

SECTION 01 81 13**LEED REQUIREMENTS****PART 1 - GENERAL****1.1 SUMMARY**

A. This Section includes general requirements and procedures for compliance with certain U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating System for Building Design and Construction 2009 for new construction, prerequisites and credits needed for the Project to achieve at a **minimum LEED® Silver certification.**

1. Certain LEED prerequisites and credit requirements needed to obtain LEED certification are dependent on material selections, documentation and means and methods of the Work. Each item related to LEED may not be specifically identified as LEED requirements in this section. The Contractor should refer to the LEED Green Building Rating System for Building Design & Construction (BD&C) 2009 Edition Reference Guide, including all errata and addenda as of the project's LEED registration date, for complete credit descriptions and submittal requirements. Compliance with requirements needed to obtain LEED prerequisites and credits may be used as one criterion to evaluate substitution requests.
2. Additional LEED prerequisites and credits needed to obtain the indicated LEED certification are dependent on the Architect's design and other aspects of the Project that are not part of the Work of the Contract. Hence, not all credits required for certification may be described as part of this section.
3. Documentation for LEED prerequisites and credit must be submitted in the format required by the USGBC for review using LEED-Online, including all required credit audit documentation, completion of LEED calculators, and LEED templates. Refer to the Submittals part of this section for a more detailed explanation of the LEED-Online process and LEED Construction Credit Submittal.
4. Additional information on LEED, how to purchase copies of the LEED BD&C reference guide, and how to use LEED-Online can be found at www.gbci.org and www.leedonline.com

5. A copy of the LEED Project checklist is attached at the end of this Section for information only.

1.2 RELATED SECTIONS

- A. Divisions 01 through 33 Sections for LEED requirements specific to the Work of each of those Sections. These requirements may or may not include reference to LEED or LEED credit submittal requirements.

1.3 DEFINITIONS

- A. Adequate Ventilation: Ventilation, including air circulation and air changes, required to cure materials, dissipate humidity, and prevent accumulation of dust, fumes, vapors and gases.
- B. Certificates of Chain-of-Custody: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by a Forest Stewardship Council (FSC) - accredited certification body to comply with FSC "Principles and Criteria." Certificates shall include evidence that manufacturer is certified for chain-of-custody by an FSC-accredited certification body. For more information go to www.fscus.org.
- C. Chemical Waste: Includes paints, adhesives, sealants, coatings, petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
- D. Construction and Demolition Waste: Includes solid wastes, such as building materials, packaging, rubbish, debris, and rubble resulting from construction, remodeling, and repair and demolition operations.
- E. Environmental Pollution and Damage: The presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances or the environment of neighboring buildings and environmental areas; or degrade the utility of the environment for aesthetic, cultural or historical purposes.
- F. Environmental Tobacco Smoke (ETS). Secondhand smoke consists of airborne particles emitted from the burning end of cigarettes, pipe and cigars, and exhaled by smokers. The particles contain about 4,000 different compounds, up to 40 of which are known to cause cancer.
- G. Hazardous Materials: Includes pesticides, biocides, carcinogens, and "wet products" as listed by recognized authorities, such as the Environmental Protection Agency (EPA), International Agency for Research on Cancer (IARC), the State of California, and any special local requirements.

