

**ANNEX B**  
**WASTE REDUCTION & RECYCLING GUIDELINES**

## WASTE REDUCTION & RECYCLING GUIDELINES

### This section represents the supporting documentation for general Requirements Section 2 Point D. Site Construction & Demolition Waste Management

#### Waste Management Goals

The University of North Carolina at Charlotte recognizes that there are a number of benefits to implementing waste reduction and recycling practices during construction and demolition projects, including:

- Cost savings for contractors and the University,
- Increased safety and cleanliness at the job site,
- Increased compliance with policies and ordinances.

With this information in mind, the University has established that this project shall generate the least amount of waste possible. The Contractor shall implement processes that generate as little waste as possible, and as many of the waste materials as economically feasible shall be reused, salvaged or recycled. The University has established the following goals for diversion of materials from landfill disposal:

- All site preparation/land-clearing debris should be reused on site or sent to a recycling facility. This includes asphalt, concrete, dirt, and rock/stone.
- All trees and shrubbery should be ground on site or sent to a mulching/composting facility.
- Divert 50% (by weight) of all construction and demolition waste from landfill disposal. Materials that are reused in the same project can be included in this weight, as long as reuse is documented through weights or estimates.

Of waste going to landfill, construction and demolition waste must go to an approved construction and demolition landfill. The Contractor is required to submit weight tickets (preferred) or weight estimates for all waste materials removed from campus.

#### Waste Management Plan

The goal of the University is to increase recycling and decrease waste hauling and disposal costs without placing undue burden on the Contractor (i.e. increasing labor costs). With these goals in mind, the Contractor is required to meet with a representative from the Office of Waste Reduction & Recycling and develop a Solid Waste Management Plan for the project. This plan will include an analysis of recyclable, reusable, and non-salvageable materials to be removed from the project, and will determine the best way for materials to be disposed of based on the scope of the project.

*Copies of example waste management plans and waste management reports can be found in Annex B Section 3.*

a) **Draft Waste Management Plan:** Within 10 (ten) days after the Notice to Proceed, and before any materials are removed from site, the Prime Contractor shall submit to the Office of Waste Reduction & Recycling a draft waste management plan containing the following.

- I. Waste Assessment: A list of materials the contractor(s) will be handling based on the project scope of work, and whether these materials will be salvaged and reused, recycled, or landfilled. Materials that will be salvaged in the demolition phase and reused in the construction or renovation phase should be included in this section.
- II. List of landfills to be used for waste disposal, and applicable landfill tipping fees.
- III. List of recycling or reuse facilities expected to be used, as well as costs or tipping fees at facilities (if applicable).
- IV. A description of how any waste materials to be reused or recycled will be protected from contamination (i.e. stored in separate location; a separate bin for materials). How will materials be handled to meet requirements for the designated disposal/recycling facilities?
- V. List of haulers to be used for transporting materials (or specify that materials will be self-hauled if the GC will be hauling).

b) **Final Waste Management Plan:** The owner will review the draft Waste Management Plan within 10 (ten) working days and return it to the Contractor as approved or provide comments for changes and improvements in the Plan.

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The Contractor will resubmit within 10 (ten) working days. Once the Plan is approved it becomes the Project Waste Management Plan.

**c) Waste Management Plan Implementation**

- I. The Contractor shall designate an on-site party responsible for instructing workers, overseeing and documenting results of the Waste Management Plan for the project. This contact will notify the Office of Waste Reduction & Recycling immediately should any deviance from the Waste Management plan be necessary.
- II. The Contractor shall distribute copies of the Waste Management Plan to the Job Site Foremen, Sub-contractors, and the Owner.
- III. The Contractor shall provide on-site instruction regarding appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.
- IV. The Contractor shall designate and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials.
- V. Hazardous wastes shall be separated, stored, and disposed of according to Federal and State regulations.
- VI. Documentation: The Contractor shall submit a monthly waste management report (see Annex B Section 3.5). Failure to submit this information shall render the Application for Payment incomplete and shall delay payment. The Summary shall be submitted on a form acceptable to the Owner and shall contain the following information:
  - i. The amount (in tons or cubic yards) of material landfilled from the project, the identity of the landfill, the total amount of tipping fees paid at the landfill, hauling costs and copies of weight tickets.
  - ii. For each material recycled, reused, or salvaged from the Project, the amount (in tons or cubic yards), the date removed from the jobsite, the receiving party, the transportation cost, the amount of any money paid or received for the recycled or salvaged material. Weight tickets must be attached.

