LEED Certification Review Report

This report contains the results of the technical review of an application for LEED® certification submitted for the specified project. LEED certification is an official recognition that a project complies with the requirements prescribed within the LEED rating systems as created and maintained by the U.S. Green Building Council® (USGBC®). The LEED certifcation program is administered by the Green Building Certification Institute (GBCI®).

Kumm Student Union Renovation

Project ID	1000008722
Rating system & version	LEED-NC v2009
Project registration date	08/17/2010

Certified (Silver)

CERTIFIED: 40-49, SILVER: 50-59, GOLD: 60-79, PLATINUM: 80+

LEED FOR NEW CONSTRUCTION & MAJOR RENOVATIONS (V2009)

ATTEMPTED: 59, DENIED: 3, PENDING: 0, AWARDED: 55 OF 110 POINTS

SUSTAINABLE SITES	15 OF 26
SSp1 Construction Activity Pollution Prevention	Y
SSc1 Site Selection	1 / 1
SSc2 Development Density and Community Connectivity	5 / 5
SSc3 Brownfield Redevelopment	0 / 1
SSc4.1Alternative Transportation-Public Transportation Access	6 / 6
SSc4.2Alternative Transportation-Bicycle Storage and Changing Rooms	0 / 1
SSc4.3Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	0 / 3
SSc4.4Alternative Transportation-Parking Capacity	2 / 2
SSc5.1Site Development-Protect or Restore Habitat	0 / 1
SSc5.2Site Development-Maximize Open Space	1 / 1
SSc6.1Stormwater Design-Quantity Control	0 / 1
SSc6.2Stormwater Design-Quality Control	0 / 1
SSc7.1Heat Island Effect, Non-Roof	0 / 1
SSc7.2Heat Island Effect-Roof	0 / 1
SSc8 Light Pollution Reduction	0 / 1

WATER EFFICIENCY	5 OF 10
WEp1 Water Use Reduction-20% Reduction	Y
WEc1 Water Efficient Landscaping	2 / 4
WEc2 Innovative Wastewater Technologies	0 / 2
WEc3 Water Use Reduction	3 / 4

ENERGY AND ATMOSPHERE	21 OF 35
EAp1 Fundamental Commissioning of the Building Energy Systems	Y
EAp2 Minimum Energy Performance	Y
EAp3 Fundamental Refrigerant Mgmt	Y
EAc1 Optimize Energy Performance	15 / 19
EAc2 On-Site Renewable Energy	0 / 7
EAc3 Enhanced Commissioning	2 / 2
EAc4 Enhanced Refrigerant Mgmt	2 / 2
EAc5 Measurement and Verification	0 / 3
EAc6 Green Power	2 / 2

MATERIALS AND RESOURCES	2 OF 14
MRp1 Storage and Collection of Recyclables	Y
MRc1.1Building Reuse-Maintain Existing Walls, Floors and Roof	0 / 3
MRc1.2Building Reuse, Maintain 50% of Interior	0 / 1
MRc2 Construction Waste Mgmt	1 / 2
MRc3 Materials Reuse	0 / 2
MRc4 Recycled Content	1 / 2

MATERIALS AND RESOURCES	CONTINUED
MRc5 Regional Materials	0 / 2
MRc6 Rapidly Renewable Materials	0 / 1
MRc7 Certified Wood	0 / 1

INDOOR ENVIRONMENTAL QUALITY	7 OF 15
IEQp1 Minimum IAQ Performance	Y
IEQp2 Environmental Tobacco Smoke (ETS) Control	Y
IEQc1 Outdoor Air Delivery Monitoring	0 / 1
IEQc2 Increased Ventilation	0 / 1
IEQc3.1Construction IAQ Mgmt Plan-During Construction	1 / 1
IEQc3.2Construction IAQ Mgmt Plan-Before Occupancy	1 / 1
IEQc4.1Low-Emitting Materials-Adhesives and Sealants	1 / 1
IEQc4.2Low-Emitting Materials-Paints and Coatings	1 / 1
IEQc4.3Low-Emitting Materials-Flooring Systems	1 / 1
IEQc4.4Low-Emitting Materials-Composite Wood and Agrifiber Products	0 / 1
IEQc5 Indoor Chemical and Pollutant Source Control	0 / 1
IEQc6.1Controllability of Systems-Lighting	0 / 1
IEQc6.2Controllability of Systems-Thermal Comfort	0 / 1
IEQc7.1Thermal Comfort-Design	1 / 1
IEQc7.2Thermal Comfort-Verification	1 / 1
IEQc8.1Daylight and Views-Daylight	0 / 1
IEQc8.2Daylight and Views-Views	0 / 1