- H. Interior Final Finishes: Materials and products that will be exposed at interior occupied spaces, including flooring, wall covering, finish carpentry, and ceilings.
- I. LEED: Leadership in Energy & Environmental Design, 2009 Green Building Rating System for Design and Construction (New Construction)
- J. Mechanical Ventilation: Ventilation provided by mechanically powered equipment, such as motor-driven fans and blowers, but not by devices such as wind-driven turbine ventilators and mechanically operated windows.
- K. Municipal Solid Waste Landfill: A permitted facility that accepts solid, non-hazardous waste such as household, commercial, and industrial waste, including construction and demolition waste.
- L. Natural Ventilation: Ventilation provided by thermal, wind or diffusion effects through doors, windows, or other intentional openings in buildings.
- M. Packaged Dry Products: Materials and products that are installed in dry form and delivered to the site in the manufacturer's packaging, including carpets, resilient flooring, ceiling tiles, and insulation.
- N. Post-Consumer Material: Material generated by households or by commercial, industrial and institutional facilities in their role as end-users of products, which can no longer be used for its intended purpose.
- O. Pre-Consumer Material: Material diverted from the waste stream during the manufacturing process (can also be considered post-industrial). Excluded is reutilization of materials such as rework, re-grind or scrap generated in a process and capable of being reclaimed within the same process that generated it.
- P. Rapidly Renewable Materials: Materials made from plants that are typically harvested within a 10-year or shorter cycle. Rapidly renewable materials include products made from bamboo, cotton, flax, jute, straw, sunflower seed hulls, vegetable oils, or wool.
- Q. Recycled Content: The percentage by weight of a material's constituents that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer).
- 1. Spills and scraps from the original manufacturing process that are combined with other constituents after a minimal amount of reprocessing

for use in further production of the same product are not recycled materials.

2. Discarded materials from one manufacturing process that are used as constituents in another manufacturing process are pre-consumer or post industrial recycled materials.
3. Recycled content of materials shall be defined in accordance with the International Organization for Standardization document, ISO 14021-1999 - Environmental labels and declarations - self declared environmental claims (Type II environmental labeling). www.iso.org
- R. Regionally Extracted, Processed and Manufactured Materials: Materials that are extracted, harvested, or recovered; processed; and manufactured within a radius of 500 miles (800 km) from the Project location. Manufacturing refers to the final assembly of components into the building product that is installed at the Project site.
- S. Ventilation: the process of supplying air to or removing air from a space for the purpose of controlling air contaminant levels, humidity, or temperature within the space.
- T. Wet Products: Materials and products installed in wet form, including paints, sealants, adhesives, and special coatings.

1.4 MEETINGS

- A. Prime Trade Contractor shall conduct LEED Certification meetings as required with all subcontractors, in addition to those meetings outlined in Section 01 31 19 Project Meetings.
 1. The meetings shall include, at a minimum:
 - a. Prime Trade Contractor's Project Manager
 - b. Owner's Representative
 - c. Prime Trade Contractor's LEED Representative
 - d. All other attendees designated by Owner's Representative
 - e. Sub-Contractor Representatives as appropriate to stage of work
 2. At a minimum, LEED certification goals and issues shall be discussed at the following meetings:
 - a. Preconstruction Meetings
 - b. Progress Meetings
 - c. Subcontractor Meetings

1.5 SPECIAL PRODUCTS AND SUBSTITUTION PROCEDURES

- A. In addition to the requirements of Section 01 62 00 Product Options and Substitutions, the special substitution requirements described here

apply only to the LEED certification related materials and requirements and environmental products and procedures identified in this Section.

- B. Notify Owner and Architect when contractor wishes to substitute materials, equipment, or products that meet the aesthetic and programmatic intent of the Construction Documents and offer equivalent or increased environmental sensitivity to materials, equipment, or products specified to meet LEED requirements as indicated in the Construction Documents.
- C. Substitutions that may affect LEED certification must be clearly stated as such.
- D. Comply with the requirements of Section 01 62 00 Product Options and Substitutions except as follows:
 - 1. Only (1) one request for substitution for each product will be considered. When substitution is not accepted, provide specified product.
 - 2. Prior to submitting detailed information required under Section 01 62 00 Product Options and Substitutions, submit the following for initial review by the architect.
 - a. Product data including manufacturer's names, address, and phone number.
 - b. Include copy of Material Safety Data Sheet (MSDS) if applicable.
 - c. Description of the differences of the proposed substitution from specified product related to LEED requirements. Include description of environmental advantages of proposed substitution over specified product.
 - d. The contractor is responsible for re-submittal of all calculations, and documentation of products or material substitutions that affect LEED prerequisites and credits referenced in this Section, and any credits previously submitted as part of the project's LEED Design Application Submittal, and all credits included in the LEED Construction Submittal. Products that do not meet these requirements should not be submitted for substitution.
 - e. Substitutions of materials and products specified as part of the Contract documents in the following areas (but not necessarily limited to these items) will require review and potential re-

submittal of LEED Design Credit Application Pre-requisites and Credits:

- 1) Irrigation System
- 2) Storm water System
- 3) Roofing products and materials
- 4) Plumbing fixtures and controls
- 5) Interior and Exterior Lighting systems and controls
- 6) HVAC equipment, systems and controls
- 7) CO2 monitoring system

f. Substituted products shall not be ordered or installed without written acceptance by the owner.

