NOTE: THIS SECTION IS A COMMON DOCUMENT ON A MULTI-CONTRACT PROJECTS WHICH IS OBTAINING LEED OR OTHER SIMILAR CERTIFICATION.

SECTION 017419.02 - LEED CONSTRUCTION WASTE MANAGEMENT

1. GENERAL
	* + 1. SUMMARY
				1. This Section includes requirements for Construction Waste Management (CWM), with criteria for recycling and/or salvaging demolition and construction waste generated during the project. A Construction Waste Management (CWM) Plan shall be developed for approval by the Director’s Representative. The Plan shall be implemented throughout the duration of the project and shall be documented in accordance with the SUBMITTALS Article below.

EDIT SUBPARAGRAPH BELOW AS NECESSARY IF PROJECT IS SEEKING OTHER CERTIFICATION.

Construction Waste Management is included as part of the LEED BUILDING requirements for the project.

* + - * 1. Each contract shall supply the means for proper disposal, recycling, and/or salvaging job site waste. Locations for removal bins or dumpsters shall be coordinated with Directors Representative.
			1. RELATED WORK SPECIFIED ELSEWHERE

EDIT SUBPARAGRAPHS BELOW TO SUIT PROJECT REQUIREMENTS.

* + - * 1. Structure Demolition: Section 024116
				2. Steel Water Tank Removal: Section 024117
				3. Underground Storage Tank Removal – Abandonment: Section 026500
				4. Disposal of Non-Hazardous Industrial Commercial Waste: Section 028003
				5. Asbestos Abatement: Section 028213
				6. Abatement of Lead Containing Materials: Section 028303
				7. Handling of Lead Containing Materials: Section 028304
				8. Water Tank Paint Removal: Section 028334
				9. Lead Contaminated Soil Removal: Section 028335
				10. Disposal of PCB Liquid Filled Electrical Equipment: Section 028403
				11. Abatement of PCB Containing Caulk Sealant Materials: Section 028433
				12. Mold Remediation and Disposal: Section 028533
				13. Mercury Remediation: Section 028700
				14. Bird, Bat, and Rodent Droppings Remediation and Disposal: Section 028733
				15. Unit Masonry: Section 042000
				16. Anchored Stone Masonry Veneer: Section 044313.13
				17. Adhered Stone Masonry Veneer: Section 044313.16
				18. Site Clearing: Section 311000
			1. PERFORMANCE REQUIREMENTS
				1. Each Contract shall prepare and submit a Construction Waste Management (CWM) Plan to the Director’s Representative for approval. The CWM Plan shall outline the provisions to be implemented to properly dispose of, recycle, and/or salvage demolition and construction waste generated during the project.

EDIT SUBPARAGRAPH BELOW IF PROJECT IS SEEKING OTHER CERTIFICATION.

The end-of-project recycling rate shall equal, at minimum, 75 percent for 2 LEED credits (by weight) of the total waste from construction, demolition, and land clearing activities.

* + - * 1. Upon approval of the CWM Plan by the Director’s Representative, it shall be implemented throughout the duration of the project and documented in accordance with the SUBMITTALS Article below.
				2. Unless otherwise indicated, demolition and construction waste become the property of the Contractor.
				3. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their content, commemorative plaques and tablets, and other items of interest or value that may be uncovered during demolition remain the property of the State. Coordinate with Director’s Representative.

Carefully salvage in a manner to prevent damage and promptly return to the Director’s Representative.

* + - * 1. The CWM Plan shall include, but not be limited to, the following components:

Identify a single point of contact to act as the Construction Waste Manager. Provide the individuals name, email, and phone number.

Listing of Materials: Develop a list of the waste materials and expected weight (tons) from the Project. Categorize what will be targeted for reuse, salvage, composting, recycling, or disposal at landfill. At minimum, the following materials shall be accounted for:

EDIT SUBPARAGRAPHS BELOW TO SUIT PROJECT REQUIREMENTS.

Acoustical tiles & panels

Aggregates

Asphalt roofing shingles

Asphalt

Beverage containers

Bricks

Cardboard, paper, packaging

Carpet and pad

Clean dimensional wood, palette wood

Concrete Masonry Units (CMU) and accessories

Concrete

Conduit, wiring, and support hangers

Piping, sprinklers, and valves

Electronics & equipment

Furniture such as tables, chairs, desks, partitions, shelving, etc.

