
USACE / NAVFAC / AFCEA / NASA UFGS-01 33 29 (July 2006)

Preparing Activity: NAVFAC

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated 18 July 2006

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SECTION 01 33 29

LEED(TM) DOCUMENTATION 07/06

NOTE: This guide specification covers the requirements for providing documentation and obtaining certain credits to acquire LEED(tm) certification. Include this section in all Army construction projects requiring LEED..

Comments and suggestions on this guide specification are welcome and should be directed to the technical proponent of the specification. A listing of technical proponents, including their organization designation and telephone number, is on the Internet.

Recommended changes to a UFGS should be submitted as a Criteria Change Request (CCR).

Use of electronic communication is encouraged.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.

UFGS are intended for design-bid-build contracts; for design-build projects UFGS may require extensive editing by the designer. Navy design-build projects shall use NAVFAC Design-Build Master at www.wbdg.org/ndbm.

PART 1 GENERAL

1.1 REFERENCES

NOTE: Issue (date) of references included in project specifications need not be more current than provided by the latest guide specification. Use of SpecsIntact automated reference checking is recommended for projects based on older guide specifications.

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 (2002; R 2005) Leadership in Energy and Environmental Design(tm) Green Building Rating System for New Construction (LEED-NC)

LEED Reference Guide (2005) LEED-NC Reference Guide for New Construction

1.2 SUBMITTALS

NOTE: Submittals must be limited to those necessary for adequate quality control. The importance of an item in the project should be one of the primary factors in determining if a submittal for the item should be required.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation 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 projects.

Submittal items not designated with a "G" are considered as being for information only for Army projects and for Contractor Quality Control approval for Navy projects.

NOTE: Identify all requirements throughout the technical sections with the marking "LEED." This

will generally be within the submittal requirements of the technical section; however, the products part or the execution part may also require some notation to differentiate those pieces of equipment/products/activities out of many listed that relate to LEED. Where additional data is required to validate a LEED point (i.e., VOC content of paint), an additional submittal requirement will need to be included in the technical section.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.][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][; G, [____]]

SD-11 Closeout Submittals

LEED Documentation Notebook[; G][; G, [____]]

1.3 DESCRIPTION

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

This project has been designed for, and shall be developed for a sustainable rating of [certified] [silver] [gold] [platinum] in accordance with LEED Version [____]. 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, the Contractor must bring this to the attention of the Contracting Officer immediately.

1.3.1 Credit Validation

NOTE: Select second bracketed option if project is seeking USGBC certification. Edit as needed to reflect how project is structured regarding responsibility for USGBC registration and registration fees and inclusion of a LEED consultant during construction phase.

[This project will not be registered with USGBC for validation of credits earned. Validation of credits earned will be accomplished by the Government. Content of all construction documentation must be in accordance with the LEED Reference Guide requirements for supporting data required and must use LEED Letter Templates, which shall be [provided by the Government] [obtained by Contractor at Contractor's expense]. Design phase LEED documentation will be provided separately by others.]

[This project will be registered with USGBC for validation of credits earned. Contractor is not responsible for registering the project with USGBC or for paying project registration fees to USGBC. Format and content of all construction documentation must be in accordance with the LEED Reference Guide requirements for supporting data required in event of USGBC audit of the particular credit. Contractor is required to coordinate through the Contracting Officer with Government's [LEED consultant] [Administrative Assistant] on assuring assembled data is acceptable to USGBC and responding to USGBC requests for additional construction data in the course of seeking project certification. Design documentation will be provided by others.]

1.3.2 Contractor Responsibilities

Some LEED credits are inherent in the design provided and require no further submittal or documentation. For these credits, the Contractor notify the Contracting Officer in advance of selection of any specified material or use of any permissible construction methods that may result in a deviation from the LEED designer intent. Some LEED credits involve material selection and are generally identified within the technical sections with the notation "LEED," though not specifically identified in all occurrences. Some LEED credits are dependent on construction practices.

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

In all cases where a material, product, or execution requirement is identified by "LEED" in the contract documents, additional data or certificates shall be submitted with the individual component or process validating the material or component to the respective LEED credit item. These additional data or certificates 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.

1.4 LEED IMPLEMENTATION PLAN

NOTE: Army projects shall require a LEED Accredited Professional to compile LEED documentation.

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 individual[s] on the Contractor's staff responsible for ensuring LEED credits and prerequisites are earned and responsible for assembling documentation. A responsible [individual] [LEED Accredited Professional] shall be identified [for each applicable credit]. [This individual may fill the role of QC Administrative Assistant specified in Section 01 45 00.00 20 CONSTRUCTION QUALITY CONTROL.]
- b. Copy of [proposed] contract with Commissioning Agent.
- c. Templates to be used for tracking LEED credits. Listing of documents to be provided for each credit and schedule for their inclusion in LEED Documentation Notebook. Include proposed materials, associated estimated costs, and details necessary for LEED calculations in order to determine if the listed materials can be expected to achieve the project goal.
- d. List of all plans required in the technical sections for LEED credit. Proposed submittal date ofr each plan. These shall be added to the LEED Implementation Plan as they are completed.
- e. Implementation plan for cumulative materials credits, which shall use applicable template with proposed materials, associated estimated costs, and details necessary for LEED Calculations added in order to determine if the listed materials can be expected to achieve the project goal. Submit cumulative materials implementation plans before materials purchaing begins.

