

Best Management Practices

Chicago's Guide to Construction & Demolition Cleanliness & Recycling



City of Chicago
Mayor Rahm Emanuel

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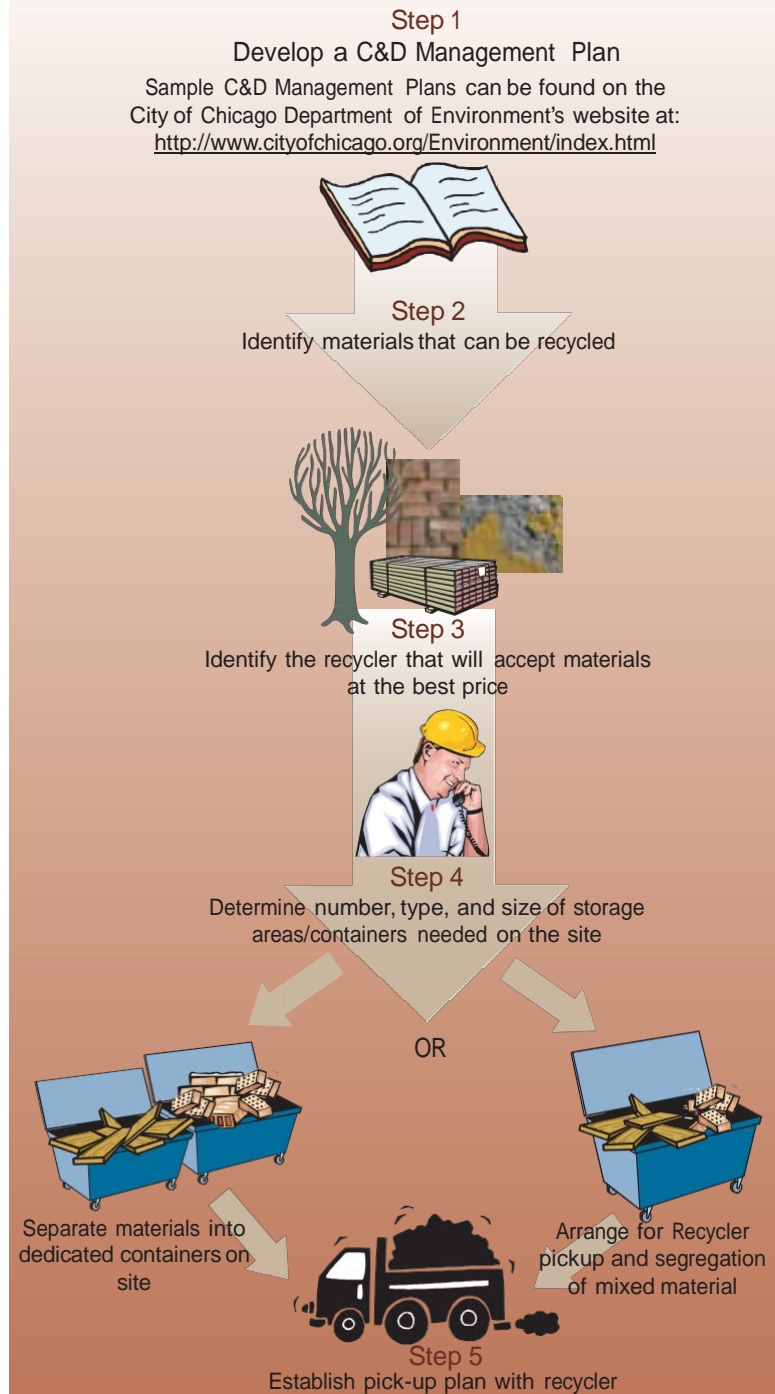
OVERVIEW

This guide presents rules for construction site cleanliness and practical alternatives to conventional disposal of Construction & Demolition (C&D) material in the City of Chicago. The Best Management Practices (BMPs) presented focus on commercial C&D operations, but can also be applied to home projects and renovations. Each will assist in more efficiently conducting C&D recycling and will include:

- A description of the BMP
- Techniques for implementing the BMP
- Environmental benefits resulting from the BMP
- Considerations when implementing the BMP
- Cost-benefit analysis of the BMP in comparison with conventional methods, and
- Successful examples of the BMP

This guide is designed to provide instruction for and list the benefits of recycling C&D material, but is not all-inclusive. More detailed instructions and information can be found in the technical manuals listed in the appendix of this publication.

