery Superintendent Ralph Dunphy	X4890
Sr. Construction Engineer Robert Patterson	X4829
Parks Supervisor Richard Medeiros	X4880

City Arborist Jack Kelly	X4886
Public Planting	X4885
Permits Clerk Maureen Morris	X4833
Sanitation Supervisor Bill Frazier	X4849
Sewers Supervisor Jerry Lucey	X4845
Streets/Sidewalks Superintendent Bob Keating	X4851

Common Questions and Answers Regarding Cambridge's Commercial Recycling Ordinance

Why A Mandatory Recycling Ordinance?

The City of Cambridge Mandatory Recycling Ordinance and the Commonwealth of Massachusetts ban on certain materials from landfills, incinerators and transfer stations were implemented to address the growing need to conserve landfill space, reduce incinerator capacity and preserve natural resources.

Not only are mandatory recycling programs more effective than voluntary ones, but the State's landfill bans apply equally to everyone in Massachusetts. Thus, if commercial recycling were voluntary in Cambridge, businesses not participating in the City's program could be penalized by the State for disposing of recyclable materials.

Whom does it affect?

The Ordinance states that all persons and organizations occupying property in Cambridge shall recycle "to the fullest extent possible". Thus, the Ordinance applies to all residents, businesses, institutions and non-profit groups in the city.

What size businesses? What kind of businesses?

The requirements of the Mandatory Recycling Ordinance apply to all businesses in Cambridge regardless of size or type.

What materials must be recycled?

The following materials have been designated as mandatory recyclables: aluminum cans, foil and trays, corrugated cardboard, glass food and beverage bottles and jars (excluding plate glass, laboratory glass, dishware, ceramics and light bulbs), leaves and yard waste, glossy magazines, newspaper, office and computer paper, plastic (#1 and #2) beverage, food and detergent bottles, scrap metal, steel (and tin) cans, storage batteries, waste oil, white goods (large metal appliances), and wood waste.

How do I tell which materials in my trash are affected?

Every business will be required to perform a "waste audit" to determine which materials that they generate as trash in the normal operation of their business. Businesses will be required to recycle only those designated recyclable materials that they produce in quantities of 5% or more by weight of their total trash.

How do I set up a recycling program in my business?

Every business in Cambridge should have received the City's "Commercial Recycling Guide". The guide contains step-by-step suggestions as to how to set up and begin recycling programs in your business.

How much will I be paid for my materials (or, How much will it cost me to recycle)?

White office paper and scrap metals are the only materials that you may actually be paid for at this time.

If you generate other materials, you will have to pay a fee for someone to come to your place of business to haul them away. You may choose to bring the materials to a commercial recycling drop off facility yourself. This will generally be a cheaper method of recycling.

Keep in mind, however, that every pound, ton or cubic yard of materials that you recycle is one less pound, ton or cubic yard of trash that you must pay to have removed.

Will the City pick up these materials?

The City does not have proper or sufficient equipment to pick up the wide variety of recyclable materials from businesses that presently use a wide variety of arrangements (dumpsters, curbside, etc.). Private haulers that operate in Cambridge are equipped to provide these services.

Who will pick my recyclables up? Where can I take them?

The "Cambridge Commercial Recycling Guide" contains a very extensive resource list of recycling haulers, drop off centers and consultants that have a wide variety of recycling services available to Cambridge businesses.

What if I am a tenant in a commercial building?

In commercial buildings the responsibilities for recycling mirror the responsibilities that exist for trash removal.

If your landlord provides trash removal services as part of your lease (gross lease tenant), your landlord must provide recycling services for your business.

If you make your own, separate arrangements for trash (net lease tenant) you must make your own recycling arrangements.

Regardless of the type of lease you have, all businesses must fill out a recycling plan and submit it to the DPW.

What if I am a landlord in a commercial building?

Again, it is helpful to remember that the responsibilities for recycling will mirror those of trash removal.

If you have gross lease tenants, they should provide you with copies of their individual waste audits so that you can total them for a building wide waste audit. You must then provide centralized storage containers and removal of any recyclable materials that any of your tenants generates in quantities of 5% or more by weight of their (the tenant's) trash. You must then submit a building-wide recycling plan to the DPW.

If you have net lease tenants, you must fill out the first section of the recycling plan and submit it to the DPW with a list of your net lease tenants.

Where can I get more information?

The "Cambridge Commercial Recycling Guide" contains all the information you need to comply with the Mandatory Recycling Ordinance, including all necessary forms. If you have not received a copy, call 349-4836.

In addition, the Recycling Program has scheduled a number of commercial recycling workshops to further assist businesses in their recycling efforts. The schedule for these workshops is contained in the Guide.

Finally, the Recycling Program has a full time staff assistant who is available to work directly with businesses. Call Gerald Boyle at 349-4836.

When do I need to begin?

Recycling Plans are due back to the DPW by January 1, 1993. Businesses will be notified of approval of their plans as quickly as possible. They then have four months from the date of approval to begin their recycling programs.

Are there any additional requirements?

Businesses will have to submit an annual update to their recycling plans every year on March 1 beginning in 1994. They are required to send in copies of their recycling receipts with the update. The updates allow the recycling staff to evaluate how well the commercial recycling program is working for Cambridge businesses.