**Project Meetings:**

Waste management goals and reporting will be discussed at:

- Pre Bid Meeting
- Pre Construction Meeting
- Monthly SCO Meetings

**Resource Efficiency**

The Contractor shall use resources as efficiently as possible, in completion of the project. Namely Owner shall require the Contractor to:

- Use techniques that minimize waste generation
- Reuse and renovation of existing structures in lieu of demolition
- Salvage of existing materials and items for reuse/resale
- Reuse materials on site where possible
- Recycling of waste generated during the demolition and construction process

**Reuse and Recycling Standards**

The following is a partial list of easily recycled materials from construction & demolition. Depending on the scope of work, other materials may also be deemed recyclable or reusable.

Material	Recyclable	Reusable	Legal Requirements (if any)
Aluminum cans	✓		Recycling required by law. (NC General Statute)
Asphalt	✓		Recycling required by the University.
Brick	✓	✓	Recycling required by the University.
Cardboard	✓		Recycling required by law. (Mecklenburg County ordinance)
Carpet/floor tiles	✓	✓	
Ceiling Tiles	✓	✓	
Concrete	✓	✓	Recycling required by the University.
Dirt		✓	Recycling required by the University.
Glass bottles	✓		

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Land clearing debris	✓		Recycling required by law. (NC General Statute)
Metal	✓	✓	White goods recycling required by law (NC General Statute)
Pallets	✓	✓	Recycling required by law. (NC General Statute)
Paper	✓		Recycling required by law. (Mecklenburg County ordinance)
Plastic Bottles	✓		Recycling required by law. (NC General Statute)
Sheetrock (unpainted)	✓		
Wood (untreated/unpainted)	✓	✓	
Trees/Shrubs	✓	✓	Recycling required by law. (NC General Statute)

In addition to recycling, the University encourages the following reuse/waste reduction practices:

- On-site grinding of wood clearing debris for use on campus.
- Stockpiling excess clean earth for use by UNCC or on other projects.
- Bricks and blocks may be reused by the contractor or by UNCC.
- Doors and windows may be donated to area non-profits or reused by contractor.
- Plumbing fixtures and pipes (provided they don't contain lead) may be reused on campus or by the contractor.
- Electrical fixtures and wiring may be kept for reuse on campus or by the contractor.

Removal of debris is included in the project bid, and the contractor is responsible for any costs and labor incurred.

The contractor will remove all debris generated, included trash and recycling, at their own expense. The contractor may not place this debris in University dumpsters. The Owner, acting through the Designer, shall retain the right to direct the disposal of salvageable and recyclable equipment (such as metals, cardboard, plastics, paper, glass, and blueprints).

For all demolition or renovation work which removes serviceable, repairable, or otherwise recoverable equipment or materials (such as metals, cardboard, plastics, paper, glass, and blueprints), the Contractor shall certify that he or she has exercised every practical means of recovery or salvage. (note: this is in addition to the required recyclables).

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# Waste Removal Reporting Form

Project Name: \_\_\_\_\_  
 Job Site: \_\_\_\_\_  
 Contractor Name: \_\_\_\_\_  
 Sub Contractor: \_\_\_\_\_

Date: \_\_\_\_\_

**1 Project Wastes Land-filled**

Landfill site	Quantity - tons/pounds	Tip fee/ton	Total cost of disposal including hauling container rental tip fees	Total Cost/ton

**2 Alternatives to Landfilling**

Type of material	Quantity (tons)	Material handling procedure*	Destination & means of transport	Cost of handling & transportation	Expected revenue & tip fee savings	Disposal Cost

3 Means of keeping recyclables free of contamination	4 Meetings to be held to address waste management
	1. Preconstruction Meeting 2. Monthly Construction or LEED meetings

\*Material handling procedure: Was the material:

- Recycled
- Reused on site
- Returned to vendor for recycling or reuse

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Other (please specify)

**Please return completed sheet to Shannon Caveny-Cox, UNCC OWR&R**  
**Email: [sccaveny@uncc.edu](mailto:sccaveny@uncc.edu)**