

CONTRACTOR TOOL KIT

Fort Campbell, Kentucky

2007

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Definitions

The following is a list of terms associated with waste management and their corresponding definitions:

Alternative Daily Cover (ADC): Cover material other than earthen material which is placed on the surface of the active face of a municipal solid waste landfill. This is done at the end of each operating day to control vectors, fires, odors, the blowing of litter, and scavenging.

Appropriate for Processing: Loads of Construction & Demolition (C&D) materials entering a facility of which 90% can be sent on by the facility for recycling and is usually charged at a lower rate.

Beneficial Use: The use of C&D waste as a raw material in a manufacturing process, or as an effective substitute for natural or commercial products in a manner that does not constitute recycling and in a manner consistent with all applicable laws. Beneficial Use includes but is not limited to use as hog fuel and alternate daily cover.

Bulky Wastes: Items of solid waste such as appliances, furniture, trees, stumps, and other oversized wastes which, because of large size, preclude or complicates their handling by normal solid waste collection, processing, or disposal methods.

Commingled C&D Recycling: The process of collecting mixed recyclable materials in one container on site. The container is then taken to a material recovery facility where the materials are separated for recycling. Commingled containers must not contain more than 10% non-recyclable materials.

Construction and Demolition (C&D) Debris:***Recommended Definition***

C&D debris includes all non-hazardous solid wastes resulting from construction, remodeling, alterations, repair, and demolition. It includes material that is recycled, reused, salvaged, or disposed of as garbage. Components of C&D debris typically include all building materials and land-clearing debris. Materials include but are not limited to: asphalt, brick, carpet, ceiling tile, concrete, doors, drywall, equipment, fiberglass, fixtures, insulation, masonry, metal, paint, plastics, roofing, wood, and windows.

Other C&D Definitions

Waste material that is produced in the process of construction, renovation, or demolition of structures. Structures include buildings of all types (both residential and nonresidential) as well as road and bridges. Components of C&D debris typically include concrete, asphalt, wood, metals, gypsum wallboard, floor tile, and roofing. Land clearing debris, such as stumps, rocks, and dirt, are also included in some State definitions of C&D debris.

Deconstructing: The process of taking buildings apart manually (by hand), with the intention to preserve the original materials of construction and use them again for their original purpose.

Discards: C&D debris remaining after all recyclable material has been recovered (including composting). These discards would presumably be combusted or landfilled, although some debris is littered, stored, or disposed on-site or burned on-site.

Generation (of C&D debris): The weight of materials and products as they enter the waste management system from the construction, renovation, or demolition of structures, and before materials recovery or combustion takes place. Source reduction activities (e.g. on-site usage of waste wood mulch or the on-site use of drywall as a soil amendment) take place ahead of generation, i.e., they reduce the amount of waste generated.

Hazardous: Exhibiting the characteristics of hazardous substances, i.e., ignitability, corrosiveness, toxicity or reactivity.

Hog Fuel: A specific grade of ground up wood and bark. It varies in size but is generally between ½” and 6” screen size. In the Pacific Northwest, hog fuel from C&D recycling facilities is generally used to fuel boilers for the wood and paper processing or other industries.

Inappropriate for Processing: Loads of C&D materials entering a facility of which less than 90% can be sent on by the facility for recycling and is usually charged at a higher rate.

Land-Clearing Debris (LCD): Includes solid wastes resulting from clearing a site for demolition, construction, or renovation of a building. Includes material that is recycled, reused, salvaged, or disposed as garbage. Land clearing debris, such as stumps, rocks, and dirt, is often included in the category of C&D debris.

Life-Cycle: C&D activities beginning with building design and purchasing decisions to the ultimate dismantling and disposal of the building.

Mixed C&D Waste: C&D materials that contain both recyclable and non-recyclable components that have not been separated. C&D waste is considered to be mixed if it contains more than 10% but less than 90% recyclable C&D waste by volume.

Non-hazardous: Exhibiting none of the characteristics of hazardous substances, i.e., ignitability, corrosiveness, toxicity, or reactivity.

Recovery of Materials: Includes the removal of products or materials from the waste stream for the purpose of recycling the materials in the manufacture of new products.

Recyclable: The ability of a product or material to be recovered at the end of its life cycle and re-manufactured into a new product for reuse by others.

Recyclable C&D Waste: C&D waste that can be diverted from C&D waste and reused, recovered or re-manufactured into a product or put to beneficial use. It may consist of a single type of recyclable material or a mixture of two or more types of recyclable materials.

Reuse: To reuse a construction waste material in some manner on the Project site.

Salvage: To remove a waste material from the Project site to another site for resale or reuse by others.

Sediment: Soil and other debris that has been eroded and transported by storm or well production run-off water.

Source Reduction: Activities that reduce the amount or toxicity of wastes, before they enter the waste management system. Reuse is a source reduction activity involving the recovery or reapplication of a product or material in a manner that retains its original form and identity. Reuse of products such as light fixtures, doors, or used brick is considered source reduction, not recycling.

Source-Separated C&D Recycling: The process of separating recyclable materials by specific type in separate containers as they are generated, on the job-site. The separated materials are then hauled directly to a recycling facility.

Special Wastes: Wastes generated from C&D activities that may have particular health, safety, and environmental concerns. These include asbestos-containing materials (e.g., floor tile, plumbing insulation, siding and roofing), materials with lead-based paint coatings (e.g., siding, walls, furniture, and cabinetry), lighting wastes (e.g., mercury containing lamps, polychlorinated biphenyls (PCB) containing ballast's), electrical components (e.g., oil containing switches and transformers), and appliances and other equipment (e.g., refrigerators and air conditioning compressors containing refrigerants and oils).

Total Inbound Tons: The total tons of recyclable C&D waste, mixed C&D waste, and non-recyclable C&D waste entering a receiving facility.

Toxic: Poisonous to humans either immediately or after a long period of exposure.

Trash: Any product or material unable to be reused, returned, recycled, or salvaged.

Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.

Waste Management Plan: A Project-related plan for the collection, transportation, and disposal of the waste generated at the construction site. The purpose of the plan is to ultimately reduce the amount of material being landfilled. Salvage: the process of collecting and reusing materials.

Waste Management Plan (WMP) Nuts and Bolts

The Waste Management Plan (WMP) is the Contractor's main guidance document. It is to be completed and submitted with the Contractor's bid proposal. The Contractor must comply with the Waste Management Specifications (See Appendix A) by completing the WMP documents for the Government's review and pending approval. The WMP is a series of two separate, sequential documents.

- **WMP - Form A** (see Appendix B)
- **WMP - Form B** (see Appendix C)

These documents are to provide a detailed analysis of all debris management activities including:

- **Debris assessment** (quantities, types and, handling procedures)
- **Costs** (diversion, transportation, and landfill)
- **Debris management activity summaries**

The WMP is a critical component of project award. The WMP shall describe and document each of the following diversion and non-diversion activities:

1. Salvage
2. Reuse
3. Source separation C&D debris recycling
4. Co-mingled C&D debris recycling
5. Landfill disposal

WMP - Form A (Appendix B)

WMP - Form A is the first of two WMP documents. It is a prerequisite of project award and **WMP - Form B**. The Contractor must complete and submit **WMP - Form A** prior to project commencement. This preliminary document serves as the waste management overview and as an official proposal. Once the plan undergoes Government review, the Contractor will be notified of project award. The Government will base project award on a number of factors included in the Best Value Evaluation model.

WMP - Form A shall include at a minimum a qualitative and quantitative analysis of the amounts and types of waste in the C&D waste stream. The Contractor will complete the following **prior to** project award:

- Describe the materials to salvage, reuse, recycle, or process including condition, proposed handling and hauling procedures, and final destination.
- Complete a detailed estimate of total project waste, including quantities, means of avoiding contamination, and prospective meetings to be held.
- Outline projected diversion activities including cost of recycling, salvage, and landfill options.
- Establish a preliminary marketing plan for selling salvaged items. The marketing plan must include how the Contractor will arrange to sell or scrap all items salvaged. In addition, the Contractor must document material deemed economically unfeasible to salvage, reuse, recycle, or process and reasons for this conclusion.

WMP - Form B (Appendix C)

Once **WMP - Form A** has received Government approval and the Contractor has been awarded the project, the Debris Management Coordinator (DMC) will assume waste management plan oversight and documentation responsibilities. **WMP - Form B** is the next in the sequence of documents to be submitted by the DMC. This form is a more specific working document to be completed during the project. **WMP -Form B** will account for all C&D waste management activity from project commencement to termination. **WMP - Form B** includes debris quantity estimates to be recycled, salvaged, and landfilled along with the associated costs of each of these options.

Finally, the DMC must complete and submit **WMP - Form B** on a quarterly basis to the Contracting Officer. Unlike the prior documents, **WMP - Form B** accounts for the difference between estimates and actual data, thereby measuring actual costs and savings of the project. Failure to meet the 50% waste diversion requirement must be addressed with a written explanation of data disparities along with **WMP - Form B**. Contractors should use the estimates below as a guide; however, amounts for each building type will vary so use experience and best judgment. The wide variation in C&D generation rates is dependent upon the type of project, materials used, subcontractor efficiency, on-site storage, and project packaging.

Estimating Recyclable Waste¹: Material Percentages**Table 1. Recyclable Waste: Material Percentage**

Concrete and mixed rubble	40-50%
Wood	20-30%
Drywall	5-15%
Asphalt roofing	1-10%
Metals	1-5%
Bricks	1-5%
Plastics	1-5%

Tips: Diversion Cost Reduction

1. **Containers**: Schedule containers for collecting recyclables only when needed. For example, rent a collection container for cardboard only during the latter part of construction, when the majority of cardboard waste is generated.
2. **Markets**: Be sure to understand the market specifications so that recyclable materials are not rejected. For example, some markets for clean wood waste accept only dimensional lumber; others also accept plywood, particle board, and oriented strand board.

¹ Analyzing What's Recyclable in C&D Debris (PDF, 4pp., 105 KB, [About PDF](#)) Ken Sandler, author. Originally published in BioCycle, November 2003, Vol. 44, Iss. 11; p. 51.

3. Flexibility: Encourage scrap dealers to be flexible when possible. For example, a scrap metal dealer who initially refused to accept metal bands from around lumber was convinced to accept them when they were repeatedly folded and hit with a hammer, then put into an empty 5-gallon plastic bucket, so as to create a more dense item for transportation. (Creating more dense bundles of metal bands also reduced injuries at the construction site.)

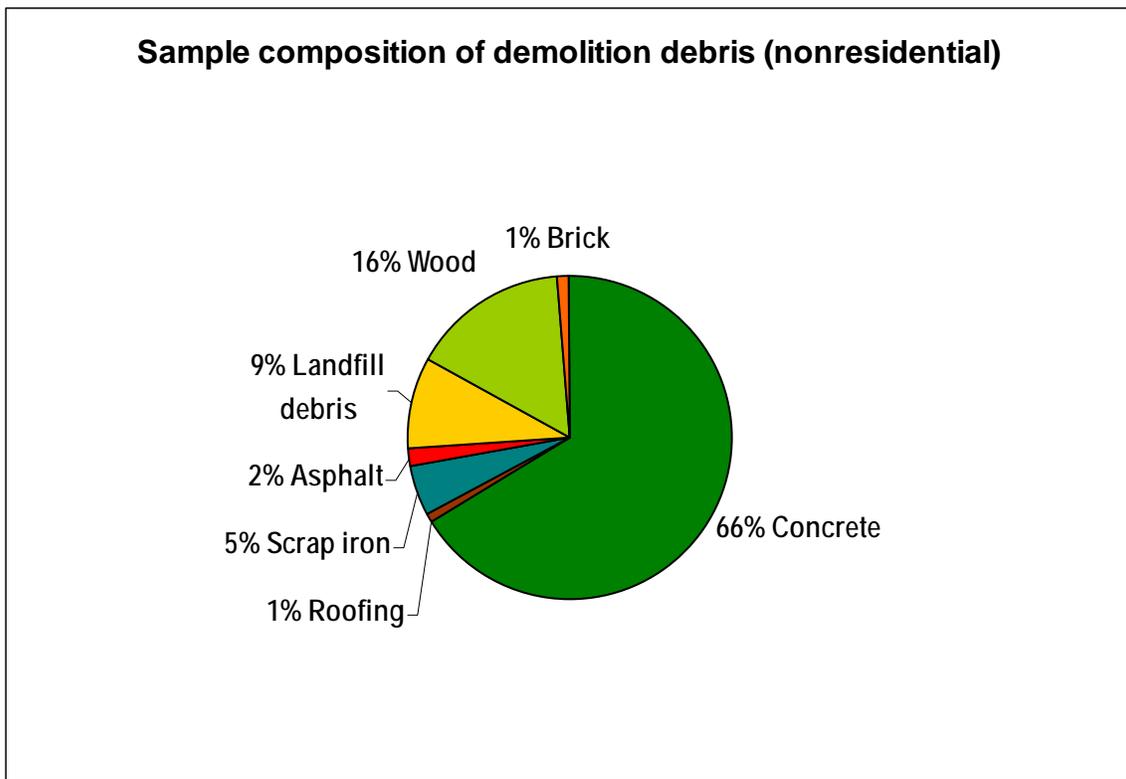


Figure 1. Sample Composition of Demolition Debris.