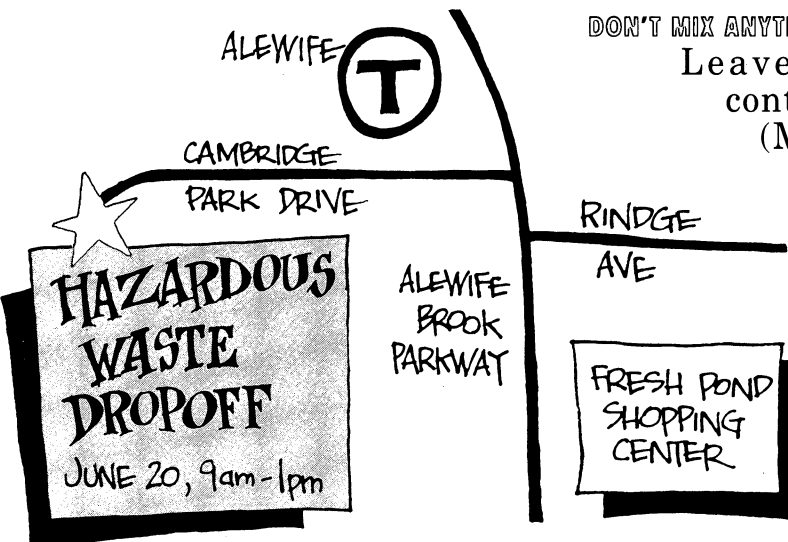
HOUSEHOLD HAZARDOUS WASTE DAY
SATURDAY, JUNE 20TH FROM 9AM - 1PM

Don't pour that leftover paint thinner and nail polish remover down the drain or toilet! Household Hazardous Waste Day is coming to Cambridge on June 20th (9am - 1pm).

Many people are surprised to learn that everyday household cleansers, paints, thinners, and more are "hazardous waste." If buried with regular trash in landfills, they leak, polluting both the ground and our drinking water. Bring these products to Hazardous Waste Day to ensure that they are disposed of safely, in ways that will prevent them from polluting.

Plan to bring a variety of cleaners, car products, paints, solvents, pesticides, herbicides, hobby supplies, and old medicines. The June 9th edition of the Cambridge Tab will contain a flyer with a complete list of what you can bring to Hazardous Waste Day.

ROUTE 2



DON'T MIX ANYTHING!

Leave each product in its own separate container, labeled and with the lid on tight. (Mixing products is downright dangerous!)

WHERE IS HAZARDOUS WASTE DAY?

Hazardous Waste Day will be held on Cambridge Park Drive, near the Alewife MBTA station (on the Red Line).

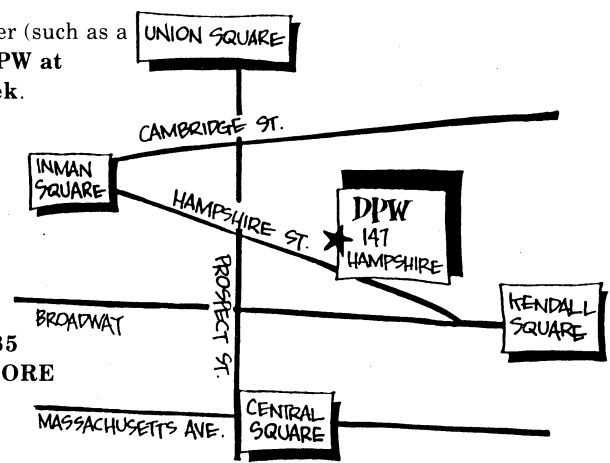
QUESTIONS?

If you have any questions, call the Cambridge Department of Health & Hospitals, the sponsors of Hazardous Waste Collection Day, at 498-1468.

DO YOU KNOW ABOUT MOTOR OIL RECYCLING?

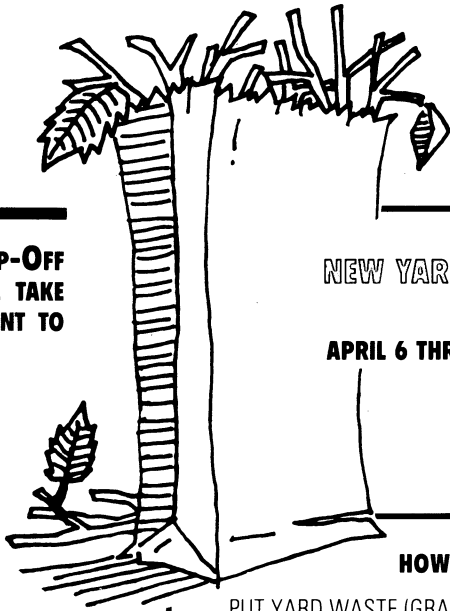
Recycling oil is free and easy: Drain the oil into a clean container (such as a rinsed-out milk jug) with a tight-fitting top. Bring it to the DPW at 147 Hampshire Street from 8am-2pm, seven days a week. The Massachusetts Water Resources Authority sponsors Cambridge's oil collection program. Cambridge residents recycled more than 2,000 gallons of motor oil last year!

Used oil is the largest single source of oil pollution in U.S. harbors and waterways. DON'T pour oil down the drain, onto the ground, or even into the trash. (The oil eventually works its way into area waterways, including nearby rivers and Boston Harbor.) **AMERICANS THROW AWAY 385 MILLION GALLONS OF OIL PER YEAR - 35 TIMES MORE THAN THE WHOLE EXXON VALDEZ OIL SPILL.**



RECYCLING

DIRECTIONS ARE FOR BOTH CURBSIDE AND DROP-OFF RECYCLING, UNLESS OTHERWISE NOTED. • PLEASE TAKE CARE WHEN PREPARING MATERIALS. YOU MIGHT WANT TO ASK A STRONG FRIEND OR RELATIVE FOR HELP.



**NEW YARD WASTE SCHEDULE
AS OF JUNE 1, 1992**

APRIL 6 THROUGH DECEMBER 11, 1992

**YARD WASTE COLLECTED
SAME DAY AS TRASH
AND OTHER RECYCLABLES**



PLEASE CRUSH PLASTIC CONTAINERS & PUT THEM ON THE BOTTOM OF YOUR RECYCLING BIN. TIE NEWSPAPERS OR PUT THEM IN PAPER BAGS.

THIS WILL REDUCE THE ACCIDENTAL LITTER ON OUR STREETS.

THANKS FOR YOUR HELP!

