
USACE / NAVFAC / AFCESA /NASA UFGS-01 33 29 (February 2010)

Preparing Activity: USACE - SAS SUPERSEDING
UFGS-01 33 29 (July 2006)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated April 2011

SECTION 01 33 29 10

LEED(TM) DOCUMENTATION
11/11

NOTE: NOTE: This guide specification covers general LEED project requirements, documentation requirements and requirements for obtaining certain credits not addressed in other technical sections. Include this section in all construction projects requiring LEED. 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 items(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 to SAS Project Manager for forwarding to SAS-EN-DAS. UFGS are intended for design-bid-build contracts; for design-build projects UFGS may require extensive editing by the designer.

PART 1 GENERAL

1.1 REFERENCES

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.

FOREST STEWARDSHIP COUNCIL (FSC)

FSC STD 01 001 (2000) Principles and Criteria for Forest Stewardship

U.S. GREEN BUILDING COUNCIL (USGBC)

LEED	(2009) Leadership in Energy and Environmental Design(tm) Green Building Rating System for New Construction (LEED-NC)
LEED Reference Guide	(2009) LEED Reference Guide for Green Building Design and Construction
AGMBC	(2010, 28 Oct 2011 rev) 2010 LEED Application Guide for Multiple Buildings and On-Campus Building Projects Version 2

1.2 SUBMITTALS

NOTE: Identify all applicable requirements and submittals throughout the technical sections. Refer to this section for References and applicability specifics. Example submittals language in a technical section (under SD-03 Product Data): "LEED data for recycled content, regional materials, low-emitting materials". Example requirements language in a technical section (Under Part 1 "Sustainable Design" paragraph): "See Section 01 33 29 10 LEED DOCUMENTATION for project local/regional and recycled content requirements. Products in this section that contribute to these requirements may be available. Field-applied interior adhesives must meet LEED low-emitting materials credit requirements."

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

LEED Implementation Plan; G, RO

SD-11 Closeout Submittals

LEED Documentation Notebook; G, RO

1.3 DESCRIPTION

1.3.1 General

This specification includes an overview of all project LEED requirements and technical requirements for specific LEED credits not specified elsewhere. Where the term "LEED credit" is used, it refers to both LEED credits and LEED prerequisites.

1.3.2 Project Composition

[This LEED project is a [single building and site][group project under a single registration]. The LEED Project Boundary is [coincident with construction limits] [not coincident with construction limits and is shown on the drawings].]

[This is a LEED Campus project that includes the following separate registrations: [_____]. [Coordinate with all other contractors providing work for this campus.] LEED Campus Boundary and individual building LEED Project Boundaries are indicated on the drawings. Follow the **AGMBC** for all LEED documentation. Table 1 indicates which credits apply to each building and which apply to the campus ("Master Site") site work included in this contract.]

[This LEED project includes [sitework][and][building(s) that do not meet LEED Minimum Program Requirements]. The LEED Project Boundary is [coincident with construction limits][not coincident with construction limits and is shown on the drawings].]

The following buildings within the LEED boundary will be excluded from LEED documentation in accordance with the **AGMBC** instructions: [none][_____]. All work outside the LEED boundary is excluded from LEED documentation.

1.3.3 Required Achievement

NOTE: Select first bracketed option if project does not meet MPR.

This project has been designed for, and shall be developed for a sustainable achievement level of [the points indicated in Table 1] [certified] [silver] [gold] [platinum] in accordance with [LEED-NC 2009] [_____]. Table 1 (see paragraph Table) identifies the LEED credit items that are designed into or otherwise required for this project. No variations or substitutions to the LEED credits identified for this contract shall be allowed without written consent from the Contracting Officer. Should there be a case where there is any problem meeting the full requirements of a LEED credit identified for this project in Table 1, bring this to the attention of the Contracting Officer immediately.

1.3.4 LEED Certification

NOTE: Select first bracketed option if project is required to obtain LEED certification. Select third bracketed option for projects that do not meet MPR or are otherwise not required to be registered. Select second bracketed option for all others. Edit as needed if construction phase LEED coordination and certification services are provided by DOR or consultant.

