UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2021
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SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

02/19, CHG 1: 08/20

PART 1 GENERAL

1.1 REFERENCES
1.2 DEFINITIONS
1.2.1 Co-mingle
1.2.2 Construction Waste
1.2.3 Demolition Debris/Waste
1.2.4 Disposal
1.2.5 Diversion
1.2.6 Final Construction Waste Diversion Report
1.2.7 Recycling
1.2.8 Reuse
1.2.9 Salvage
1.2.10 Source Separation
1.3 CONSTRUCTION WASTE (INCLUDES DEMOLITION DEBRIS/WASTE)
1.4 CONSTRUCTION WASTE MANAGEMENT
1.4.1 Implementation of Construction Waste Management Program
1.4.2 Oversight
1.4.3 Special Programs
1.4.4 Special Instructions
1.4.5 Waste Streams
1.5 SUBMITTALS
1.6 MEETINGS
1.7 CONSTRUCTION WASTE MANAGEMENT PLAN
1.8 RECORDS (DOCUMENTATION)
1.8.1 General
1.8.2 Accumulated
1.9 REPORTS
1.9.1 General
1.9.2 Quarterly Reporting
1.9.3 Annual Reporting
1.10 FINAL CONSTRUCTION WASTE DIVERSION REPORT
1.11 COLLECTION
1.11.1 Source Separation Method
1.11.2 Co-Mingled Method

1.11.3 Other Methods
1.12 DISPOSAL
1.12.1 Reuse
1.12.2 Recycle
1.12.3 Compost
1.12.4 Waste

PART 2 PRODUCTS

PART 3 EXECUTION

-- End of Section Table of Contents --

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USACE / NAVFAC / AFCEC / NASA	**UFGS-01 74 19 (February 2019)** **Change 1 - 08/20**

Preparing Activity: USACE	**Superseding** **UFGS-01 74 19 (January 2007)**

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2021

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SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
02/19, CHG 1: 08/20

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NOTE: This guide specification covers the requirements for the management of non-hazardous construction waste and demolition debris/waste materials.

Every project must use a properly edited version of this guide specification.

This specification section must be coordinated with Section 02 41 00 [DEMOLITION][AND][DECONSTRUCTION] and Section 01 57 19, TEMPORARY ENVIRONMENTAL CONTROLS, and Section 01 33 29, SUSTAINABILITY REQUIREMENTS AND REPORTING.

Requirements in this guide specification apply to all DoD installations (including government owned / contractor operated installations and tenant activities) regardless of the funding source.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable item(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).

****

PART 1 GENERAL

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NOTE: The DOD Integrated (Non-Hazardous) Solid Waste Management Policy, requires all facilities to meet a non-hazardous solid waste diversion goal of 60% Construction and Demolition Diversion. This guide specification should be used to identify requirements necessary to meet construction waste management requirements under government construction or demolition contract.

Coordinate the requirements of this specification with the installation's waste management programs where the project is located. Where available, include information about access to recycling centers and storage areas in the technical content for better coordination with the contract requirements.

Disposal of hazardous waste or toxic waste materials is specified in Section 02 81 00 TRANSPORTATION AND DISPOSAL OF HAZARDOUS MATERIALS and Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS.

****

1.1 REFERENCES

****

NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a Reference Identifier (RID) outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

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The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 273 Standards for Universal Waste Management

49 CFR 173	Shippers - General Requirements for Shipments and Packagings
49 CFR 178	Specifications for Packagings

1.2 DEFINITIONS

1.2.1 Co-mingle

The practice of placing unrelated materials together in a single container, usually for benefits of convenience and speed.

1.2.2 Construction Waste

Waste generated by construction activities, such as scrap materials, damaged or spoiled materials, temporary and expendable construction materials, and other waste generated by the workforce during construction activities.

1.2.3 Demolition Debris/Waste

Waste generated from demolition activities, including minor incidental demolition waste materials generated as a result of Intentional dismantling of all or portions of a building, to include clearing of building contents that have been destroyed or damaged.

1.2.4 Disposal

Depositing waste in a solid waste disposal facility, usually a managed landfill, regulated in the US under the Resource Conservation and Recovery Act (RCRA).