PLASTIC

RIGID CONTAINERS MARKED  OR  ONLY

PETE HDPE

COLORED OR CLEAR OK

RINSE CLEAN

REMOVE CAPS, SPIGOTS, POURING SPOUTS, & NECK RINGS

LABELS OK

NO PLASTIC BAGS (SOME LOCAL SHOPS ACCEPT PLASTIC BAGS FOR RECYCLING)

HOW TO PREPARE YARD WASTE

PUT YARD WASTE (GRASS CLIPPINGS, LEAVES, SMALL TWIGS, AND SO ON) INTO PAPER YARD WASTE BAGS OR INTO BARRELS THAT ARE CLEARLY LABELED "YARD WASTE." YARD WASTE IN PLASTIC BAGS WILL NOT BE COLLECTED!

IF YOUR YARD WASTE IS NOT PICKED UP, CALL 349-4860 BY 9PM TO SCHEDULE A NEW PICK UP.

NO YARD WASTE COLLECTION JAN, FEB, & MARCH

CANS & ALUMINUM

RINSE CLEAN

REMOVE PAPER LABELS

FLATTEN, IF YOU CAN

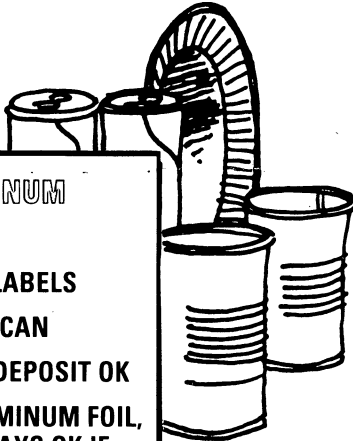
DEPOSIT OR NO-DEPOSIT OK

PIE PLATES, ALUMINUM FOIL, & ALUMINUM TRAYS OK IF CLEAN

NO PAINT CANS OR SPRAY CANS

NO LIDS FROM BOTTLES OR JARS

NO OTHER ALUMINUM OR METAL ITEMS



GLASS

BOTTLES AND JARS ONLY

RINSE CLEAN

REMOVE TOPS, METAL & PLASTIC NECK RINGS, AND FOIL COLLARS

PAPER LABELS OK

NO CERAMIC, DISHES, GLASSES OR OTHER GLASS ITEMS

NO BROKEN GLASS

NO WINDOW GLASS



MAGAZINES

STRING-TIED BUNDLES ONLY (NO BAGS)

GLOSSY MAGAZINES ONLY

DO NOT MIX WITH NEWSPAPER

NO PHONEBOOKS

NO NON-GLOSSY MAGAZINES

DO NOT PUT MAGAZINES IN BAGS



DROP-OFF EXCLUSIVE!

THE DROP-OFF CENTER NOW ACCEPTS WHITE PAPER, COLORED PAPER, & CORRUGATED CARDBOARD (THE "WAVY" STUFF!). THESE MATERIALS ARE NOT YET COLLECTED AT CURBSIDE.

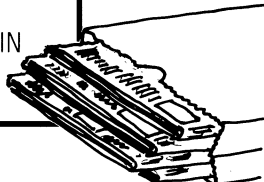
NEWSPAPER

IN PAPER BAGS OR STRING-TIED BUNDLES ONLY

NO SOILED NEWSPAPERS

NO OTHER PAPERS MIXED IN

NO PLASTIC BAGS



DO RECYCLE:

- Sheets of printed paper
- Stationery
- Computer paper
- Lined or tablet paper
- Envelopes (NO plastic windows, labels, or stamps)
- Photocopies

HOW?

Keep cardboard, white paper, and colored papers separate from each other. Bring them all to the Drop-Off Site at 147 Hampshire Street.

DON'T RECYCLE:

- Paper bags
- Flat, waxed, food-stained, or "cereal box" cardboard
- Newsprint or phone books
- Post-it notes (self-stick paper)
- Glossy or thermal FAX paper
- Tablet bindings
- Food, cups, or tissues
- Carbon paper / carbonless "NCR" forms
- Wax paper

HEARD ON THE CURB

Q "My newspapers often don't get picked up. What should I do?"

A The driver might miss your newspapers if they are not easy to see (if they are far away from your blue bin, are alone on the sidewalk, or are hidden by other trash).

Help the driver by setting newspapers apart from your regular trash. It's also better to wait until you have a full paper bag or good-sized bundle before putting the newspapers out.

Q "Why are all of my recyclables now thrown into the truck without being sorted?"

A Cambridge's recyclables collector, Laidlaw, finds it more efficient to send our materials to a central processing facility, Jet-A-Way, in Roxbury, for sorting.

WHO'S WHO AT THE DPW

The Department of Public Works - the group of people who fix our streets, maintain our parks, issue permits, and more - handles many of Cambridge's day-to-day operations. Here's a list that will help you know who to call when you need the DPW's help.