Source: R.W. Rhine, Inc., Tacoma, WA (from EPA “Characterization” doc)

Table 2. Average (%) Waste Composition Comparisons

Material	Industrial/Commercial Demolition	Institutional Demolition	Warehouse Demolition	Department Store Demolition
	(%)	(%)	(%)	(%)
Wood	15.5	1.3	79.7	1.2
Roofing	0.8	0	0	0
Concrete	66.8	66.1	5.6	89.5
Brick	1.2	0	0	0
Scrap Iron	4.8	2.3	12.8	8.9
Asphalt	1.8	0	0	0
Landfill debris	9.1	0	0	0
Miscellaneous	0	30.3	1.9	0.5

Source: R.W. Rhine Inc., Tacoma, WA; METRO Data Sheets, Portland, OR 1992-1995

Table 3. Riverdale Case Study

Multi-Family (4-Plex) Building Deconstruction

Material	Tons	Percent
Wood	17.6	14
Drywall	21.6	17
Roofing	3.5	3
Rubble	66.5	52
Brick	17.9	14
Miscellaneous	1.4	1
Total	128.5	101
Total building floor area=	2000 square feet	
Generation rate:	129 pounds/square foot	

Table 4. Nonresidential C&D Debris

**Department Store
Demolition**

Material	Pounds	Percent
Wood	84,000	1.2
Drywall		
Concrete	6,534,000	89.5
Metal	646,000	8.9
Cardboard		
Roofing		
Miscellaneous	34,000	0.5
Total	7,298,000	100
Total sq ft	44,000	
Pounds/sq ft	165.9	

**Institutional
Demolition**

Material	Pounds	Percent
Wood	142,000	1.3
Drywall		
Concrete	7,210,000	66.1
Metal	256,000	2.3
Cardboard		
Roofing		
Miscellaneous	3,300,000	30.3
Total	10,908,000	100
Total sq ft	60,000	
Pounds/sq ft	181.8	

source: EPA document "Characterization of building-related construction and demolition debris in the U.S."

Estimating Recyclable Waste: Generation Rates

The following methods may be useful in calculating estimates of recyclable waste.

1. Use national project averages for each type of construction and demolition material. The following are estimates by material:
 - **Corrugated cardboard (OCC)**
 - 7.5% of commercial construction waste (10% of residential construction waste)
 - **Dimensional lumber and pallets**
 - 18% of commercial construction waste (25% of residential construction waste)
 - **Metals**
 - 4.5% of commercial construction waste (1% of residential construction waste)
 - **Gypsum wallboard**
 - 1/2 pound per square foot of commercial floor area (1 pound per square foot of residential floor area)
 - **Concrete**
 - 15% of commercial construction waste (4.5% of residential construction waste)

2. Consult generation rates from similar projects.

Several studies have been conducted on the amount of recyclable waste generated on commercial and multi-family residential construction projects. The following are sample projects and the corresponding percentages of generated recyclable waste:

Table 5. Construction Projects-Typical Waste Generation Rates²

Material	Residential Multi-Unit Construction		Institutional Low-rise Construction		Commercial Low-rise Construction		Residential Low-rise Construction	
	Cy/1,000 sf	Tons/1,000 sf	Cy/1,000 sf	Tons/1,000 sf	Cy/1,000 sf	Tons/1,000 sf	Cy/1,000 sf	Tons/1,000 sf
Wood	3.3	0.40	7.0	0.86	5.6	0.68	6.0	0.73
Drywall	3.6	0.92	0.9	0.22	0.2	0.05	1.1	0.27
Metal	0.2	0.09	0.4	0.21	-	-	-	-
Concrete/asphalt	1.7	1.79	0.7	0.99	-	-	0.04	0.05
Corrugated asphalt	-	-	-	-	7.1	0.14	2.4	0.05
Other	5.6	1.54	0.2	0.54	1.0	0.27	0.5	0.14
Total	14.4	4.74	9.2	2.82	13.9	1.14	10.04	1.24

² From Santa Monica Green Building Program “Waste Management: Waste Generation Rates”

a) *Construction of a 5,000-square foot restaurant:*

(12,344 pounds of waste/ 2.46 pounds per square foot)

Wood	7,440 pounds (61% of total waste)
Cardboard	1,414 pounds (11% of total waste)
Gypsum Wallboard	500 pounds (4% of total waste)

b) *Construction of a 17-unit apartment complex using pre-cut lumber packages:*

(28,434 pounds of waste/ 2 pounds per square foot)

Wood	16,169 pounds (57% of total waste)
Cardboard	917 pounds (3% of total waste)
Gypsum Wallboard	6,997 pounds (25% of total waste)

c) *Commercial Renovation projects:*

Untreated dimensional wood	5% of total waste
Cinderblock	19% of total waste
Concrete without rebar	22% of total waste
Ferrous scrap	5% of total waste

d) *Construction of (1) residential and (1) commercial low-rise building:*

Wood from residential	31% of total waste
Wood from commercial	8% of total waste

Tips: Avoiding the Pitfalls of Demolition

1. **Strategic Demolition:** To maximize waste management implementation, the demolition process should begin with diversion as the end in mind. One way to do this is reverse deconstruction or taking a building down in the reverse order in which it was built. Start with the roof and end with the foundation.
2. **Source Separation:** A critical component of effective waste management is source separation. Make sure that throughout the demolition process, materials are separated, divided, and protected. Use clearly labeled coverable containers to avoid material contamination and to maximize diversion options. Check containers frequently for commingling and contamination. Place trash and recycling containers in close proximity of one another for convenience. Train personnel to identify containers and their corresponding materials and to utilize them whenever possible. The more care taken in the front end of project operations, the greater reward for all parties involved.
3. **Leasing Equipment:** Due to the high demands of equipment operation, it is in the best interest of the contractor to hire a subcontractor for responsibilities associated with equipment management, including machine operation and repair oversight. This will save the contractor much time and effort, which can be dispersed among other project demands.

WMP (Forms B) Instructions

Follow these step-by-step directions to complete the **WMP - Form B** worksheets.

Estimating the Cost of Waste Management

The following steps will help you estimate the cost of construction and demolition waste management. Use the appropriate Waste Management Plan Form Worksheet starting with column B and move horizontally from left to right through column J. Once the estimates for each material have been completed, project totals may be calculated and inserted at the bottom of the worksheet.

Step One: Estimate Total Project Waste

This amount includes both **recyclable** and **non-recyclable** materials. Refer to the corresponding conversion chart for this section.

Insert the total amount in tons. Use the following formula to convert cubic yards to tons:

$$\text{_____ cy} \times 3 = \text{_____ tons}$$

Total Waste Estimate

(B) _____ tons

Insert this figure in **Column (B)** on the Construction WMP worksheet.

Step Two: Estimate the Percentages of Recyclable Materials

For each material, estimate the amount to be **recycled**

Estimates should account for the entire project.

Recyclable Material (C) _____%

Insert the % estimate of total waste to recycle in **Column (C)** of the WMP worksheet.

Now estimate the percent of material that will be **salvaged** or **reused**. Estimates should account for the entire project.

Salvage/Reuse Material (D) _____%

Insert the % estimate of total waste to salvage/reuse in **Column (D)** of the WMP worksheet.

Step Three: Estimate the Percentage of Non-Recyclable Waste (Landfilled Debris)

To find this amount, combine the percentages of **Recyclable Material (C)** and **Reusable Material (D)** and **subtract** from **100%** since you will be accounting for 100% of the waste generated in the project. Use the following formula to calculate estimated Landfill waste.

$$100 - (C + D) = \text{landfill waste}$$

$$100 - (\quad + \quad) = \quad \%$$

Landfill/Non-Recyclable Material (E) _____%

Insert the % estimate of total landfill waste in **Column (E)** of the WMP worksheet.

Step Four: Calculate the Total Amount of Non-Landfill (Diverted) Waste

To estimate the total amount of material to be diverted from the landfill, take the **total waste estimate (B)** and **multiply** it by the **% estimate to be recycled (C)**. Then, take the **total waste estimate (B)** and **multiply it by the % estimate to be salvaged/reused (D)**. Now **add** the two amounts together for the total amount of materials to be diverted from the landfill. Use this formula to find the estimate of total non-landfill waste:

$$(B \times C) + (B \times D) = \text{total non-landfill waste (tons)}$$

$$(\text{_____} \times \text{_____}) + (\text{_____} \times \text{_____}) = \text{_____ tons}$$

Total Non-landfill Waste (F) _____ tons

Insert the total non-landfill waste in **Column (F)** of the worksheet.

Step Five: Estimate the Total Cost of Sending All C&D Debris to the Landfill

This amount is necessary for estimating the **total diversion savings** (step 8). The landfill rates for **Ft. Campbell** are **\$12/ton** of C&D waste. To find the **total landfill expense estimate**, multiply the **total waste estimate (B)** by **\$12**. Use the following formula to find total landfill expense for all waste:

$$(B) \times 12 = \text{total cost to landfill all debris } (\$)$$

$$\underline{\hspace{2cm}} \times 12 = \$ \underline{\hspace{2cm}}$$

Total Cost to Landfill All C&D Debris (G) \$

Insert the total cost in **Column G** of the worksheet.

Step Six: Estimate the Actual Cost of Landfilling Non-Diverted Material

To find the **cost of landfilling non-diverted material**, multiply the **total waste estimate (B)** by the **percentage of non-diverted materials (E)**. Then multiply this figure by **12** to find the **cost** of sending non-diverted material to **landfill**. Use the following formula to find actual landfill expense for non-diverted percentage of waste:

$$(B \times E) \times 12 = \text{cost to landfill non-diverted waste}$$

$$(\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) \times 12 = \$ \underline{\hspace{2cm}}$$

Total Cost to landfill non-diverted waste (H) \$

Insert this figure into **Column H** of the WMP worksheet.

Step Seven: Estimate the Recycling Costs

There are **several factors** pertaining to the **cost of recycling** the various C&D waste materials. These may include **hauling costs**, **disposal fees**, and **disposal revenue**. Some recyclers will charge for material disposal, while others may accept it at no charge or, in best cases, pay for the material. Both free and profitable disposals are optimal. **Column (I)** corresponds with the **Cost of Recycling, Reuse, and Salvage** of materials.

To complete the Recycling Cost (I) portion of the WMP worksheet, first complete the following supplementary worksheet called “**Recycling Costs Worksheet**” to account for various Recycling expenses.

Recycling Costs Worksheet directions:

In **Column B**, insert the total pickup/hauling costs for the specified material.

(B) \$ _____

In **Column C** insert the total disposal costs as they apply.

(C) \$ _____

If the number is 0, then insert 0 on the chart and on this sheet.

In **Column D** insert the total disposal revenue received.

(D) \$ _____

If the number is 0, then insert 0 on the chart and on this sheet.

