



Fulton County, GA

# Department of Purchasing & Contract Compliance

*Cecil S. Moore, CPPO, CPPB, CPSM, C.P.M., A.P.P*  
**Director**

**November 22, 2011**

**Re: 11RFP78846K-MH  
Construction Management At Risk Services for Expansion and Major  
Renovation for The Auburn Avenue Research Library**

Dear ***Bidders***:

Attached is one (1) copy of Addendum 1, hereby made a part of the above referenced **RFP**.

Except as provided herein, all terms and conditions in the **RFP** referenced above remain unchanged and in full force and effect.

Sincerely,

*Mark Hawks*

**Mark Hawks**  
**Assistant Purchasing Agent**

Winner 2000 - 2009 Achievement of Excellence in  
Procurement Award • National Purchasing Institute



ACKNOWLEDGEMENT OF ADDENDUM NO. 1  
**11RFP78846K-MH**

The undersigned proposer acknowledges receipt of this addendum by returning one (1) copy of this form with the proposal package to the Department of Purchasing & Contract Compliance, Fulton County Public Safety Building, 130 Peachtree Street, Suite 1168, Atlanta, Georgia 30303 by the RFP due date and time **December 1, 2011 11:00 A.M.**

This is to acknowledge receipt of Addendum No. 1, \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Legal Name of Bidder

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Title

ADDENDUM NO. 1  
11RFP78846K-MH

**CLARIFICATIONS**

1. The attached LEED Implementation Plan (Attachment 1) shall replace the LEED Implementation Plan that was issued with the RFP.
2. The attached Cost Proposal Form, Form B – Construction Services Fee %, shall replace Cost Proposal Form, Form B that was issued with the RFP.
3. The attached Required Proposal Submittal Check List shall replace the check list that was issued with the RFP.

**QUESTIONS & ANSWERS**

Q1: Is a Bid Bond required even though this is not a bid project?

**A1: A Bid Bond is required, see Section 2, 2.13, Bid Bond or Guaranty and Section 8 (Bid Bond).**

Q2: Should the Bid Bond be filled out for the amount of the GC's/Fee only?

**A2: The Bid Bond shall not be less than 5% of the total amount of the budget for the branch library in which the Proposer is submitting on. See Section 8, page 8-1 and Section 2, 2.13, Bid Bond or Guaranty.**

Q3: Regarding Section 9 – Location of Firm, our firm complies with #2 (51%+ of company ownership resides in Fulton Co.) of the three possible criteria for determining Local Preference. However, Form H includes space only to fill out compliance with criteria #1 (business within the geographic boundaries of Fulton Co.), with which we do not comply. Will Form H count negatively against our firm?

**A3: Form H must be filled out correctly. Proposer has the opportunity in Section 9 of the Technical Proposal to provide supporting documentation in order to receive the full points for Location of Firm. See Section 3, 3.4, Section 9 - Location of Firm.**

Q4: When scoring responses to Section 14 – Cost, would \$0.00 be considered the lowest total Pre-Construction Services Cost and therefore receive the full 5 points, or will Fulton County award the 5 points to the lowest *responsible* Pre-Construction cost?

**A4: See Section 3, 3.4, Section 14 - Cost. The respondent with the lowest total Pre-Construction Services Cost will receive the full 5 points.**

Q5: Regarding Form A, the Non-Collusion Affidavit of Bidder/Offerer: A.) Should the amount of the offer be our total dollar amount for GCs/fee? B.) If we do not have an officer of the company with the title of "Secretary" or "Assistant Secretary", do we state N/A or rather choose another officer/representative of our company to sign at this location?

**A5: A.) Said offer shall be construction budget as listed in Section 8, page 8-1. B.) If Company does not have a Secretary or Assistant Secretary; the Proposer can have authorized Corporate Officers sign.**

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- Q6: With the requirement of "not more than 30 pages (sheets of paper - 8.5"x11") printed on two sides", please clarify which scenario this dictates: A.) We are allowed not more than 30 pages total of printed content. B.) We are allowed not more than 60 pages of content printed on the front and back sides of 30 physical sheets of 8.5" x 11" paper.
- A6: **B. See Section 3, 3.4.**
- Q7: Form G: Does this form have to be filled out if we are not using subcontractors? If yes, what goes in the 'Insert Subcontractor Name' section? Do we just have an authorized officer sign that line and ignore the 'Insert Subcontractor Name' portion?
- A7: **Form G must be filled out. If Proposer does not plan on having any subcontractors during pre-construction, insert "N/A" into Subcontractor Name section.**
- Q8: Form F: The second line of the form says 'By: Authorized Officer of Agent' but there is a line under that reads 'Insert Subcontractor Name'. What goes in this section if we are not using subcontractors? Do we just have an authorized officer sign that line and ignore the 'Insert Subcontractor Name' portion?
- A8: **The Authorized Officer of Agent shall sign this line and shall also include Subcontract Name if known.**
- Q9: 2.4. Page 2-8. Preconstruction Services timeline is noted as 365 days. This would lead us to believe all of 2012 will be used for Preconstruction. In reading the RFP, it appears the expectation will be approximately 3 pricing rounds (Schematic, 25% CD, 50% CD/GMP). Please confirm timeline and intended number of pricing efforts for our use in providing accurate costs of our Preconstruction Services.
- A9: **The term of the contract for pre-construction phase services will be 365 calendar days, reference Section 2, item 2.4. Please also reference General Conditions, Section 00700, 00700-92 Scope of Work, A, a, (a).**
- Q10: Based on information gathered from the presentations made, there was an earlier reference of the timeline for these projects. 'Achieve completion of Phase I projects in 2013 and early 2014. Can you please confirm the projected Construction timeline?
- A10: **The projected construction completion is by the end of December 2013.**
- Q11: 2.13. Page 2-11. A request for insurance coverage during Preconstruction Phase is being requested. What insurance requirements are needed to be covered during the pricing phases?
- A11: **CM is to carry and maintain insurance coverages in compliance with coverages shown in Draft OCIP Wrap-Up Manual (Volume 3) on the pages titled "Insurance Provided By The Construction Manager And All Subcontractors" (excluding Aviation and Watercraft Liability).**

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Q12: 2.30. Page 2-20. Note 10 references tax exemption. Are we to understand that this project will have tax exempt status?

**A12: No**

Q13: 3.3. Page 3-2. Preconstruction scope references the inclusions, and later in GC Section 00700.92A, there is a reference to us needing to provide BIM. We assume per the Design RFP that this will be part of their scope, and we will ASSIST in their model in clash detection/etc. Please confirm.

**A13: The Design Team will utilize 3D modeling software programs. Please also reference Section 1, County Objectives (4th bullet point) for more information regarding CM's requirements for BIM.**

Q14: General Conditions, 00700-2: Please consider removing the requirement for power(s) of attorney to be attached to the certificate of insurance. We have not seen this requirement before and typically receive powers of attorney from surety companies only – not the insurance carriers.

**A14: See Section 00700-2. Power of Attorney pertains to Surety companies and would not apply to Certificates of Insurance.**

Q15: RFP, Section 7: Are all contractors on the project to be included as insured's on the Pollution Liability policy purchased by the Owner?

**A15: See Section 7, 7.3, Additional Information, D. All eligible Contractors enrolled in the OCIP Wrap-Up will be covered by the Pollution Liability policy.**

Q16: The specs say this Project will be insured via an Owner Controlled Insurance Program. I assume that means the County has a rolling wrap-up program as a \$13 million project would be too small for a standalone OCIP.

**A16: All projects in Phase 1 of the Atlanta-Fulton Library System Capital Improvement Program, Phase 1 will be covered by a Rolling Wrap Up (GL only).**

Q17: The Owner is also furnishing Builder's Risk coverage and Pollution coverage. Contractor is responsible for the first \$5,000 of each loss. Does the Owner's policy cover false work, forming, framing, etc?

**A17: Yes, policy provides coverage for false work, forming and framing work as long as work is performed on OCIP site.**

Q18: A.) From the OCIP manual, please describe/define the \$5,000 sublimit of insurance titled "Contractor Responsibility for Property Damage". B.) Does the sublimit apply to all enrolled parties or only to the responsible contractor? C.) OR please provide specimen GL and Excess policies for review.

**A18: A.) If the contractor causes a loss, they will be responsible for payment of \$5,000 deductible. B.) Applies to all enrolled parties. C.) Policies not yet available for review.**

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Q19: Can the insurance limit requirements for subcontractors be satisfied with a combination of primary limits and Umbrella/Excess limits?

**A19: Yes, a combination of GL and Umbrella limits are permitted.**

Q20: Can you please confirm requirement for the following will be needed for all subcontractors bidding on the project: Auto Liability must include Broadened Pollution Endorsements CA9948 and MCS 90?

**A20: If the lowered tiered subcontractors cannot provide, the GC (CM) will be held responsible should any claims result.**

Q21: Can you please confirm requirement for the following will be needed for all subcontractors bidding on the project: WC/Employers Liability to include U.S. Longshoremen and Harbor Workers Act. Why?

**A21: WC/Employers Liability to include U.S. Longshoremen and Harbor Workers Act will not be necessary to carry.**

Q22: Can you please confirm requirement for the following will be needed for all subcontractors bidding on the project: Completed Ops coverage required for up to 5 years after project completion?