FIVE EASY STEPS TO RECYCLE C&D MATERIALS!



TIPS FOR SITE CLEANLINESS

To Avoid a Stop Work Order and Fines You Must Obey the Following Regulations

FENCE & SECURE JOB SITES:

All construction sites (except for on the public way) must be enclosed by a continuous chain link fence at least six feet high to be anchored sufficient to resist wind loads of 30 pounds per square foot. Construction site fences must have opaque fabric mesh securely attached that allows the passage of air but does not allow the passage of dirt and debris. Fabric mesh must be free from advertisements and cover the full height and length of the fence, including gated openings. You must immediately repair any damage to fence or fabric.

CONTROL DUST:

You must contain all on-site dust generated by sandblasting, demolition, rock crushing, bulldozing, etc. Keeping the area wet during processing will help to avoid excessive dust. Chutes, plastic tarps, and other measures may also be required.

For multiple story projects, contractors must enclose all floor perimeters with a fabric mesh that allows the passage of air but does not allow debris to blow off the floor. The fabric mesh must be free of advertisements. Until the building envelope is completed, contractors should also sweep all open floors daily and more frequently during high winds. For tuck pointing operations, the area of grinding shall also be enclosed to contain dust and debris. Equipment can be fitted with vacuum attachments to capture dust from grinding.

MANAGE ON-SITE WASTE:

Any on-site waste or debris left temporarily must be securely contained. Materials that may become windblown or disperse into the air must be secured and covered with a tarp or other covering. All other materials must be safely secured until they are hauled to a permitted waste-handling facility. Store construction materials, unused materials and materials awaiting disposal in a neat, orderly, and secure manner.

Three or more citations for violations of construction site cleanliness regulations can result in a stop work order at the site.

ALWAYS KEEP PUBLIC WAY CLEAR OF DIRT & DEBRIS:

You must keep the public way (streets, sidewalks, parkways) clean at all times. Ensure that dirt & debris are not spilled or transferred onto the public way by vehicles exiting the site. Ways to comply include, but are not limited to, use of a mechanical sweeper; stoning or paving haul roads; and wheel wash stations. Also make sure loads of building & demolition materials are secured and covered. Provide sealed trash containers at job sites for debris generated on site such as lunch-time debris or accumulated litter.

Empty containers daily or more frequently as needed to avoid overfilling. Store dumpsters behind your construction site fence unless you have been specifically permitted for public way use. Building refuse must not litter the construction or demolition site or neighboring areas. Construction & demolition debris must be removed from the site and taken to a permitted waste facility, or recycled in a timely manner.

TIPS FOR SITE CLEANLINESS (CONTINUED)

STANDING WATER:

No standing water is allowed on construction sites.

RECYCLING COMPLIANCE:

Beginning in January 2006, construction and demolition sites (Permitted from Jan. 1, 2006 to Jan. 1, 2007) will be monitored to ensure that a minimum of 25% (by weight) of recyclable construction and demolition waste is recycled. All construction sites permitted after Jan. 1, 2007 will be monitored to ensure 50% (by weight) of recyclable construction demolition waste is recycled.

PERMITS:

Contractors must obtain, and display on site, all necessary permits covering all aspects of the construction and demolition process. This includes all required public way permits. All required licenses must also be displayed.

ILLEGAL DUMPING:

Even if you hire a hauler, you are legally responsible for removal & disposal of any waste your project generates. It must be taken to a properly permitted disposal, transfer, or recycling facility and disposal must be documented. Illegal dumping can result in fines of up to \$2,500 per day, vehicle impoundment (+ minimum \$700 impoundment fee), the loss of City contracts for those doing work for the City and community service and imprisonment.

RODENT ABATEMENT:

Pre-demolition rodent abatement work is required. The general accumulation of debris or any conditions that would lead to feeding or harboring rodents must be prevented.

NOISE:

Although noise pollution standards for construction and demolition may vary, a general rule of thumb is no motorized equipment or loud noises before 8:00 a.m. or after 9:00 p.m. No loading or unloading before 7:00 a.m. or after 10:00 p.m. Refer to section 11-4 of the Chicago Municipal Code for the noise ordinance.