To find the **Total Recycling Costs**, subtract the revenue **(D)** from the **sum of Pickup/Hauling Costs (B) and Disposal Costs (C)**. Use the following formula to find this figure.

$$(B + C) - D = \text{Total Recycling Costs (E)}$$

$$(\text{_____} + \text{_____}) - \text{_____} = \$ \text{_____}$$

Total Recycling Costs:

(E) and (I) \$ _____

Now insert the figure in **column E** of the Recycling Costs Chart in **column I** of the WMP worksheet.

Step Eight: Estimate the Total Savings from Landfill Diversion

To find the total savings from landfill diversion (J), take the total cost to landfill all material (G) and subtract the sum of non-diverted material cost (H) and recycling cost (I) or $G - (H+I) = J$. Use the following formula to find total savings.

$$G - (H + I) = J$$

$$\$ \underline{\hspace{2cm}} - (\$ \underline{\hspace{2cm}} + \$ \underline{\hspace{2cm}}) = \$ \underline{\hspace{2cm}}$$

Total Savings from Diversion (J) \$

Insert this figure into **Column J** of the WMP worksheet.

Step Nine: Estimate Total Project Diversion Savings

To estimate Total Project Savings, simply add each figure in column J from top to bottom. This is your total project diversion savings. Insert this figure at the bottom right slot called “total project savings.”

Total Project Diversion Savings:

\$

WMP Conversion Chart

Use the following chart to convert materials from volume to weight by multiplying by the figures below. To convert pounds to tons, multiply by factor of 2,000.

Note: The chart below is a compilation of various conversion factor resources. For more information on conversion factors, please visit the following websites:

<http://www.ciwmb.ca.gov/LGLibrary/DSG/IRecycl.htm>

<http://peakstoprairies.org/p2bande/Construction/C&DWaste/calculate.cfm#conversion>

<http://ci.antioch.ca.us/environment/CDRO/AntiochInfoConversions.pdf>

Table 6. Material Conversion Chart

MATERIAL	LB/CY
Cardboard (OCC)	100
<u>Metals</u>	
Aluminum	175
Conduit	20
Decking	400
Fencing	50
Framing	500
Miscellaneous	500
Pipe	300
Roofing	50
Structural	500
Wiring	50
<u>C&D Debris</u>	
Carpet & Pad	8,404
Concrete	4,050
Concrete Mason Unit (CMU)	1,000
Electrical	10
Flooring (vinyl)	1
Insulation	17
Masonry	1,000
Miscellaneous	250
Mortar bags	20
Pallets	160
Paper	363.5
Plastic	32
PVC Pipe	200
Sand/dirt	2,441
Sheet Rock	393.5
Soft Pipe	200
Styrofoam	7
Tile	1,214
Wood	300

Recycling Costs Worksheet				
A	B	C	D	E
Material	Pickup/ Hauling Costs	Disposal Costs	Disposal Revenue	Total Cost (B+C-D = E)
	\$	\$	\$	\$
<i>Example: Asphalt/Concrete</i>	<i>\$400</i>	<i>\$280</i>	<i>\$100</i>	<i>\$580</i>
Asphalt/Concrete				
Brick/Masonry/Tile				
Building Materials (Doors, Windows, Fixtures, Shingles, Lumber, Insulation, Sheetgoods, etc.)				
Carpet & Pad				
Cardboard				
Ceiling Tile				
Concrete				
Drywall				
Fiberglass				
Field Office Waste				
Paint				
Plastic Film, Sheeting, Wrap				
Scrap Metal				
Aluminum				
Copper				
Steel				
Other Metals				
Unpainted Wood & Pallets				
Window Glass				
Other				
Total				
*Enter Column 6 value into column I and Q of WMP Form B				

Figure 2: Recycling Cost Worksheet

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Quick Guide To C&D Recyclers

The following is an alphabetical listing of C&D recyclers in Kentucky, Tennessee, and surrounding states. Most are capable of serving Fort Campbell; however, some do not provide material pickup. (See complete directory for more info on these specific variables).

A.E., L.L.C.

	(615) 255-9462
Armstrong World Industries	(877) 276-7876 Press 8 then x8080
Asset Recycling Inc.	(317) 635-7774
Central Kentucky Fiber Resources	(859) 225-8100
Chattanooga Paperboard Corp.	(423) 267-3801
Chattanooga Recycled Fiber	(424) 267-0097
Cincinnati Paperboard	(513) 871-0982
Civil Constructors, Inc.	(615) 236-9000
Clark Iron and Metal Co. Inc.	(615) 893-7281
Connecticut Metal Industries	(203) 268-5909
Conservation Pallet Sales	(931) 232-4268
Covenant Pallet, Inc.	(615) 589-4997
Cowley Container Corporation	(615) 242-9127
Drumco of TN, Inc.	(901) 396-6484
Enola Enterprises Inc.	(828) 437-2225
Environmental Recycling	(630) 816-8490
Environmental Wood Recycling	(270) 842-4011
Freedom Metals	(502) 637-7657
Georgia Mountain Grinding and Recycling	(706) 835-2845
Habitat for Humanity Homestore	(615) 977-7125
Hailey's Salvage & Building Materials	(615) 226-0691
Inland Paperboard & Packaging	(606) 564-2638
ISA Metal Center	(502) 361-0187
Iskiwitz Metals	(901) 526-8944
J. Hoffman Lumber Co.	(815) 899-2260
Jones Brothers Construction	(615) 360-6008
Jones Recycling	(931) 647-5240
Kentucky Waste Paper	(270) 889-0780
Lastique International	(502) 995-8582
Lojac Enterprises	(615) 889-4041
Lui Helmssohn Inc.	(931) 648-0851
Memphis Recycling Services	(901) 726-1600
Mead Corporation	(256) 437-4746
Mid-South Recycling/Hambling Trucking	(931) 535-2818
Mid-South Wrecking Co., Inc.	(615) 513-9222
Midwest Metals	(502) 244-6063
MJS Plastics, Inc.	(740) 589-2009
Montgomery County Recycling Inc.	(931) 647-3322
Montgomery Paper	(937) 222-4059

Morrison's Recycling Inc.	(606) 387-9902
NCB Commodities Inc.	(800) 673-2581
Noble Recycling Inc.	(561) 536-0595
Northstar Materials	(937) 222-7479
Omaha Paper Stock Co.	(513) 641-5002
Osage Express	(502) 639-4966
Pallet Recyclers of Nashville	(615) 252-6080
Paper Stock Dealer, Inc./ Memphis Waste Paper	(901) 774-3110
Perl Co., L.L.C.	(901) 526-7651
Philip Metals, Inc.	(615) 271-3414
Portland Pallet, Inc.	(615) 325-2353
PSC Metals	(615) 271-3300
REHAB Resource Inc.	(317) 637-3701
Rex Alton Companies	(812) 882-8519
Rivercity Industrial Services	(270) 929-3192
Riverside Recycling	(812) 948-1323
Rogers Group	(615) 451-4777
Rumpke Recycling	(877) 888-5801
Seaton Iron and Metal Co., Inc.	(423) 745-3192
Smurfit-Stone Recycling Co.	(615) 329-4855
Shapiro Recycling Systems	(615) 740-0337
Somerset Recycling	(606) 274-4170
Southeast Paper Recycling Co.	(812) 923-6701
Strategic Materials, Inc.	(615) 792-5097
Tamko Roofing Products	(865) 637-0145
Tenneco Packaging	(731) 423-9362
The Recycling Group	(317) 926-5492
Weyerhaeuser Company	(270) 831-6005
Weyerhaeuser Paper Co.	(901) 344-5480

Quick Guide by Category

The following is a list of C&D Recyclers by category and their telephone numbers. Please refer to the Directory of C&D Recyclers for more information.

ASPHALT/BRICK/ROCK PRODUCTS

Civil Constructors, Inc.	(615) 236-9000
Hailey's Salvage & Building Materials	(615) 226-0696
Jones Brothers Construction	(615) 360-6008
Mid-South Wrecking Co., Inc.	(615) 513-9222

CARDBOARD (OCC)/PAPER PRODUCTS

Central Kentucky Fiber Resources	(859) 225-8100
Chattanooga Paperboard Corp.	(423) 267-3801
Chattanooga Recycled Fiber	(424) 267-0097
Inland Paperboard & Packaging	(606) 564-2638
Kentucky Waste Paper	(270) 889-0780
Mid-South Recycling/Hambling Trucking	(931) 535-2818
Montgomery Paper	(937) 222-4059
NCB Commodities Inc.	(800) 673-2581
Northstar Materials	(937) 222-7479
Omaha Paper Stock Co.	(513) 641-5002
Paper Stock Dealer, Inc./ Memphis Waste Paper	(901) 774-3110
Riverside Recycling	(812) 948-1323
Rumpke Recycling	(877) 888-5801
Smurfit-Stone Recycling Co.	(615) 329-4855
Somerset Recycling	(606) 274-4170
Southeast Paper Recycling Co.	(812) 923-6701
Southeast Recycled Fiber	(731) 423-9362
Tanko Roofing Products	
Weyerhaeuser Packaging, Inc.	(270) 831-6005
Weyerhaeuser Paper Co.	(901) 344-5480

DRYWALL/GYPSUM/SHEETROCK

Habitat for Humanity HomeStore	(615) 977-7125
Memphis Recycling Services	(901) 726-1600
REHAB Resource Inc.	(317) 637-3701

FLOORING/ROOFING

C&A Floor Coverings (800) 241-4902
Milliken & Co. (800) 241-4826

GLASS

Rex Alton Companies (812) 882-8519
***Riverside Recycling** (812) 948-1323
Strategic Materials, Inc. (615) 792-5097

METALS

Clark Iron and Metal Co. Inc. (615) 893-7281
Connecticut Metal Industries (203) 268-5909
Cowley Container Corporation (615) 242-9127
Drumco of TN, Inc. (901) 396-6484
***Enola Enterprises Inc.** (828) 437-2225
Freedom Metals (502) 637-7657
ISA Metal Center (502) 361-0187
Iskiwitz Metals (901) 526-8944
Lui Helmansohn Inc. (931) 648-0851
Midwest Metals (502) 244-6063
Montgomery County Recycling Inc. (931) 647-3322
Perl Co., L.L.C. (901) 526-7651
Philip Metals, Inc. (615) 271-3414
PSC Metals (615) 271-3414
Seaton Iron and Metal Co., Inc. (423) 745-3192
Shapiro Recycling Systems (615) 740-0337

PLASTICS

Lastique International (502) 995-8582
MJS Plastics, Inc. (740) 589-2009
Osage Express (502) 639-4966
Rivercity Industrial Services (270) 929-3192
Somerset Recycling (606) 274-4170
Walker Recycling (812) 883-5706

WOOD/PALLETS

A.E., L.L.C.	(615) 255-9462
Conservation Pallet Sales	(931) 232-4268
Covenant Pallet, Inc.	(615) 589-4997
Enola Enterprises Inc.	(828) 437-2225
Environmental Recycling	(630) 816-8490
Environmental Wood Recycling	(270) 842-4011
Georgia Mountain Grinding and Recycling	(706) 835-2845
J. Hoffman Lumber Co.	(815) 899-2260
Mead Corporation	(256) 437-4746
Memphis Recycling Services	(901) 726-1600
Noble Recycling Inc.	(561) 536-0595
Pallet Recyclers of Nashville	(615) 252-6080
Portland Pallet, Inc.	(615) 325-2353

MULTIPLE MATERIALS

Asset Recycling Inc.	(317) 635-7774
Central Kentucky Fiber Resources	(859) 225-8100
Chattanooga Recycled Fiber	(424) 267-0097
Connecticut Metal Industries	(203) 268-5909
Freedom Metals, Inc.	(502) 637-7657
Habitat for Humanity Homestore	(615) 977-7125
Memphis Recycling Services	(901) 726-1600
Noble Recycling Inc.	(561) 536-0595
Northstar Materials	(937) 222-7479
Osage Express	(502) 639-4966
REHAB Resource Inc.	(317) 637-3701
Rex Alton Companies	(812) 882-8519
Rivercity Industrial Services	(270) 929-3192
Riverside Recycling	(812) 948-1323
Rogers Group	(615) 889-4041
Rumpke Recycling	(877) 888-5801
Somerset Recycling	(606) 274-4170
The Recycling Group	(317) 926-5492
Walker Recycling, Inc.	(812) 883-5706

C&D Debris Haulers

METRO NASHVILLE LISTINGS

The following is a list of area haulers of recyclable construction and demolition debris. Services vary by each company, ranging from basic hauling to on-site container rental, consultation services, and scheduled pickups. Some will accept commingled C&D materials while others may require material separation before hauling.