**A22: Yes, Completed Operations coverage required by everyone for up to 5 years after project completion. See Volume 3, Draft OCIP Wrap Up Manual.**

Q23: "During our review of the RFP package, we noticed some discrepancies regarding the required timing for delivery of the Performance and Payment Bonds. The language varied from "10 days of receipt of the contract documents" to "within 10 days of the GMP Amendment (as outlined on page 2 of the Cost Proposal Form – Form B). Given that the Performance and Payment Bond amounts are required to match the GMP Amendment amount, we believe the Form B language to be the most applicable, but this language is in direct contrast with the language contained in the Bid Bond. Please confirm that the Performance and Payment bonds will be required per the terms contained in the Cost Proposal Form-Form B or advise otherwise."

**A23: Payment and Performance Bonds are due prior to the execution of the GMP Amendment as is stated in Section 2, 2.13 and Section 9. Please see also revised Cost Proposal Form-Form B (Attachment 2) included in this Addendum.**

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**COST PROPOSAL FORM  
FORM B –CONSTRUCTION SERVICES FEE %**

Submitted To: Fulton County Government

Submitted By: \_\_\_\_\_

For: **RFP #11RFP78846K-MH, CONSTRUCTION MANAGER AT RISK SERVICES FOR EXPANSION AND MAJOR RENOVATION FOR AUBURN AVENUE RESEARCH LIBRARY**

Submitted on \_\_\_\_\_, 2011

In response to the Request for Proposal, the undersigned, hereby proposes to furnish all construction (including additional work / change orders), labor, technical and professional services, materials, supplies, equipment, and General Conditions, insurance (pending mutual acceptance of GMP Amendment by Fulton County and Proposer/CM) for the satisfactory completion of the Construction Phase Services for a fee % of **XXX Percent (XX%)**, which amount is hereinafter called the Construction Management Fee %, which shall cover the CM's Overhead and Profit.

The undersigned agrees that this Cost Proposal constitutes a firm offer to the Fulton County Government ("County"), which cannot be withdrawn for sixty (60) calendar days from and after the due date or until a Contract for the Work is executed by the undersigned and the County, whichever is earlier. If necessary, the period of time specified may be extended by written agreement between the County and the Proposer or Proposers concerned.

The undersigned declares that the only person or persons interested in the Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The undersigned further declares that it has examined and is fully familiar with all of the provisions of the Technical Documents and any addenda; that it has carefully checked all of the words and figures shown in its Cost Proposal; that it has carefully reviewed the accuracy of all statements in this Proposal and attachments; and that it has by careful examination of the Proposal Documents and any addenda, satisfied itself as to the nature and locate of all work, the general and local conditions to be encountered in the performance of any work, the requirements of the undersigned hereby agrees that the County, its departments and agencies and their representatives shall not be responsible for any errors or omissions on the part of the undersigned in preparing this Proposal.

If awarded a Contract, the undersigned agrees that, in the case of a failure on his part to execute the Contract Agreement within ten (10) days after receipt of Contract Agreement, the Bid Bond accompanying the proposal and the monies payable thereon shall be paid into the funds of the Owner as liquidated damages for such failure. Payment and Performance Bonds must be submitted prior to execution of the GMP Amendment.

Enclosed is a Bid Bond in the approved form, in the sum of (\$\_\_\_\_\_)

\_\_\_\_\_ Dollars according to the conditions of "Instructions to Proposers" and Volume 1, Section 8 and provisions thereof.

The Proposer proposes and agrees, if this Proposal is accepted, to contract with the Board of Commissioners of Fulton County, Atlanta, Georgia, in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary, and to complete the construction of the work in full and complete accordance with the RFP, and reasonably intended requirements of the Specifications and Contract Documents to the full and entire satisfaction of the Board of Commissioners of Fulton County, Atlanta, Georgia, with a definite understanding that no money will be allowed for extra work except as set forth in the attached General Conditions and Contract Documents for the following prices.



**EXHIBIT B**

**Required Proposal Submittal Check List for Request for Proposal (RFP)**

The following submittals shall be completed and submitted with each proposal (see table below “Required Proposal Submittal Check List”). Please check to make sure that the required submittals are in the envelope before it is sealed. Failure to submit all required submittals may deem your proposal non-responsive.

Proposers shall submit the following:

- **Technical Proposal, one (1) original and five (5) copies on CD media in PDF format.**
- **Contract Compliance Exhibits, one (1) original with the Technical Proposal marked “Original” and one (1) copy in a separate sealed envelope.**
- **Financial Information, one (1) original with the Technical Proposal marked “Original” and one (1) copy in a separate sealed envelope.**
- **Cost Proposal, one (1) original and one (1) copy in a separate sealed envelope.**

All Proposals must be complete with all requested information. **Tab Each Section**

Item #	Required Proposal Submittal Check List	Check (✓)
<b>1</b>	<b>Technical Proposal.</b> See Section 3, Items 3.1 through 3.4	
<b>2</b>	<b>5 CD's</b>	
<b>3</b>	<b>Financials (Place in a Separate Sealed Envelope)</b>	
<b>4</b>	<b>Cost Proposal – Introduction &amp; Forms A and B.</b> See Section 3, 3.5. Cost Proposal Forms located in Volume 2.	
<b>5</b>	<b>Proposal Forms</b> Form A - Non-Collusion Affidavit of Prime Bidder/Offeror Form B - Certificate Regarding Debarment Form C2- Georgia General Contractors License Form D - Certificate of Acceptance of Request for Proposal Requirements Form E - Disclosure Form & Questionnaire Form F - Georgia Security and Immigration Contractor Affidavit and Agreement Form G - Georgia Security and Immigration Subcontractor Affidavit Form H - Local Preference Affidavit of Bidder/Offer  See Section 5	
<b>6</b>	<b>Contract Compliance Requirements</b> Exhibit A - Promise of Non-Discrimination (for Prime and each Sub) Exhibit B - Employment Record (for Prime and each Sub) Exhibit C - Schedule of Intended Subcontractor Utilization. Exhibit D - Letter of Intent to Perform as Subcontractor. Exhibit E - Declaration Regarding Subcontractor Practices Exhibit F - Joint Venture Disclosure Affidavit Equal Business Opportunity Plan (EBO Plan) Form 2 (First Source Jobs Program)  See Section 6	

<b>7</b>	<b>Insurance Cost Calculation Form 1</b> (Submitted in Technical Proposal)  See Section 3, 3.4, 13 and Section 7	
<b>8</b>	<b>Bid Bond</b>  See Section 8 <b>(Put Bid Bond in a Separate Sealed Envelope)</b>	
<b>9</b>	<b>Escrow Documents</b> (submitted within 10 days after Proposal due date)  See General Conditions, 00700-108 for submittal requirements	

**END OF SECTION**

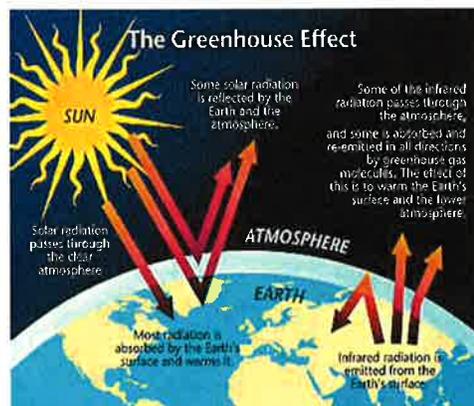
# LEED Implementation Plan for Atlanta-Fulton Public Library System



## SUSTAINABILITY

*Meeting the  
needs and desires  
of the present  
without  
compromising the  
ability of children  
to meet their  
needs  
in the future*

*1987 UN Conference's  
Brundtland Commission*



Provided by:



for

HEERY-Russell, a joint venture  
Central Library  
One Margaret Mitchell Square  
6<sup>th</sup> Floor  
Atlanta, Georgia 30303

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## II. PURPOSE

On July 16, 2008 the Fulton County Board of Commissioners voted to place a \$275 million bond referendum on the November 4, 2008 ballot to implement the Library's Facility Master Plan. The referendum was approved with 65% support. On September 1, 2010 the Atlanta-Fulton Public Library System received approval to engage the Heery/Russell JV, Program Management Team (PMT) to provide program management services for Phase I of the library's capital improvement program.



Fulton County Government is retaining the services of Architectural and Engineering (A/E) firms to provide sustainable design services for eight (8) new branch libraries and two (2) renovated/expanded libraries. These ten (10) libraries are part of the Atlanta-Fulton Public Library System Capital Improvement Program (Phase-I). Each of the projects will be designed and constructed to meet the requirements of the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED), New Construction version 3.0 (i.e., LEED NC v3.0).

The projects will be registered with the Green Building Certification Institute (GBCI) by each architectural firm in order to use the LEED-online templates and documentation system. The County intends that the site and building design meet high performance design and construction standards and practices that maximally achieve the County's three most important capital improvement goals:

### 1. Energy Performance

Accomplished by using an energy conscious approach to issues such as the building's orientation, the thermal efficiency of the building's envelope, equipment sizing, reduction of heat island effect by designing the site and landscaping using light reflective surfaces, the use of lighting controls, and the use of high performance windows that all work together to reduce building heat loads;

### 2. Water Efficiency Measures

Accomplished by incorporating the use of water-conserving fixtures such as low-flow water closets, water efficient cooling towers, and landscape irrigation efficiency;

### 3. Improved Indoor Environment Quality

Appropriate approaches include choosing non-toxic materials that minimize any adverse environmental impact. They will provide for a mix of natural daylighting and sensors that allow artificial lighting to be dialed on and turned up as needed. They will also provide for appropriate acoustical designs throughout the library to absorb sound as necessary. Finally, design approaches shall provide for excellent indoor air quality and natural ventilation to achieve proper thermal comfort for occupants.