INNOVATION IN DESIGN	3 OF 6
IDc1.1 Innovation in Design	0 / 1
IDc1.2 Innovation in Design	1 / 1
IDc1.3 Innovation in Design	1 / 1
IDc1.4 Innovation in Design	0 / 1
IDc1.5 Innovation in Design	0 / 1
IDc2 LEED® Accredited Professional	1 / 1

REGIONAL PRIORITY CREDITS	2 OF 4
SSc1 Site Selection	1 / 1
SSc4.2Alternative Transportation-Bicycle Storage and Changing Rooms	0 / 1
SSc5.1Site Development-Protect or Restore Habitat	0 / 1
SSc5.2Site Development-Maximize Open Space	1 / 1
SSc6.1Stormwater Design-Quantity Control	0 / 1
WEc1 Water Efficient Landscaping	0 / 1

TOTAL	55 OF 110

CREDIT DETAILS

Project Information Forms

PIf1: Minimum Program Requirements — Approved

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Project Information Form has been submitted stating that the project complies with all Minimum Program Requirements. The project Owner has signed the form, as required. The project will comply with MPR 6: Must commit to sharing whole-building energy and water usage data via Option 3. The project is located in La Crosse, Wisconsin.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

This LEED Project Information Form was previously approved during the Preliminary Review. No changes have been made.

PIf2: Project Summary Details — Approved

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the following project summary details. There is one building in this LEED-NC application with a total of one story and 23,114 gross square feet in the urban core context. The building was originally constructed in 1965. The project is 100% renovation. The total site area within the LEED-NC project boundary is 59,490 square feet, and the building area to site area ratio is 38.85%. The project is located on a campus. There are six parking spaces available to the occupants, one floor above grade, and no floors below grade (excluding parking levels). The site was previously developed. The building uses energy from natural gas, electricity, district or campus heating, and district or campus cooling. The project uses water from a municipal potable water system. The sewage is conveyed to a municipal sewer system. The total project budget is $2,200,000.

However, the gross square footage reported in the form (23,114 square feet) is inconsistent with the gross square footage reported in Table PIf3-1 within the PIf3: Occupant and Usage Data form (18,500 square feet). It is unclear whether the project area has been reported correctly.

TECHNICAL ADVICE:
Please provide a revised form, as necessary, to ensure that the gross square footage has been reported correctly and consistently throughout the submittal.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The LEED Project Information From has been revised to address the issues outlined in the Preliminary Review, stating 23,100 square feet as the gross square footage. The gross square footage has been reported correctly and consistently throughout the submittal. The area outside the building footprint, within the LEED-NC project boundary, that is comprised of hardscape has been revised to 31,000 square feet. The total number of parking spaces provided for building users has also been revised to zero. The number of stories below grade, excluding parking, has been revised to one story, and the total number of stories in the LEED-NC project building is two.

It is noted that while this form states that no parking spaces have been provided for building users, the documentation provided for SSc4.3: Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles, states that 100 parking spaces have been provided for building users. For future projects, all documentation must be reported consistently throughout the submittal. In this case, this issue does not affect compliance. The documentation demonstrates compliance.

PIf3: Occupant and Usage Data — Approved

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the following occupant and usage data. The occupant is a state government and has an occupant type that consists primarily of Core Learning Space: College/University spaces. The building is intended to be Owner-occupied and Owner-managed after project completion. The occupancy includes standard occupancy patterns. The average project building users value is 610, the total peak building users value is 310, the total FTE value is ten, and the building is occupied 300 days per year.

However, the gross square footage has been inconsistently reported within the form, as well as within PIf2: Project Summary Details. The total gross square footage reported in Table PIf3-1 is 18,500 square feet, whereas the total gross square footage reported on page 1 of this form and within PIf2 is 23,114 square feet. It is unclear whether the project area has been reported correctly.