CLEAN CONSTRUCTION SITE CHECKLIST

- Do you have a continuous chain link fence at least 6 feet high?
- Do you have opaque mesh fabric affixed to the fence free from advertisements?
- Do you have sufficient sealed garbage containers stored behind the fence?
- Have you enclosed all floor perimeters with fabric meshing free from advertisements?
- Have you taken appropriate measures to contain dust and debris?
- Are construction materials being stored neatly and securely?
- Are work vehicles monitored to keep all dirt and debris off the public way?
- Is waste being removed on at least a daily basis?
- Have you provided proper toilet facilities?
- Are you recycling?
Jobs permitted between January 1, 2006 and January 1, 2007 must recycle 25% (by weight) of recyclable construction or demolition debris. Jobs permitted after January 1, 2007 must recycle 50%(by weight)



INTRODUCTION TO CONSTRUCTION SITE RECYCLING

Approximately one quarter of all waste generated in the Chicago metropolitan area consists of debris from construction and demolition projects (“C&D materials”). The City of Chicago has adopted an ordinance requiring contractors to recycle C&D materials. The recycling requirements take effect in January 2006.

In addition to the benefit of conserving raw materials and landfill space, recycling can help contractors maintain cleaner work spaces and even save money.

This Best Management Practices (BMP) manual provides information to contractors about recycling options and techniques.

The opportunities identified in this document are not inclusive. Contractors and households can refer to the success stories and techniques provided that best suit their individual needs. While it is the goal of these BMPs to address a growing environmental concern in the Chicagoland area, it is also the City's goal to address your business needs and help businesses and households save money through C&D recycling.

Not only will these BMPs assist in reducing overhead costs and addressing environmental concerns, but they will also provide guidance in more efficiently managing C&D processes. Techniques and success stories in this guide will illustrate how to better manage work sites, improve the aesthetic appearances of work sites, and increase efficiency and environmental responsibility. The City believes that if adhered to, these BMPs can only improve the image of businesses and the City, making Chicago a preferred healthy place to live and work.

WHY WE NEED TO REDUCE C&D WASTE

Environmentally, C&D create two major impacts: (1) Putting undue stress on limited landfill space, and (2) Causing unnecessary production and consumption of raw materials for construction and demolition activities. Furthermore, disposal of this material creates unnecessary financial impacts for businesses by: (1) creating increased disposal, transport and tipping fees for materials that can be either reused on-site or processed by a recycler, and (2) creating unnecessary expenses for new materials.



STRESS ON LANDFILLS

There are currently 10 landfills in the Chicagoland area that accept C&D material. It is becoming evident that some of these landfills are approaching maximum capacity and will soon be unable to accept additional waste. By recycling and reusing C&D debris the longevity of these the landfills can be expanded.

STRESS ON NATURAL RESOURCES

The use of new materials in construction processes can unduly stress on natural resources. As the rate of new construction grows, so does the mining and foresting industries' processing of raw materials. By reusing and recycling C&D material, the unnecessary consumption of raw materials can be controlled.

INCREASED DISPOSAL FEES

By utilizing the BMPs discussed in this guide, construction companies can decrease expenditures from disposal of materials. Transportation and disposal fees are typically a considerable expense in any C&D project. As landfills accepting C&D debris reach maximum capacity, transportation and disposal fees will only increase as local C&D businesses are forced to transport their materials outside of the Chicagoland area for disposal. These costs can be reduced substantially by reusing appropriate materials on site.

UNNECESSARY EXPENSES FOR NEW MATERIALS

Contractors often purchase new materials when responsible C&D waste management could yield a considerable amount of material acceptable for reuse. For this reason, if properly managed, the reuse of C&D materials can produce significant savings on materials for future projects.

Remember, some materials may be appropriate for reuse on site. If you intend to reprocess/crush materials and reuse them on site, you must obtain a permit from the Chicago Department of Environment. It is also important to know that the Chicago Municipal Code requires all unused reprocessed/crushed materials to be transported to a recycling or disposal facility.

The Municipal Code restricts the transfer of C&D materials to job sites other than the sites on which they were generated. In most cases, C&D materials transferred off-site must go to a recycling center or transfer station. The Municipal Code considers all C&D materials to be a "waste" handled in an appropriate manner.