The Heery/Russell Program Management Team (PMT) will have LEED Administration oversight for all ten (10) library projects. Each A/E team will assign a LEED AP who is responsible for performing LEED Administration on the library project that their team is awarded. Each A/E team will coordinate with the project's Program Management Team (PMT) and Construction Manager (CM) team to make sure that their project is documented beyond LEED Silver certification ensuring that LEED Silver is achieved.

By coordinating LEED Administration efforts among all ten (10) projects the PMT will take advantage of program standardization and economies of scale and share LEED documentation that attempts the same points. For example, the PMT might recommend that all teams use the County's existing waste hauling vendor on all ten (10) projects, and share the back-up documentation to save time and leverage the uniformity of LEED Credits as detailed under the new "LEED Volume Program".

### III. PROGRAM DESCRIPTION AND SCOPE

#### PROGRAM DESCRIPTION

Fulton County and its residents are committed to sustainability. In July 2005 Fulton County Government's eight thousand square foot East Atlanta Library became Georgia's first LEED™ Silver library, completed on time and within budget. The new capital library projects must be community focused sustainable spaces that are aesthetically pleasing, cost-efficient to maintain, and healthy places for employees to work in and the public to enjoy. The intent of this LEED Implementation Plan is to honor the County's and the public's commitment to environmental stewardship.

The PMT will oversee, check, review, and comment on design work and LEED documentation performed by the AE/CM project teams. The PMT, along with the assigned County staff, will maintain responsibility for program coordination, and implement controls to ensure projects stay on schedule and within budget, and implement approved sustainability goals. There will also be three specialty consultants engaged to develop library program standards for Information Technology/Building Security; Wayfinding/Graphic Designs; and Furniture, Fixtures and Equipment (FF&E) on select library furniture, fixtures and equipment. These specialty consultants will provide library standards that represent "sustainable products". Product manufacturers and installers will have demonstrated sustainable practices in their delivery, installation and handling of waste. This sustainable uniformity of design standards will offer opportunities for the creation of LEED prototypes that can be used to leverage uniformity of LEED Credits, and save time in the documentation of each library project. The PMT will coordinate these shared LEED documentation opportunities for all ten projects.

The PMT understands that communication and working relationships are integral to achieving LEED Certification for this program. Our work will use existing project budgets to achieve as many LEED points as possible and ensure that each of the ten (10) project listed below is as eco-friendly as possible.

#### PROGRAM SCOPE

The Phase I Library Capital Improvement Program includes eight (8) new libraries: Alpharetta, Palmetto/Chattahoochee Hill Country, East Roswell, Milton, Northwest Atlanta, Southeast Atlanta, Stewart-Lakewood, and Wolf Creek and renovations/expansions at the Auburn Avenue Research Library, and the South Fulton Library.

##### **Alpharetta**

A new 25,000 s. f. branch library.

##### **East Roswell**

A new 15,000 s. f. branch library.

**Northwest**

A new 25,000 s. f. branch library.

**Stewart-Lakewood**

A new 25,000 s. f. branch library.

**Wolf Creek**

A new 25,000 s.f. branch library.

**Auburn Avenue Research Library**

Major renovation and expansion of 50,000 s.f. branch library.

**Milton**

A new 25,000 s.f. branch library.

**Palmetto**

A new 10,000 s.f. branch library.

**Southeast**

A new 15,000 s.f. branch library.

**South Fulton Addition**

Renovation and expansion that adds 10,000 s.f. to the existing 15,000 s.f. structure for a total renovation and expansion of 25,000 s.f. for this branch library.

**IV. LEED REQUIREMENTS AND GOALS**

These ten (10) library projects will be designed and constructed to meet the requirements of the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design, New Construction version 3.0 (LEED-NC v3.0) LEED Silver rating level as required in the Architect's Request for Proposal (RFP).

Each library project shall be registered with the Green Building Certification Institute (GBCI) by the A/E team's LEED AP and that LEED AP will use the LEED Letter Templates and LEED-online documentation process. GBCI will provide validation of LEED credit achievements using the documentation prepared by the A/E's LEED AP. The project's LEED Administrator recommends that the architect purchase, at their expense, a separate design review by GBCI to receive early verification that the team is on track with their LEED "design phase" documentation, and then have the final review when the project has been completed. The A&E team shall purchase a joint design/construction review for the project that is submitted when the project has been completed.

**V. STEP-BY-STEP IMPLEMENTATION PLAN**

**A. LEED Accredited Professional**

Provide a copy of the A/E's LEED Accredited Professional's certificate.

## **B. LEED Checklist Tracking Document**

The PMT will schedule a "charette" with each library design team to develop a final LEED Checklist, tracking documentation based on general information about the project including: the project's site, any special circumstances, the team's decisions about individual credits, and required Action Items. This final LEED Checklist includes, but is not limited to the following items for each prerequisite and credit:

- Design or construction submittal designation
- Credit requirement and available options (if applicable)
- Status of credit pursuit (yes, probable, maybe, not probable, no)
- Designation of the project team member(s) primarily responsible for implementing the each credit
- Project-specific remarks/tasks providing background information; comments on decisions made by the team; any special credit documentation requirements due to use of Credit Interpretation Requests (CIRs), the LEED-NC Application Guide for Multiple Buildings and On-Campus Building Projects, or other reference documents; and all outstanding Action Items

In addition, LEED documents will include specific information regarding Innovation in Design credits attempted for each project including the intent of the credit, requirements for compliance, and documentation required to demonstrate proper compliance. LEED documents will be continuously updated by the A/E throughout the project's design and construction process. This provides a method of communication for all team members to stay informed of their LEED responsibilities for each library project. These documents are included in Appendix A.

## **C. Coordination of Project Meetings**

Each project's LEED-AP will provide ongoing document review and LEED support to all disciplines during design and construction. The Architect's LEED AP will coordinate with the PMT's LEED Administrator concerning their project's monthly progress toward LEED Silver. Any outstanding items or changes to the LEED approach will be discussed monthly to ensure that all team members are fully aware of the LEED status for each project and that the team is on track for LEED Silver certification.

## **D. Project's Document Review**

The Architect's LEED-AP will conduct full reviews of the project documents to ensure compliance with pursued LEED credits at the milestone submittals and will keep the PMT's LEED Administrator updated. Comments stemming from these reviews will be distributed to the team via a formal monthly report addressing all disciplines LEED responsibilities. The Architect's LEED-AP will ensure that documentation for all LEED credits will be completed and submitted to LEED Online.

## **E. Construction Credits Tracking and Documentation**

The CM will provide the Architect's LEED AP with construction LEED Templates or other tracking documents that will be used to track and document LEED credits to be earned during construction. The Architect's LEED AP will assist the CM in preparing LEED documentation and will review construction documentation prepared by the CM for their assigned credits such as construction activity pollution prevention, construction waste management, construction Indoor Air Quality Management, etc.

## **F. Project Specifications**

Each project's specifications will include appropriate information required to meet the targeted LEED credits and will be reviewed by the project's Architect's-LEEDAP and the PMT's LEED Administrator to seek opportunities to use uniformity of design standards for the creation of possible LEED prototypes that can be used by each of the ten library projects to save time and leverage uniformity of LEED Credits. The library program's three specialty consultants engaged to develop library program standards for Information Technology/Building Security; Wayfinding/Graphic Designs; and Furniture, Fixtures and Equipment (FF&E) standards for select library furniture, fixtures and equipment will provide library standards that represent "sustainable products" and whose manufacturers and installers have demonstrated sustainable practices in their delivery, installation and handling of waste. The PMT will coordinate these shared LEED documentation opportunities for all ten projects.

## **G. Project Phase Deliverables**

There are five project phases for each library. The phases are: Schematic Design Phase, Design Development Phase, Construction Document Phase, Construction Phase and Post Construction Phase.

### **I. SCHEMATIC DESIGN PHASE – (A/E Team's 30% LEED DELIVERABLES):**

- Site Orientation (Test Fit Plans) If possible orient building to accept photovoltaics , plan for building shading (with calculated overhangs or other shading devices), take advantage of prevailing summer breezes for placement of possible porches, balconies or patios, provide winter wind protection and determine if the use of earth berms or vegetation would be useful to mitigate temperature extremes. If applicable map shadow patterns from existing buildings. Show existing vegetation that would remain and plan for wide sidewalks to encourage "live-walk" community usage.
- Review and report on the project's Phase I & Phase II Environmental documents for a Brownfield Credit Opportunity.
- Plan for durable, salvaged recycled and recyclable materials where appropriate.
- Plan for renewable materials that are harvested from a sustainably managed forest.
- Plan to use local, indigenous and easy to maintain materials and methods to avoid high transportation cost and, high energy operating costs, and that create local jobs which support the local economy.
- SD Phase Plans/Drawings should address the project's LEED Checklist Credits that are appropriate for this phase.