1.2.5 Diversion

The practice of diverting waste from disposal in a landfill, by means of eliminating or minimizing waste, or reuse of materials.

1.2.6 Final Construction Waste Diversion Report

A written assertion by a material recovery facility operator identifying constituent materials diverted from disposal, usually including summary tabulations of materials, weight in short-ton.

1.2.7 Recycling

The series of activities, including collection, separation, and processing, by which products or other materials are diverted from the solid waste stream for use in the form of raw materials in the manufacture of new products sold or distributed in commerce, or the reuse of such materials as substitutes for goods made of virgin materials, other than fuel.

1.2.8 Reuse

The use of a product or materials again for the same purpose, in its original form or with little enhancement or change.

1.2.9 Salvage

Usable, salable items derived from buildings undergoing demolition or deconstruction, parts from vehicles, machinery, other equipment, or other components.

1.2.10 Source Separation

The practice of administering and implementing a management strategy to identify and segregate unrelated waste at the first opportunity.

1.3 CONSTRUCTION WASTE (INCLUDES DEMOLITION DEBRIS/WASTE)

****

NOTE: All projects are required to divert at least 60 percent of their non-hazardous solid wastes from the waste stream (including waste from construction, demolition, or deconstruction operations).

****

Divert a minimum of [60][_____] percent by weight of the project construction waste and demolition debris/waste from the landfill. Follow applicable industry standards in the management of waste. Apply sound environmental principles in the management of waste. (1) Practice efficient waste management when sizing, cutting, and installing products and materials and (2) use all reasonable means to divert construction waste and demolition debris/waste from landfills and incinerators and to facilitate the recycling or reuse of excess construction materials.

1.4 CONSTRUCTION WASTE MANAGEMENT

Implement a construction waste management program for the project. Take a pro-active, responsible role in the management of construction construction waste, recycling process, disposal of demolition debris/waste, and require all subcontractors, vendors, and suppliers to participate in the construction waste management program. Establish a process for clear tracking, and documentation of construction waste and demolition debris/waste.

1.4.1 Implementation of Construction Waste Management Program

Develop and document how the construction waste management program will be implemented in a construction waste management plan. Submit a Construction Waste Management Plan to the Contracting Officer for approval. Construction waste and demolition debris/waste materials include un-used construction materials not incorporated in the final work, as well as demolition debris/waste materials from demolition activities or deconstruction activities. In the management of waste, consider the availability of viable markets, the condition of materials, the ability to provide material in suitable condition and in a quantity acceptable to available markets, and time constraints imposed by internal project completion mandates.

1.4.2 Oversight

****

NOTE: For Army Project select the first bracketed option.

For Air Force Project being designed and administered by Army, select the first bracketed option.

For Navy Projects, select the second bracketed option.

For Air Force Project being designed and administered by Navy, select the second bracketed option.

****

[The Quality Control Manager, as specified in Section 01 45 00.00 10 QUALITY CONTROL, is responsible for overseeing and documenting results from executing the construction waste management plan for the project.] [The Environmental Manager, as specified in Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS, is responsible for overseeing and documenting results from executing the construction waste management plan for the project.]

1.4.3 Special Programs

Implement any special programs involving rebates or similar incentives related to recycling of construction waste and demolition debris/waste materials. Retain revenue or savings from salvaged or recycling, unless otherwise directed. Ensure firms and facilities used for recycling, reuse, and disposal are permitted for the intended use to the extent required by federal, state, and local regulations.

1.4.4 Special Instructions

Provide on-site instruction of appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the projects. Designation of single source separating or commingling will be clearly marked on the containers.