[This project has been registered at LEED Online and is required to obtain LEED certification. Format and content of all construction documentation must be in accordance with the **LEED Reference Guide** and LEED Online requirements. Collect backup supporting data for all construction credits and submit it if requested during certification. Pay certification fee (construction only - split review) and submit project for LEED certification at construction completion. Respond to comments and requests

for additional construction data, coordinate as needed with the Designer of Record and otherwise support the project certification process in the course of seeking project certification. Design credits documentation and LEED certification Design Review (split review) is provided by others. Government review of LEED documentation in no way relieves the Contractor of responsibility to provide documentation that is acceptable to GBCI.]

[This project has been registered at LEED Online and the Government may seek LEED certification. Format and content of all construction documentation must be in accordance with the LEED Reference Guide and LEED Online requirements. Collect backup supporting data for all construction credits and submit it if requested during certification. Contractor is not required to pay certification fee or submit project for LEED certification. If the Government applies for certification, respond to comments on construction credits and requests for additional construction data, coordinate as needed with the Designer of Record and otherwise support the project certification process at no additional cost to the Government. Design credits documentation and LEED certification Design Review (split review) is by others. Government review of LEED documentation in no way relieves the Contractor of responsibility to provide documentation that is acceptable to GBCI.]

[This project will not be registered at LEED Online or apply for LEED certification. Validation of credits earned will be accomplished by the Government. Content of all construction documentation shall be in accordance with "USACE LEED-NC 2009 Submittals for Unregistered Projects", which shall be provided by the Government. A blank sample of this document is available at <http://en.sas.usace.army.mil>. Documentation shall not use LEED Online Forms. Design phase LEED documentation is by others.]

1.3.5 Design and Construction Credit Responsibilities

Some LEED credits are inherent in the design provided and require no further submittal or documentation. For these credits, notify the Contracting Officer in advance of selection of any specified material or use of any permissible construction methods that may result in compromise or loss of a required LEED credit. Some LEED credits are dependent on Contractor material selections or construction practices.

All LEED credits identified in Table 1 not inherent in the design provided shall be the responsibility of and documented by the Contractor. Table 1 provides a general summary of applicable credits. Detailed technical and submittal requirements are contained in the LEED Reference Guide and in the technical sections (though not specifically identified in all occurrences).

In all cases where submittals pertaining to LEED compliance are required in the contract documents, these submittals shall be separable from the other submitted data and a copy shall be included in the LEED Documentation Notebook in addition to the distribution indicated in the submittal register.

1.3.6 LEED Online

For all registered projects, compile LEED documentation at LEED Online. Documentation at LEED Online shall contain up to date information through the previous months work. Project Administrator role in LEED Online will be transferred to Contractor after award and after GBCI Design Review (coordinated by others) is complete. If Design Review is not completed

soon after award, Team Manager role will be assigned to the Contractor to provide interim access to LEED Online. Coordinate Project Administrator transfer and names of Government team members to invite (assigned QA/QC role) at the preconstruction meeting. Transfer Project Administrator role to the Government Project Engineer at closeout or after LEED certification. For registered campus projects see Table 1 for campus versus individual building credits and document credits in the applicable LEED Online registered project(s). Include all cross-referencing language required by LEED for campus projects in each registered project.

1.4 LEED IMPLEMENTATION PLAN

LEED Implementation Plan shall be submitted within 30 days after notice to proceed. The plan, when completed, shall provide a detailed description of all activities that relate to accomplishing project LEED requirements, including construction practices, procurement practices, and proposed submittals and documentation for each LEED credit. Plan shall also include the following:

- a. Name of the individual on the Contractor's staff responsible for ensuring all required LEED credits and prerequisites are earned ensuring all required documentation is complete and correct and posted at LEED Online if required, serving as LEED Online Project Administrator, coordinating with other contractors and coordinating LEED certification if applicable. A responsible LEED Accredited Professional shall be identified.
- b. Copy of proposed contract with Commissioning Authority if required.
- c. Contractor-developed spreadsheets to be used for tracking LEED credits.
- d. List of all plans required for LEED credit. Proposed submittal date for each plan. These shall be added to the LEED Implementation Plan as they are completed.