3. Requests for Substitutions

- a. Submit a separate request for each LEED related product substitution.
- b. Identify product by Specification Section and LEED credit or credits, if applicable.
- c. List similar projects using product, dates of installation, and names of Contractor and Owner.
- d. Give itemized comparison of proposed substitution with specified product, listing variations, and reference Specification section and Article number.
- e. Include copy of Material Safety Data Sheet (MSDS) if applicable.
- f. Give cost data comparing proposed substitution with specified product and amount of net change to Contract Sum. The cost data should be based on life cycle analysis for each affected product including annual energy consumption and maintenance costs.
- g. State effect of substitution on construction schedule and changes required in other work of products.

1.6 SUBMITTALS

- A. General: Submit additional LEED submittal requirements included in other sections of the Specifications.
- B. LEED submittals are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated LEED requirements.
- C. Project Materials Cost Data:

1. Total Materials Cost: Provide statement indicating total cost for materials used for Project in Divisions 03-10 31.60.00, Foundations, 32.10.00, Paving, 32.30.00, Site Improvements and 32.90.00, Planting, excluding labor, overhead, and profit.
 2. Only include materials permanently installed in the project.
 3. Furniture may be included; provided it is consistently included in MR credits 3-7.
 4. Consistent numbers must be applied to various LEED credits submittals requiring similar material cost data.
 5. Include breakout of costs for the following categories of items:
 - a. Furniture (if included consistently)
 - b. Wood-based construction materials.
- D. With final project submittals provide the following:
1. Final Summary of Solid Waste Disposal and Diversion.
 2. All approved Substitution Request Forms related to this section.
- E. LEED Action Plans: Provide preliminary hard copy submittals within 30 days of date established for the Notice to Proceed indicating how the following requirements will be met.
1. Credit MR 2: Construction Waste Management Plan complying with Section 01 74 19 "Construction Waste Management."
 - a. The project goal shall be to divert a minimum of 95% of waste from landfill.
 2. Credit MR 4: List of proposed materials with recycled content.
 - a. Include statement indicating cost, post-consumer recycled content, and pre-consumer recycled content for each product having recycled content.
 3. Credit MR 5: List of proposed regionally extracted, processed and manufactured materials.
 - a. Identify each regionally extracted, processed and manufactured material, its source, processing/manufacturing location, and cost.
 - b. For materials with multiple constituents, list all constituents and identify percentage by weight of constituents that are regionally extracted, processed and manufactured.
 4. Credit MR 7: List of proposed FSC-certified wood products.
 - a. Include statement indicating costs for each product containing certified wood.

- b. Include statement indicating total cost for wood-based materials used for Project, including non-rented temporary construction.
- 5. Credit IEQ 3.1: Construction indoor air quality management plan.
 - a. Submit Draft hard copy of plan for review.
- F. LEED Progress Reports: Concurrent with an Application for Payment once per Quarter, submit reports comparing actual construction and purchasing activities with LEED action plans for the following:
 - 1. Credit MR 2: Waste reduction progress reports complying with Section 01 74 19 "Construction Waste Management."
 - 2. Credit MR 4: Recycled content.
 - 3. Credit MR 5: Regionally extracted, processed and manufactured materials.
 - 4. Credit MR 7: Certified wood products.
 - 5. Credit IEQ 3.1: Construction Indoor Air Quality Management (IAQ) plan: During Construction
- G. LEED Documentation Submittals
 - 1. For all credits: LEED documentation submittals must be prepared and submitted using the LEED-Online Credit web based application (www.leedonline.com) and minimum system requirements.
 - a. The contractor is responsible for obtaining project access to LEED-Online and joining the project using the project's project access code. Additional instructions on how to access the project can be provided by Simon & Associates, Inc upon request.
 - b. Once the Contractor has joined the project through LEED-Online, the LEED Project Administrator (Simon & Associates, Inc.) will assign the LEED credits that the contractor is responsible for completing.
 - 1) Note: To access the Credit Forms, the contractor will need to have Adobe Reader version 10.1.1 (no higher) installed on their computer. Adobe Reader is available for free download at http://www.adobe.com/products/acrobat/readstep2_allversions.html
 - 2) NOTE: Each "Credit Form" is an editable Adobe pdf document. It may be completed or updated at any time prior to the LEED Construction Submittal. After you have completed documenting the credit, use the 'Save' button at the lower right hand corner of the Form to save the data online.