- Water and Energy conservation are important sustainable goals of Fulton County
- Monthly LEED Progress Report
- SD Sustainable Cost Estimate provided with 30% submittal package

II. DESIGN DEVELOPMENT PHASE (A/E Team's 60% LEED DELIVERABLES):

- DD Layout /Drawings and color boards
- DD Table of Sustainable Products/Materials
- DD Phase Plans/Drawings should address continued development of the project's LEED Checklist Credits that are appropriate for this phase.
- Monthly LEED Progress Report
- DD Sustainable Cost Estimate provided with 60% submittal package

III. CONSTRUCTION DOCUMENT PHASE (A/E Team's 90% LEED DELIVERABLES)

- Final Drawings, Details, Products and Finishes
- Detailed Cost Estimate
- Product Alternates
- CD Phase Plans/Drawings should address continued development of the project's LEED Checklist Credits that are appropriate for this phase.
- Monthly LEED Progress Report
- Bid and Supporting Documentation
- CD Sustainable Cost Estimate provided with 90% submittal package

IV. CONSTRUCTION PHASE (A/E Team's 95% LEED DELIVERABLES)

- Final Products, Delivery, and Installation Documentation by A/E
- Specified Product Submittals and Warranties by CM
- Supporting LEED Documentation by A/E
- Monthly LEED Progress Report by A/E

V. POST CONSTRUCTION PHASE (A/E Team's 100% LEED DELIVERABLES)

- Final LEED Progress Report by A/E
- Final LEED On-Line Submission and Certification Process by A/E
- Green Housekeeping Policy & Green Pest Control Policy by A/E
- Final Sustainable Costs Report by A/E

## H. Project's Energy Model Requirements

An energy analysis will be performed by the Architect's engineering team to ensure that the project meets the energy simulation requirements for LEED Energy and Atmosphere Prerequisite and Credit 1 under LEED-NC v3.0 listed below:

Prerequisite 1: Fundamental Commissioning of Building Energy Systems

Prerequisite 2: Minimum Energy Performance

### Prerequisite 3: Fundamental Refrigerant Management

#### Credit 1: Optimize Energy Performance (EAc1)

Annual building energy usage for the proposed building design and code-compliance is to be forecast by the Architect's engineer based on DOE-2's three-dimensional computer software model to calculate the building's energy use.

The energy modeling process shall begin as early as possible in the design process to use the predicted energy savings to inform design decisions concerning building envelope, HVAC system design, and electrical (primary lighting) system design. Multiple iterations of the building energy model will be completed as the design progresses, with the final model serving as the basis for the EA Prerequisite 2 and Credit 1 LEED documentation. LEED-NC v3.0 evaluates savings in energy cost based on an ASHRAE 90.1-2007 code compliance. The following savings calculation will be used to determine the number of points achieved under EAc1:

Percent savings = (Baseline annual energy cost – Proposed annual energy cost)/ (Baseline annual energy cost).

#### **I. Commissioning the Project to Comply with LEED NC v 3.0**

The County may choose to hire an independent Commissioning Agent that is not part of the design or construction team to perform the project's building systems commissioning in compliance with LEED EA Prerequisite 1, Fundamental Commissioning of Building Energy Systems. The Owner's Project Requirements (OPR) and Basis of Design (BOD) documents will be created by the Architect's team and will be reviewed for clarity and completeness by the Commissioning Agent. The Commissioning Agent will review the design documents and submittals to verify compliance with the OPR and BOD documents.

Green Buildings may include special systems and equipment that are not familiar to the owner, maintenance staff, or some members of the design and construction team. Consulting an independent, qualified commissioning agent during the programming phase can save time and money, and perhaps most importantly, ensure that the building functions properly and is easy to maintain and operate as designed. ASHRAE defines commissioning as, "the process of ensuring that systems are designed, installed, functionally tested, and capable of being operated and maintained to conform to the design intent." The process begins with planning and includes design, construction, start-up, acceptance, and training, and can be applied throughout the life of the building.

LEED protocol includes two levels of commissioning. The basic commissioning activities that are a prerequisite to achieving any rating are:

- Engaging a commissioning authority
- Collecting and reviewing the design intent and basis of design documentation.
- Including commissioning requirements in the construction documents
- Developing and using a commissioning plan
- Verifying the installation, function performance, operational training, and maintenance documentation of each commissioned system
- Completing a commissioning report

To receive an additional credit for commissioning, the following additional activities must be performed:

- Conduct a focused review of the design prior to the construction documents phase
- Conduct a focused review of the construction documents when close to completion
- Conduct a selective review of contractor equipment submittal documents for equipment to be commissioned
- Develop a recommissioning management manual
- Have a contract in place for a near warranty end or post occupancy review

The above building commissioning activities are performed during each project's design and/or construction phase. These phases include: Programming, Design, Construction Acceptance and Post occupancy (10 months following occupancy).

#### **J. Final Preparation and Review of LEED Credit Documentation**

The Architect's LEED AP will help the project team as needed in the preparation of their LEED templates and supporting documentation. The PMT's LEED Administrator will review the entire LEED documentation process through design and construction via the LEED-online process. The Architect's LEED AP will ensure that final preparation of LEED documentation is complete for review by the PMT's LEED Administrator and by required Fulton County staff.

#### **Summary**

Detailed LEED programming is essential to understanding the goals and limits of each project, and to resolve issues by involving users and decision-makers throughout the process. The program defines the constraints, amenities, and environmental needs associated with the project. The team will explore a range of sustainable ideas and Innovation in Design Credits for each project through interactive work sessions. These ideas are developed, refined, and result in a comprehensive listing of needs, market demands, space requirements, and budgets. The project begins with a kickoff meeting/charette of stakeholders, proposing a sustainable scope of work and a method of exchanging pertinent information related to project goals and visions resulting in an increased understanding for both the project team and the Owner for the following important issues:

- ✓ Refine and define each project's LEED certification feasibility and then register each project under LEED NC v3. Set LEED Silver as a goal but document enough points for LEED Gold certification to insure Silver certification.
- ✓ Manage the process via LEED Online and assist the team in using LEED Online and preparing submittals.
- ✓ The team and the Owner choose the preferred sustainable alternatives for each project. Development guidelines are addressed, zoning requirements applied, and landscape development concepts considered.
- ✓ Capture credit synergies and strategies for projects to share opportunities for LEED credits.
- ✓ Review Community Overlay District requirements and Neighborhood sustainable land use and urban design opportunities, as well as Historic Districts and cultural activities.

- ✓ Transportation Corridors and Pathway Accessibility for each library. This information will be incorporated under the LEED Sustainable Site implementation strategies:
  - Public Transportation
  - Vehicular Transportation
  - Bike Transportation
  - Pedestrian safety

Successful LEED implementation begins when the team has an understanding of the issues associated with their library project's sustainability plan; they have studied existing and ongoing sustainability efforts; they understand program requirements, and have identified opportunities and constraints. The project's collective dreams and visions are now couched in reality. LEED Documentation is a living process of gathering information, then organizing it into a LEED Checklist and Scorecard framework that assists the project team in making timely and appropriate decisions over the project's life, including:

- ✓ Identifying "project stopper" issues that could delay the implementation of possible LEED points. All LEED prerequisites, achievable credits and achievable regional environmental goals will be targeted and have effective communication with the project team and stakeholders.
- ✓ Gathering, organizing, analyzing, and disseminating relevant LEED information from a diverse range of sustainability sources in a timely manner, including Credit Interpretation Requests (CIR) from USGBC/GBCI.
- ✓ The Architect's purchase of a Design Review from GBCI so the team can know they are on the right track, allowing it time to recover if tactical changes are needed.
- ✓ Balancing the project requirements with available funding to ensure feasibility of LEED points prior to initiating design.
- ✓ Incorporating client sustainability objectives, existing conditions, ideals for achieving the goals, and project requirements in a concise and comprehensive document that can be easily reviewed and approved by the client. This is accomplished via the LEED Task Matrix that identifies and outlines what is required for each LEED point. It lists opportunities for Innovation in Design Credits such as creating a Green Housekeeping Plan, a Green Procurement Plan, a Green Jobs Initiative, Life Cycle Analysis, and purchasing Renewable Energy to offset the projects carbon emissions. The LEED Task Matrix identifies the team member responsible for each point as well as the submittal phase under which the points should be completed.
- ✓ The last 15 years within the sustainable construction industry have witnessed training of the architectural/design community, manufactures, and end users to think green. By contrast the trades in the field responsible for erecting high performance buildings have not received this same level of green training that allows the design intent to be easily transferred and realized. To help solve this disparity the team will participate in the County's 1<sup>st</sup> Source Jobs Program. The County's 1<sup>st</sup> Source Jobs Program requires that 50% of all entry level positions filled by the A/E and CM teams be filled with County residents from Fulton County's Workforce Development Program. By participating in this County program we show the Owner and the community that they are the most important members of the library team!

## TRACKING PROJECT MILESTONES

### Track Project Status

### Tracking Project Dates

Planning /Programming  
Land Acquisition  
Design RFP  
BOC Approval  
Design NTP  
Design  
Construction Bidding  
BOC Approval  
Construction NTP  
Construction  
Closeout  
Warranty Period  
Training  
Green Jobs Created