Action Waste Industries, LLC	(615) 876-2267
American Disposal Services	(615) 264-2255
BFI	(615) 242-0331
Bombay Hauling	(615) 714-2278
C&F Moving & Hauling Service	(615) 851-9397
Crick Disposal Service Inc.	(615) 227-1270
Gooch Exterior Cleaning Service	(615) 333-3233
Gray's Disposal Company	(615) 255-6921
Haul Master	(615) 885-1736
Hudgins Disposal Service	(615) 228-6331
JG Disposal	(615) 885-7001
J. Hoffman Lumber Company	(815) 899-2260
Johnson, Cordell Disposal Service	(615) 865-0642
Kleen-Way Disposal Service	(615) 859-2724
MasterLift Inc.	(615) 876-9959
McMurtry, JE Disposal	(615) 227-8881
MS-COT Services, LLC	(615) 889-8542
Olympic Disposal Inc.	(615) 264-0184
P&M Disposal Services	(615) 297-2099
PDQ Disposal Inc.	(615) 254-6666
Premier Disposal Services	(615) 386-0203
Spurlock Disposal Company	(615) 227-4594
Tennessee Waste	(615) 345-8366
Tri-Star Waste Systems	(615) 242-6300
T-Roll Disposal	(615) 386-0908
Waste Away, LLC	(615) 248-0456
Waste Industries Inc.	(615) 350-5901
Waste Management Inc.	(615) 831-9600
Waste Removal Services, LLC	(615) 790-2020

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OUT-OF-STATE LISTINGS

Cincinnati Cullet	(513) 921-3711
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Directory of C&D Recyclers

ASPHALT/BRICK/ROCK PRODUCTS

Civil Constructors, Inc.
P.O. Box 685
Franklin, TN 37065

Company Contact
Name: Joe Rodgers
Phone: (615) 236-9000 Fax: (615) 236-9001
Email: j.Rodgers@civilconstructors.com

Business Type: Collector, Processor
Provides Transportation and Material Pickup: Unknown
Registered Materials: Rock (from excavation)

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Hailey's Salvage & Building Materials
1224 Dickerson Pike
Nashville, TN 37207

Company Contact
Name: Charles Evans
Phone: (615) 226-0696 Fax: (615) 228-3717
Email: junkman@maxdialup.com

Business Type: New and used building materials
Provides Transportation and Material Pickup: Yes
Registered Materials: Brick

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Jones Brothers Construction/HMA
1820 Old Murfreesboro Road
Nashville, TN 37217

Company Contact
Name: Larry Dickins
Phone: (615) 360-6008; (615) 399-6306
Fax: (615) 360-6454

Business Type: Processor
Provides Transportation and Material Pickup: Yes (if milled on site)
Registered Materials: Asphalt

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Mid-South Wrecking Co., Inc.

1608 Dickerson Pike
Nashville, TN 37207

Company Contact

Name: Bill Suave
Phone: (615) 292-8747 Fax: N/A

Business Type: Collector/Seller
Provides Transportation and Material Pickup: Yes
Registered Materials: Brick (solid-no holes)

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CARDBOARD (OCC)/PAPER PRODUCTS

Central Kentucky Fiber Resources

123 Buchanan St.
Lexington, KY 40508

P.O. Box 22251
Lexington, KY 40522-2251

Company Contact

Name: David Ratliff
Phone: (859) 225-8100 Fax: (859) 225-1338
Email: Barry Prater: bnprater@centralkyfiber.co
Website: www.centralkyfiber.com

Business Type: Collector
Provides Transportation and Material Pickup: Yes
Registered Materials: Cardboard (all grades); Paper (white ledger/newspaper); Commercial
Plastics

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Chattanooga Paperboard Corp.

2100 Rossville Ave
Chattanooga, TN 37408

Company Contact

Name: Gail Harrison, Wastepaper Buyer
Phone: (423) 267-3801 Fax: N/A
Website: www.caraustar.com

Business Type: Collector
Provides Transportation and Material Pickup: No
Registered Materials: Cardboard (all grades); Paper (newspaper/mixed)

Chattanooga Recycled Fiber

2900 Home Drive
Chattanooga, TN 37410

Company Contact

Name: John Gorman
Phone: (423) 267-0097 Fax: (423) 267-2746
Website: www.rocktenn.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes, on occasion.

Registered Materials: Paper (All types); Plastics (HDPE/PET); Textiles (Rag/Scrap)

Inland Paperboard & Packaging

1241 W 2nd St.
P.O. Box 688
Maysville, KY 41056

Company Contact

Name: Sandy Stewart
Phone: (606) 564-2638 Fax: (606) 564-2642
Email: alexanderstewart@templeinland.com
Website: www.templeinland.com

Business Type: Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Old Corrugated Containers

Kentucky Waste Paper

326 East 24th Street
Hopkinsville, KY 42240

Company Contact

Name: Ray
Phone: (270) 889-0780 Fax: (270) 424-9359
Email: N/A
Website: N/A

Business Type: Collector

Provides Transportation and Material Pickup:

Registered Materials:

Mid-South Recycling/Hambling Trucking

1022 Industrial Park Drive
New Johnsonville, TN 37134

Company Contact

Name: Kevin E. Handley
Phone: (931) 535-2818 Fax: (931) 535-3439
Email: khms@usit.com

Business Type: Collector, Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (Corrugated); Paper (All Types)

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Montgomery Paper

400 East 4th Street
Dayton, OH, 45402

Company Contact

Name: Mitch Jacobs
Phone: (937) 222-4059 Fax: N/A

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (all grades, not loose); Paper (all)

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NCB Commodities, Inc.

3340 Concord Road
P.O. Box 3338
York, PA 17402-0338

Company Contact

Name: Jerrold Breneman
Phone: (800) 673-2581 Fax: (717) 840-8750
Email: jbreneman@ncbcommodities.com
Website: www.ncbcommodities.com

Business Type: Collector, Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (all grades); Paper (all)

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Northstar Materials

200 Gilbert Ave
Dayton, OH 45403

Company Contact

Name: Nick Goodwin
Phone: (937) 222-7479 Fax: (937) 220-6236
Email: ngoodwin@northstarrecyclinggroup.com
Website: www.northstarrecyclinggroup.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Paper; Plastic; Fabric; Foam; Metal (Aluminum, Copper, Brass)

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Omaha Paper Stock Co.

5636 Vine Street
Cincinnati, OH 45216

Company Contact

Name: Matt Meier
Phone: (513) 641-5002 Fax: (513) 641-5020

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (all grades); Paper (all)

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Paper Stock Dealer, Inc./Memphis Waste Paper

704 South Dudley
Memphis, TN 38104

Company Contact

Name: Richard Harty
Phone: (901) 774-3110 Fax: (901) 774-1991
Email: richeardharty@sonoco.com

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (Boxboard and Corrugated); Paper (Office, Mixed, White, Colored Ledger, Computer Printout)

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Riverside Recycling

1001 W. Floyd Street
P.O. Box 819
New Albany, IN 47150

Company Contact

Name: Darrell Williams
Phone: (812) 948-1323 Fax: (812) 948-1326
Email: darrellwilliams@qrsrecycling.com

Business Type: Collector, Processor

Provides Transportation and Material Pickup: No

Registered Materials: Cardboard (all grades); Paper (all); Scrap Metal; Residential Plastic
Aluminum

Rumpke Recycling

1101 W. Oak St.
Louisville, KY 40210

5535 Vine ST
Cincinnati, OH, 45217

Company Contact

Name: Brad Dunn
Phone: (877) 888-5801 ext. 11 Fax: (513) 242-4459
Website: www.rumpke.com

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (all grades); Paper (all); Plastics (#1 & #2); Aluminum

Smurfit-Stone Recycling Company

707 19th Ave. North
Nashville, TN 37203

Company Contact

Name: Tim Bebout
Phone: (615) 329-4855 Fax: N/A
Email: tbebout@smurfit.com
Website: www.smurfit.com

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (All grades)

Somerset Recycling

1 Recycle Way
Somerset KY 42503

P.O. Box 1348
Somerset, KY 42502

Company Contact

Name: Steve Keck
Phone: (606) 274-4170 Fax: (606) 274-4175
Email: skeck@somerset-recycling.com
Website: www.somerset-recycling.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (All grades); Plastic (Commercial, Industrial)

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Southeast Paper Recycling Co.

2000 Industrial Blvd.
Louisville, KY 40219

Company Contact

Name: Karen Watts
Phone: (812) 923-6701 Fax: N/A

Business Type: Collector, Processor

Provides Transportation and Material Pickup:

Registered Materials: Cardboard (All Grades/Boxboard/Corrugated); Other Metals (Aluminum Cans); Paper (All Types)

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Southeast Recycled Fiber

532 Mobile St.
Jackson, TN 38301

Company Contact

Name: Rad Ellington
Phone: (731) 423-9362 Fax: (731) 423-9206
Email: rad.ellington@srfiber.com

Business Type: Collector, Processor

Provides Transportation and Material Pickup: Yes

Other Registered Materials: Cardboard (All Grades/Boxboard/Corrugated); Paper (All Types)

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Tamko Roofing Products

2506 Johnson St.
Knoxville, TN 37921

P.O. 12958
Knoxville, TN 37912

<p>Company Contact Name: Scott Newby Phone: (865) 637-0145 Fax: (865) 546-3841 Email: scott_newby@tamko.com Website: www.tamko.com</p>
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Business Type: Collector, Processor
Provides Transportation and Material Pickup: No
Registered Materials: Cardboard (Corrugated)

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Weyerhaeuser Packaging, Inc.

1500 Commonwealth Drive
Henderson, KY 42420

<p>Company Contact Name: Jim Kirkpatrick Phone: (270) 850-8447 Fax: N/A</p>

Business Type: Collector, Processor, Broker
Provides Transportation and Material Pickup: Yes
Registered Materials: Cardboard (All Grades/Boxboard/Corrugated); Paper (all)

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Weyerhaeuser Paper Co.

243 Saturn Drive
Memphis, TN 38109

<p>Company Contact Name: Lisa Schneyder Phone: (901) 344-5480 Fax: (901) 332-3399 Email: lisa.schneyder@weyerhaeuser.com Website: www.weyerhaeuser.com</p>

Business Type: Collector, Processor, Broker, End User
Provides Transportation and Material Pickup: Yes
Other Registered Materials: Cardboard (Boxboard/Corrugated); Paper (All Types)

DRYWALL/GYPSUM/SHEETROCK

Habitat for Humanity HomeStore

1001 Eighth Ave. South
Nashville, TN 37203

Company Contact

Name: Tom Brown

Phone: (615) 254-4663, ext. 563 Fax: (615) 254-4645

Email: tbrown@habitatnashville.org

Website: www.habitatnashville.org

Business Type: Collector

Provides Transportation and Material Pickup:

Registered Materials: Drywall (whole pieces); Kitchen Cabinets; Porcelain sink basins;
Roofing Shingles

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FLOORING/ROOFING

C&A Floor Coverings

311 Smith Industrial Blvd.
Dalton, GA 30721

Company Contact

Name: Russell Bennett
Phone: (800) 241-4902 Fax: (706) 259-2695
Email: rbennett@tandus.com
Website: www.tandus.com

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Carpet (vinyl-backed)

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Milliken & Co.