Glass

Gypsum board

Insulation

Lamps and light fixtures

Land clearing debris

Mechanical equipment

Metals from banding, stud trim, ductwork, piping, rebar, roofing, windows, other trim, steel, iron, galvanized sheet steel, stainless steel, structural steel, aluminum, copper, zinc, lead, brass, and bronze

Office supplies

Paint

Plastics

Refrigerants

Rigid Foam

Building components, such as doors, windows, hardware, and plumbing fixtures

Stone

Temporary construction materials

Universal Waste

Woods

Sorting Method: Provide a description of the proposed means of sorting and transporting the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site for off-site sorting).

If off-site sorting is utilized, the facility shall provide a sorting method description to be included in the CWM Plan.

Compost Facility: Provide the name and address of the composting facility where compostable material will be accepted and current NYSDEC permit.

Composting: Provide a description of the proposed means of ensuring compostable material remains uncontaminated during construction and transportation.

Packaging Waste: Provide an estimate of packaging materials generated and note whether suppliers will eliminate or take back packaging. Packaging material may include, but is not limited to:

Paper

Cardboard

Boxes

Plastic sheet and film

Polystyrene packaging

Wood crates

Wood pallets

Plastic pails

Landfill Information: Provide the name and address of the landfill(s) where trash will be disposed of and current operating permit.

Recycling facilities: Provide the name and address of the recycling facilities(s) where materials will be sent for recycling, current operating permit, and description of how it will be recycled.

Universal Waste Facility: Provide the name and address of the facility where universal waste will be disposed of and current NYSDEC permit.

Refrigerant Recovery Technician Qualifications: The technician shall be **[Type I] [Type II] [Type III] [Universal]** certified by EPA approved certification program.

Type I - For servicing small appliances

Type II - For servicing or disposing of high- or very high-pressure appliances, except small appliances and MVACs

Type III - For servicing or disposing of low-pressure appliances

Universal - For servicing all types of equipment

Waste Transporter: Provide name and address of proposed waste transporters and appliable NYSDEC registration and/or permits.

Re-Used materials/Equipment: Materials or equipment to be removed from the site or turned over to the State which are classified as recycled materials and shall be documented. Documentation shall include the materials turned over, weight or quantity of materials/equipment and a letter on company letterhead indicating the intended use of items.

Additional Information: Include any additional information deemed relevant to describe the scope and intent of the CWM Plan to the Director’s Representative.

Subcontractor Requirements: CWM and recycling requirements shall be incorporated into all Subcontractor’s contracts.

* + - 1. SUBMITTALS
				1. Submittal Requirements:

A copy of the Construction Waste Management (CWM) Plan, as defined in the PERFORMANCE REQUIREMENTS Article above.

By the 10th of each month following the work completed, contractors shall submit a CWM Report. This submission shall include explanation of actual waste management compared to the CWM Plan, waste receipts for the payment period and a completed CWM Reporting Form (sample included at the end of this Section identified as Exhibit “A”).

Calculations and supporting documentation to demonstrate disposal, recycling, and/or salvage rates meeting the requirements of the CWM Plan. The process for recording and assembling documentation shall be as follows:

Record and document the total weight (tons) of all demolition and construction waste materials sent to the landfill. Monthly CWM Reporting Forms shall be used as the basis for determining the total amount of waste landfilled for the project. The monthly reporting forms shall specify:

The type of waste disposed of.

The total weight (tons) of the waste disposed of. If the weight of the waste is not directly measured for each dumpster or container, the following Solid Waste Conversion Factors shall be used to convert the volume of waste to weight:

|  |
| --- |
| Solid Weight Conversion Factors |
| Mixed Waste | 350 lbs/cubic yard |
| Wood | 300 lbs/cubic yard |
| Cardboard | 100 lbs/cubic yard |
| Gypsum Board | 500 lbs/cubic yard |
| Rubble | 1,400 lbs/cubic yard |
| Steel | 1,000 lbs/cubic yard |

Provide the name and permit of the landfill that accepted the materials. Receipts or other proof of facility reception of materials is required.