1.4.5 Waste Streams

Delineate waste streams and characterization, including estimated material types and quantities of waste, in the construction waste management plan. Manage all waste streams associated with the project. Typical waste streams are listed below. Include additional waste steams not listed:

a. Land Clearing Debris

b. Asphalt

c. Masonry and CMU

d. Concrete

e. Metals (e.g. banding, stud trim, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized, stainless steel, aluminum, copper, zinc, bronze, etc.)

f. Wood (nails and staples allowed)

g. Glass

h. Paper

i. Plastics (PET, HDPE,PVC,LDPE,PP,PS, Other)

j. Gypsum

k. Non-hazardous paint and paint cans

l. Carpet

m. Ceiling Tiles

n. Insulation

o. Beverage Containers

1.5 SUBMITTALS

****

NOTE: Review submittal description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a “G” to an item, if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets following the "G" classification, with a code of up to three characters to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

Choose the first bracketed item for Navy, Air Force and NASA projects, or choose the second bracketed item for Army projects. Choose the third bracketed item for Air Force, Army, NASA, and Navy DBB projects. Choose the fourth bracketed item for Navy DB projects only.

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Government approval is required for submittals with a "G" or "S"

classification. Submittals not having a "G" or "S" classification are [for Contractor Quality Control approval.][for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

****
NOTE: For projects in the NAVFAC PAC Area of Operation, the submittals identified as SD-01 Preconstruction Submittal for this spec section, remove the "G" designation. The preconstruction submittal(s) in this spec section shall be approved by the Contractor's Quality Control System.
****

Construction Waste Management Plan; G[, [_____]]

SD-06 Test Reports

Quarterly Reports

Annual Report

SD-11 Closeout Submittals

Final Construction Waste Diversion Report; S

1.6 MEETINGS

****
NOTE: In the second text paragraph, select the first bracketed option, for Army Projects.

In the second text paragraph, select the second bracketed option, for Navy Projects.

In the second text paragraph, select the third bracketed option, for NASA Projects.
****

Conduct Construction Waste Management meetings. After award of the Contract and prior to commencement of work, schedule and conduct a meeting with the Contracting Officer to discuss the proposed construction waste management plan and to develop a mutual understanding relative to the management of the construction waste management program and how waste diversion requirements will be met.

The requirements of this meeting may be fulfilled during the coordination and mutual Understanding meeting outlined in Section 01 45 00.00 10 01 45 00.00 20 01 45 00.00 40 QUALITY CONTROL. At a minimum, discuss and document waste management goals at following meetings:

a. [Preconstruction][Pre-demolition] meeting.

b. Regular [site][Quality Control] meetings.

c. Work safety meeting (if applicable).

1.7 CONSTRUCTION WASTE MANAGEMENT PLAN

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NOTE: For projects in the NAVFAC PAC Area of Operation, edit this first sentence by selecting "45 calendar" days after "contract award". Edit second sentence to remove the 1st bracket and select "as necessary".

****

Submit Construction Waste Management Plan within [15][45] [calendar] days after [contract award][notice to proceed]. Revise and resubmit Construction Waste Management Plan [until it receives final approval from the Contracting Officer][as necessary], in order for construction to begin. Execute demolition or deconstruction activities in accordance with Section 02 41 00 [DEMOLITION] [AND] [DECONSTRUCTION]. Manage demolition debris/waste or deconstruction materials in accordance with the approved construction waste management plan.

An approved construction waste management plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting project cumulative waste diversion requirement. Ensure all subcontractors receive a copy of the approved Construction Waste Management Plan. The plan demonstrates how to meet the project waste diversion requirement. Also, include the following in the plan:

a. Identify the names of individuals responsible for waste management and waste management tracking, along with roles and responsibilities on the project..

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

c. Description of the regular meetings to be held to address waste management.

d. 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 materials.

e. Name of landfill and/or incinerator to be used.

f. Identification of local and regional re-use programs, including non-profit organizations such as schools, local housing agencies, and organization that accept used materials such as material exchange networks and resale stores. Include the name, location, phone number for each re-use facility identified, and provide a copy of the permit or license for each facility.

g. List of specific materials, by type and quantity, that will be salvaged for resale, salvaged and reused on the current project, salvaged and stored for reuse on a future project, or recycled. Identify the recycling facilities by name, address, and phone number.

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

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

j. Description of the means of transportation of 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).

k. Copy of training plan for subcontractors and other services to prevent contamination by co-mingling materials identified for diversion and waste materials.