TECHNICAL ADVICE:
Please provide a revised form to ensure that the gross square footage has been reported correctly and consistently throughout the submittal.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The LEED Project Information From has been revised to address the issues outlined in the Preliminary Review, stating 23,100 square

feet as the gross square footage. The gross square footage has been reported correctly and consistently throughout the submittal. The form states that the average project building users value is 620, the total peak building users value is 320, and the total FTE value is 20. The documentation demonstrates compliance.

PIf4: Schedule and Overview Documents — Approved

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Project Information Form has been submitted including the design and construction schedule, the estimated date of substantial construction completion is noted as August 31, 2011, and the estimated date of occupancy is noted as September 9, 2011. The following overview documents have been uploaded: exterior photographs, interior photographs, mechanical plans, mechanical schedules, an output summary of the energy model, representative floor plans, demolition plans, building elevations, casework details, wall sections, a building section, and a site plan. Additionally, the URL of an online map, the building systems narrative, and the project narrative have been provided.

However, a site plan and floor plans identifying the LEED-NC project boundary have not been provided, as required. In addition, the mechanical schedules do not indicate the outdoor air intake volumes for the installed VAV boxes (1-8).

TECHNICAL ADVICE:
Please provide a site plan and floor plans which clearly identifies the LEED-NC project boundary on a site level, as well as for each floor. In addition, provide revised mechanical schedules which include the outdoor air intake volumes for all of the installed air handling units included in the calculations for IEQp1: Minimum IAQ Performance.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The site plan and floor plans have been provided to address the issues outlined in the Preliminary Review, identifying the LEED-NC project boundary on a site level, as well as for each floor. The revised mechanical schedules have been provided which include the outdoor air intake volumes for all of the installed air handling units included in the calculations for IEQp1: Minimum IAQ Performance. Narratives, explaining the mechanical schedule and the LEED-NC project boundary, have also been provided. The documentation demonstrates compliance.

Sustainable Sites

SSp1: Construction Activity Pollution Prevention — Awarded

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that there was no site work performed for this project.

SSc1: Site Selection — Awarded: 1

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project site does not meet any of the prohibited criteria.

SSc2: Development Density and Community Connectivity — Awarded: 5

POSSIBLE POINTS: 5

ATTEMPTED: 5, DENIED: 0, PENDING: 0, AWARDED: 5

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 2, and the site is located within one-half mile of a minimum of ten basic community services and a minimum of one residential district (with a minimum density of ten units per acre). The project site condition is noted as previously developed with existing infrastructure. Ascaled online map showing the one-half-mile radius, the locations of the basic services, and the residential district has been provided.

SSc3: Brownfield Redevelopment — Not Attempted

POSSIBLE POINTS: 1

SSc4.1: Alternative Transportation-Public Transportation Access — Awarded: 6

POSSIBLE POINTS: 6

ATTEMPTED: 6, DENIED: 0, PENDING: 0, AWARDED: 6

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 2 and is served by three bus lines within one-quarter-mile walking distance of the project site. Amap showing the pedestrian route to the transit stops has been provided.

However, a scaled drawing showing the location of the transit stops and pedestrian route has not been provided, as required.

TECHNICAL ADVICE:
Please provide a scaled drawing or map showing the location of the transit stops relative to the project site. Ensure that the drawing or map features a scale and that it clearly identifies the pedestrian route between the project and the transit stops. Note that the pedestrian route must be less than one-quarter mile in order to meet credit requirements a one-quarter-mile radius is not applicable to this credit.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The map has been provided to address the issues outlined in the Preliminary Review and shows the location of the transit stops relative to the project site. The map highlights the pedestrian route between the project and the transit stops. The documentation demonstrates credit compliance.

SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms — Not Attempted

POSSIBLE POINTS: 1

SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles — Denied

POSSIBLE POINTS: 3

ATTEMPTED: 3, DENIED: 3, PENDING: 0, AWARDED: 0

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 1 and provides five preferred parking spaces for low-emitting and fuel-efficient vehicles (5% of total parking capacity). Preferred parking for low-emitting and fuel-efficient vehicles must be provided for at least 5% of the total parking capacity. Asite plan has been provided highlighting two of the five preferred parking spaces. The form narrative states that the parking is available with a permit only, and a ``green pass`` will be available for low-emitting

and fuel-efficient vehicles.