Did You Know?

If you have no need for C&D material on future projects there are companies throughout the Chicagoland area that will buy reusable material from you for resale. Look into the resale of brick, stone, high quality woods and custom trim work!



BEST MANAGEMENT PRACTICES

Did You Know?

Due to expanding recycling technologies, materials traditionally considered not recyclable can be successfully reprocessed for both their former and new uses. Your C&D “waste” may be very valuable to someone else!

1. Inventory materials that can be recycled

Before starting building or demolition activities take a physical inventory of all materials that will be encountered. Inventory should not be limited to known recyclable materials. Include all by-products resulting from either the construction or the demolition processes. When taking this inventory the contractor should note the following:

- Specific types of materials (i.e. red bricks, pavers, asphalt based roofing shingles, 2x12 lumber);
- Volumes of material expected;
- Condition of materials;
- Possible contamination by hazardous materials like asbestos or lead.

2. Identify the recycler that will accept materials at the best price

Once materials have been inventoried, research whether the material can conveniently be recycled in the Chicago area. This includes contacting recyclers with the materials inventory and assessing the recyclers' ability to accommodate your needs. During this process it is important to remember that there are numerous C&D recyclers in the Chicagoland area, each specializes in different materials. If a recycler cannot accept your materials, refer to the Guide to Chicago Recyclers in the “Index & Resources” portion of this BMP guidebook. When discussing types of materials with potential recyclers, talk about

- Quality of the material;
- Type of handling considerations to be addressed;
- Volume of material the recycler can accommodate;
- Does the demolition contractor care about the end use?;
- How much the recycler will charge for their services.

Although it is important to identify a recycler that can address your needs, it is also important to find the most cost effective opportunity. There will undoubtedly be a number of recyclers to choose from: find the one that is fairly priced and offers a reliable service.

Did You Know?

The Illinois Department of Economic Opportunity has created a guide to C&D Recyclers, making it easy for you to find a recycler in your area. Chicago recyclers are listed at the end of this guide.



3. Determine Benefits

After identifying recyclable materials and a recycling company that can address your needs, determine the economic and environmental benefits of recycling your C&D material. To do this you should first estimate costs for traditional disposal by taking the following into account:

- Labor or fees involved with disposal;
- Transportation fees for C&D material, including but not limited to gas and mileage; and
- Tipping fees for landfilling or disposal at a transfer station.

Once these costs have been accounted, compare them with recycling fees and associated costs for recycling. When performing your cost-benefit analysis it is recommended to account for the resale of materials and savings on future projects resulting from the reuse of materials.

In addition to cost savings, you should also examine the incentives associated with recycling C&D material. This includes becoming more competitive because of your commitment to the environment and becoming more attractive to private sector clients because of your environmental stewardship. Also, the United States Green Building Council (USGBC) has a certification program called Leadership in Energy and Environmental Design (LEED) for which you may be eligible. Visit www.USGBC.org for more information.



Did You Know?

There are a variety of grants and trade groups whose services and benefits are available to companies practicing environmentally responsible business practices. Participation in these groups not only makes your company more visible in the private sector, but also to municipalities seeking businesses to perform C&D work.

4. Determine storage needs for the project

After finding a recycler or recyclers that can address your needs, it is important to prepare a plan for the on-site storage and separation of C&D material. This includes identifying how and where recyclable C&D materials will be contained on site. When considering these factors it is important to account for:

- **Ease of use:** Ensure that containers are easily accessible by workers
- **Safety:** Ensure that the containers and storage can be conducted in a safe manner including limiting public access to the site, and
- **Aesthetics:** Ensure that the site appears orderly and will not raise concern from local residents or businesses

Once locations for containers have been chosen, decide which disposal techniques best suit you and the recycler. For this decision there are two options:

- **Arrange for all recyclable material to be stored in one roll-off container:** This option involves all recyclable materials stored in one roll-off container to be separated at a later date by the recycler;
- **Separate materials into dedicated containers on site:** This option involves using separate containers for each material.

Determining your storage options should be a decision you make with your contracted recycler. Some recycling companies may not have the ability to separate materials after pickup, which would require you to separate the materials on-site. Also, there are some forms of C&D waste that may contaminate the other recyclable C&D materials, making it inappropriate for recycling and requiring separate containerization.