Record and document the total weight (tons) of all demolition and construction waste materials reused on-site, reused off-site, recycled, or otherwise salvaged. Monthly CWM Reporting Forms shall be used as the basis for determining the total amount of waste reused, recycled, or salvaged for the project. The monthly reporting forms shall specify:

The type of reused, recycled, or salvaged material.

The weight (tons) of the reused, recycled, or salvaged material. If the weight of the material is not directly measured for each dumpster or container, the Solid Waste Conversion Factors listed for landfill waste above shall be used, where applicable, to convert the volume of material to weight. For materials not contained in the Solid Waste Conversion Factors above propose a conversion factor for review by the Director’s Representative.

Provide the name and permit of the receiving facilities/companies that purchased or accepted the reused, recycled, or salvaged materials. Receipts or other proof of facility reception of materials is required.

For materials separated for recycling off-site, establish a method for tracking the weight of the recycled material. The method shall be included in the CWM Plan for the Director’s Representative review and approval.

Record and document the total weight (tons) of materials composted. Monthly CWM Reporting Forms shall be used as the basis for determining the total amount of material composted for the project. The monthly reporting forms shall specify:

The type of material composted.

The weight (tons) of the material composted. If the weight of the material is not directly measured for each dumpster or container, the Solid Waste Conversion Factors listed for landfill waste above shall be used, where applicable, to convert the volume of material to weight. For materials not contained in the Solid Waste Conversion Factors above propose a conversion factor for review by the Director’s Representative.

In addition, provide the name and permit of the receiving facilities/companies that purchased or accepted the material to be composted. Receipts or other proof of facility reception of materials is required.

Calculate the reuse, recycled, and salvaged rate percentage by dividing the specific waste type (tons) by the total waste generated (recycled, salvaged, composted, and landfilled waste – also in tons), and multiplying by 100.

For materials turned over to others (not the State) for reuse (sale or donation), provide documentation on company letterhead indicating the material(s), the quantity (either by weight or units), the date, contact information, indicate whether the organization is tax exempt, and the intended reuse of the product.

Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered.

* + - * 1. Contract Closeout Submittals:

Contractors shall submit a Final Waste Management Report. This submission shall compile all monthly data for the duration of the project. The final report shall include an explanation of actual waste managed, lessons learned, and a final CWM Reporting Form. Resubmission of waste receipt is not necessary.

1. PRODUCTS (Not Used)
2. EXECUTION
	* + 1. IMPLEMENTATION
				1. The Contractor shall be responsible for the provision of containers and the removal of all waste, non-returned surplus materials, and rubbish from the site in accordance with the CWM Plan. The Contractor shall oversee and document the results of the Plan. Each trade shall be responsible for collecting, sorting, and depositing in designated areas, their waste, non-returned surplus materials, and rubbish, as per the CWM Plan.

The Prime Contractor shall be responsible for ensuring their subcontractors abide by the CWM Plan.

* + - * 1. Instruction: The Contractor shall provide on-site instruction of appropriate separation, handling and recycling, salvage, reuse and return methods to be used by all parties in appropriate stages of the Project.
				2. Separation Facilities: The Contractor shall provide signage for specific area(s) to facilitate separation of materials for potential recycling, salvage, composting, reuse, and return. Signage shall be multi-lingual as appropriate. Each potential material shall be collected and stored to avoid being mixed with other materials. Recycling and waste bin areas are to be kept neat and clean, and clearly marked.
			1. MEETINGS
				1. Conduct CWM meetings. Meetings shall include Subcontractors affected by the CWM Plan. At a minimum, waste management goals and issues shall be discussed at the following meetings:

Pre-bid meeting.

Pre-construction meeting.

Regular job-site meetings.

Close out meeting.

* + - * 1. Any non-compliant practices in the field will be addressed at regular job-site meetings.
			1. MONTHLY CONSTRUCTION WASTE MANAGEMENT REPORTING
				1. Monthly CWM Reporting Forms, as required in the SUBMITTALS Article above, shall be submitted to the Director’s Representative for review throughout the duration of the project.

END OF SECTION 017419.02