24-HOUR EMERGENCY & DISPATCH LINE 349-4860

MAIN SWITCHBOARD 349-4800

RECYCLING INFORMATION 349-4005

ORDINANCE VIOLATIONS Dan Evans 349-4830

POTHOLE COMPLAINT LINE 349-4854

DIG SAFE LINE 349-4856

COMMISSIONER David A. Haley 349-4806 or 349-4807

DEPUTY COMMISSIONER Jeffrey Nutting 349-4810

ARCHITECT Paul Feloney 349-4823

CONSTRUCTION SUPERVISOR John Lavash 349-4811

BUSINESS MANAGER Paul Langley 349-4818

BUILDING MAINTENANCE Robert Simard 349-4840

CEMETARY SUPERINTENDENT Ralph Dunphy 349-4890

SENIOR CONSTRUCTION ENGINEER

Robert Patterson
349-4829

PARKS SUPERVISOR Richard Medeiros 349-4880

CITY ARBORIST Jack Kelly 349-4886

PUBLIC PLANTING 349-4885

PERMITS CLERK Maureen Morris 349-4833

RECYCLING COORDINATOR Jan Aceti 349-4866

RECYCLING ASSISTANT / MULTI-UNIT BUILDINGS Joanne Bissetta 349-4815

RECYCLING ASSISTANT / BUSINESSES & NON-PROFITS Gerald Boyle 349-4836

SANITATION SUPERVISOR Bill Frazier 349-4849

SEWERS SUPERVISOR Jerry Lucey 349-4845

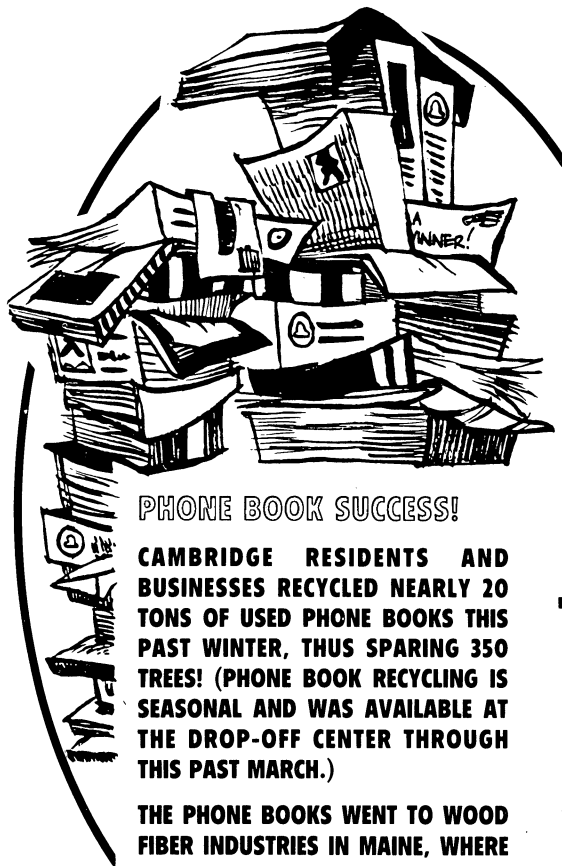
STREETS & SIDEWALKS SUPERINTENDENT Bob Keating 349-4851

CONTRIBUTORS TO THIS ISSUE Research/Writing: Jan Aceti, Joanne Bissetta, Kathy Lieben, Joanne Luciano, & Nancy McGraw • Illustrations: John Klossner (page 3 and 4), Steven Hodges (front cover), & Karen Lawson Chipman (recycling chart) • Designer/Editor: Melinda Baker • PRINTED ON RECYCLED PAPER WITH SOY-BASED INKS

CAMBRIDGE RECYCLING PROGRAM

Department of Public Works
147 Hampshire Street
Cambridge, MA 02139

Bulk Rate
US Postage
Paid
Cambridge, MA
Permit No.
58646



PHONE BOOK SUCCESS!

CAMBRIDGE RESIDENTS AND BUSINESSES RECYCLED NEARLY 20 TONS OF USED PHONE BOOKS THIS PAST WINTER, THUS SPARING 350 TREES! (PHONE BOOK RECYCLING IS SEASONAL AND WAS AVAILABLE AT THE DROP-OFF CENTER THROUGH THIS PAST MARCH.)

THE PHONE BOOKS WENT TO WOOD FIBER INDUSTRIES IN MAINE, WHERE THEY WERE MADE INTO WALLBOARD AND OTHER PRODUCTS.

THE TELEPHONE BOOK COLLECTION WAS SPONSORED JOINTLY BY NYNEX INFORMATION RESOURCES INC. AND LAIDLAW WASTE SYSTEMS.

**TIRED OF
UNWANTED
CATALOGS
& JUNK
MAIL?**

WHY dream about less junk mail when you can actually do something about it?

You can remove your name from a company's mailing list or reduce the number of catalogs they send you by calling the Customer Service Number in the catalog.

Call or write the Direct Marketing Association – they will take your name off the lists of companies that buy their Mail Preference Service, which should help stop some of those catalogs you never asked for.

**Mail Preference Service
Direct Marketing Association
11 West 42nd Street / PO Box 3861
New York, NY 10163-3861
TELEPHONE: 212-768-7277**

BIG BUILDING UPDATE

Now, any building with 13 or more units that has Cambridge city trash collection can receive recycling service. Already, residents in 28 condominium and apartment buildings (equalling more than 1,000 units!) deposit their recyclables in large blue containers, called toters, conveniently located in their buildings.

One toter holds newspapers and bundled magazines; another holds plastics, glass, and metals mixed together. Building maintenance staff and resident volunteers make sure the right materials prepared the right way go into the toters. The recycling truck then comes to the building to collect the properly prepared materials.



Tell your landlord, management company, or board of trustees that you want recycling service in your building! Have them call Joanne Bissetta, Recycling Program Assistant, at 349-4815 to arrange a site visit.

If your building has private trash collection, the building owner, not the City of Cambridge, is responsible for arranging collection of recyclables. A how-to manual that shows owners and managers how to set up recycling programs in their buildings will be mailed to each building owner in early June.

COMPOST HAPPENS

ATTENTION GARDENERS! Turn your kitchen and yard waste into rich, fertile compost. Come to the free workshop at Danehy Park from 6:30-8:30pm on JUNE 17.

Cambridge Recycling volunteers are selling backyard composters at a reduced rate to help you get started. Backyard composting is easy - your vegetables and flowers will thank you! Call Robert Winters at 661-9230 for more information or to order your composter.

Meanwhile, compost is available for free at the Town of Belmont composting site. Call the Cambridge DPW at 349-4800 for complete information.

BUY SMART • BUY RECYCLED

“Paper recycling can play a vital role in the management of our environmental problems ... In addition to conserving resources ... and helping to reduce our waste disposal problems ... using recycled materials to create new products consumes less energy and generates a great deal less pollution than does manufacturing using virgin materials.”

– Claudia Thompson, Cambridge Resident & Author of *Recycled Papers: The Essential Guide* (MIT Press 1992)



HELP RECYCLING SUCCEED IN YOUR BUILDING!

The Recycling Program needs building representatives to:

- distribute information to their neighbors in the building
- act as liaison between residents and the Cambridge DPW
- help neighbors prepare materials for recycling.



YES! I WANT TO HELP RECYCLING SUCCEED IN THE BUILDING WHERE I LIVE!