5. Establish a pick-up plan with recycler

Once a material separation and storage plan has been created, establish a pick-up plan with your recycler. In the event that the recycler is unable to pick up C&D material, find a hauling facility that can address your needs. When establishing a pick-up plan, it is important to consider:

- **Schedule:** This can be either at a pre-agreed upon time or per your requests; however, materials should be removed from the site in a timely manner;
- **End-use:** You should ensure that the hauler is delivering C&D material to the proper recycling destination and not to a landfill.

6. Educate your employees

After all logistical plans have been established for the separation, storage, and recycling of C&D material, inform your employees and contractors of new operating procedures. Make sure they understand not only how to properly recycle C&D material, but why they are recycling C&D material. Educating employees will allow them to assist in choosing which materials are suitable for recycling, and which materials can be reused on future projects.

When educating employees how to recycle C&D material, consider:

- Potential language barriers, and make a plan for overcoming them;
- Oversight and ensuring reusable and recyclable materials are properly separated;
- Special training for the foreman or manager responsible for performing;
- Educating new employees if your operation has a high turnover rate; and
- Informing your employees that recycling C&D has both environmental and financial benefits.



C&D RECYCLING WORKSHEET

STEP 1: Estimate the Total Project Waste, including all materials:

Size of Waste Containers (cubic yards)	Number of Waste Containers	Number of Containers Per Month	Total Waste Generated Per Month	Months of Project	Total Project Waste
cy	(x)	(x)	= cy	(x)	= cy

STEP 2: Estimate Amount of Recyclable Material:

Material	Commercial Construction Debris (by weight)	Residential Construction Debris (by weight)	Current Project Estimate (% volume)	Cubic Yards (multiply % volume from total project waste from Step 1)
A. Wood Waste			%	cy
B. Corrugated Cardboard			%	cy
C. Gypsum Drywall			%	cy
D. Scrap Metal			%	cy
E. Brick			%	cy
F. Stone			%	cy
G. Asphalt Grindings			%	cy
H. Recyclable Material			%	cy

STEP 3: Estimate Cost Effectiveness of Recycling:

Material	Cubic Yards (from Step 2)	Cost to Recycle (multiply by cubic yards)	Additional Costs (labor, sorting transportation)	Cost to Recycle (per cubic yard)
A. Wood Waste		(x)	(+)	=
B. Corrugated Cardboard		(x)	(+)	=
C. Gypsum Drywall		(x)	(+)	=
D. Scrap Metal		(x)	(+)	=
E. Brick		(x)	(+)	=
F. Stone		(x)	(+)	=
G. Asphalt Grindings		(x)	(+)	=
H. Recyclable Material		(x)	(+)	=

STEP 4: Calculate Net Benefit or Cost:

Material	Cubic Yards (from Step 2)	Multiply by Cost per Cubic Yard for Landfilling	Cost for Transportation Cost to Landfill	Subtract Cost to Recycle	Net Benefit of Cost to Recycle
A. Wood Waste		(x)	=	-	=
B. Corrugated Cardboard		(x)	=	-	=
C. Gypsum Drywall		(x)	=	-	=
D. Scrap Metal		(x)	=	-	=
E. Brick		(x)	=	-	=
F. Stone		(x)	=	-	=
G. Asphalt Grindings		(x)	=	-	=
H. Recyclable Material		(x)	=	-	=

GUIDE TO RECYCLERS IN THE CHICAGOLAND AREA

South

Adams Brick Company
2671 E. 100th St., Chicago
Ph. (773) 221-4223
Material: Brick

Brandenburg Industrial
2625 S. Loomis St., Chicago
Ph. (312) 326-5800
Material: Concrete

Central Blacktop Co.
6301 S. East Ave., Hodgkins
Ph. (708) 482-9660
Material: Asphalt

Crowley-Sheppard Asphalt Co.
6525 99th Place, Chicago Ridge
Ph. (708) 499-2900
Material: Asphalt

Gallagher Asphalt
18100 S. Indiana Ave., Thornton
Ph. (708) 877-7160
Material: Asphalt

K-Five Construction Corp.
13769 Main St., Lemont
Ph. (630) 257-7779
Material: Asphalt & concrete