****

NOTE: Include list items below when required by Third Party Certification (TPC). Refer to section 01 33 29 SUSTAINABILITY REQUIREMENTS AND REPORTING for third party certification requirements.

****

[l. Identification of at least [5] [_____] construction or demolition material streams for diversion.
]

[m. Detailed plan and distribution of waste diversion between buildings, when project is a part of a campus.]

[n. Facilities or subcontractors offering construction waste transport on-site or off-site must ensure that proper shipping orders, bill of lading, manifests, or other shipping documents containing waste diversion information meet requirements of 40 CFR 273 Universal Waste Management, 49 CFR 173 Shippers - General Requirements for Shipments and Packagings, and 49 CFR 178 Specifications for Packaging. Individuals signing manifests or other shipping documents should meet the minimum training requirements.]

[o. List each supplier who deliver construction materials, in bulk, or package products in returnable containers or returnable packaging, or have take-back programs. List each program and the applicable material to actively monitor and track to assist in meeting waste diversion requirements on the project.]

****

NOTE: Include items below when a project is located outside the Continental United States (OCONUS) and is subject to known host nation agreements. Delete the additional items below, if the project is inside the United States and not subject to Host Nation Agreements.

****

[p. Identify any local jurisdiction requirements for waste management. Include those requirements, points of contact, etc.]

Distribute copies of the waste management plan to each subcontractor, Quality Control Manager Environmental Manager, and the Contracting Officer.

1.8 RECORDS (DOCUMENTATION)

1.8.1 General

Maintain records to document the types and quantities of waste generated and diverted though re-use, recycling and/or sale to third parties; through disposal to a landfill or incinerator facility. Provide explanations for any materials not recycled, reused or sold. Collect and retain manifests, weight tickets, sales receipts, and invoices specifically identifying diverted project waste materials or disposed materials.

1.8.2 Accumulated

Maintain a running record of materials generated and diverted from landfill disposal, including accumulated diversion rates for the project. Make records available to the Contracting Officer during construction or incidental demolition activities. Provide a copy of the diversion records to the Contracting Officer upon completion of the construction, incidental demolitions or minor deconstruction activities.

1.9 REPORTS

****

NOTE: This paragraph is tailored for Army, Air Force and NASA.

For Army projects, waste reports go to the SWARS Coordinator or Department of Public Works (DPW) Solid Waste Manager.

For Air Force projects, coordinate with the Base and identify the appropriate person to receive this data.

For NASA projects, coordinate with the project engineer and identify the appropriate person to receive this data.

Edit the bracket selection for Quarterly Reporting and insert the appropriate office/point of contact that will receive the waste reports.

****

1.9.1 General

Maintain current construction waste diversion information on site for periodic inspection by the Contracting Officer. Include in the quarterly reports, annual reports and final reports: the project name, contract information, information for waste generated, diverted and disposed of for the current reporting period and show cumulative totals for the project. Reports must identify quantifies of waste by type and disposal method. Also include in each report, supporting documentation to include manifests, weigh tickets, receipts, and invoices specifically identifying the project and waste material type and weighted sum.

1.9.2 Quarterly Reporting

Provide cumulative reports at the end of each quarter (December, March, June, and September, corresponding with the federal fiscal year for

reporting purposes). Submit quarterly reports not later than 15 calendar days after the preceding quarter has ended. [Submit Quarterly Reports to the appropriate office or identified point of contact.]

1.9.3 Annual Reporting

****
NOTE: Edit bracketed option to tell Contractor where additional copies of annual report is required to be submitted.

Identify who the appropriate installation POC is and insert in the bracketed option. Delete bracketed option if not applicable.
****

Provide a cumulative construction waste diversion report annually. Submit annual report not later than 30 calendar days after the preceding fourth quarter has ended.[Provide copy of annual construction waste diversion report to the installation POC.]

1.10 FINAL CONSTRUCTION WASTE DIVERSION REPORT

A Final Construction Waste Diversion Report is required at the end of the project. Provide Final Construction Waste Diversion Report [60] [_____] days prior to the Beneficial Occupancy Date (BOD). The final Construction Waste Diversion Report must be included in the Sustainability eNotebook in accordance with Section 01 33 29 SUSTAINABILITY REQUIREMENTS AND REPORTING.