How many units are in your building? _____
 Your Name _____
 Address _____ Apartment # _____
 Phone _____ Most convenient time to call _____
 Landlord or Building Management Name _____

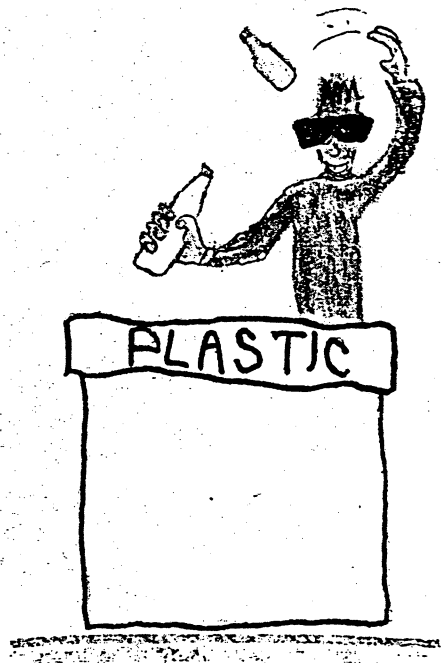
• SEND THIS CARD TO Joanne Bissetta, Cambridge DPW, 147 Hampshire Street, Cambridge, MA 02139 **OR CALL JOANNE 349-4815**



CAMBRIDGE RECYCLING NEWS

FEBRUARY 1992

This is a copy. We have run out of the original two-color printed version.



GET YOUR BLUE BIN!

Residences with 12 or fewer units that receive city trash collection: If you don't have a blue bin already, you can pick one up at the Department of Public Works at 147 Hampshire Street from 8:30am - 5pm, Monday - Friday. Please bring proof of residency.

If you are unable to pick up a bin during normal business hours, call 349-4800 to have one held for you at the Recycling Drop-Off Center (at 147 Hampshire Street, in the back). Complete hours for the Drop-Off Center are listed below.

If you are homebound or do not drive, special arrangements can be made for a blue bin to be delivered to your house. Call 349-4800 to request this special delivery.

APARTMENT DWELLERS

Even if your building does not yet have curbside collection, you can still recycle. Here's where:

DROP-OFF RECYCLING CENTER
147 HAMPSHIRE STREET IN CAMBRIDGE
TUESDAY & THURSDAY 4:30PM-6:30PM
SATURDAY 8:30AM-3:30PM
SUNDAY 10:30AM-1:30PM

Since curbside recycling began, the drop-off site is much less crowded, making drop-off that much easier.

Recycling for larger apartment buildings is on the way! The "Guide to Recycling in Multi-Unit Buildings" will be mailed to all owners of large apartment buildings in mid-April of 1992. Owners will then have up to six months to submit their recycling plan to the City for approval.

Those of you in larger apartment and condominium buildings that receive city trash collection...if you're eager to start your recycling program now, we'd like to hear from you! Call the Recycling Staff Assistant at 349-4815 for more information.

RECYCLE TELEPHONE BOOKS

Phone books will be accepted for recycling at the Drop-Off Center from November 21, 1991-March 13, 1992. Residents and businesses alike may bring their telephone books. (Unfortunately, no phone books can be collected at curbside. They must be brought to the Drop-Off Center.)

DON'T GET LEFT BEHIND!

Put your blue bin out on the sidewalk by 7am on collection day so that your recyclables don't get left behind. The recycling truck comes at a different time of day than the regular trash truck, so it's important to have the blue bin out early on your trash collection day.

If your bin isn't full on collection day, please wait until it is full before putting it out for collection.

HOW TO AVOID REJECTION

It's frustrating to find a bright red sticker left behind with a few of your recyclables. But don't feel rejected! The most important thing is that you're participating! As curbside goes on, we're all learning new things about recycling.

Here are a few tips to help you:

- Remove plastic caps from milk and water jugs. Also, remove the brown and red spigots on 2 1/2 gallon water jugs. Secure the dispenser under one arm and give a good tug on the brown part of the spigot.
- Remove lead, foil, or plastic from the necks of wine and champagne bottles. Often it's easy to peel these off by hand.
- Remove metal rings and covers from screw-top bottles. Common household pliers or wire cutters will do the trick.

Please be careful! If you don't feel comfortable using pliers or are unable to pull the plastic off by hand, ask a strong friend or relative for help. ■

INSIDE!

WHERE DOES IT ALL GO?

Now you see them, now you don't... Or do you? From sidewalk discards to new products. *Page 3*

WIN! WIN! WIN!

Take part in curbside recycling and you might win a \$25 gift basket! Details on *page 3*

HOW MANY ELEPHANTS???

Yard waste collection was new to Cambridge in 1991. We recycled tons of stuff every day. *Page 4*

HOUSECLEANING THE NEW OLD-FASHIONED WAY

Save money and clean more effectively. Ideas on *page 2*

PUBLISHED BY CAMBRIDGE RECYCLING,
DEPARTMENT OF PUBLIC WORKS,
147 HAMPSHIRE STREET, CAMBRIDGE,
MASSACHUSETTS 02139. (617) 349-4800
RECYCLING HOTLINE 349-4005

❖ HOUSECLEANING the NEW! OLD-FASHIONED WAY ❖

Were you around right after World War II? If so, you must remember all those scientific discoveries that satisfied our desire for new and better ways of life.

Scientists have invented thousands of new chemicals. Among them are the hundreds of household cleansers we use every day.

Unfortunately, as time has shown, these new items come to us with enormous costs and a web of invisible strings attached.

Look closely: many bear warnings such as CAUTION: KEEP OUT OF REACH OF CHILDREN. If a child can be harmed by a misplaced mouthful, imagine the harm done to wildlife when tons of the same products are unleashed on the environment one simple little cleaning at a time.

Toxins come back to us through the water we drink and the food we eat that has grown in contaminated soils and waters.

But here are some old-fashioned, environmentally friendly alternatives to harsh commercial cleaners. And guess what? THEY REALLY WORK!