Lincoln Paving Co.
1300 W. 171st St., Hazel Crest
Ph. (708) 335-2323
Material: Asphalt & concrete

JR Metals & Recycling, Inc.
616 S. Kolmar, Chicago
Ph. (773) 722-9620
Material: Cans

Vanek Bros.
3920 S. Loomis, Chicago
Ph. (773) 254-5099
Material: Asphalt & concrete

Shamrock Material Corp.
1819 W. 119th, Chicago
Ph. (773) 238-8580
Material: Asphalt & concrete

Building, Salvage, & Construction
2422 S. Halsted, Chicago
Ph. (312) 326-9208
Material: Plywood, bridge timbers,
structural timber

E-Z Tree Recycling
7050 S. Dorchester Ave., Chicago
Ph. (773) 493-8600
Material: Trees

National Waste Services
2608 S. Damen, Chicago
Ph. (773) 579-3600
Material: Wood

TRDA Wood Products
11295 Lemont Rd., Lemont
Ph. (630) 739-5684
Material: Wood

Green Waste
13701 S. Kostner, Crestwood
Ph. (708) 389-6389
Material: Asphalt, concrete, brick,
wood, OCC, & drywall

Homewood/NuWay/Star Disposal
17415 S. Ashland Ave., Hazel Crest
Ph. (708) 798-1004
Material: Asphalt, concrete, brick,
wood, OCC, & metals

K & R Service
10000 S. Melvina, Oak Lawn
Ph. (708) 424-6443
Material: Asphalt, concrete, brick,
wood, drywall, & OCC

Land & Lakes Co.
138th & Cottage Grove Ave., Dolton
Ph. (773) 264-8508
Material: Wood & OCC

N. Chicago Plank & Pine
2422 S. Halsted St., Chicago
Ph. (312) 421-2871
Material: Structural timber,
plywood, terra cotta, &
architectural artifacts

Container Recycling Alliance
10330 S. Woodlawn, Chicago
Ph. (773) 995-9850
Material: Glass

Resource Center-Railyard
1325 E. 70th St., Chicago
Ph. (773) 493-1470
Material: Cans, glass, paper, &
cardboard

Smurfit Recycling Company
626 E. 111th St., Chicago
Ph. (773) 264-3516
Material: Paper & cardboard

Loop Paper Recycling
2367 S. Laffin, Chicago
Ph. (312) 942-0042
Material: Paper & cardboard

ACME Refining
3357 S. Justine, Chicago
Ph. (773) 523-4500
Material: Scrap iron & metal

ABCO Metal
1020 W. 94th St., Chicago
Ph. (773) 881-1504
Material: Scrap metals

Metal Management Midwest
3200 E. 96th St., Chicago
Ph. (773) 731-6789
Material: Metals

ELG Metal
10300 S. Calumet, Chicago
Ph. (773) 374-1500
Material: Stainless steel scrap

Recycling Services
3301 W. 48th Place, Chicago
Ph. (773) 247-2618
Material: Paper products

Edco Recycling
8224 S. Vincennes, Chicago
Ph. (773) 9873-1600
Material: Aluminum, copper &
brass

North

D & M Roll-off Service
10 Court of Greenway, Northbrook
Ph. (847) 419-1416
Material: Concrete

Orange Crush, L.L.C.
3219 Oakton St., Skokie
Ph. (847) 677-7780
Material: Asphalt, concrete &
grindings

Disposal Management Systems
420 Cutters Mill Ln., Schaumburg
Ph. (847) 884-7676
Material: Concrete, brick, wood,
steel, & OCC

Renovation Source, Inc.
3512 N. Southport Ave., Chicago
Ph. (773) 327-1250
Material: Decorative materials,
doors, & door hardware

Gus and Sal's Recycling
1334 N. Kostner, Chicago
Ph. (773) 252-1989
Material: Cardboard

Safran Metals, Inc.
1685 N. Elston, Chicago
Ph. (773) 276-3400
Material: Cans

Resource Center-North Park
5801 N. Pulaski, Chicago
Ph. (773) 821-1351
Material: Cans, glass, paper, &
cardboard

City Scrap Metals
1815 N. Kingsbury, Chicago
Ph. (312) 664-4111
Material: Scrap metals