*(Note: Backup documents submitted in Draft 1)*

# Appendix A



LEED RATING SYSTEM NC  
PROJECT CHECKLIST

Y	P	M	PROJECT POINTS	POSSIBLE POINTS	CREDIT	DESCRIPTION	RESPONSIBLE PARTY	DOCUMENTATION REQ'D	DUE DATE	SUBMITTAL PHASE
			Sustainable Sites							
					prereq 1	Construction Activity Pollution Plan		1. List of drawings- erosion control particulate/ dust control and sedimentation control 2. Narrative		Construction
1					credit 1	Site Selection		1. Statement - no prohibited criteria 2. Site Plan Drawing		Design
1					credit 2	Development Density & Community Connectivity		Option 1: Development Density A. site vicinity plan B. project site and bldg area (sf) C. site/building areas of surrounding bldgs w/in density radius D. Narrative Option 2: Community Connectivity A. Site Vicinity drawing w/ 1/2 mile radius and locations of community services. B. Project site/bldg area (sf) C. List of Community Services w/in 1/2 mile radius D. Narrative		Design
					credit 3	Brownfield Redevelopment		1 - Provide confirmation site is brownfield 2 - Narrative describing contamination and remediation		Design
					credit 4.1	Alternative Transportation: Public Transportation		1 - Site vicinity drawing showing location of rail or bus stops 2 - Listing of rail or bus stops and distance to site		Design
1					credit 4.2	Alternative Transportation: Bicycle racks and Changing rooms		1. FTE (Full Time Equivalent) Calculation 2. Bicycle storage spaces calculation. 3. Shower and/ changing facility calculation 4. Drawings indicating bike racks 5. Drawings indicating shower locations		Design
					credit 4.3	Alternative Transportation: Low Emitting & Fuel Efficient cars		1. Statement indicating which option applies (There are three options) 2. FTE Calculation 3. Statement indicating total parking capacity for the site.		Design
					credit 4.4	Alternative Transportation: Parking capacity		(There are three options) 2. For either option: List of drawings and specs. Show		Design
					credit 5.1	Site Development: Protect or Restore Habitat		1 - Provide project site area, building footprint area, narrative of approach 2 - Greenfield sites: site drawing with boundaries of disturbance 2 - Developed site: sf of site that is restored and landscape plan		Construction
					credit 5.2	Site Development: Maximize open space		LEED Site plan- vegetated open space, bldg footprint		Design
1					credit 6.1	Stormwater Design: Quantity Control		Statement which option complies		Design



LEED RATING SYSTEM NC  
PROJECT CHECKLIST

Y	?	N	Materials & Resources	Commissioning Agent	Statement listing mandatory ASHRAE 90.1	Design
			prereq 2 Minimum Energy Performance Fundamentals Refrigerant Management		Statement indicating which option applies	Design
6			credit 1 Optimized Energy Performance		Statement indicating which option applies along with appropriate list and simulation reports	Design
			credit 2 On-site Renewable Energy		Describe the source of the annual energy cost info and provide the energy values and costs	Design
			credit 3 Enhanced Commissioning		1. Confirm name/ firm and experience of CxA 2. Confirm 6 req'd tasks have been completed 3. Narrative	Construction
			credit 4 Enhanced Refrigerant Management		1. Calculations 2. Narrative on analysis 3. Cut Sheets HVAC refrigerant data	Design
			credit 5 Measurement and Verification		1. Statement indicating which option applies 2. Measurement Verification Plan	Construction
			credit 6 Green Power		Option 1: A. Green Power provider & contract term B. Total annual electricity consumption and total annual green power purchase Option 2: A. Renewable energy certificate vendor B. Total annual electricity consumption C. Value of green tags purchased	Construction
			prereq 1 Storage & Collection of Recyclables		1. Statement confirming recycling area	Design
			credit 1.1 Building Reuse-Maintain 75% of Existing walls, Floors, & Roofs		1. Confirm project's renovation or addition status. 2. Provide tabulation of existing and reused areas (sf) of each structural/envelope element 3. optional narrative	Construction
			credit 1.2 Building Reuse- Maintain 95% of Existing walls, Floors, & Roofs		1. Confirm project's renovation or addition status. 2. Provide tabulation of existing and reused areas (sf) of each non-structural interior element 3. optional narrative	Construction
1			credit 1.3 Building Reuse- Maintain 50% of the Interior Non-structural Elements		1. Complete tables 2. Narrative including Construction Waste Management Plan	Construction
			credit 2.1 Construction Waste Management- Divert 50% from Disposal		1. Total project materials cost 2. Tabulation of salvaged/reused material on project 3. Narrative w/ specifics about materials on project	Construction
			credit 2.2 Construction Waste Management- Divert 75% from Disposal		1. Statement indicating total material value. 2. Spreadsheet Calculation	Construction
			credit 3.1 Materials Reuse - 5%		Same as above	Construction
			credit 3.2 Materials Reuse - 10%		1. Statement indicating total material value. 2. Spreadsheet calculation	Construction
1			credit 4.1 Recycled Content 10%		Same as above	Construction
			credit 4.2 Recycled Content 20%		Same as above	Construction
1			credit 5.1 Regional Materials: 10%		Same as above	Construction
1			credit 5.2 Regional Materials: 20%		Same as above	Construction
			credit 6 Rapidly Renewable Materials		Same as above	Construction
			credit 7 Certified Wood		Same as above	Construction

LEED RATING SYSTEM NC  
PROJECT CHECKLIST

Y	?	N	Indoor Environmental Quality										
			prereq 1	IAQ Performance								1. Statement indicating which option applies 2. Narrative describing project ventilation design	Design
			prereq 2	Environmental Tobacco Smoke Control								1. Statement indicating which option applies 2. List of drawings and specs.	Design
			credit 1	Outdoor Air Delivery Monitoring								1. Statement indicating which option applies 2. List of drawings and specs. 3. Narrative describing the project's ventilation designs.	Design
			credit 2	Increase Ventilation								1. Confirm that designs meet LEED standards (see ref.guide) 2. Design narrative	Design
1			credit 3.1	Construction IAQ Management Plan- During Construction								1. Project IAQ plan 2. Confirm if perm. installed AHUs were used during const. 3. Photo's of IAQ practices 4. List all filtration media optional Narrative	Construction
1			credit 3.2	Construction IAQ Management Plan- Before Occupancy								1. Confirmation of approach taken by project 2. Project IAQ plan 3. Narrative of specific flush-out procedures or IAQ testing process and results	Construction
1			credit 4.1	Low Emitting: Adhesive and Sealants								1. Spreadsheet - manufacturer, product name, VOC content, LEED VOC limit and data (indoor adhesive) 2. Spreadsheet- same as above (aerosol adhesive)	Construction
1			credit 4.2	Low Emitting Materials: Paints and Coatings								1. Spreadsheet - manufacturer, product name, VOC content, LEED VOC limit and data (indoor paint) 2. Spreadsheet- same as above (indoor anti-corrosive/ anti-rust paint)	Construction
1			credit 4.3	Low Emitting Materials: Carpet system								1. Spreadsheet - manufacturer, product name, VOC content, LEED VOC limit and data (indoor carpet) 2. Spreadsheet- same as above (indoor carpet cushion)	Construction
			credit 4.4	Low Emitting Materials: Composite Wood & Agrifiber products								1. Spreadsheet - manufacturer, product name, VOC content, LEED VOC limit and data (indoor composite wood and agrifiber used)	Construction
			credit 5	Indoor Chemical & Pollutant Source Control								1. Spreadsheet entryway- manufacturer and product name 2. List of Drawings and specs 3. Spreadsheet entryway- cleaning materials.	Design
1			credit 6.1	Controllability of systems: Lighting								1. Calculation total workstation 2. Brief description of controls 3. Narrative lighting control strategy	Design
1			credit 6.2	Controllability of systems: Thermal Control								1. Calculation total workstation 2. Brief description of controls 3. Narrative thermal comfort control strategy	Design
1			credit 7.1	Thermal Comfort: Design								1. Provide data regarding seasonal temp & humidity design criteria 2. Narrative of methods for thermal comfort conditions. Including specifics of compliance with ref. standards	Design
			credit 7.2	Thermal Comfort: Verification								1. Narrative of survey planned for validating thermal comfort conditions. Include specifics of provisions for creating a plan for corrective action.	Design



## Attachments

# A Green Product Checklist

DATE: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

COMPLETED BY: \_\_\_\_\_

## DIVISION 01 - GENERAL

- Certification: Require USGBC LEED-[NC] [EB] [CI] [CS] [H] [ND] certification at [certified] [silver] [gold] [platinum] level.
- Green Globes: Provide [final structure in compliance] [work consistent] with Green Globes – US level [Two Globes] [Three Globes] requirements.
- EPA Rating: Comply with Energy Star [new home] [building label] qualifications.
- EPA Rating: Comply with WaterSense recommendations.
- EPA National Performance Track: Comply with EPA Performance Track criteria and Environmental Management System.
- Healthcare: Comply with Green Guide for Healthcare (GGHC) recommendations.
- Healthcare: Comply with Hospitals for a Healthy Environment H2E Award criteria.
- During Construction: Implement construction pollution and IAQ controls.
- During Construction: Implement a construction waste management system.
- Final Cleaning: Implement green housekeeping practices for final cleaning procedures.
- System Performance After Construction: Implement commissioning.
- Substitutions: Require impact on green design goals for proposed substitutions.

## DIVISION 02 - EXISTING CONDITIONS

- Disassemble components and existing structures for reuse.
- Verify hazardous materials are deposited in licensed landfills.

## DIVISION 03 - CONCRETE

- Permanent insulating concrete formwork.
- Reusable concrete formwork.
- Rebar supports fabricated from recycled steel.
- Rebar supports fabricated from recycled plastic.
- Cellular concrete.
- Recycled aggregate in concrete mix.
- Coal fly ash or ground granulated furnace slag in concrete mix.
- Low-VOC concrete hardening compounds.

## DIVISION 04 - MASONRY

- Glass block fabricated from recycled plastics.
- Glass bricks fabricated from recycled glass.
- Simulated stone fabricated from recycled materials.
- Concrete masonry units with integral insulation.
- Concrete masonry units fabricated from recycled materials.
- Autoclaved aerated concrete masonry units.
- Brick fabricated from cleaned, petroleum-contaminated soils.
- Salvaged brick reuse.
- Rubber blocks fabricated from recycled rubber.
- Masonry cavity drainage material fabricated from recycled materials.
- Use locally sourced stone.

## DIVISION 05 - METALS

- Structural steel with recycled content.
- Cold-formed metal framing with recycled content.
- Metal fabrications fabricated with recycled content.