- c. Additional submittal documentation and back-up requirements should be uploaded to the "File Uploads" section of LEED-Online following the required audit documentation instructions for each credit.
2. Credit EA 4: Product Data for new HVAC equipment indicating absence of HCFC refrigerants, and for clean-agent fire-extinguishing systems indicating absence of HCFC and Halon.
3. Credit EA 5: Product Data and wiring diagrams for sensors and data collection system used to provide continuous metering of building energy and water consumption performance over time.
4. Credit MR 2: Comply with Section 01 74 19 "Construction Waste Management." Using the LEED online BD+C Credit Form:
 - a. Complete the construction waste calculation tables including:
General description of each type/category of waste generated;
location of receiving agent (recycler/landfill) for waste;
quantity of waste diverted (by category) in tons or cubic yards.
 - b. Provide a narrative describing the project's construction waste management approach including a copy of the project's construction waste management plan. Please provide any additional comments or notes to describe special circumstances or considerations regarding the project's credit approach.
 - c. Required documentation:
 - 1) Copy of Construction Waste Management Plan.
 - 2) Significant sampling of the hauling/recycling tags/tickets or receipts from the project.
 - 3) Statement from the recycling facilities indicating how the materials were recycled/processed/used and documentation of the recovery rate (if comingled).
 - 4) Brief narrative explaining how and to where each waste type was diverted if not already included on the LEED Credit Template.
5. Credit MR 4: Product Data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Using the LEED online BD+C Credit Form:
 - a. Provide total project materials cost per "Project Materials Cost Data" in the Submittals section above.

- b. Provide a tabulation of each material used on the project that is being tracked for recycled content. The tabulation must include a description of the material, the manufacturer of the material, the product cost, the per-consumer and/or post-consumer recycled content percentage, and the source of the recycled content data.
 - c. Provide an optional narrative describing any special circumstances or considerations regarding the project's credit approach
 - d. Required documentation:
 - 1) Manufacturer cut sheets, literature, or letters highlighting the overall post-consumer and/or post-industrial recycled content percentages (by weight) of each product listed on the template.
 - 2) Materials invoices (showing costs) for each product listed on the Credit Form.
6. Credit MR 5: Product Data indicating location of material sources and manufacturing/processing facilities for regionally manufactured materials. Using the LEED online BD+C Credit Form:
- a. Provide total project materials cost per "Project Materials Cost Data" in the Submittals section above.
 - b. Provide a tabulation of each material used on the project that is being tracked for regional content. The tabulation must include a description of the material; the manufacturer of the material; the product cost; the percentage of the product by weight that meets both the extraction and manufacturer location criteria; distance between the project site and extraction/harvest/recovery site; and distance between the project site and final manufacturing location.
 - c. Provide an optional narrative describing any special circumstance or considerations regarding the project's credit approach.
 - d. Required documentation:
 - 1) Manufacturer cut sheets, literature, or letters highlighting address location of each material's extraction/harvest/recovery and manufacturing / processing sites.
 - 2) Map (Yahoo Maps or equivalent) indicating distances from each location to the project site.