J & S Metals
4700 W. Belmont, Chicago
Ph. (773) 283-7377
Material: Scrap metals

Mahzel Metals
325 N. Elizabeth, Chicago
Ph. (312) 733-5500
Material: Scrap metal & aluminum

Northwest Paper Company
4519 W. Patterson, Chicago
Ph. (773) 545-7560
Material: Paper products

General Iron Industries
1909 N. Clifton, Chicago
Ph. (773) 348-7053
Material: Scrap iron

Midwest Wrecking Company
2129-49 W. Hubbard, Chicago
Ph. (312) 666-1043
Material: Deconstruction
(demolition material)

Serlin Iron & Metal
1810 N. Kilbourn, Chicago
Ph. (773) 252-1075
Material: Scrap iron & metals

T & Z Metals
4009 W. Parker, Chicago
Ph. (773) 862-1440
Material: Scrap metals

Bricktown Metals Co.
6449 W. Grand, Chicago
Ph. (773) 804-1333
Material: Scrap metals

Ravenswood Disposal
221 N. Washtenaw St., Chicago
Ph. (773) 722-3043
Material: Asphalt, concrete, brick,
& wood

West

D & P Construction Company Inc.
2035 Indian Boundary, Melrose
Park
Ph. (708) 681-9431
Material: Concrete

Delta Demolition
1230 N. Kostner, Chicago
Ph. (773) 252-6370
Material: Brick

Reliable Asphalt
3741 S. Pulaski, Chicago
Ph. (773) 254-1121
Material: Asphalt & concrete

Chicago Scrap Iron & Metal
4555 W. Grand, Chicago
Ph. (773) 533-4200
Material: Cans

Davin Industries
2627 Henke Place, Elk Grove
Ph. (847) 296-0077
Material: Wood waste

BF1
5050 W. Lake St., Melrose Park
Ph. (708) 345-7050
Material: Asphalt, brick, concrete,
wood, OCC, & scrap metal

Van Ryn Scavenger Service Inc.
4319 Butterfield Rd., Bellwood
Ph. (708) 544-1217
Material: Brick, concrete, asphalt,
wood, drywall, carpet, & OCC

Murco Recycling Enterprises Inc.
347 N. Kensington St., LaGrange
Park
Ph. (708) 352-4111
Material: Reusable materials

Lindahl Brothers Inc.
3301 S. California, Chicago
Ph. (773) 523-3737
Material: Concrete

J & R Metals & Recycling, Inc.
616 S. Kolmar, Chicago
Ph. (773) 722-9620
Material: Scrap metal
Kaplan Salvage, Inc.
317 N. Francisco, Chicago
Ph. (773) 588-0300
Material: Scrap metal

Tri-State Scrap Metal
1745 W. Fulton, Chicago
Ph. (312) 226-7465
Material: Scrap metal

Mid-American Paper Recycling
3865 W. 41st St., Chicago
Ph. (773) 890-5454
Material: Paper products

Strategic Materials, Inc.
3717 S. Albany, Chicago
Ph. (773) 523-2200
Material: Metals

Wright Recycling, Inc.
5360 W. 55th St., Chicago
Ph. (800) 732-2218
Material: Aluminum, scrap, copper
& brass

Huron Paper Stock
2545 W. Fulton, Chicago
Ph. (312) 829-7456
Material: Corrugated, paper waste

J & B Scrap Metals
2910 W. Carroll, Chicago
Ph. (773) 533-4200
Material: Scrap metals

Marcell's Paper & Metal
4221 W. Ferdinand, Chicago
Ph. (773) 265-1200
Material: Metals, paper products

Universal Scrap Metal
2500 W. Fulton, Chicago
Ph. (312) 666-0011
Material: Scrap metals

American Metals Company
2420 W. Cermak, Chicago
Ph. (773) 927-0060
Material: Scrap metals

Note: This list is not all inclusive;
additional recyclers may be available.
The City of Chicago does not officially
endorse these facilities CDOE is not
legally liable for the quality or price
of their services.

Visit www.cityofchicago.org for more
information.

SUCCESS STORIES

The following examples illustrate the economic and environmental benefits of C&D Recycling. Each project used different project specific techniques and utilized the BMPs outlined in the previous section.