## DIVISION 06 - WOOD, PLASTICS AND COMPOSITES

- Certified wood, Forest Stewardship Council (FSC).
- Arsenic- and chromium-free pressure-treated wood.
- Engineered framing fabricated from small wood pieces.
- Sheathing fabricated from recycled waste paper.
- Sheathing fabricated from recycled waste paper, fire-retardant.
- Structural insulated panels.
- Floor decking fabricated from recycled wastepaper.
- Underlayment fabricated from recycled wastepaper.
- Underlayment fabricated from recycled materials.
- Salvaged and reclaimed wood (for timbers and flooring).
- Medium density fiberboard fabricated with recycled and recovered wood fibers.
- Particle board fabricated with recycled and recovered wood fibers.
- Medium density fiberboard fabricated with no added urea formaldehyde.
- Particleboard fabricated with no added urea formaldehyde.
- Rapidly renewable agrifiber board fabricated with no added urea formaldehyde.

#### DIVISION 11 - EQUIPMENT

- Dock bumpers fabricated from recycled vehicle tires.
- Appliances with Energy Star labels.

#### DIVISION 12 - FURNISHINGS

- Manufactured casework held to same environmental standards as Division 6.
- Systems furniture held to same environmental standards as Division 6.
- Anti-fatigue mats fabricated from recycled materials.
- Entry mats fabricated from recycled vehicle tires.
- Entry mats fabricated from cocoa fibers.
- Permanent entryway systems with drain pans.
- Window treatment systems with photosensors, automated operation.
- Window treatment systems with PVC-free materials.

#### DIVISION 13 - SPECIAL CONSTRUCTION

- Solar water heaters.
- Photovoltaic systems, rooftop mounted modular units.
- Photovoltaic systems, integrated into building envelope.

#### DIVISION 14 - CONVEYING SYSTEMS

- Energy-efficient elevators.
- Interior cab finishes to same environmental finish standards.

#### DIVISION 22 - PLUMBING

- Waterless urinals.
- Composting toilets.
- Ultra low flow toilets.
- Gray water recycling system.
- Heat-sensing flow consumption fittings.
- Underfloor air distribution system / displacement ventilation system.
- Commissioning.

#### DIVISION 23 - HVAC

- Energy modeling.
- Commissioning.

#### DIVISION 26 - ELECTRICAL

- Energy efficient lighting fixtures and bulbs.
- Occupancy sensors.
- Perimeter daylighting controls.
- Commissioning.

#### DIVISION 31 - EARTHWORK

- Recycled subbase materials.
- Containment structures fabricated from recycled materials.
- Retaining walls fabricated from recycled plastic.

- Geomembrane liner fabricated with recycled geotextiles.
- Geotextiles fabricated from recycled materials.
- Soil stabilization mat fabricated from recycled plastic.

#### DIVISION 32 - EXTERIOR IMPROVEMENTS

- Rubber paving manufactured from recycled tires.
- Porous paving manufactured from recycled plastic.
- Rubber paving fabricated from post-consumer recycled rubber.
- Brick paving fabricated from cleaned oil-contaminated soils.
- Glass pavers fabricated from recycled glass.
- Plastic pavers fabricated from recycled glass.
- Rubber unit pavers fabricated from post-consumer vehicle tires.
- Stepping stones fabricated from recycled rubber.
- Hi albedo (solar reflectance) materials for exterior surfacing.
- Irrigation hosing fabricated from recycled vehicle tires.
- High efficiency irrigation system design using [gray water] [harvested rainwater].
- PVC-free pipe material options: HDPE and PEX.
- Play equipment fabricated from recycled components.
- Granulated rubber play surfacing fabricated from recycled tires.
- Fencing fabricated from PVC-free HDPE recycled plastic or composite lumber.
- Bicycle racks.
- Site furnishings fabricated with recycled content.
- Erosion control mats fabricated from recycled fibers.
- Organic fertilizers.
- Landscape edging fabricated from recycled plastic.
- Landscape timbers fabricated from recycled plastic.
- Mulch fabricated from recycled hardwood blend.
- Mulch fabricated from recycled newspapers.
- Root barriers fabricated from recycled polypropylene.
- Soil amendments composed of recycled or composted materials.
- Native or adapted climate appropriate planting materials.
- Xeriscaping, landscaping to minimize the use of water and chemicals.

- Rapidly renewable bamboo wall paneling.
- Wood trim fabricated from veneered finger-jointed wood.
- Low emitting wood adhesives, interior use.
- Countertop materials fabricated from recycled materials.

#### DIVISION 07 - THERMAL AND MOISTURE PROTECTION

- Fiberglass insulation fabricated from recycled glass.
- Fiberglass insulation manufactured with no added urea formaldehyde.
- Mineral wool insulation manufactured with recycled material.
- Cellulose insulation with recycled material and borate-based primer.
- Cotton batt insulation manufactured with recycled material.
- Biobased spray insulation manufactured with plant based soy content.
- Spray foam air barrier insulation and sealant.
- Foamed-in-place insulation.
- Extruded polystyrene insulation, non-ozone depleting.
- Polyisocyanurate insulation, non-ozone depleting.
- Exterior water-repellent sealers with low VOCs.
- Air and vapor barrier membrane at exterior building envelope.
- PVC-free waterproofing and roofing membranes.
- Fiber-cement roofing shingles.
- Metal wall and roof panels manufactured with recycled content.
- Green roof systems.
- Solar reflective materials for roof surfaces, Energy Star qualified.
- Roof walkway pads fabricated from recycled materials.
- Expanding foam sealants.
- Joint fillers fabricated from recycled materials.
- Low emitting joint sealers, interior use.

#### DIVISION 08 - OPENINGS

- Steel doors and frames with recycled content.
- Wood doors with certified wood, Forest Stewardship Council.
- Wood doors fabricated from hardboard.
- Wood doors fabricated with agrifiber board cores.
- Wood doors fabricated with no added urea formaldehyde.
- Plastic doors fabricated from recycled plastic.
- Aluminum framing systems fabricated with recycled content aluminum.
- Skylights for daylighting.

- High-performance wood windows, Energy Star qualified.
- High-performance vinyl replacement windows, Energy Star qualified.
- High-performance fiberglass windows, Energy Star qualified.
- High-performance insulating glass, with low-e coating.

#### DIVISION 09 - FINISHES

- Low emitting adhesives, interior use.
- Gypsum board fabricated with synthetic gypsum.
- Gypsum board fabricated at local plant.
- Ceramic tile with recycled content.
- Terrazzo flooring with recycled content.
- Acoustical ceiling panels with recycled content.
- Wood flooring with certified wood, Forest Stewardship Council (FSC).
- Wood flooring finishes, low emitting.
- Engineered wood flooring with recycled content and no added urea formaldehyde.
- Salvaged and reclaimed wood flooring.
- Rapidly renewable flooring, [cork] [bamboo].
- Linoleum flooring, [tile] [sheet].
- Recycled rubber flooring.
- PVC-free flooring, wall base and accessories.
- Carpet system with CRI Green Label [Plus] certification.
- Carpet fabricated with recycled materials.
- Carpet fabricated with natural materials (wool).
- Carpet tile fabricated with recycled materials.
- Carpet cushion fabricated from recycled materials.
- Cork wall covering.
- Recycled fiberboard wall panels.
- Sisal wall coverings.
- Acoustical wall panels with recycled content.
- Sound control board fabricated from recycled newsprint.
- Interior paints with zero-VOC content.
- Interior water-based multi-color paints with zero-VOC content.
- Latex vapor barrier coating with low VOCs.
- Exterior paints with zero-VOC content.

#### DIVISION 10 - SPECIALTIES

- Bulletin boards fabricated from cork.
- Toilet compartments fabricated from recycled HDPE plastic.
- Wall protection systems with PVC-free materials.
- Lockers fabricated from recycled HDPE plastic.
- Electric hand dryers in toilet rooms.
- Shower curtains fabricated of cotton.

## LEED REQUIREMENTS

### PART 1 - GENERAL

#### SUMMARY

- A. Included are general requirements and procedures for compliance with USGBC LEED prerequisites and certain LEED credits needed from the General Contractor (GC) for the Project to obtain LEED -**Certified Silver** certification based on **LEED-NC, Version 2.2**.
- B. Additional LEED prerequisites and LEED credits needed to obtain the certification depend on Architect's design and other aspects of Project that are not part of the Work required of the GC.

#### 1.2 DEFINITIONS

- A. **Chain-of-Custody Certificates**: Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship." Certificates shall include evidence that manufacturer is certified for chain of custody by an FSC-accredited certification body.
- B. **LEED**: Leadership in Energy & Environmental Design.
- C. **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.
- D. **Regional Materials**: Materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.
- E. **Recycled Content**: The recycled content value of a material assembly shall be determined by weight. The recycled fraction of the assembly is then multiplied by the cost of assembly to determine the recycled content value.
  - "Post-consumer" material is defined as waste material generated by households or by commercial, industrial, and institutional facilities in their role as end users of the product, which can no longer be used for its intended purpose.
  - "Pre-consumer" material is defined as material diverted from the waste stream during the manufacturing process. Excluded is reutilization of materials such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

## LEED REQUIREMENTS

### 1.3 SUBMITTALS FOR LEED

GC's LEED submittals shall verify compliance with indicated LEED requirements from the project's Scorecard including Construction Activity Pollution Prevention, Storage & Collection of Recyclables as Prerequisites and Environmental Tobacco Smoke Control.