1.11 COLLECTION

Collect, store, protect, and handle reusable and recyclable materials at the site in a manner which prevents contamination, and provides protection from the elements to preserve their usefulness and monetary value. Provide receptacles and storage areas designated specifically for recyclable and reusable materials and label them clearly and appropriately to prevent contamination from other waste materials. Keep receptacles or storage areas neat and clean.

Train subcontractors and other service providers to either separate waste streams or use the co-mingling method as described in the construction waste management plan. Handle hazardous waste and hazardous materials in accordance with applicable regulations and coordinate with Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS and Section 02 81 00 TRANSPORTATION AND DISPOSAL OF HAZARDOUS MATERIALS. Separate materials by one of the following methods described herein:

1.11.1 Source Separation Method

Separate waste products and materials that are recyclable from trash and sort as described below into appropriately marked separate containers and then transport to the respective recycling facility for further processing. Deliver materials in accordance with recycling or reuse facility requirements (e.g., free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process). Separate materials into the category types as defined in the construction waste management plan.

****

NOTE: Contact local recycling centers or Installation POC if the Installation has a recycling program to determine if Co-Mingled Method is allowed. Include the following section if applicable.

****

[1.11.2 Co-Mingled Method

Place waste products and recyclable materials into a single container and then transport to an authorized recycling facility, which meets all applicable requirements to accept and dispose of recyclable materials in accordance with all applicable local, state and federal regulations. The Co-mingled materials must be sorted and processed in accordance with the approved construction waste management plan.

]1.11.3 Other Methods

Other methods proposed by the Contractor may be used when approved by the Contracting Officer.

1.12 DISPOSAL

Control accumulation of waste materials and trash. Recycle or dispose of collected materials off-site at intervals approved by the Contracting Officer and in compliance with waste management procedures as described in the waste management plan. Except as otherwise specified in other sections of the specifications, dispose of in accordance with the following:

1.12.1 Reuse

****

NOTE: Determine if sale of recovered materials is allowed at the Installation, and choose the appropriate bracketed phrase.

****

Give first consideration to reusing construction and demolition materials as a disposition strategy. Recover for reuse materials, products, and components as described in the approved construction waste management plan. Coordinate with the Contracting Officer to identify onsite reuse opportunities or material sales or donation available through Government resale or donation programs. Sale of recovered materials [is] [is not] allowed on the Installation.

1.12.2 Recycle

****

NOTE: Crushing lamps on site creates a hazardous waste stream, which has additional handling and disposal requirements. If this process is required based on the facility type, make adjustments in the associated text.

****

Recycle non-hazardous construction and demolition/debris materials that are not suitable for reuse. Track rejection of contaminated recyclable

materials by the recycling facility. Rejected recyclables materials will not be counted as a percentage of diversion calculation. Recycle all fluorescent lamps, HID lamps, mercury (Hg) -containing thermostats and ampoules, and PCBs-containing ballasts and electrical components as directed by the Contracting Officer. Do not crush lamps on site as this creates a hazardous waste stream with additional handling requirements.

****
NOTE: Include bracket paragraph if a composting pile can remain on site after construction is completed or if the Installation has a Composting Program or partners with a local composting venue. Verify if any advertised composting opportunities are still available at the time of the contract and remove if no longer available. Any Construction Waste Management Plan should expressly address the strategy to utilize composting or not to utilize composting, if the opportunity exists.
****

[1.12.3 Compost

****
NOTE: If a compost pile can remain on site after construction is complete, and if there is a use for the finished compost, employ composting practices throughout the project.
****

Consider composting on site if a reasonable amount of compostable materials will be available and a utilization of compostable material can be determined and appropriately planned for. Compostable materials include plant materials, sawdust and certain food scraps. Composting as a strategy must be explicitly addressed in the Construction Waste Management Plan submitted for approval to ensure it is feasible.

]1.12.4 Waste

Dispose by landfill or incineration only those waste materials with no practical use, economic benefit, or recycling opportunity.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used. -- End of Section --