SOAP is less toxic to humans and to the environment than detergent.

Read the label. Buy cleaning products that say "soap." (Murphy's



ALL-PURPOSE CLEANER:

Mix together 1 gallon warm water, 1/4 cup vinegar, 1/4 cup ammonia, and 1 tablespoon baking soda. Use with a sponge or apply lightly with a spray bottle. After cleaning, wipe surface with a damp cloth. Wipe dry if desired.

(Recommended by Greenpeace.)

Oil Soap and Ivory Snow are two examples.) Soap works beautifully on appliances, dishes, door frames, floors, walls, window frames, laundry, and more. Add in a little baking soda or borax to get rid of any soapy film residue.

If you do use detergent, use about 2/3 of what the manufacturer recommends.

BAKING soda is an excellent all-purpose cleaner. It scours, bleaches, cleans ovens, polishes, removes stains, cleans toilet bowls, and more. It also removes unwanted odors from surfaces and fabrics. Pour a little on a damp sponge to clean stovetops, counters, tile, sinks, and appliances. (Works best with hot water.) Add 1/4 cup to powdered soap in the laundry for added cleaning power.

BORAX is another all-purpose cleaner. Borax scours, disinfects, bleaches, and acts as a water softener. One-quarter to one-half cup added to a small pail of warm water makes an excellent disinfectant for bathroom and kitchen surfaces.

SALT scours, polishes, and removes stains from carpets. Salt added to heated vinegar (in equal parts) will clean copper.

VINEGAR cuts through wax build-up and grease, removes odors (use sparingly), cleans windows, and, when used with vegetable oil, polishes furniture. One quarter cup of vinegar added to a quart of water makes a good glass and chrome cleaner. Store in a spray bottle for added convenience.

LEMON juice removes stains from carpets, cleans windows (mix a small amount with vinegar and water), and, as does vinegar, polishes furniture when used with vegetable oil.

Instructions for environmentally sound alternatives are easy and minimal - the way is clear for each person to experiment with personal recipes for the cleaners they prefer. (Do you like vinegar? No? Then use lemon instead.)

What is important is to set aside a little time to break old habits and replace them with the recently rediscovered alternatives.

There are rewards: the alternatives always cost less - often much less - and are just as effective as the so-called "miracle" products. ■

WHAT DO YOU THINK?

We'd like to hear your comments!
Is the recycling program working for you?
Do you have questions about it?
How would you like to see it improved?



Leave a message on the Recycling Hotline!
Or write to the Recycling Coordinator,
147 Hampshire Street, Cambridge, MA 02139

RECYCLING HOTLINE
349-4005

WHERE DOES IT ALL GO?

YOU might wonder, "Where do all my recyclables disappear to? What becomes of those bottles, cans, plastics, and newspapers that I so carefully prepared?"

Yard waste from your beautifully raked and manicured grounds goes to a composting facility. There it is allowed to decompose into nutrient-rich soil before being sold to commercial landscapers, who use it as topsoil.

Aluminum, the gem of recyclables, goes to foundries across America where it is melted, formed into aluminum ingots, and sold to manufacturers around the world who require aluminum for their products. (The next time you buy a car, toy, or computer from Detroit, Japan, or anywhere else in the world, just think: it might have recycled aluminum from Cambridge in it!)

Tin cans- actually steel cans with a tin coating - are melted down directly at the steel mill to make a lower grade steel (one that is "contaminated" by the tin). This lower grade steel is then mixed with purer, high-grade steel to be used in such products as car bodies and bridges.

Glass, both clear and colored, is simply melted down and made into new glass containers.

Plastic containers collected in Cambridge are made into carpet fibers, durable plastic lumber, and other products. (Plastic lumber is commonly used for outdoor construction, for items such as park benches or playground equipment.)

Newspapers go to the Canadian Pacific Paper Mill, a brand new plant in Ontario,

APPLIANCE ALERT!

Now that appliances are being recycled in Cambridge...

RESIDENTS MUST PURCHASE A \$15 DISPOSAL STICKER AND SCHEDULE A TIME FOR A DEPARTMENT OF PUBLIC WORKS TRUCK TO PICK UP THE APPLIANCE FROM THE SIDEWALK. (STICKERS COST ONLY \$10 FOR SENIOR CITIZENS.)

What appliances are included? Refrigerators, ranges, freezers, washers and driers, water heaters, and air conditioners.

Call 349-4800 for complete information.

where they are made back into newsprint and sold back to American newspapers.

...WHAT ELSE CAN I DO?

The more we request safe, recyclable materials and less packaging, the faster industry will respond. You can help speed along the process. Purchase products packaged in recycled and recyclable material. Bring your own cloth bags when shopping. Don't buy over-packaged products. And, of course, keep on recycling!

If you want to be more involved, check in with local environmental groups. Call the EPA Public Affairs Office at 564-2713 after February 15th to get their new *Directory of Environmental Groups*. The directory is free and has addresses, phone numbers, and brief descriptions for each group. ■

WIN!

THE GREAT RECYCLING GIVEAWAY!



If you live in a Cambridge residence with 12 units or less...
and are served by city trash collection...

**YOU MIGHT WIN A PRIZE WORTH \$25
FROM ORIGINS, LOCATED IN HARVARD SQUARE.**

**ALL YOU HAVE TO DO IS
TAKE PART IN CURBSIDE RECYCLING!**

CONTEST DETAILS

1. At the beginning of March 1992, the City will choose 5 households (one for each trash collection day of Monday through Friday) at random from all those that are eligible for curbside collection. (Households may be single-family or apartment residences.)

2. Each of the 5 locations will be checked once a week at 7am (on trash day) for a month. (The locations are checked over a month's time because not every household chosen will have enough recyclables to set out a full recycling bin each week.)

3. If a recycling bin labeled with the household's address (and apartment number) is set out at least once during the one-month period, and if the materials are correctly prepared, the household will automatically win a \$25 gift basket from Origins in Harvard Square. The household will also receive a letter of appreciation from the Mayor of Cambridge.