1.5 LEED DOCUMENTATION NOTEBOOK

The Contractor shall prepare a comprehensive notebook documenting compliance for each LEED credit identified in Table 1. LEED Documentation Notebook shall be formatted to match Table 1 and tabbed for each credit and prerequisite. LEED documentation in the notebook shall contain up to date information through the previous month's work, shall be available on the jobsite for review at all times. The Notebook may be maintained and available for reference electronically if preferred. LEED Online may [not] serve as a portion of the Notebook. Completed pages shall be prevented from being altered. If the Contractor fails to maintain the LEED Documentation Notebook as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the Notebook. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of the Notebook. One original hard copy and one electronic version on CD of the notebook shall be submitted at project closeout.

1.5.1 Content

Notebook shall include the following:

- a. This section including Table 1 and all attachments
- b. Approved LEED Implementation Plan
- c. All required LEED documentation as defined by LEED/LEED Online
- d. All backup/support documentation to support credit compliance (whether requested during certification or not)
- e. All GBCI correspondence
- f. All LEED documentation by the designer of record that is posted at LEED Online or, if project is not using LEED Online, furnished by the Government for inclusion in the Notebook.
- g. Completed Air Force MILCON Sustainability Requirements Reporting Scoresheet (LEED 2009) A blank of this scoresheet is available at <http://en.sas.usace.army.mil/enweb.>

1.6 CREDIT REQUIREMENTS

NOTE: The following paragraphs deal with specific credits are not covered elsewhere in the specifications. Edit out those credits not intended to be in the contract. For campus projects include the credit if any portion of the campus is pursuing it (Table 1 will clarify which building(s) the credit applies to).

LEED credits as identified in Table 1 shall be incorporated and documented as required by the Contract documents and in full compliance with the LEED Reference Guide. LEED credits not identified elsewhere in the Contract documents and those requiring further instruction are specified below. Refer to the LEED Reference Guide for further definitions and requirements.

1.6.1 Materials and Resources Credit 2, Construction Waste Management

NOTE: Measure performance by entire project for single building, single registration group, campus projects with ALL portions of campus included in a single construction contract and unregistered projects only. Select AGMBC bracketed option for campus projects with more than one construction contract.

Project goal is that a minimum of [50][75][_____] percent of construction waste generated within the LEED boundary is diverted from landfill and incineration. For this credit performance is measured [for the entire project][separately for each building in accordance with the AGMBC and Table 1]. See Section 01 57 20.00 10 ENVIRONMENTAL PROTECTION and Section 01 74 19 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT for additional information and requirements. Government installation waste reporting

differs from LEED waste diversion reporting in that it includes all work in the contract, including work outside the LEED boundary, and requires reporting of disposition of ALL waste, including waste that is excluded from diversion calculations. A USACE spreadsheet that automatically generates both Installation and LEED reports based on data input is available for Contractor optional use at <http://en.sas.usace.army.mil/enweb>. This spreadsheet and reporting format HAS NOT been pre-approved by GBCI as acceptable documentation format for projects seeking certification.

1.6.2 Materials and Resources Credit 3, Materials Reuse

NOTE: For each building or single registration group seeking this credit, Designer prepare and attach spreadsheet showing compliance with specified contributing materials and estimated construction costs. Select appropriate percentage goal based on spreadsheet results. Measure performance by entire project for single building, single registration group and unregistered projects only. Select AGMBC bracketed option for campus projects.

Project goal is that a minimum of [5][10][_____] percent (by dollar value) of materials and products for the project are salvaged, refurbished, or reused materials and products. See attached spreadsheet for specified salvaged, refurbished, and reused materials with estimated costs and calculated materials percentage. Input actual costs and track cumulative calculations for this credit. For this credit, performance is measured [for the entire project] [separately for each building in accordance with the AGMBC and Table 1].

1.6.3 Materials and Resources Credit 4, Recycled Content

Notwithstanding the requirements of Section 01 62 35 10 RECYCLED/RECOVERED/BIOBASED MATERIALS, select materials so that the sum of post-consumer recycled content value plus one-half of post-industrial recycled content value constitutes at least [10][20][_____] percent of the total materials cost for the project.

1.6.3.1 Calculations

NOTE: Measure performance by entire project for single building, single registration group and unregistered projects only. Select AGMBC bracketed option for campus projects.

Recycled content value of project materials shall be determined by the method described in the [LEED Reference Guide](#). For this credit, performance is measured [for the entire project] [separately for each building in accordance with the AGMBC and Table 1].