201 Lukken Industrial Drive West
LaGrange, GA 30240

Company Contact

Name: Brad Rowland
Phone: (800) 241-4826 ext. 8459 Fax: (706) 880-3134

Business Type: Collector

Provides Transportation and Material Pickup: No

Registered Materials: Carpet

GLASS

Rex Alton Companies

2341 South Old Decker RD
 Vincennes, IN 47591

Company Contact
 Name: Rex Alton
 Phone: (812) 882-8519 Fax: (812) 886-8766
 Email: rex@rexaltoncompanies.com
 Website: www.rexaltoncompanies.com

Business Type: Collector/ Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Glass (clean); Steel

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Riverside Recycling

1001 W. Floyd Street,
 P.O. Box 819
 New Albany, IN 47150

Company Contact
 Name: Darrell Williams
 Phone: (812) 948-1323 Fax: (812) 948-1326
 Email: darrellwilliams@qrsrecycling.com

Business Type: Collector/ Processor
Provides Transportation and Material Pickup: No
Registered Materials: Cardboard (all grades); Paper (all); Scrap Metal; Residential Plastic; Aluminum

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Strategic Materials, Inc.

1035 Thompson Road
 Ashland City, TN 37015

Company Contact
 Name: John Rehrer
 Phone: (615) 792-5097 Fax: (615) 792-5522
 Email: ashlandcityplant@strategicmaterials.com
 Website: www.strategicmaterials.com

Business Type: Collector/Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Glass (plate, double-paned windows, tempered)

METALS

Clark Iron & Metal Co. Inc.

217 Hillard Dr.
Murfreesboro, TN 37129

P.O. Box 771
Murfreesboro, TN 37133

Company Contact
Name: Charles H. Clark IV
Phone: (615) 893-7281 Fax: (615) 893-7284
Website: www.clarkiron.com

Business Type: Processor/Trader
Provides Transportation and Material Pickup: Yes
Registered Materials: Metals (Ferrous); Metals (Non-Ferrous); Metals (White Goods)

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Connecticut Metal Industries

605 Main Street
Monroe, CT 06468

Company Contact
Name: Mary Vulcano
Phone: (203) 268-5909 Fax: (203) 452-7428
Website: www.recyclemetal.com

Business Type: Collector/Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Metal (non-ferrous/aluminum); Plastic (Industrial grade)

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Cowley Container Corporation

105 SouthPark Dr
P.O. Box 388
Mt. Pleasant, TN 38474

Company Contact

Name: Everett Cowley
Phone: (615) 242-9127 Fax: (931) 379-7830
Email: Ecowley@cowley.com
Website: www.cowley.com

Business Type: Collector/ Processor/Broker

Provides Transportation and Material Pickup: Yes

Registered Materials: Metals (55 Gallon Drums); Metals (Reconditioned Drums)

Drumco of Tennessee, Inc.

3299 Tulane Road
Memphis, TN 38116

Company Contact

Name: Dave Wingard
Phone: (901) 396-6484 Fax: (901) 398-0987
Email: dwingard@drumco.com

Business Type: Steel Drum Reconditioner/Recycler

Provides Transportation and Material Pickup: Yes

Registered Materials: Metals (55 Gallon Drums); Metals (Reconditioned Drums); Metals (Parley Drums)

Freedom Metals, Inc.

1225 S. 15th Street
Louisville, KY 40210

Company Contact

Name: Bruce Blue
Phone: (502) 637-7657 Fax: (502) 637-1714
www.freedommetals.com
Email: info@freedommetals.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Metals (ferrous/non-ferrous); OCC (bound/separated/clean)

Iskiwitz Metals

604 Marble Ave.
 Memphis, TN 38107

Company Contact
 Name: Jamie Iskiwitz
 Phone: (901) 526-8944 Fax: (901) 526-8946

Business Type: Collector, Processor
Provides Transportation and Material Pickup: No
Registered Materials: Metals (Non-Ferrous)

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Lui Helmansohn Inc.

211 Gatlin St.,
 Clarksville, TN 37040

P.O. Box 407
 Clarksville, TN 37041-0407

Company Contact
 Name: Curt Mize
 Phone: (931) 648-0851 Fax: (931) 648-1288

Business Type: Collector
Provides Transportation and Material Pickup: No
Registered Materials: Metals (Ferrous); Metals (Non-Ferrous)

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Midwest Metals

13051 Forest Centre Ct.
 Louisville, KY 40223

Company Contact
 Name: Jim Wiseman
 Phone: (502) 244-6063 Fax: (502) 244-6065
 Website: www.mwmcorp.com
 Email: jimw@mwmcorp.com

Business Type: Collector/Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Metals (non-ferrous)

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Montgomery County Recycling Inc.

600 Barge Point Road
Clarksville, TN 37042-9998

Company Contact

Name: Rob Abernathy
Phone: (931) 647-3322 Fax: (931) 647-3324
Email: rob@tnscrapiron.com
Website: www.tnscrapiron.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Metals (Ferrous); Metals (Non-Ferrous)

.....

Perl Co., L.L.C.

540 Weakley Ave.
Memphis, TN 38107

Company Contact

Name: Bill Elving
Phone: (901) 526-7651 Fax: (901) 521-4419
Email: Ascrap@AOL.com

Business Type: Collector/Processor/Broker

Provides Transportation and Material Pickup: Yes

Registered Materials: Metals (55 Gallon Drums); Metals (Ferrous); Metals (Non-Ferrous);
Other Metals (Turnings, Cast); Metals (Reconditioned Drums); Metals (White Goods)

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PSC Metals, Inc.
710 S. 1st Street
Nashville, TN 37213

P.O. Box 1182
Nashville, TN 37202

Company Contact

Name: Troy Blanton
Phone: (615) 271-3414 Fax: (615) 271-3401
Email: metinfo@pscmetals.com
Website: www.pscmetals.com

Business Type: Collector/Processor/Broker
Provides Transportation and Material Pickup: Yes
Registered Materials: Metals (Ferrous); Metals (Non-Ferrous); Other Metals (Scrap Iron and Metal for Recycling); Metals (White Goods)

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Seaton Iron and Metal Co., Inc.
132 County Road 370
Athens, TN 37303

Company Contact

Name: John Seaton
Phone: (423) 745-3192 Fax: (423) 744-9787
Email: Seaton01@comcast.net

Business Type: Collector/Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Metals (Ferrous); Metals (Non-Ferrous); Metals (55 Gallon Drums); Metals (Precious); Metals (Reconditioned Drums); Metals (White Goods); Wood (Pallets)

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Shapiro Recycling Systems

199 Bordeaux Drive
Dixon, TN 37055

P.O. Box 369
Dixon TN 37056

Company Contact

Name: Jimmy Hill

Phone: (615) 740-0337 Fax: (615) 740-8129

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Metals (Ferrous); Metals (Non-Ferrous)

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PLASTICS

Lastique International

Company Contact
 Name: Bruce Manoucheri
 Phone: (502) 995-8582 Fax:

Business Type: Collector/Processor
Provides Transportation and Material Pickup:
Registered Materials: Plastic

.....

MJS Plastics, Inc.
 16 South Shannon
 Athens, OH 45701

Company Contact
 Name: Matt Steyer
 Phone: (740) 589-2009 Fax: (740) 589-2010
 Email: msteyer@mjsplastics.com
 Website: www.mjsplastics.com

Business Type: Collector/Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Plastic piping (post industrial)

.....

Osage Express
 4582 South Wilson Road
 Elizabethtown, KY 42701

Company Contact
 Name: Dan Pearman
 Phone: (502) 639-4966; (270) 766-1309
 Fax: (270) 769-0337
 Email: danosage@alltel.net

Business Type: Collector/Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Plastics (all types); Metals (all types); Wood (possibly)

.....

Rivercity Industrial Services

1100 Walnut Street Ste.10
Owensboro, KY 42301

Company Contact

Name: Rick Blakeslee
cell: (270) 929-3192 office: (270) 926-0406
Fax: (270) 926-0105
Email: rcis@bellsouth.net

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Plastics; Scrap Metal; Various materials

.....

Somerset Recycling

1 Recycle Way
Somerset KY 42503

P.O. Box 1348
Somerset, KY 42502

Company Contact

Name: George Walker
Phone: (800) 456-7471 Fax: (812) 264-6744

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (All grades); Plastic (Industrial grade)

.....

Walker Recycling Inc.

PO Box 321
Palmyra, IN 47164

Company Contact

Name: Steve Keck
Phone: (606) 274-4170 Fax: (606) 274-4175
Email: www.somerset-recycling.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes (on-site rollofs available)

Registered Materials: Plastics; Glass; Scrap Metal; Paper

.....

WOOD

A.E., L.L.C.
 P.O. Box 146
 Hermitage, TN 37076

Company Contact
 Name: Harry Spotts
 Phone: (615) 812-1059 Fax: (615) 773-2090
 Email: None

Business Type: Collector/Processor
Provides Transportation and Material Pickup: Yes
Registered Materials: Wood (dimensional lumber, wood chips, beams, logs); No lead paint, no pressure treated wood, no presoaked wood

.....

Conservation Pallet Sales
 3208 Hwy. 79
 Indian Mound, TN 37079

Company Contact
 Name: Reggie Wallace
 Phone: (931) 232-4268 Fax: (931) 232-4287
 Email:

Business Type: Collector/ Processor/End User
Provides Transportation and Material Pickup: Yes
Registered Materials: Wood (pallets)

.....

Covenant Pallet, Inc.
 414 Bonnowood Drive
 Hermitage, TN 37076

Company Contact
 Name: Ken Marrero
 Phone: (615) 589-4997 Fax: N/A
 Email: ken@covenantpallet.com
 Website: www.covenantpallet.com

Business Type: Collector
Provides Transportation and Material Pickup: Yes
Registered Materials: Pallets (96" and shorter)

.....

Environmental Recycling

11700 Ellwood Greens
Genoa, IL 60135

Company Contact

Name: Walt Adams
Phone: (630) 816-8490 Fax: (630) 879-9783

Business Type: Broker

Provides Transportation and Material Pickup: On Occasion

Registered Materials: Wood; Plastic; Paper

.....

Environmental Wood Recycling

600 Veterans Memorial Lane
Bowling Green, KY 42101

Company Contact

Name: N/A
Phone: (270) 842-4011 Fax: (256) 437-3315

Business Type: Purchase Residual Fuel

Provides Transportation and Material Pickup: No

Registered Materials: Trees only

.....

Enola Enterprises Inc.

4665 JP Hawkins Circle
Morganton, NC 28655

Company Contact

Name: Jeff Riles
Phone: (828) 437-2225 Cell: (828) 439-7994
Website: www.enolaenterprises.com
Email: jtenola@hotmail.com

Business Type: Broker

Provides Transportation and Material Pickup: Yes

Registered Materials: Wood (Clean); Contaminated Material (for incineration); Cable; Metals

.....

Georgia Mountain Grinding & Recycling Inc.
4236 Grinder Road
Blairsville, GA 30512

Company Contact

Name: Terrance Kane
Phone: (706) 835-2845 Fax: (706) 835-2845
Email: gamt2000@yahoo.com

Business Type: Collector/Processor
Provides Transportation and Material Pickup: On Occasion
Registered Materials: Wood (Mixed)

.....

J. Hoffman Lumber Company
1330 E. State Street
Sycamore, IL 60178

Company Contact

Name: Jon Hoffman
Phone: (815) 899-2260 Fax: (815) 899-2460
Email: hoffmanlumber@earthlink.net

Business Type: Collector/Processor
Provides Transportation and Material Pickup: On Occasion
Registered Materials: Wood (Mixed)

.....

Mead Corporation
P.O. Box H
Stevenson, AL 35772

Company Contact

Name: David Hand
Phone: (256) 437-4746 Fax: (256) 437-3315

Business Type: Purchase Residual Fuel
Provides Transportation and Material Pickup: No
Registered Materials: Other Wood (ground chips/sawdust)

.....

Memphis Recycling Services

Memphis, TN

Company Contact

Name: Judy

Phone: (901) 726-1600

Fax: N/A

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Wood (mixed, painted, dimensional lumber); Gypsum/Wallboard

.....

Noble Recycling Inc.

1375 Gateway Blvd.

Boynton Beach, FL 33426

Company Contact

Name: Joseph Miceli

Phone: (561) 536-0595

Fax: (561) 423-2257

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Wood; Multiple C&D Materials

.....

Pallet Recyclers of Nashville

1441 Elm Hill Pike

Nashville, TN 37210

Company Contact

Name: Steve Williams

Phone: (615) 252-6080

Fax: (615) 252-8966

Email: rob@tnscrapiron.com

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Pallets (Wood, Metal, and Plastic)

.....