- 3) Materials invoices (showing costs) for each product listed on the Credit Form.
7. Credit MR 7: Product Data and certificates of chain-of-custody for products containing FSC-certified wood. Using the LEED online BD+C Credit Form:
 - a. Provide total wood-based construction materials cost per "Project Materials Cost Data" in the Submittals section above.
 - b. A list of items (and/or components of products) claimed as FSC-certified, including product type, manufacturer, and the entity's Chain of Custody (COC) certification number. (Each product name can then be cross-referenced with the manufacturer or vendor COC number during the LEED certification review.) Visit www.fscus.org/green_building for more information.
 - c. Provide an optional narrative describing any special circumstance or considerations regarding the project's credit approach
 - d. Required documentation:
 - 1) Official FSC chain of custody certificates (from the FSC-licensed third party inspector) for each material listed, with chain of custody number.
 - 2) Materials invoices (showing costs) for each product listed on the Credit Form. The COC number must be included on the invoice for each product for which FSC credit is claimed.
 8. Credit IEQ 3.1: Construction IAQ Management Plan during Construction, Using the LEED online BD+C Credit Form:
 - a. Provide a copy of the project's Indoor Air Quality (IAQ) Management Plan
 - b. Confirm if the permanently installed air handling equipment was used during construction.
 - c. Provide six photographs at each of three different times during the construction period to highlight the implemented construction IAQ practices.
 - d. List all filtration media (manufacturer, model number, MERV rating, location of installed filter) installed during construction and confirm that each unit was replaced prior to occupancy.
 - e. Provide an optional narrative describing any special circumstance or non-standard approach taken by the project.

- f. Required documentation
 - 1) Construction IAQ Management Plan addressing the SMACNA/LEED requirements.
 - 2) Manufacturer literature, cutsheets, or letters showing the MERV values of filtration media used (during construction and immediately before occupancy).
- 9. Credit IEQ 4.1: Product Data and material safety data sheets (MSDS) for adhesives and sealants used on the interior of the building indicating VOC content of each product used. Using the LEED online BD+C Credit Form:
 - a. Provide a listing of each indoor adhesive, sealant and sealant primer product used on the project. Include the manufacture's name, product name, specific VOC data (in g/L less water) for each product, and the corresponding allowable VOC from the referenced standard (listed on pages 471-472 of the LEED BD+C Reference Guide)
 - b. Provide a listing of each indoor aerosol adhesive product used on the project. Include the manufacture's name, product name, specific VOC data (in g/L less water) for each product, and the corresponding allowable VOC from the referenced standard (listed on pages 3471-472 of the LEED BD+C Reference Guide)
 - c. Provide a narrative to describe any special circumstances or non-standard compliance path taken by the project.
 - d. Required documentation:
 - 1) Manufacturer cut sheets, literature, letter, or MSDS for each adhesive/sealant used on the interior, with the VOC content (g/L) circled, calculated according to the referenced standard.
- 10. Credit IEQ 4.2: Product data and material safety data sheets (MSDS) for paints and coatings used on the interior of the building indicating VOC content of each product used. Using the LEED online BD+C Credit Form:
 - a. Provide a listing of each indoor paint and coating used on the project. Include the manufacture's name, product name, specific VOC data (in g/L less water) for each product, and the corresponding allowable VOC from the referenced standard. (*Note that the addenda to the LEED BD+C Reference Guide contains*

updated VOC threshold information. Page 483 of the Reference Guide has been superceded.)