Ford Motor Engineering Center, Evanston, Illinois

The Ford Motor Engineering Center is a new 85,000-square-foot building on the Northwestern University Campus that will be completed in 2005. As of late 2004, the Ford Center's contractor, Turner Construction, had diverted from landfills 89% of the debris generated on the site. Most of this debris consisted of clean wood from the cast-in-place concrete operation. The contractor also plans to divert concrete, paper cardboard, mason and metals and expects a total diversion rate of 75% with negligible cost impacts.

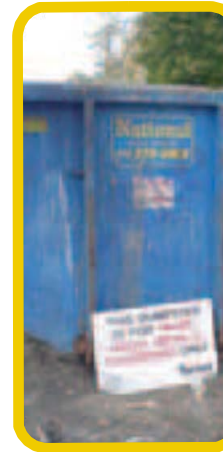
Sears Catalogue Warehouse, Chicago, IL

The Sears Catalogue Warehouse was a timber and brick structure previously located on Chicago's West Side. The 9-story, 3 million square-foot building was dismantled to make way for the Homan Square Project. During dismantlement 23 million bricks and more than 10 million board feet of lumber were re-used or sold for future projects.

Nearly 100% of C&D material was recycled. The savings on disposal fees exceeded \$1 million, with additional savings from the resale of reusable material resulting from demolition.

22nd District Police Station, Chicago, Illinois

The 22nd District Police Station was completed in June 2004 to Leadership in Energy and Environmental Design (LEED) construction standards. The City eventually hopes to obtain a silver LEED rating for the station. When construction began on the project, the City and its contractor, Castle Construction, aimed to divert at least 50% of the landscape and construction debris. The City, found diversion to be easier than expected, and its final diversion rate was nearly 92%. This diversion rate was accomplished with minimal cost impacts. All of the debris was taken to the Land and Lakes landfill in Matteson, Illinois, where it was sorted and then sent to other appropriate facilities.



*Ford Motor Engineering Center
Construction Site*



Sears Warehouse Construction Site



22nd District Police Station

Center for Green Technology (CCGT), Chicago, IL

The CCGT was certified as LEED Platinum by the United States Green Building Council (USGBC), a program to certify environmental design and construction. During development, a recycling plan was developed to separate C&D material into dumpsters on-site. C&D material was then taken to transfer stations for further separation and recycling. This recycling plan allowed for 80% of all C&D material to be either recycled or reused. The site was formerly an illegally operating C&D recycling facility.

When the City obtained the site there was 600,000 cubic yards of mixed C&D debris that had to be moved for redevelopment. Recycling this material rather than landfilling saved \$9 million, and crushing stone product and reusing it in redevelopment of the site saved an additional \$2 million.

Searle Warehouse Deconstruction, Skokie, IL

A 35,000 square foot, single story warehouse on the Searle campus was removed to accommodate construction of a new chemistry lab. Materials removed and recycled as part of the dismantlement included about 1.1 million pounds of metal and 1.4 million pounds of solid fill materials (brick, concrete, etc.). The estimated overall recycling rate was 72%, yielding a net savings of approximately \$53,000.



CCGT Site Before



CCGT Site After

**CALL 311 FOR INFORMATION ABOUT CONSTRUCTION SITE
CLEANLINESS AND RECYCLING OR VISIT WWW.CITYOFCHICAGO.ORG**

INDEX OF RESOURCES

Illinois Environmental Protection Agency

www.epa.state.il.us

Illinois Recycling Association

www.illinoisrecycles.org

U.S. Green Building Council

www.usgbc.org

CONTACT INFORMATION

Chicago Department of Environment

30 N. LaSalle Street, Suite 2500
Chicago, Illinois 60602 (312) 744-
7606
www.cityofchicago.org/environment

Public Building Commission of Chicago

Richard J. Daley Center, Room 200
Chicago, Illinois 60602
(312) 744-7606

Department of Construction and Permits (DCAP)

City Hall
121 N. LaSalle Street, Room 900
Chicago, Illinois 60602
(312) 744-3449

Department of Buildings

City Hall
121 N. LaSalle Street, Room 500
Chicago, Illinois 60602
(312) 744-3400

Department of Streets and Sanitation

City Hall
121 N. LaSalle Street, Room 700
Chicago, IL 60602
(312) 744-4611



Recycled Paper