(PLEASE NOTE: Awards cannot be made for bundles of newspaper set out by themselves because they cannot be identified by an address like the bins. Please keep on recycling your newspapers anyway, though, so that

Cambridge can continue to save trees and conserve landfill space.)

4. At the beginning of April, the City will again choose 5 new addresses at random from all those eligible for curbside collection.

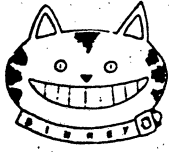


ORIGINS
AT HARVARD SQUARE

**THE ORIGINS COMMITMENT:
PRESERVATION OF EARTH, ANIMAL,
ENVIRONMENT.**

HOW WELL ARE WE DOING?

Cambridge residents are saving tomorrow by sorting 9 tons of newspaper, and 3 1/2 tons of glass, metal cans, and plastics from their trash *every day*.



Recycling began in Cambridge in 1989. Materials were brought to drop-off sites by car, bicycles, and on foot. Motivated by the ever-increasing amounts of recyclables dropped off by residents, Cambridge began a curbside program in July of 1991.

Currently, more than 25,700 residences are served by the Cambridge Curbside Recycling program. By the end of 1993, the whole city - from single residences to big apartment buildings - will be involved in recycling.

By recycling in Cambridge, we keep more garbage out of local landfills each month than we did during all of 1989.

IT'S IN THE BAG...OR BARREL!

From October 7 to December 13, 1991, Cambridge residents set out 340 tons of leaves, grass clippings, garden waste and small brush in barrels labeled "YARD WASTE," in degradable paper bags, or bundled for separate collection and composting. That's equivalent in weight to 65 African elephants. What a waste to bury this valuable material in landfill all these years!



Where does the yard waste go now? At large composting facilities, the yard waste is allowed to decay naturally into beautiful, nutrient-rich soil.

Leaf and yard waste collection will occur every fall and summer in Cambridge for all properties that receive city trash collection and that do not use a landscaper. (If you employ a landscaping company, the company is responsible for hauling away the leaves and yard waste collected on your property. Call us at 349-4800. We'll be happy to send you or your landscaper a list of area composting facilities that will take leaves and yard waste.)

Watch for more information about summer yard waste collection in our spring newsletter.

% OF TOTAL TRASH RECYCLED (by weight) - 1991 -



ARE WE MAKING A DIFFERENCE? YES!

Our graph shows that Cambridge residents recycled more and more of their trash as the fall wore on. With all the leaves and yard waste collected in November, Cambridge residents recycled almost 20% of their trash!

If even more people participate, we can do better! Quick checks of trash bags throughout Cambridge show that lots of tin and aluminum cans, plastics, glass bottles, and newspapers are still being thrown out.

Recycling is easy. If you have questions about how to recycle, call 349-4005. Encourage your friends, families, and neighbors to participate.

Thank you for making recycling a success in Cambridge! ■

DID YOU KNOW?

Newspaper recycling is easy! About 46% of the households in Cambridge receive the Boston Globe - about the same number as in surrounding communities. Yet Cambridge is recycling less newspaper than its neighbors.

Recycling your newspaper is easy. Just shove it in a paper grocery bag or tie it into bundles with string. (No plastic bags!) Drop it on the curb on trash day and presto! It gets recycled.

CONTRIBUTORS TO THIS ISSUE Research / Writing: Ann Jenks, Ethan McMahon, Nicholas Nagykerly, and Robert Winters
Illustrations: John Klossner & Steven Hodges (front cover) • Designer/Editor: Melinda Baker • Cambridge Recycling Coordinator: Jan Aceti
Cambridge Recycling Assistant: Helen Landerman

CAMBRIDGE RECYCLING PROGRAM

Department of Public Works
147 Hampshire Street
Cambridge, MA 02139

Bulk Rate
US Postage
Paid
Cambridge, MA
Permit No.
58646

THANK YOU, CAMBRIDGE !

**For recycling 15% of
our trash since
July 1991!!**

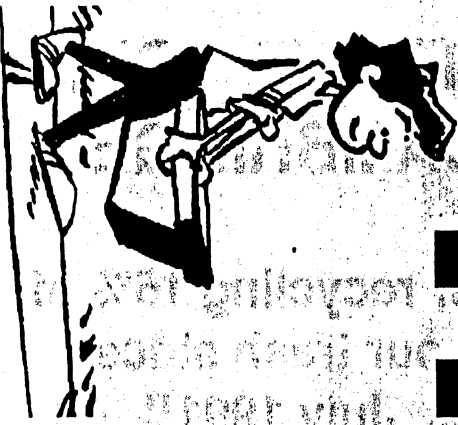
The 5,000 tons of newspapers, magazines, bottles, cans, and yard waste you've kept out of landfills and incinerators would fill 532 MBTA buses, enough to line Mass. Ave. from the Charles River to the Arlington border.

* Every ton of newspaper recycled saves 4100 kw/h, or enough energy to power a TV for 31 hours. Making paper out of recycled materials creates 74% less air pollution and 35% less water pollution.

* Every ton of aluminum recycled saves 95% of the energy required to manufacture aluminum from natural resources. It produces 95% less air pollution and 97% less water pollution.

**KEEP UP THE
GOOD WORK!!**

Printed on Recycled Paper



THE A N K

FOR RECYCLING!

KEEP UP THE
GOOD WORK!

000 tons of newspapers,
bottles, cans, and
you've kept out of
incinerators would be
enough to line
the Chesapeake Bay
from Washington to
Annapolis.
enough energy to power a
city for a year.
Making paper out of
recycled paper saves
energy and reduces
pollution.
Recycling saves
energy and reduces
pollution.
Recycling saves
energy and reduces
pollution.

47 KEMBLE STREET
P.O. BOX 861
BOSTON, MA 02119
Tel. (617) 288-7131
Fax: (617) 541-4015

Oct. 6, 1992

Mr. James Toher
Laidlaw Waste Systems
320A Charger Street
Revere, MA 02151

City of Cambridge Recycling

Dear Jim:

In the meeting this morning with you and me, Jan Aceti, Recycling Coordinator for the City of Cambridge, requested confirmation that the recyclable materials that Laidlaw Waste System picks up in the City of Cambridge are, in fact, recycled.