- A. **Project Materials Cost Data:** Provide statement indicating total cost for materials used for Project. Costs exclude labor, overhead, and profit. Include breakout of costs for the following categories of items:

- Furniture.
- Plumbing.
- Mechanical.
- Electrical.
- Specialty items such as elevators and equipment.
- Wood-based construction materials.

- B. **LEED Action Plans for GC:** Provide submittals for the following requirements:

**Credit MR 2.1[and Credit MR 2.2?]:** Waste management plan complying with Division 1 Section "Construction Waste Management."

**Credit MR 3:** List of proposed salvaged and refurbished materials. Identify each material that will be salvaged or refurbished, including its source, cost, and replacement cost if the item was to be purchased new.

**Credit MR 3.1[and Credit MR 3.2 -N/A]:** List of proposed salvaged and refurbished materials. Identify each material that will be salvaged or refurbished, including its source, cost, and replacement cost if the item was to be purchased new.

**Credit MR 4.1[and Credit MR 4.2]:** List of proposed materials with recycled content. Indicate cost, post-consumer recycled content, and pre-consumer recycled content for each product having recycled content.

**Credit MR 5.1[and Credit MR 5.2]:** List of proposed regional materials. Identify each regional material, including its source, cost, and the fraction by weight that is considered regional.

**Credit MR 5.1[and Credit MR 5.2]:** List of proposed regionally manufactured materials [and regionally extracted and manufactured materials].

- a. Identify each regionally manufactured material, including its source and cost.
- b. Identify each regionally extracted and manufactured material, including its source and cost.

**Credit [MR 6-N/A] [MR 7]:** List of proposed certified wood products. Indicate each product containing certified wood, including its source and cost of certified wood products.

**Credit [EQ 3] [EQ 3.1]:** Construction IEQ management plan with Good Housekeeping

- C. **LEED Documentation Submittals:**

**Credit MR 2.1[and Credit MR 2.2]:** Comply with Division 1 Section "Construction Waste Management."

**Credit MR 4.1[and Credit MR 4.2]:** Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.

**Credit MR 5.1[and Credit MR 5.2]:** Product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.

### LEED REQUIREMENTS

**Credit MR 5.1[and Credit MR 5.2]:** Product data indicating location of material manufacturer for regionally manufactured materials. Include statement indicating cost for each regionally manufactured material [and for each regionally extracted and manufactured material].

- a. Include statement indicating distance from manufacturer to Project for each regionally manufactured material.
- b. Include statement indicating location of and distance from Project to point of extraction, harvest, or recovery for each raw material used in regionally extracted and manufactured materials.

**Credit [MR 6-NA] [MR 7]:** Product data and chain-of-custody certificates for products containing certified wood. Include statement indicating cost for each certified wood product.

**Credit [EQ 3] [EQ 3.1]:**

- c. Construction indoor-air-quality management plan.
- d. Product data for temporary filtration media if required.
- e. Product data for filtration media used during occupancy if required.
- f. Construction Documentation: Photographs at three different times during the construction period, along with a brief description of the SMACNA approach employed, documenting implementation of the indoor-air-quality management measures, such as protection of ducts, on-site stored/installed absorptive materials.

**Credit EQ 3.2- N/A:**

- g. Statement describing the building air flush-out procedures including the dates when flush-out was begun and completed and statement that filtration media was replaced after flush-out.
- h. Product data for filtration media used during flush-out and during occupancy.
- i. Report from testing and inspecting agency indicating results of indoor-air-quality testing and documentation showing compliance with indoor-air-quality testing procedures and requirements.

**Credit EQ 4.1:** Product data for adhesives and sealants used inside the weatherproofing system indicating VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D.

**Credit EQ 4.2:** Product data for paints and coatings used inside the weatherproofing system indicating [chemical composition and] VOC content of each product used. Indicate VOC content in g/L calculated according to 40 CFR 59, Subpart D.

**Credit EQ 4.4:** Product data for products containing composite wood or agrifiber products or wood glues indicating that they do not contain urea-formaldehyde resin.

#### 1.4 QUALITY ASSURANCE

- A. **LEED Coordinator:** Engage an experienced LEED-Accredited Professional to coordinate LEED requirements. LEED coordinator may also serve as waste management coordinator.

### PART 2 - PRODUCTS

#### 2.1 SALVAGED AND REFURBISHED MATERIALS

- A. **Credit MR 3 – N/A:** Provide salvaged or refurbished materials for a minimum of 1 percent of building materials (by cost). The following materials may be salvaged or refurbished materials:  
<GC's list of materials – N/A>.

### LEED REQUIREMENTS

## 2.2 RECYCLED CONTENT OF MATERIALS

- A. **Credit MR 4.1[and Credit MR 4.2]:** Provide building materials with recycled content such that post-consumer recycled content plus one-half of pre-consumer recycled content constitutes a minimum of [10] [20] percent of cost of materials used for Project.

Cost of post-consumer recycled content of an item shall be determined by dividing weight of post-consumer recycled content in the item by total weight of the item and multiplying by cost of the item.

Cost of pre-consumer recycled content of an item shall be determined by dividing weight of pre-consumer recycled content in the item by total weight of the item and multiplying by cost of the item.

Do not include [furniture,] [plumbing,] mechanical and electrical components, and specialty items such as elevators and equipment in the calculation.

## 2.3 REGIONAL MATERIALS

- A. **Credit MR 5.1[and Credit MR 5.2]:** Provide a minimum of [10] [20] percent of building materials (by cost) that are regional materials.
- B. **Credit MR 5.1:** Provide a minimum of 20 percent of materials (by cost) that are regionally manufactured materials.
- C. **Credit MR 5.2:** Provide a minimum of 10 percent of materials (by cost) that are regionally extracted and manufactured materials.

## 2.4 CERTIFIED WOOD

- A. **Credit [MR 6 – N/A] [MR 7]:** Provide a minimum of 50 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 FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."

Wood-based materials include, but are not limited to, the following materials when made from 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.

## 2.5 LOW-EMITTING MATERIALS

- A. **Credit EQ 4.1:** For applicable field applications that are inside the weatherproofing system, use adhesives and sealants that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D:

Wood Glues: 30 g/L.

## LEED REQUIREMENTS

Metal to Metal Adhesives: 30 g/L.  
 Adhesives for Porous Materials (Except Wood): 50 g/L.  
 Subfloor Adhesives: 50 g/L.  
 Plastic Foam Adhesives: 50 g/L.  
 Carpet Adhesives: 50 g/L.  
 Carpet Pad Adhesives: 50 g/L.  
 VCT and Asphalt Tile Adhesives: 50 g/L.  
 Cove Base Adhesives: 50 g/L.  
 Gypsum Board and Panel Adhesives: 50 g/L.  
 Rubber Floor Adhesives: 60 g/L.  
 Ceramic Tile Adhesives: 65 g/L.  
 Multipurpose Construction Adhesives: 70 g/L.  
 Fiberglass Adhesives: 80 g/L.  
 Contact Adhesive: 80 g/L.  
 Structural Glazing Adhesives: 100 g/L.  
 Wood Flooring Adhesive: 100 g/L.  
 Structural Wood Member Adhesive: 140 g/L.  
 Special Purpose Contact Adhesive (contact adhesive that is used to bond melamine covered board, metal, unsupported vinyl, Teflon, ultra-high molecular weight polyethylene, rubber or wood veneer 1/16 inch or less in thickness to any surface): 250 g/L.  
 Top and Trim Adhesive: 250 g/L.  
 Plastic Cement Welding Compounds: 250 g/L.  
 ABS Welding Compounds: 325 g/L.  
 CPVC Welding Compounds: 490 g/L.  
 PVC Welding Compounds: 510 g/L.  
 Adhesive Primer for Plastic: 550 g/L.  
 Plastic Cement Welding Compounds: 350 g/L.  
 ABS Welding Compounds: 400 g/L.  
 CPVC Welding Compounds: 490 g/L.  
 PVC Welding Compounds: 510 g/L.  
 Adhesive Primer for Plastic: 650 g/L.  
 Sheet Applied Rubber Lining Adhesive: 850 g/L.  
 Aerosol Adhesive, General Purpose Mist Spray: 65 percent by weight.  
 Aerosol Adhesive, General Purpose Web Spray: 55 percent by weight.  
 Special Purpose Aerosol Adhesive (All Types): 70 percent by weight.  
 Other Adhesives: 250 g/L.  
 Architectural Sealants: 250 g/L.  
 Nonmembrane Roof Sealants: 300 g/L.  
 Single-Ply Roof Membrane Sealants: 450 g/L.  
 Other Sealants: 420 g/L.  
 Sealant Primers for Nonporous Substrates: 250 g/L.  
 Sealant Primers for Porous Substrates: 775 g/L.  
 Modified Bituminous Sealant Primers: 500 g/L.  
 Other Sealant Primers: 750 g/L.

- B. Credit EQ 4.2: For applicable field applications that are inside the weatherproofing system, use paints and coatings that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D[ and the following chemical restrictions as required]:**

Flat Paints, Coatings, and Primers: VOC not more than 50 g/L.  
 Nonflat Paints, Coatings, and Primers: VOC not more than 150 g/L.  
 Anticorrosive and Antirust Paints Applied to Ferrous Metals: VOC not more than 250 g/L.  
 Clear Wood Finishes, Varnishes: VOC not more than 350 g/L.  
 Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.  
 Floor Coatings: VOC not more than 100 g/L.  
 Shellacs Clear: VOC not more than 730 g/L.  
 Shellacs, Pigmented: VOC not more than 550 g/L.  
 Stains: VOC not more than 250 g/L.