- b. Provide a narrative to describe any special circumstances or non-standard compliance path taken by the project.
 - c. Required documentation:
 - 1) Manufacturer cut sheets, literature, letter, or MSDS for each interior paint, with the VOC content (g/L) circled, calculated according to the referenced standard.
- 11.Credit IEQ 4.3: Provide product data for carpet systems indicating CRI Green Label Plus rating for each product used using the LEED online BD+C Credit Form:
- a. Provide a listing of carpet products installed in the building interior. Confirm that each product complies with CRI Green Label Plus testing program. For more information visit: www.carpet-rug.org
 - b. Provide a listing of carpet cushion products installed in the building interior. Confirm that each product complies with CRI Green Label testing program. For more information visit: www.carpet-rug.org
 - c. Provide a listing of hard surface flooring installed in the building interior. Confirm that each product complies with FloorScore certification program. For more information visit: http://www.rfci.com/index.php?option=com_content&view=article&id=80&Itemid=79.
 - d. Provide listing of tile setting adhesives and grouts. Confirm that each product meets VOC content requirements of Credit IEQ 4.1.
 - e. Provide listing of concrete, wood, bamboo, and cork floor finishes. Confirm that each product meets VOC content requirements of Credit IEQ 4.2.
 - f. Provide a narrative to describe any special circumstances or non-standard compliance path taken by the project.
 - g. Required documentation:
 - 1) Manufacturer cut sheets, literature, or letters for each flooring system product with CRI Green Label Plus (carpet), CRI Green Label (pad), FloorScore (hard surface), or VOC content (for d and e) highlighted.

9. Credit IEQ 4.4: Product data for products containing composite wood or agrifiber products or wood glues indicating that they do not contain urea-formaldehyde resin. Using the LEED online BD+C Credit Form:
- a. Provide a listing of each composite wood and agrifiber product installed in the building interior, including those manufactured off-site, such as toilet partitions, backer board, door cores and engineered wood. Confirm that the product does not contain any added urea-formaldehyde.
 - b. Provide a narrative to describe any special circumstances or non-standard compliance path taken by the project.
 - c. Required documentation
 - 1) Cut sheets or manufacturer literature or letters indicating the bonding agents for each composite wood and agrifiber material used in the project, showing that no added urea-formaldehyde resins were used in these products.

1.7 QUALITY ASSURANCE

- A. LEED Coordinator: Engage an experienced LEED-Accredited Professional to coordinate LEED requirements; serve as contact person for all LEED prerequisites and credit documentation, sub-contractor supervision, and submittal coordination; and to manage the Contractor's portions of the LEED-Online submittal process. The LEED coordinator may also serve as waste management coordinator.
- B. A copy of the LEED BD+C 2009 Reference Guide, along with all errata and addenda published to date, should be purchased by the Contractor and available on site at all times to accompany this specification.

PART 2 - PRODUCTS

2.1 RECYCLED CONTENT OF MATERIALS

- A. Credits MR 4: Provide building materials with recycled content such that post-consumer recycled content plus one-half of the pre-consumer content constitutes at least 20 percent (based on cost) of the total value of materials in the Project.
 - 1. The recycled content fraction of a material shall be determined by weight. The recycled fraction of the material is then multiplied by the cost of the material to determine the recycled content value.

2. Total value of materials in the Project shall be determined per "Project Materials Cost Data" in the Submittals section above.

2.2 REGIONAL MATERIALS

- A. Credit MR 5: Use building materials that have been extracted, processed and manufactured within 500 miles of the project site for a minimum of 10 percent (based on cost) of the total value of materials in the Project.
 1. The regional content fraction of a material shall be determined by the proportion by weight of its constituents that are manufactured and extracted, harvested, or sourced within 500 miles of the project site. The regional fraction of the material is then multiplied by the cost of the material to determine the regional content value. If a material is processed or manufactured more than 500 miles from the project site, then no part of the material can be counted for regional content value.
 2. Total value of materials in the Project shall be determined per "Project Materials Cost Data" in the Submittals section above.

2.3 FSC CERTIFIED WOOD

- A. Credit MR 7: Provide a minimum of 95 percent (by cost) of wood-based materials that are produced from wood obtained from forests certified by an FSC-accredited certification body to comply with Forest Stewardship Council Principles and Criteria. www.fscus.org
 1. Wood-based materials include but are not limited to the following materials when made from made wood, engineered wood products, or wood-based panel products:
 - a. Rough carpentry.
 - b. Miscellaneous carpentry.
 - c. Heavy timber construction.
 - d. Wood decking.
 - e. Metal-plate-connected wood trusses.
 - f. Structural glued-laminated timber.
 - g. Finish carpentry.
 - h. Architectural woodwork.
 - i. Wood paneling.
 - j. Wood veneer wall covering.
 - k. Wood flooring.
 - l. Wood lockers.

m. Wood cabinets.

n. Furniture (if included consistently in total project material cost)

2.4 LOW-EMITTING MATERIALS

A. Credit IEQ 4.1: Adhesives & Sealants

1. For interior applications, provide adhesives and sealants that comply with the limits for VOC content listed in South Coast Air Quality Management District (SCAQMD) Rule #1168 amended January 7, 2005 and in effect July 1, 2005.