Portland Pallet, Inc.

107 Flex Avenue
P.O. Box 250
Portland, TN 37148

Company Contact

Name: Rebecca Hughes
Phone: (615) 325-2353 Fax: (615) 325-7726
Email: portlandpallet@aol.com
Website: www.portlandpallet.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Wood (All Wood except lead paint)

.....

MULTIPLE MATERIALS

Asset Recycling Inc.
701 N. Holt Rd
Indianapolis, IN 46241

Company Contact
Name: N/A
Phone: (317) 635-7774 Fax: N/A

Business Type: Processor
Provides Transportation and Material Pickup:
Other Registered Materials: Various C&D Debris

.....

Central Kentucky Fiber Resources
123 Buchanan St.
Lexington, KY 40508

P.O. Box 22251
Lexington, KY 40522-2251

Company Contact
Name: David Ratliff
Phone: (859) 225-8100 Fax: (859) 225-1338
Email: Barry Prater: bnprater@centralkyfiber.co
Website: www.centralkyfiber.com

Business Type: Collector
Provides Transportation and Material Pickup: Yes
Registered Materials: Cardboard (all grades); Paper (white ledger/newspaper); Commercial
Plastics

.....

Chattanooga Recycled Fiber

2900 Home Drive
Chattanooga, TN 37410

Company Contact

Name: John Gorman
Phone: (423) 267-0097 Fax: (423) 267-2746
Website: www.rocktenn.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes, on occasion.

Other Registered Materials: Paper (All types); Plastics (HDPE/PET); Textiles (Rag/Scrap)

.....

Connecticut Metal Industries

605 Main Street
Monroe, CT 06468

Company Contact

Name: Mary Vulcano
Phone: (203) 268-5909 Fax: N/A
Website: www.recyclemetal.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Metal (non-ferrous/aluminum); Plastic (Industrial grade)

.....

Freedom Metals, Inc.

1225 S. 15th Street
Louisville, KY 40210

Company Contact

Name: Bruce Blue
Phone: (502) 637-7657 Fax: (502) 637-1714
www.freedommetals.com
Email: info@freedommetals.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Metals (ferrous/non-ferrous); OCC (bound/separated/clean)

.....

Habitat for Humanity HomeStore

1001 Eighth Ave. South
Nashville, TN 37203

Company Contact

Name: Tom Brown
Phone: (615) 254-4663, ext. 563 Fax: (615) 254-4645
Email: tbrown@habitatnashville.org
Website: www.habitatnashville.org

Business Type: Collector

Provides Transportation and Material Pickup:

Registered Materials: Drywall (whole pieces); Kitchen Cabinets; Porcelain sink basins;
Roofing Shingles

.....

Noble Recycling Inc.

1375 Gateway Blvd.
Boynton Beach, FL 33426

Company Contact

Name: Joseph Miceli
Phone: (561) 536-0595 Fax: (561) 423-2257

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Wood; Multiple C&D Materials

.....

Northstar Materials

200 Gilbert Ave
Dayton, OH 45403

Company Contact

Name: Nick Goodwin
Phone: (937) 222-7479 Fax: (937) 220-6236
Email: ngoodwin@northstarrecyclinggroup.com
Website: www.northstarrecyclinggroup.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Paper; Plastic; Fabric; Foam; Metal (Aluminum, Copper, Brass)

.....

Osage Express

4582 South Wilson Road
Elizabethtown, KY 42701

Company Contact

Name: Dan Pearman
Phone: (502) 639-4966; (270) 766-1309
Fax: (270) 769-0337
Email: danosage@alltel.net

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Plastics (all types); Metals (all types); Wood (possibly)

.....

REHAB Resource Inc.

101 S. Parker
Indianapolis, IN 46201

Company Contact

Name: Danny Woodcock
Phone: (317) 637-3701 Fax: (317) 637-3835
Website: <http://www.rehabresource.org/>

Business Type: Collector/Processor

Provides Transportation and Material Pickup:

Registered Materials: Wood (scrap lumber); Metal (white goods); Carpet/Flooring;
Gypsum/Wallboard

.....

Rex Alton Companies

2341 South Old Decker RD
Vincennes, IN 47591

Company Contact

Name: Rex Alton
Phone: (812) 882-8519 Fax: (812) 886-8766
Email: rex@rexaltoncompanies.com
Website: www.rexaltoncompanies.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Glass (clean); Steel

Rivercity Industrial Services

1100 Walnut Street Ste.10
Owensboro, KY 42301

Company Contact

Name: Rick Blakeslee
Cell: (270) 929-3192 office: (270) 926-0406
Fax: (270) 926-0105
Email: rcis@bellsouth.net

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Plastics; Scrap Metal; Various materials

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Riverside Recycling

1001 W. Floyd Street
P.O. Box 819
New Albany, IN 47150

Company Contact

Name: Darrell Williams
Phone: (812) 948-1323 Fax: (812) 948-1326
Email: darrellwilliams@qrsrecycling.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: No

Registered Materials: Cardboard (all grades); Paper (all); Scrap Metal; Residential Plastic;
Aluminum

.....

Rumpke Recycling

1101 W. Oak St.
Louisville, KY 40210

5535 Vine ST
Cincinnati, OH, 45217

Company Contact

Name: Brad Dunn
Phone: (877) 888-5801 ext. 11 Fax: (513) 242-4459
Website: www.rumpke.com

Business Type: Collector

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (all grades); Paper (all); Plastics (#1 & #2); Aluminum

.....

Somerset Recycling

1 Recycle Way
Somerset KY 42503

P.O. Box 1348
Somerset, KY 42502

Company Contact

Name: Steve Keck
Phone: (606) 274-4170 Fax: (606) 274-4175
Email: skeck@somerset-recycling.com
Website: www.somerset-recycling.com

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes

Registered Materials: Cardboard (All grades); Plastic (Commercial, Industrial)

.....

The Recycling Group
832 Langsdale Avenue
Indianapolis, IN 46202

Company Contact

Name: Jeff Schuchman
Phone: 317-926-5492 Fax: 317-921-1665
Email: info@therecyclinggroup.com
Website: <http://www.therecyclinggroup.com/>

Business Type: Processor/Broker

Provides Transportation and Material Pickup:

Registered Materials: Various C&D debris (integrated); Paper; Metal

.....

Walker Recycling Inc.

PO box 321
Palmyra, IN 47164

Business Type: Collector/Processor

Provides Transportation and Material Pickup: Yes (on-site roll-offs available)

Registered Materials: Plastics; Glass; Scrap Metal; Paper

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Construction and Demolition Materials List

Material	Hazard
Air conditioning equipment	CFC
Air conditioning: Computer room packages	CFC
Air conditioning: Mini central systems	CFC
Air conditioning: Window units	CFC
Aluminum	
Aluminum handrails	
Appliances, white goods	
Asbestos: Various possible materials	Testing, removal
Asphalt	
Asphalt: Paving	
Asphalt: Shingles	
Batteries	
Brass	
Brick	
Bronze	
Cabinets	
Cable: Various	
Cardboard	
Carpet	
Cast iron: Radiators, pipes	
Cast iron	
Clay tile blocks	
Compressors	CFC
Computer equipment	
Computers, monitors	
Concrete	
Concrete masonry units	
Decking: Wood	
Door frames: Metal	
Doors: Elevator vintage	
Doors: Heavy vault	
Doors: Thin panel and various	Non-rated
Doors: Wood, Metal	
Ductwork	
Earth	
Electric switchgear, feeder cables, conduit	
Electrical equipment	
Electrical: Cable	
Elevator cabs, machinery, shaft equipment, rails	
Fabric	
Fiberglass	

Fire suppression equipment
 Fixtures & Fittings: Plumbing
 Fixtures: Electrical
 Flooring: Carpet
 Flooring: Vinyl
 Flooring: Wood
 Fuel storage tanks
 Furniture: Metal
 Furniture: Metal shelving
 Furniture: Reusable
 Furniture: Systems
 Furniture: Wood
 Glass: Interior and exterior
 Glass: Plate
 Glass: Wired, Laminated
 Glazing compound: Asbestos, lead possible Testing
 Gutters and flashing
 Gypsum blocks
 Gypsum board
 Hardwood
 Hazardous materials
 Heavy timbers
 Inert materials: Clay tile block, cinder block
 Inert materials: Gypsum board, plaster
 Insulation
 Interior air handlers and controls
 Lamps: Fluorescent Mercury retrieval
 Lead: Paint and other possible materials Testing, removal
 Light bulbs
 Light fixtures: Decorative
 Light fixtures: Fluorescent and utility fixtures
 Light fixtures:
 Vintage fluorescent, incandescent PCB Ballasts
 Marble: Toilet partitions
 Marble: Walls
 Metal: Brass
 Metal: Bronze
 Metal: Cable
 Metal: Cast Iron
 Metal: Conduit
 Metal: Galvanized Steel
 Metal: Miscellaneous
 Metal: Steel
 Mirrors
 Other considerations:
 Paper
 Partitions, demountable panels
 Partitions: Aluminum tracks, misc framing

PBX/ telephone equipment, conduit, cables
 Petroleum products
 Photocopy machine
 Piping
 Plaster
 Plastic: ABS
 Plastic: Polyethylene
 Plastic: Polystyrene
 Plastic: PVC
 Plumbing fittings, faucets, etc.
 Possible lead waste pipes
 Pressure treated wood
 Precast concrete
 Pumps
 Radioactive materials
 Raised access flooring
 Rock
 Roofing: Asphalt and stone
 Roofing: Membrane, various
 Roofing: Metal
 Rubber
 Sand
 Sheet metal: misc
 Software, floppy discs Discs recyclable
 Stainless steel
 Standpipe
 Steel
 Steel: Heavy
 Steel: Reinforcement
 Steel: Sheet
 Steel: Stairs, handrails
 Steel: Structural
 Steel: Studs and misc framing
 Stone
 Telecommunications equipment
 Terrazzo
 Textiles
 Toxic materials
 Transformers PCB
 Treated lumber
 Trees
 Vinyl
 Water fountains
 Window mounted room air conditioning units CFC
 Windows: Steel frames
 Windows: Wood frames, cast iron weights
 Wood

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State Recycling Coordinators**Alabama**

Michael W. Forster, Recycling
Coordinator
Solid Waste Branch
Department of Environmental
Management
PO Box 301463
Montgomery, AL 36130-1463
Phone: (334) 271-7700
Fax: (334) 279-3050
Website: www.adem.state.al.us

Arkansas

Arkansas Department of Pollution Control and Ecology
Contact Information:
Richard Robinett
Market Development
P.O. Box 8913
Little Rock, AR 72219
Phone: 501 682-0842
Fax: 501 682-0880
E-mail: robinett@adeq.state.ar.us
Website: <http://www.adeq.state.ar.us>

California

Gary Arstein-Kerslake, Chief, CIWMB
Markets, Research & Technology
Division
Integrated Waste Management Board
1001 1 Street
P.O. Box 2815
Sacramento, CA 95812-2815
Phone: (916) 551-1313
Fax: (916) 319-7577
Website: www.ciwmb.ca.gov

Florida

Suzanne Boroff, C&D Debris Recycling Coordinator
Florida Department of Environmental Protection
Recycling Program MS 4570
2600 Blair Stone Rd.
Tallahassee, FL 32311
Phone: (850) 245-8718

Email: suzanne.boroff@dep.state.fl.us
Website: www.dep.state.fl.us/waste

Georgia

Jay Donnaway, Director
Office of Waste Management
Department of Community Affairs
60 Executive Park South
Atlanta, GA 30329
Phone: (404) 679-4940
Fax: (404) 679-0646
Website: www.dca.state.ga.us

Illinois

Illinois Department of Commerce and Economic Opportunity
Mike Motor
Bureau of Energy and Recycling
620 East Adams Street
Springfield, IL 62701
Phone: (217) 524-0933
Fax: (217) 785-2618
E-mail: michael_motor@commerce.state.il.us
Website: www.commerce.state.il.us