## LEED REQUIREMENTS

Flat Interior Topcoat Paints: VOC not more than 50 g/L.  
 Nonflat Interior Topcoat Paints: VOC not more than 150 g/L.  
 Anticorrosive and Antirust Paints Applied to Ferrous Metals: VOC not more than 250 g/L.  
 Clear Wood Finishes, Varnishes and Sanding Sealers: VOC not more than 350 g/L.  
 Clear Wood Finishes, Lacquers: VOC not more than 550 g/L.  
 Floor Coatings: VOC not more than 100 g/L.  
 Shellacs Clear: VOC not more than 730 g/L.  
 Shellacs, Pigmented: VOC not more than 550 g/L.  
 Stains: VOC not more than 250 g/L.  
 Primers, Sealers, and Undercoaters: VOC not more than 200 g/L.  
 Dry-Fog Coatings: VOC not more than 400 g/L.  
 Zinc-Rich Industrial Maintenance Primers: VOC not more than 340 g/L.  
 Pretreatment Wash Primers: VOC not more than 420 g/L.  
 Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).  
 Restricted Components: Paints and coatings shall not contain any of the following:

- a. Acrolein.
- b. Acrylonitrile.
- c. Antimony.
- d. Benzene.
- e. Butyl benzyl phthalate.
- f. Cadmium.
- g. Di (2-ethylhexyl) phthalate.
- h. Di-n-butyl phthalate.
- i. Di-n-octyl phthalate.
- j. 1,2-dichlorobenzene.
- k. Diethyl phthalate.
- l. Dimethyl phthalate.
- m. Ethylbenzene.
- n. Formaldehyde.
- o. Hexavalent chromium.
- p. Isophorone.
- q. Lead.
- r. Mercury.
- s. Methyl ethyl ketone.
- t. Methyl isobutyl ketone.
- u. Methylene chloride.
- v. Naphthalene.
- w. Toluene (methylbenzene).
- x. 1,1,1-trichloroethane.
- y. Vinyl chloride.

- C. **Credit EQ 4.4:** Do not use composite wood or agrifiber products or adhesives that contain urea-formaldehyde resin.
- D. **CONSTRUCTION INDOOR-AIR-QUALITY MANAGEMENT**
- E. **Credit [EQ 3] [EQ 3.1]:** Comply with SMACNA's "SMACNA IAQ Guideline for Occupied Buildings under Construction."
- F. **Credit EQ 3.2 – N/A:[** Comply with one of the following requirements:]  
 After construction ends, prior to occupancy and with all interior finishes installed, perform a building flush-out by supplying a total volume of 14000 cu. ft. (4 300 000 L) of outdoor air per sq. ft. (sq. m) of floor area while maintaining an internal temperature of at least 60 deg F (16 deg C) and a relative humidity no higher than 60 percent.

## LEED REQUIREMENTS

If occupancy is desired prior to flush-out completion, the space may be occupied following delivery of a minimum of 3500 cu. ft. (1 070 000 L) of outdoor air per sq. ft. (sq. m) of floor area to the space. Once a space is occupied, it shall be ventilated at a minimum rate of 0.30 cfm per sq. ft. (1.52 L/s per sq. m) of outside air or the design minimum outside air rate determined in EQ Prerequisite 1, whichever is greater. During each day of the flush-out period, ventilation shall begin a minimum of three hours prior to occupancy and continue during occupancy. These conditions shall be maintained until a total of 14000 cu. ft./sq. ft. (4 300 000 L/sq. m) of outside air has been delivered to the space.

Air-Quality Testing:

- a. Conduct baseline indoor-air-quality testing, after construction ends and prior to occupancy, using testing protocols consistent with the EPA's "Compendium of Methods for the Determination of Air Pollutants in Indoor Air," and as additionally detailed in the USGBC's "[LEED-NC] [LEED-CI]: Reference Guide."
- b. Demonstrate that the contaminant maximum concentrations listed below are not exceeded:
  - 1) Formaldehyde: 50 ppb.
  - 2) Particulates (PM10): 50 micrograms/cu. m.
  - 3) Total Volatile Organic Compounds (TVOC): 500 micrograms/cu. m.
  - 4) 4-Phenylcyclohexene (4-PH): 6.5 micrograms/cu. m.
  - 5) Carbon Monoxide: 9 ppm and no greater than 2 ppm above outdoor levels.

END of Section



## PRESS RELEASE

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### **Buildings Seeking LEED to Provide Performance Data**

Energy and water usage reporting becomes a precondition of certification

June 25, 2009 (Washington, DC) - As part of LEED v3, the latest version of the U.S. Green Building Council's program for green building design, construction, operations and maintenance, buildings seeking LEED certification will begin submitting operational performance data on a recurring basis as a precondition to certification.

"Today there is all too often a disconnect, or performance gap, between the energy modeling done during the design phase and what actually happens during daily operation after the building is constructed," said Scot Horst, Senior Vice President of LEED, U.S. Green Building Council. "We're convinced that ongoing monitoring and reporting of data is the single best way to drive higher building performance because it will bring to light external issues such as occupant behavior or unanticipated building usage patterns, all key factors that influence performance."

USGBC will be able to use the performance information collected to inform future versions of LEED.

"Building performance will guide LEED's evolution. This data will show us what strategies work – and which don't – so we can evolve the credits and prerequisites informed by lessons learned," said Brendan Owens, USGBC's vice president of LEED technical development.

"It will also help us to educate building owners on how users of the building can impact its energy use and water consumption, to be sure the building is operating as it was designed to," added Horst. "Similar to the sticker on a new car that says the car will get 30 miles to the gallon – the car is calibrated to perform but it's also reliant on the driver's habits."

Projects can comply with the performance requirement in one of three ways:

1. The building is recertified on a two-year cycle using LEED for Existing Buildings: Operations & Maintenance.
2. The building provides energy and water usage data on an on-going basis annually.
3. The building owner signs a release that authorizes USGBC to access the building's energy and water usage data directly from the building's utility provider.

The requirement creates a data stream on LEED-certified building performance that can be used by owners and operators to optimize their building performance and promote the establishment of energy efficiency goals over the life of the building.

USGBC is proactively investigating cost effective ways for every LEED building to become metered as a way to capture this data," said Owens. "However, we know that there are building types that may have a central plant, a military base or a university campus, for instance, where it would be cost prohibitive to install meters on every single building," said Owens. In this circumstance, the MPR would be waived.

## **U.S. GREEN BUILDING COUNCIL**

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"LEED was created to transform the way we build and operate buildings with a goal of reducing the impacts of the built environment. The LEED design and construction certifications recognize one piece of a building's lifecycle but it's the day-to-day running of the building that has dramatic impact on its performance. We know that buildings can be a huge part of the solution for reducing greenhouse gas emissions and fossil fuel dependence and USGBC sees this as one more step forward in accomplishing its goals for addressing climate change," added Horst.

### **U.S. Green Building Council**

The Washington, D.C.-based U.S. Green Building Council is committed to a prosperous and sustainable future for our nation through cost-efficient and energy-saving green buildings.

With a community comprising 78 local affiliates, more than 20,000 member companies and organizations, and more than 100,000 LEED Accredited Professionals, USGBC is the driving force of an industry that is projected to soar to \$60 billion by 2010. The USGBC leads an unlikely diverse constituency of builders and environmentalists, corporations and nonprofit organizations, elected officials and concerned citizens, and teachers and students.

Buildings in the United States are responsible for 39% of CO2 emissions, 40% of energy consumption, 13% water consumption and 15% of GDP per year, making green building a source of significant economic and environmental opportunity. Greater building efficiency can meet 85% of future U.S. demand for energy, and a national commitment to green building has the potential to generate 2.5 million American jobs.

### **LEED**

The U.S. Green Building Council's LEED green building certification system is the foremost program for the design, construction and operation of green buildings and communities. More than 35,000 projects, are currently using LEED, comprising over 5.6 billion square feet of space in all 50 states and 91 countries.

By using less energy, LEED-certified buildings save money for families, businesses and taxpayers; reduce greenhouse gas emissions; and contribute to a healthier environment for residents, workers and the larger community.

USGBC was co-founded by current President and CEO Rick Fedrizzi, who spent 25 years as a Fortune 500 executive. Under his 15-year leadership, the organization has become the preeminent green building, membership, policy, standards, education and research organization in the nation.

For more information, visit [www.usgbc.org](http://www.usgbc.org).

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CERTIFICATION FEES

	Less than 50,000 Square Feet*		50,000- 500,000 Square Feet*		More Than 500,000 Square Feet*		Appeals (if applicable) Per credit
	Fixed Rate	Based on Square Footage*	Fixed Rate	Based on Square Footage*	Fixed Rate	Based on Square Footage*	
<b>LEED 2009; New Construction, Commercial Interiors, Schools, Core &amp; Shell full certification</b>							
<b>Design Review</b>							
USGBC Members	\$2,000	\$0.04/sf	\$20,000				\$500
Non-Members	\$2,250	\$0.045/sf	\$22,500				\$500
Expedited Fee**		\$5,000 regardless of square footage					\$500
<b>Construction Review</b>							
USGBC Members	\$500	\$0.010/sf	\$5,000				\$500
Non-Members	\$750	\$0.015/sf	\$7,500				\$500
Expedited Fee**		\$5,000 regardless of square footage					\$500
<b>Combined Design &amp; Construction Review</b>							
USGBC Members	\$2,250	\$0.045/sf	\$22,500				\$500
Non-Members	\$2,750	\$0.055/sf	\$27,500				\$500
Expedited Fee**		\$10,000 regardless of square footage					\$500