The first step is to demonstrate that the Laidlaw vehicles deliver their loads of newspaper and co-mingled recyclables to Jet-A-Way. This fact is documented by the weight tickets for each truck and the billings that Jet-A-Way renders to Laidlaw. Each weight ticket is signed by the vehicle driver and a copy is delivered to Laidlaw daily with another copy accompanying the account statements.

The second step is to confirm that Jet-A-Way processes the materials rather than just transferring them to a landfill or incinerator. As numerous persons will attest after visiting our operations and viewing our recycling process in action, including Jan Aceti, Jet-A-Way conducts a full recycling process. This process operates three afternoons per week and processes over 180 tons per week of materials from over a dozen towns plus the Jamaica Plain program for the City of Boston.

From a purely pragmatic viewpoint, Jet-A-Way could not afford to simply transfer recyclables to a landfill or incinerator as it would incur unreasonably higher costs. Including transportation and tip fees at a landfill, the cost of disposal would be on the order of \$55 to \$60 per ton. In contrast, processing the materials allows us to sell the sorted products of clear glass, colored glass, clear HDPE, colored HDPE, PET, bi-metal cans and aluminum, and, of course newspaper. All, except the glass, are baled and sent out in trailer loads to

Mr. James Toher
Cambridge Recycling
Oct. 6, 1992
Page 2

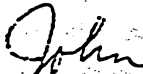
processors either by direct sale or through brokers. Broken mixed colored and clear glass is made into "gravel substitute", also a DEP recognized recycling usage. Between the tipping fee that Jet-A-Way charges Laidlaw and the revenue from sorted product sales, Jet-A-Way barely achieves break-even versus the operating costs of the sorting process. This is far better than a net cost, after tipping fees, of about \$20 per ton that would result from landfilling the materials without processing!

In prior correspondence to Jan, we have indicated where we have sold processed materials. This market is undergoing depressed pricing and, with increasing quality requirements, is a difficult one for recyclers like Jet-A-Way. As a result, we are constantly trying out new outlets and brokers, even selling some products to overseas recyclers on occasion.

If there is any doubt in anyone's mind, as a result of some celebrated instances glaringly reported in the press or national magazines, that Jet-A-Way might not be recycling Cambridge's materials, then I invite them to come see what we do. I can attest that Jet-A-Way most definitely is recycling those materials. Jet-A-Way has a well earned reputation, gained over its twenty-four years of growth in the waste industry, of being a company with integrity. We intend to keep that reputation, so when we say we are recycling these materials, you can be sure we do.

Please relay this message to Jan Aceti. If you have any questions or need further clarification, please contact me.

Sincerely,



John G. Kelso

Executive Vice President

Sep. 9. 1992

Recycling Markets

CONTAINERS:

The container recycling stream consists of: glass containers, cans and plastic containers. The general composition of what is received at Jet-A-Way is: 75% glass, by weight, of which two thirds is clear glass and one third is brown and green; 15% cans, including only a small amount of aluminum; and 10% plastics, of which about 50% is clear HDPE, 30% is colored HDPE and the remainder is PET, with a small quantity of unrecyclable materials such as PVC, polystyrene, LDPE, etc.

Clear glass that has been cleaned of neck rings, caps, foil and pieces of ceramic is taken to a glass plant where it is made into new bottles. Note: paper labels are not a problem. Clean loads of colored glass may also be recycled into containers. In some instances, green glass, which is generally used for imported products, is not recycled in the USA. Broken glass is used as "gravel substitute" in drainage applications, pipe bedding and as additions to concrete or asphalt ("glassphalt").

Tin cans are separated from other materials by electromagnets. Aluminum is hand picked. These materials are baled, separately, before being sold for remelting into can production. Regular tin cans are stripped of the tin coating prior to remelting as the tin is needed to plate new can stock.

The plastic materials are hand picked before baling. Clear HDPE (water and milk jugs) is sold to processors who wash it, shred it and then remelt it into pellets for future mixtures with new plastic in molding new products, including containers. Colored HDPE (detergent bottles) and some clear HDPE may be used to produce fiber fill insulation such as is used in lightweight jackets or for carpeting or even extruded into lumber shapes. After cleaning, PET may go back to container manufacturing or into other plastic molding applications.

NEWSPAPER

Newspaper represents about 70% of the normal household recycling stream. Newspaper is collected loose, tied with string or in brown paper bags or plastic bags. The preferred form is brown bags or loose. Some glossy magazines are acceptable.

Processing newspaper consists of removing contaminants, such as brown bags, plastic bags, phone books, catalogs with glue binders, assorted trash and other waste - in short, any non-newspaper items. Brown bags and magazines are separated from the newspaper stream and are baled and sold separately.

The baled newspaper is sent to mills in Canada where it is de-inked and subsequently made into pulp which is mixed with virgin pulp to produce newsprint with about 30% recycled content. Magazines are used in the process as the clays which make them glossy help generate a foam to float off the ink in the deinking tank.

Loose newspaper may be used to produce linerboard, shredded for use in animal bedding or added to some wallboard compositions. Some used newspaper is exported to the Far East where it may be used to make so-called "Asian corrugated".



29.

CITY OF CAMBRIDGE
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EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

October 19, 1992

To The Honorable, The City Council:

Please find attached a response to Awaiting Report Item No. 27, regarding the status of mandatory recycling activity in Cambridge, received from David A. Haley, Public Works Commissioner, concerning this issue.

Very truly yours,

Robert W. Healy
City Manager

RWH/mev
attachment

Consent Agenda # 29

S-846

Awaiting Report Item Number 27
regarding the status of mandatory
recycling activity in Cambridge.

In City Council,

Oct. 19, 1992

*Referred to the
Environment Committee*

*Copy sent to Environment
Committee 10/21/92 @*