Indiana

Indiana Department of Environmental Management
Monica Hartke-Tarr
Indiana Department of Environmental Management
Office of Pollution Prevention and Technical Assistance
P.O. Box 7095
Indianapolis, IN 46207-7095
Phone: (800) 988-7901 or (317) 232-8172
Fax: (317) 233-5627
Email: MHARTKE@dem.state.in.us
Website: www.in.gov/idem/oppta/index.htm

Kentucky

Bruce Scott, Director
Tony Hatton, Assistant Director
Division of Solid Waste
14 Reilly Road
Frankfort, KY 40601
Phone: (502) 564-6716
Fax: (502) 564-4049
Website: www.waste.ky.gov

Kentucky Industrial Materials Exchange
Kentucky Pollution Prevention Center
420 Academic Building
University of Louisville
Louisville, KY 40292
Phone: (502) 852-0965
(800) 334-8635, Ext. 0965
Fax: 502 852-0964
E-mail: kime@kppc.org
Website: www.kppc.org/kime

Mississippi

Mississippi Department of Economic and Community Development
Contact Information:
Chester Smith
Energy Division
P.O. Box 850
Jackson, MS 39205-0850
Phone: (601) 359-6600
Fax: (601) 359-6642
E-mail: csmith@mississippi.org

Missouri

Missouri Environmental Improvement and Energy Resources Authority
Contact Information:
Kristin Allan
325 Jefferson Street
P.O. Box 744
Jefferson City, MO 65102
Phone: (573) 526-5555
Fax: (573) 635-3486
E-mail: kristin.allan@dnr.mo.gov

New York

Steven Hammond, Director
Bureau of Waste Reduction &
Recycling
Department of Environmental
Conservation
625 Broadway, 9th Floor
Albany, NY 12233-7253
Phone: (518) 402-8704
Fax: (518) 402-8681
Website: www.bec.state.ny.us

North Carolina

North Carolina Recycling Business Assistance Center (RBAC)

Matt Ewadinger

Manager, Recycling Business Assistance Center

1639 Mail Service Center

Raleigh, NC 27699-1639

Phone: (919) 715-6500

Fax: (919) 715-6794

E-mail: matt.ewadinger@ncmail.net

Website: www.p2pays.org/rbac/index.htm

Ohio

Sam Speck, Director

Division of Recycling and Litter Prevention

2045 Morse Road

Columbus, OH 43229-6693

Phone: (614) 265-6333

Fax: (614) 262-9387

Email: DRLP@dnr.state.oh.us

Website: www.dnrp.state.oh.us

Oregon

Loretta Pickerell, Manager

Department of Environmental Quality

Solid Waste Reduction & Planning

Hazardous and Solid Waste Division

811 S.W. 6th Avenue

Portland, OR 97204

Phone: (503) 229-5696

Fax: (503) 229-6977

Website: www.deq.or.state.us

Tennessee

Mike Apple, Director

Division of Solid and Hazardous

Waste Management

5th Floor, L&C Tower

401 Church Street

Nashville, TN 37243-1535

Phone: (615) 532-0780

Website: www.state.tn.us/environment/swm/

Virginia

Virginia Department of Environmental Quality

Contact Information:

Mike Murphy

Division of Litter Control and Recycling

P. O. Box 10009

629 Main Street

Richmond, Virginia 23240-0009

Phone: (804) 698-4003

Fax: (804) 698-4319

E-mail: mpmurphy@deq.state.va.us

Steve Coe

Division of Environmental Enhancement

P. O. Box 10009

629 Main Street

Richmond, Virginia 23240-0009

Phone: (804) 698-4029

Fax: (804) 698-4224

E-mail: gscoe@deq.state.va.us

Washington

Linda Hoffman, Director

Solid Waste Services

Department of Ecology

PO Box 47600

Olympia, WA 98504-7600

Phone: (206) 407-7001

Fax: (206) 407-6102

Website: www.ecy.wa.gov

Summaries of Informative C&D Documents

Evaluating Sustainability

Leadership in Energy and Environmental Design (LEED):

Developed by the nonprofit U.S. Green Building Council (USGBC), the LEED Green Building Rating system offers guidelines for green construction, a method of environmental claims related to structures and market recognition for environmental efforts. Through the LEED system, buildings can earn up to 69 points for meeting green performance goals and measures related to all aspects of construction and design.

The LEED Green Building Rating System requires action in each of the following:

- Sustainable Sites (14 possible points)
- Water Efficiency (5 possible points)
- Energy and Atmosphere (17 possible points)
- Materials and Resources (13 possible points)
- Indoor Environmental Quality (15 possible points)
- Innovation and Design Process (5 possible points)

LEED Green Building Rating System Certification Levels

- LEED Certified 26-32 Points
- LEED Certified Silver 33-38 Points
- LEED Certified Gold 39-51 Points
- LEED Certified Platinum 52-69 Points

Though initiated as a voluntary program, some government agencies are beginning to require projects to meet the basic certification requirements. GSA requires all projects that go through Congressional approval (those costing \$2 million +) must meet LEED certification criteria.

To become certified, the project owner or designer must first register with the USGBC and pay a fee of \$350 for Council members and \$500 for non-council members. Upon project completion, a checklist of claimed credits (w/ documentation) are submitted along with an additional fee (\$1200/\$1500). Certification expires after 5 years.

Energy Star is EPA's Voluntary program designed to identify and promote energy efficient products. Energy Star provides a Target Finder tool for setting energy consumption and comparing estimated usage with that goal.

SPECIFICATIONS

Architectural/Engineering Guidelines

Comprehensive specifications covering energy efficiency and other life cycle and sustainable provisions. About 110 pages. State of Texas General Services Commission, Office of Facility Planning, 1993 Austin, TX.

Demolition for Salvage and Reuse: Prototypical Demolition Specifications. A summary of background and specifications used on a demolition project in Portland.

Sources:

Metropolitan Toronto Waste Composition Study, 1991, cited in Construction Waste & Demolition Debris Recycling. A Primer (1993) Solid Waste Association of North America (Silver Spring MD).

"A New Methodology for Quantifying Construction Waste", Peter Yost and John M. Halstead, in Sustainable Construction: Proceedings of the First International Conference of CIB TG 16 (1994), University of Florida College of Architecture; Construction Materials Recycling Guidebook -- A Guide to Reducing and Recycling Construction and Remodeling Waste, Metropolitan Council of the Twin Cities Area, 1993.

Characterization of Construction Site Waste (1993), Metro Solid Waste Department (Portland OR).

"What's in a Building?" Demolition Age, September 1993.

Characterization of Construction Site Waste (1993), Metro Solid Waste Department (Portland OR).

Resource Efficient Building (1994), Metro Solid Waste Department (Portland OR)

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Additional Websites

Whole Building Design Guide - www.wbdg.org

- Site supported by the Department of Defense and the General Service Administration (GSA)
- Construction Waste Management Database
- Design Guidance
- Project Management Tools
- Mandates & References
- News, Events & Training

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APPENDICES

APPENDIX A

1.3 SUMMARY

The following document outlines waste management criteria for all Ft. Campbell construction and demolition projects. Guidelines established in section 01 74 19 are intended for the use of contractor and contractor's affiliates. Appendix A is a separate reference material for completing section 01 74 19.

Materials subject to the diversion requirements of this contract are the materials that are generated within the construction limits of this project, to include any materials associated with meeting the terms of this contract.

1.4 WASTE DIVERSION GOALS

The Government has established that this Project shall generate the least amount of waste possible due to error, poor planning, breakage, mishandling, contamination, or other factors.

Construction and Demolition waste will be generated. The maximum quantity of waste as is economically feasible shall be diverted. The goal is zero waste; however, the contractor must divert a minimum of 50% of the total solid waste from all construction and demolition activities. Waste disposal in landfills shall be minimized.

1.5 MANAGEMENT

With regard to these goals, the Contractor shall develop a Waste Management Plan (WMP) for the Government's review. Once this plan undergoes review by the Government, Contractor will be notified of project award or project denial. The government will base project award on a number of factors included in the "best value evaluation" model. The WMP is a critical component of project award. This plan shall describe and document each of the following diversion and non-diversion activities:

- A. Salvage
- B. Reuse
- C. Source Separation Construction and Demolition Debris Recycling
- D. Co-mingled Construction and Demolition Debris Recycling
- E. Landfill Disposal

The following is a list of C&D debris materials. The project waste may include but is not limited to these materials. Refer to Fort Campbell Contractor's Tool Kit for a more comprehensive list of materials.

- A. Asphalt
- B. Bricks
- C. Carpet and carpet pad
- D. Corrugated cardboard

- E. Clean dimensional wood
- F. Concrete and rock
- G. Concrete masonry units (CMU), slump stone (decorative concrete blocks)
- H. Dirt
- I. Doors
- J. Ferrous & nonferrous metals such as banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
- K. Fluorescent lights and ballasts
- L. Gypsum wall board (drywall)
- M. Land clearing debris - green materials (i.e. tree trimmings)
- N. Paint
- L. Plastic wrap, buckets, PVC
- M. Roofing shingles
- N. Used beverage containers
- O. Wood

* Recycle magnetic ballasts and older fluorescent lamps containing polychlorinated biphenyls (PCBs) and other toxic chemicals in such a manner that potentially dangerous chemicals are safely reprocessed.

Develop and implement a waste management plan as specified in this section. Take a proactive, responsible role in the management of construction and demolition waste and require all subcontractors, vendors, and suppliers to participate in program. The Debris Management Coordinator (DMC) shall be responsible for instructing workers and overseeing and documenting the results of the Waste Management Plan (WMP). Construction and demolition waste includes products of demolition and construction, excess of unusable C&D materials, packaging materials for construction products, and other materials generated during the construction process but not incorporated into the work. In the management of waste, consideration shall be given to the availability of viable markets, the condition of the materials, the ability to provide the material in suitable condition, and in a quality acceptable to available markets.

1.6 SUBMITTALS

The following submittals are required to be approved by the Government.

- A. Waste Management Plan (WMP) to indicate how waste will be diverted from landfills.
- B. Closeout submittal including weight verification of all construction and demolition material. The percent diversion shall be documented in this submittal.

PART 2 PRODUCT

2.1 WASTE MANGEMENT PLAN (WMP):

The complete Waste Management Plan (WMP) consists of two sequential documents: WMP-Form A and WMP-Form B. Contractor must complete WMP-Form A prior to commencement of debris management activities. Once awarded project, the Debris Management Coordinator (DMC) must assume debris management responsibilities including the submission of WMP-Form B and records and data to support disposal and diversion percentages.

2.1.1 WMP- Form A (submit with proposal): WMP- Form A required for bidding and is a prerequisite of project award. This document should describe planned C&D debris management activities. Contractor must complete and submit the WMP prior to construction and demolition commencement. WMP-Form A must be approved by the Contracting Officer. The Contracting Officer may require contractor to revise and resubmit the plan. Approval of Contractor's WMP will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting project cumulative waste diversion requirement.

2.1.2 WMP- Form B: Once the WMP- Form A is submitted, reviewed, and approved, DMC contractor must submit WMP- Form B on a quarterly basis. Form B documents actual diversion percentages. Additionally, Contractor must submit records and data that verify:

- A. Total waste generated,
- B. Total waste diverted by recycling, reuse, or salvage, and
- C. The type of waste generated/diverted.

The quantity of waste materials shall be by weight (tons). Landfill records and materials receipts shall be submitted as a formal material submittal.

2.2 WMP-FORM A

Contractor will complete and submit the general WMP documents with the Contractor's proposal for Government review. If approved, this WMP will serve as the basis for the quarterly records and data submittals and WMP-Form B. Contractor must submit initial WMP with project proposal to avoid disqualification. This plan should include separate sections for demolition and construction projects. See Appendix A for the WMP forms and corresponding instructions for completing the form. Contractor has the option of completing the WMP forms in Appendix A or creating his own. If he creates his own, the plan must contain the following:

- A. Name of individuals on the Contractor's staff responsible for waste prevention and management.

B. Actions that will be taken to reduce solid waste generation, including coordination with subcontractors to ensure awareness and participation.

C. Description of the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of wastes.

D. Characterization, including estimated types and quantities, of the waste to be generated.

E. List of specific waste materials that will be salvaged for resale, salvaged and reused on the current project, salvaged and stored for reuse on a future project, or recycled. Recycling facilities that will be used shall be identified by name, location, and phone number, including a copy of the permit or license for each facility.