B. Credit IEQ 4.2: Paints & Coatings

1. For interior applications, provide architectural paints and coatings that comply with the limits for VOC content listed in Green Seal Standard GS-11, Paints, 3rd Edition, April 17, 2011.
2. For interior applications, provide anti-corrosive and anti-rust paints for ferrous metal substrates that comply with the limits for VOC content listed in Green Seal Standard GS-03, Anti-Corrosive Paints, 2nd Edition, January 7, 1997.
3. For interior applications, provide clear wood finishes, floor coatings, stains, primers sealers and shellacs that comply with the limits for VOC content listed in South Coast Air Quality Management District (SCAQMD) Rule #1113, Architectural Coatings, in effect March 8, 2012.

C. Credit IEQ 4.3: Flooring

1. Provide carpets and carpet tiles certified to, or meeting, the Carpet and Rug Institute Green Label Plus indoor air quality standards.
2. Provide carpet cushions certified to, or meeting, the Carpet and Rug Institute Green Label indoor air quality standards. www.carpet-rug.org
3. Provide carpet adhesives certified to, or meeting, the requirements of IEQ 4.1.
4. Provide hard surface flooring (resilient flooring and base, wood flooring and base) certified to, or meeting, the FloorScore standard current as of the rating system.
5. Provide concrete, wood, bamboo and cork floor sealers, stains and all other finishes certified to, or meeting, the

requirements of the SCAQMD Rule 1113, in effect September 6, 2013 (IEQ 4.2).

D. Credit IEQ 4.4: Composite Wood and Agrifiber

1. Do not use composite wood and agrifiber products, including those manufactured off-site, such as toilet partitions, backer board, door cores and engineered wood, that contain added urea-formaldehyde resin or laminating adhesives.

PART 3 - EXECUTION

3.1 FIELD EXECUTION OF LEED REQUIREMENTS

- A. The contractor is responsible for ensuring proper field execution of all LEED prerequisites, credits, and submittal requirements; communication with sub-contractors of all requirements; and submission of all documentation in a timely manner.
- B. Contractor shall notify architect immediately of failure to meet any stated LEED pre-requisite or credit requirement.

3.2 MEASUREMENT AND VERIFICATION

- A. Credit EA 5: The owner's agent shall provide a Measurement and Verification Plan ("M&V Plan") consistent with Option D: Calibrated Simulation, Savings Estimation Method 2 in the EVO's "International Performance Measurement and Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction."
 1. Review the M&V Plan for contractor and subcontractor requirements.
 2. Install metering equipment to measure energy usage as directed by the contract documents. Monitor, record, and trend log measurements as directed by the Measurement & Verification Plan.
 3. Assist the owner and/or owner's agents to evaluate energy performance and efficiency by comparing actual to predicted performance, as directed by the M&V Plan during the M&V period.
 4. The measurement and verification period shall cover at least one year of post-construction occupancy.

3.3 CONSTRUCTION WASTE MANAGEMENT

- A. Credit MR 2: Comply with Section 01 74 19 "Construction Waste Management and Disposal."
- B. The project goal shall be to divert a minimum of 95% of waste from landfill.

3.4 PROTECTION

- A. Protect stored on-site and installed absorptive materials from moisture damage. Where absorptive materials not intended for wet applications are exposed to moisture, immediately remove from site and dispose of properly.
- B. Protect installed materials using methods that do not support growth of molds and mildews
 - 1. Immediately remove from site and properly dispose of materials showing signs of mold and signs of mildew, including materials with moisture stains.

- - - END - - -