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 LEED numbering system and tabbed for each credit and prerequisite. LEED documentation in notebook shall contain up to date information through the previous[week's][month's] work, and at least one set shall be available on the jobsite at all times. [The Notebook may be maintained and available for reference electronically if preferred.] 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. The original, [one copy,] [[_____] copies,] and an electronic version on CD of the notebook shall be submitted at project closeout.

1.5.1 Content

Notebook shall include Table 1, applicable product data for material selection, final calculations, certifications for construction practices, procurement data, cumulative calculations and other items as identified in the approved LEED Implementation Plan. Notebook must contain all required data to support full compliance with the indicated LEED credit. LEED credits that are inherent to the design will be documented by the designer of record.

1.5.2 LEED Calculations

Calculations showing compliance with a required LEED credit identified in

Table 1 or within the LEED Implementation Plan. Calculations shall be current and available for monthly review. Final calculations shall be included in the LEED Documentation Notebook under the appropriate tab.

1.5.3 Submittals

All "G" designated submittals required for inclusion in the LEED Documentation Notebook shall be separable from other submitted data and shall be included in the LEED Documentation Notebook in addition to the distribution indicated on the submittal register.

1.6 REQUIREMENTS

NOTE: The following paragraphs deal with specific credits that may be in the contract and restrictions or instructions placed on the Contractor with respect to those credits. Edit out those credits not intended to be in the contract.

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 3, Materials Reuse

NOTE: Identify all specified items for this credit and select appropriate percentage goal. If project has multiple facilities or sites, include the last bracketed sentence in this paragraph and coordinate with the Table 1 spreadsheet. Using more than 10 percent of salvaged, refurbished, or reused materials may contribute to the following LEED credit: ID1.

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. The following salvaged, refurbished, and reused materials are specified: [_____]. Contractor shall track cumulative calculations for this credit. [For this credit, performance is measured [for the entire project] [separately for each facility or facility type indicated to achieve this credit in Table 1].]

1.6.2 Materials and Resources Credit 4, Recycled Content

NOTE: Select appropriate percentage goal. Use the bracketed Contractor choice option if recycled content materials on the project have not been specified to meet the project goal. Using more than 20 percent of recycled content materials may contribute to the following LEED credit: ID1.

[Not withstanding the requirements of Section 01 62 35 RECYCLED/RECOVERED MATERIALS, Contractor shall 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. EPA Comprehensive Procurement Guidelines has a [supplier database](#). California Integrated Waste Management Board (CIWMB) Recycled Content Directory also contains product and supplier data at www.ciwmb.ca.gov/rcp.]

[The following recycled content materials are specified 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: [_____] .]

1.6.2.1 Calculations

NOTE: If project has multiple facilities or sites, include the last bracketed sentence in this paragraph and coordinate with the Table 1 spreadsheet.

LEED Letter Template forms[provided by Government] shall be used for tracking and documentation. 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 facility/facility type indicated to achieve this credit in Table 1].]

1.6.2.2 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 Materials and Resources Credit 5, Regional Materials

NOTE: Use the bracketed Contractor choice option if regional materials on the project have not been specified to meet the project goal. The second bracketed option shall not be used on USACE projects. Using more than 20 percent of local or regional materials may contribute to the following LEED credit: ID1.

[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 ~~800 kilometer~~500 mile radius of the project site.]

[The following technical sections include regional material requirements so that, if available, 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 800 kilometer500 mile radius of the project site: [____].]

1.6.3.1 Calculations

NOTE: If project has multiple facilities or sites,
include the last bracketed sentence in this
paragraph and coordinate with the Table 1
spreadsheet.

LEED Letter Template forms[provided by the Government] shall be used for tracking and documentation. 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 facility/facility type indicated to achieve this credit and Table 1].]

1.6.4 Materials and Resources Credit 6, Rapidly Renewable Materials

NOTE: Identify all specified items for this credit.
If project has multiple facilities or sites,
include the last bracketed sentence in this
paragraph and coordinate with the Table 1
spreadsheet. Using more than 2.5 percent of rapidly
renewable materials may contribute to the following
LEED credit: ID1.

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. The following rapidly renewable materials are specified: [____]. Contractor shall track cumulative calculations for this credit. [For this credit, performance is measured [for the entire project] [separately for each facility/facility type indicated to achieve this credit in Table 1].]

1.6.5 Materials and Resources Credit 7, Certified Wood

NOTE: Use the bracketed Contractor selection option
if specific wood materials on the project have not
been specified to be certified to meet the project
goal. Using more than 50 percent of certified wood
may contribute to the following LEED credit: ID1.

[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.] [The following certified wood materials are specified so that a minimum of [50][____] percent (by dollar value) of wood-based materials and products for the project are certified in accordance with FSC STD 01 001: [____].]

1.6.5.1 Calculations

NOTE: If project has multiple facilities or sites,

include the last bracketed sentence in this paragraph and coordinate with the Table 1 spreadsheet.

LEED Letter Template forms[provided by the Government] shall be used for tracking and documentation. 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 facility/facility type indicated to achieve this credit in Table 1].]

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 20 CONSTRUCTION QUALITY CONTROL][01 45 04.00 10 CONTRACTOR 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.

3.2 TABLE

NOTE: Use the LEED Project checklist as Table 1, which is available on the USGBC Website. Provide a separate table for each facility or facility type as needed.

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

-- End of Section --