1.6.3.2 Substitutions

In the case of conflict between this requirement and individual technical

section requirements, Contractor may submit for Government approval proposed alternative products or systems that provide equivalent performance and appearance and have greater contribution to project recycled content requirements. All such proposed substitutions shall be submitted with the LEED Implementation Plan accompanied by product data that demonstrates equivalence.

1.6.3.3 Purchasing Plan

Prepare a recycled content purchasing plan, which shall use the applicable LEED spreadsheet filled in with proposed materials, estimated costs, credit-specific data and LEED Calculations in order to determine if the planned materials can be expected to achieve the project goal. Plan shall be coordinated with and match required performance measurement indicated in Calculations paragraph above. Submit purchasing plan before materials purchasing begins.

1.6.4 Materials and Resources Credit 5, Regional Materials

Contractor shall select materials so that a minimum of [10][20][_____] percent (by dollar value) of materials and products for the project are extracted, harvested, or recovered, as well as manufactured, regionally within a 500-mile radius of the project site.

1.6.4.1 Calculations

NOTE: Measure performance by entire project for single building, single registration group and unregistered projects only. Select AGMBC bracketed option for campus projects.

Amount of regional project materials shall be determined by the method described in the LEED Reference Guide. For this credit performance is measured [for the entire project] [separately for each building in accordance with the AGMBC and Table 1].

1.6.4.2 Purchasing Plan

Prepare a regional materials purchasing plan, which shall use the applicable LEED spreadsheet filled in with proposed materials, estimated costs, credit-specific data and LEED calculations in order to determine if the planned materials can be expected to achieve the project goal. Plan shall be coordinated with and match required performance measurement indicated in Calculations paragraph above. Submit purchasing plan before materials purchasing begins.

1.6.5 Materials and Resources Credit 6, Rapidly Renewable Materials

NOTE: For each building or single registration group seeking this credit, Designer prepare and attach spreadsheet showing compliance with specified contributing materials and estimated construction costs. Select appropriate percentage goal based on

spreadsheet results. Measure performance by entire project for single building, single registration group and unregistered projects only. Select AGMBC bracketed option for campus projects.

Project goal is that a minimum of [2.5][_____] percent (by dollar value) of materials and products for the project shall be rapidly renewable. Rapidly renewable materials are made from plants with a 10-year or shorter harvest cycle. See attached spreadsheet for specified rapidly renewable materials with estimated costs and calculated materials percentage. Input actual costs and track cumulative calculations for this credit. For this credit performance is measured [for the entire project][separately for each building in accordance with the AGMBC and Table 1].

1.6.6 Materials and Resources Credit 7, Certified Wood

Contractor shall select materials so that a minimum of [50][_____] percent (by dollar value) of permanently installed wood-based materials and products for the project are certified in accordance with FSC STD 01 001.

1.6.6.1 Calculations

NOTE: Measure performance by entire project for single building, single registration group and unregistered projects only. Select AGMBC bracketed option for campus projects.

Amount of FSC-certified project materials shall be determined by the method described in the LEED Reference Guide. For this credit performance is measured [for the entire project][separately for each building in accordance with the AGMBC and Table 1].

1.6.6.2 Purchasing Plan

Prepare a certified wood purchasing plan, which shall use the applicable LEED spreadsheet filled in with proposed materials, estimated costs, credit-specific data and LEED Calculations in order to determine if the planned materials can be expected to achieve the project goal. Plan shall be coordinated with and match required performance measurement indicated in Calculations paragraph above. Submit purchasing plan before materials purchasing begins.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 COORDINATION MEETINGS

There will be three onsite coordination meetings. The first will be a preconstruction meeting to review the LEED Implementation Plan. The requirements for this meeting may be fulfilled during the coordination and mutual understanding meeting outlined in Section 01 45 00.00 10 QUALITY

CONTROL. The second will be a pre-closeout meeting to review LEED Documentation Notebook for completeness and identify any outstanding issues relating to final score and documentation requirements. The third is a closeout meeting to review the final LEED Documentation Notebook. All meetings shall be attended by Contractor's designated individual responsible for LEED documentation, Government representative and Installation representative. At closeout meeting a final score for the project will be determined based on review of project performance and documentation. Contractor shall make a set of contract drawings and specifications available for review at each meeting as well as an updated LEED Documentation Notebook. For projects requiring LEED certification the closeout meeting takes place after certification.