F. Identification of materials that cannot be recycled/reused with an explanation or justification, to be approved by the Contracting Officer.

G. Description of the means by which any recyclable materials identified in item (E) above will be protected from contamination.

2.3 WMP-FORM B

WMP-Form B will account for all construction and demolition waste management activity from project commencement to termination. This form must be completed and submitted on a quarterly basis. Failure to meet the 50% diversion requirement must be addressed with a written explanation of disparities along with WMP-Form B. Contractor has the option of completing the WMP forms in Appendix A or creating his own. If he creates his own, the plan must contain the following:

A. Waste Analysis: Document project waste to be generated, including types and quantities by weight.

B. Diversion Options: List each material to be salvaged, reused, or recycled during the course of the Project, the proposed local market for each material, and the estimated net cost savings/additional costs from diversion. "Net" means that the following have been subtracted from the cost of separating and recycling: (a) revenue from the sale of recycled or salvaged materials and (b) landfill tipping fees saved due to diversion of materials from the landfill.

C. Waste Reduction Calculations: Calculated end-of-project rates as a percentage of total waste.

D. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals/organizations. Indicate whether organization is tax exempt.

E. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.

F. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight, tickets, receipts, and invoices.

G. LEED Submittal (If applicable): LEED letter template for Credit MR 2.1, signed by Contractor, indicating total waste material, quantities diverted and means by which it is diverted and a statement that requirements for the credit have been met.

H. Landfill Options: Include landfill contact information and costs. Provide the name of the landfill(s), respective tipping fee(s), and the total projected cost of landfill disposal. If using Woodlawn landfill, document \$15 per ton for disposal cost. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

I. Timeline: Submit a proposed timeline of project commencement and project termination in addition to a plan for periodic onsite updates of C&D debris handling.

J. Meetings: Describe the regular meetings to be held to address waste management. At a minimum, discuss waste management goals and issues at pre-construction meetings and regularly scheduled job-site meetings.

K. Handling and Transportation: Describe methods of separation including the use of containers, their location, and labeling system used to identify the different materials. Describe transportation/hauling procedures, which may include but are not limited to contracting a recycling hauler, arranging transportation with the local market to be used and various means of self-transportation.

L. Negotiated approval of the Contractor WMP must be obtained prior to the commencement of waste management activities. Once notified of WMP approval, Contractor may begin WMP implementation.

(See Contractor Tool Kit, Appendix A for guidance)

PART 3 EXECUTION

3.0 WASTE MANAGEMENT PLAN (WMP) EXECUTION

A. Debris Management Coordinator (DMC): The Contractor shall designate an on site party (or parties) responsible for waste management instruction, oversight and documentation for the entire project.

B. Depending on the size and complexity of the project, Contractor may either designate a full time DMC or assign responsibility to the job supervisor or appropriate personnel.

C. Distribution: The Contractor shall distribute copies of the WMP and Contractor Tool Kit to the Job Site Foreman and to each Subcontractor.

D. Instruction: The Contractor shall provide on-site instruction of correct separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the Project.

E. Source Separation: The Contractor shall identify and clearly label a specific area to facilitate separation of materials for diversion activities. Recycling and waste bin areas are to be kept neat, clean and clearly marked in order to avoid contamination of materials.

F. If hazardous materials are found at anytime, the contractor shall halt work and inform the Government. The following is a list of appropriate source separation procedures:

1. Separate recyclable materials from construction and demolition debris to the maximum extent possible. Separate recyclable materials by type.
2. Provide containers, clearly labeled, by type of separated materials or provide other storage method for managing recyclable materials until they are removed from Project site.
3. Stockpile processed materials on-site without mixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
4. Stockpile materials away from demolition area. Do not store within drip line of remaining trees.
5. Store components off the ground and protect from weather.

G. Removal of Construction and Demolition Debris:

1. Buildings and their appertencies are property of the Contractor. Revenues and savings from recycling, salvage, and reuse shall accrue to the Contractor.

2. Remove construction and demolition debris from project site on a regular basis. Do not allow construction and demolition debris to accumulate on-site.

3. Transport construction and demolition debris off Contractor's property and legally dispose of them.

4. Burning of construction and demolition debris is not permitted.

3.2 APPENDIX A: CONTRACTOR TOOL KIT

Use Appendix A: Contractor Tool Kit as a supplement to Waste Management Plan bid specification section 01 74 19. Appendix A contains the following:

A. Definitions: A list of waste management terms and their corresponding definitions.

B. WMP Documents (Construction and Demolition): Includes the WMP worksheets for both Construction and Demolition and Instructions. Use these documents for the completion and submission of WMP and Progress Payment WMP.

C. Conversion Chart: Use this document to convert material weight and volume.

D. State Recycling Coordinators: A list containing state recycling coordinators and their contact information. Use in correspondence with the Directory of Salvage, Reuse and Recycling markets.

E. Summaries: A collection of various documents pertinent to WMP development and implementation.

F. Recycling/Salvage/Reuse Market Directory: Contains contact information for local haulers and recycling markets for various construction and demolition materials. The information in the directory is a guidance document and may be incomplete; other haulers and markets utilized by the contractor are acceptable.

WMP - Form A - Instructions

Bidders are required to complete and submit a WMP- Form A. This is the initial job site plan of action and will be used to evaluate project award. It is mandatory for the bidding Contractor to provide all of the following information regarding construction and demolition debris management on the project. This must be completed prior to any material removal from the site.

Follow these procedures to maximize recycling at your job site:

1	Separate and recycle wood, cardboard, metal, drywall, and other recyclable materials.	<input type="checkbox"/>
2	Ensure that all containers and recycling dumpsters are convenient and clearly labeled.	<input type="checkbox"/>
3	Train new personnel on recycling container location and which materials are recyclable.	<input type="checkbox"/>
4	Move mixed C&D debris and recycling containers close to each other making it convenient to recycle.	<input type="checkbox"/>
5	Store materials to prevent loss from damage.	<input type="checkbox"/>
6	Check recycling and mixed C&D containers daily for mis-sorted materials.	<input type="checkbox"/>
7	Provide training to people who are mis-sorting recyclable materials.	<input type="checkbox"/>
8	Identify large quantities of waste that are not being recycled, and have DMC evaluate options for marketing the material.	<input type="checkbox"/>

Action Items:

A	Complete this WMP - Form A and post on-site.	<input type="checkbox"/>
B	Commit subcontractors to recycle in Subcontractor Agreement.	<input type="checkbox"/>
C	Keep subcontractors and workers aware of and informed on the C&D Debris Management Program.	<input type="checkbox"/>
D	Require individuals to properly sort recyclables and hold them responsible for mis-sorted loads.	<input type="checkbox"/>
E	Track and promote diversion results.	<input type="checkbox"/>

Complete the following (3) sheets of the WMP- Form A and submit with proposal.

* Note: Failure to submit WMP- Form A in a timely manner may be cause for Government to render the bid nonresponsive.

WMP - Form A - Recyclable Materials (Sheet 1)

Material Type	Condition of Material*	On-site Handling	Hauling Procedures	Final Destination
Asphalt/Concrete				
Brick/Masonry/Tile				
Building Materials **				
Carpet & Pad				
Cardboard				
Ceiling Tile				
Concrete				
Drywall				
Field Office Waste				
Paint				
Plastic Film, Sheeting, Wrap				
Scrap Metal				
Aluminum				
Copper				
Steel				
Other Metals				
Unpainted Wood & Pallets				
Window Glass				
Other				

* Check with recycler & hauler for any specifications regarding the required condition/s of material (e.g. size restrictions, packaging, other variables.)

** (Doors, windows, fixtures, shingles, lumber, insulation, sheetgoods, etc.)

Signed: _____

Date: _____

Note: Failure to submit WMP- Form A, in a timely manner may be cause for Government to render the bid nonresponsive.

WMP - Form A - Project Details (Sheet 2)

Project: _____

Date: _____

1. Estimated Project Waste

Total Quantity	Total Cost/Ton	Percentage to be Diverted from Landfill*

2. Describe methods for avoiding contamination of recyclables

3. Waste Management Meetings to be held

Pre-Construction	_____	
Monthly	_____	
Other	_____	Description _____

* Must be a minimum of 50% to qualify

Note: Failure to submit WMP- Form A in a timely manner may be cause for Government to render the bid nonresponsive.

WMP - Form B - Demolition

Quarter #: _____

Start Date: _____

End Date: _____

Material	Cost for Option 1										Cost for Option 2							
	Generated Debris		Recycled Debris (%)		Salvage/ Reuse Debris (%)		Landfilled Debris (%)		Total Diverted Debris		Cost to Landfill All C&D Debris		Cost to Landfill Non-Diverted Material		Cost to Recycle, Salvage or Reuse (get from recycling costs chart)		Total Savings (Cost of Option One less Cost of Option Two)	
	Est	Actual	Est	Actual	Est	Actual	Est	Actual	Est (D+E)	Actual (E+G)	Est	Actual	Est	Actual	Est	Actual	Est	Actual
	(tons)		%		%		%		(tons)		\$/Ton**		\$		\$		\$	
Asphalt/Concrete																		
Block																		
Brick/Masonry/Tile																		
Building Materials*																		
Carpet & Pad																		
Cardboard																		
Clay/Tile																		
Concrete																		
Drywall																		
Field Office Waste																		
Paint																		
Plastic Film, Sheeting, Wrap																		
Scrap Metal																		
Aluminum																		
Copper																		
Steel																		
Other Metals																		
Unpainted Wood & Pallets																		
Window Glass																		
Other																		
TOTAL																		

TOTAL PROJECT SAVINGS \$ _____

* Doors, windows, fixtures, shingles, lumber, insulation, sheetrock, etc.
 ** \$12/ton (94-County Landfill's rate for non-hazardous C&D is 36%; mixed C&D debris is approx. 0.5 tons/ty)
 Note: Contractor must transfer WMP from A estimate to Form B to demonstrate the cumulative amount of waste generated and diverted.
 Diversion percentages account for amount and type of materials kept out of the landfill to date.
 Attach proof of disposal or diversion. For example: haul tickets, landfill records, recycling receipts, bill of sale.

Contractor Signature: _____

Date: _____

Affidavit: _____

WMP - Form B - Construction

Quarter #: _____

Start Date: _____

End Date: _____

A Material	B Generated Debris		C Recycled Debris (%)		D Salvage/ Reuse Debris (%)		E Landfilled Debris (%)		F Total Diverted Debris		G Cost to Landfill All C&D Debris		H Cost to Landfill Non Diverted Material		I Cost to Recycle, Salvage or Reuse (get from recycling costs chart)		J Total Savings (Cost of Option One less Cost of Option Two)	
	Est	Actual	Est	Actual	Est	Actual	Est	Actual	Est (D+F)	Actual (E+G)	Est	Actual	Est	Actual	Est	Actual	Est	Actual
	(tons)		%		%		%		(tons)		\$/Ton		\$		\$		\$	
Asphalt/Concrete																		
Brick/Masonry/Tile																		
Building Materials*																		
Carpet & Pad																		
Cardboard																		
Ceiling Tile																		
Concrete																		
Drywall																		
Field Office Waste																		
Paint																		
Plastic Film, Sheeting, Wrap																		
Scrap Metal																		
Aluminum																		
Copper																		
Steel																		
Other Metals																		
Unpainted Wood & Pallets																		
Window Glass																		
Other																		
Total																		

TOTAL PROJECT SAVINGS \$ _____

* Doors, windows, fixtures, shingles, lumber, insulation, sheetgoods, etc. ** \$12/ton (B-County Landfill's rate for non-hazardous C&D is \$8/cy, mixed C&D debris is approx. 0.5 tons/cy)
 Note: Contractor must transfer WMP Form A estimates to Form B to demonstrate the cumulative amount of waste generated and diverted. Diversion percentages account for amount and type of materials kept out of the landfill to date. Attach proof of disposal or diversion. For example: haul tickets, landfill records, recycling receipts, bill of sale.

Contractor Signature: _____

Date: _____

Affidavit: _____