3.2 PLAQUE, CERTIFICATES AND REPORTING

For each building certified, obtain and mount the full size engraved bronze LEED certification plaque with polished finish on the building in the location indicated by the Government. Plaque shall indicate the year and the level of certification achieved. For each building certified provide three original LEED certificates. Notify SAS SDD POC Judy Milton by e-mail when any certification is received at judith.f.milton@usace.army.mil. Include project number, building or buildings, installation, rating tool and certification level obtained on e-mail.

3.3 TABLE

NOTE: Identify building or single registration group in brackets. Provide a separate table (1A, 1B etc) for each building, master site or group as needed. Edit each table to delete credits not pursued, indicate correct number of points for each credit and add names for ID and RP credits. For campus projects show only the credits that will be pursued on a campus basis on the Master Site table and do not duplicate these credits on the individual building tables.

LEED credits as identified in Table 1 below are contract requirements and shall be incorporated in full compliance with the LEED Reference Guide.

TABLE 1[]:

LEED Points Required [in Addition to the Prerequisites] for [_____]

CREDIT NAME	POINTS
[SS1 Site Selection	1]
[SS2 Development Density and Community Connectivity	5]
[SS3 Brownfield Redevelopment	1]
[SS4.1 Public Transportation Access	6]
[SS4.2 Bicycle Storage and Changing Rooms	1]
[SS4.3 Low-Emitting and Fuel-Efficient Vehicles	3]
[SS4.4 Parking Capacity	2]
[SS5.1 Protect or Restore Habitat	1]
[SS5.2 Maximize Open Space	1]
[SS6.1 Stormwater - Quantity Control	1]
[SS6.2 Stormwater - Quality Control	1]
[SS7.1 Heat Island Effect - Non-Roof	1]
[SS7.2 Heat Island Effect - Roof	1]
[SS8 Light Pollution Reduction	1]
[WE1 Water Efficient Landscaping	[2][4]]
[WE2 Innovative Wastewater Technologies	2]
[WE3 Water Use Reduction	[]]
[EA1 Optimize Energy Performance	[]]
[EA2 On-Site Renewable Energy	[]]
[EA3 Enhanced Commissioning	2]
[EA4 Enhanced Refrigerant Management	2]
[EA5 Measurement and Verification	3]
[EA6 Green Power	2]
[MR1.1 Maintain Existing Walls, Floors and Roof	[]]
[MR1.2 Maintain 50% of Interior Non-Structural Elements	1]
MR2 Construction Waste Management	[1][2]
[MR3 Materials Reuse	[1][2]]
[MR4 Recycled Content	[1][2]]
[MR5 Regional Materials	[1][2]]
[MR6 Rapidly Renewable Materials	1]
[MR7 Certified Wood	1]
[IEQ1 Outdoor Air Delivery Monitoring	1]
[IEQ2 Increased Ventilation	1]
[IEQ3.1 Construction IAQ Management During Construction	1]
[IEQ3.2 Construction IAQ Management Before Occupancy	1]
[IEQ4.1 Low Emitting Adhesives and Sealants	1]
[IEQ4.2 Low Emitting Paints and Coatings	1]
[IEQ4.3 Low Emitting Flooring Systems	1]
[IEQ4.4 Low Emitting Composite Wood and Agrifiber	1]
[IEQ5 Indoor Chemical and Pollutant Source Control	1]
[IEQ6.1 Controllability of Lighting Systems	1]
[IEQ6.2 Controllability of Thermal Comfort Systems	1]
[IEQ7.1 Thermal Comfort Design	1]
[IEQ7.2 Thermal Comfort Verification	1]
[IEQ8.1 Daylight	1]
[IEQ8.2 Views	1]
[ID1.1 [name]	1]
[ID1.2 [name]	1]
[ID1.3 [name]	1]

[ID1.4 [name]	1]
ID2 LEED Accredited Professional	1
[RP1.1 [name]	1]
[RP1.2 [name]	1]
[RP1.3 [name]	1]
[RP1.4 [name]	1]

-- End of Section --