However, three issues are pending:
1. The provided drawings do not show the total parking capacity.

2. Photographs or detail drawings of the installed signage have not been provided indicating the reserved status of the preferred parking spaces.

3. The documentation indicates that the LEED-NC project parking is shared with other occupants of the campus. Therefore, the signage must designate that these preferred spaces are reserved for the LEED-NC project occupants only.

TECHNICAL ADVICE:
1. Please provide parking plans showing the total parking capacity for this project.

2. Provide photographs or signage details indicating the reserved status of the preferred parking spaces.

3. rovide photographs or signage details which confirm that the low-emitting and fuel-efficient parking spaces are reserved for use solely by occupants of this LEED-NC project. Alternatively, the project may demonstrate that preferred parking spaces for low-emitting and fuel-efficient vehicles have been provided for at least 5% of the total parking capacity of the shared parking area. In this case, provide revised site plans, calculations, and a narrative to demonstrate compliance at the whole-parking area level.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The parking plans and site plans have been provided to address the issues outlined in the Preliminary Review. The parking plans show the entire adjacent parking lot and the preferred parking spaces for this project. The photograph indicating the reserved status of the preferred parking spaces has been provided. Anarrative has also been provided stating that a total of 100 parking spaces are anticipated to be used by the LEED-NC project occupants and that five low-emitting and fuel-efficient preferred parking spaces have been provided.

However, parking plans showing the total parking capacity for this project have not been provided. Additionally, the narrative states that all campus parking is general parking. The project has not provided documentation demonstrating that preferred parking spaces for low-emitting and fuel-efficient vehicles have been provided for at least 5% of the total parking capacity of the entire campus. In this case, revised site plans, calculations, and a narrative to demonstrate compliance at the whole-parking area level (campus level) must be provided. The documentation does not demonstrate credit compliance.

SSc4.4: Alternative Transportation-Parking Capacity — Awarded: 2

POSSIBLE POINTS: 2
ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that no new parking has been created within the LEED-NC project scope of work. The project Owner has signed the form, as required.

SSc5.1: Site Development-Protect or Restore Habitat — Not Attempted

POSSIBLE POINTS: 1

SSc5.2: Site Development-Maximize Open Space — Awarded: 1

POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project site does not have local open space zoning regulations. Therefore, the project complies with Case 2. The form states that 24,030 square feet of open space has been provided which is more than the footprint of the LEED-NC building (18,500 square feet). Additionally, 40.49% of this dedicated open space is vegetated. Aminimum area of open space equal to the footprint of the LEED-NC building is required, and at least 25% of that dedicated open space must be vegetated. The pedestrian-oriented hardscape has been included in the calculations of this credit. The calculations do not include wetlands or naturally designed ponds. The project Owner has signed the form, as required. Site plans have been provided.

However, three issues are pending:
1. Plf4: Schedule and Overview Documents has been denied pending clarifications regarding the LEED-NC project boundary.

2. The provided site plans do not clearly highlight the dedicated open space being counted towards this credit.

3. It is unclear whether the building footprint area reported in the form (18,500 square feet) consists of the entire project building, including portions of the building outside of the LEED-NC project scope.

TECHNICAL ADVICE:
1. Please provide the requested clarifications for Plf4 and resubmit this credit.

2. Provide a site plan which clearly highlights the dedicated open space (both pedestrian-oriented hardscape and vegetated areas) being counted towards this credit.

3. Provide a narrative confirming whether the building footprint area reported in the form consists of the entire project building, including portions of the building outside of the LEED-NC project scope. Provide a revised form, as necessary.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The requested clarifications for PIf4: Schedule and Overview Documents have been provided to address the issues outlined in the Preliminary Review. The revised site plan has been provided and clearly highlights the LEED-NC project boundary and the dedicated open space being counted towards this credit. The narrative has been provided confirming that the building footprint area reported in the form consists of the entire project building. An aerial photograph has also been provided showing the dedicated open space. The documentation demonstrates credit compliance.

SSc6.1: Stormwater Design-Quantity Control — **Not Attempted**
POSSIBLE POINTS: 1

SSc6.2: Stormwater Design-Quality Control — **Not Attempted**
POSSIBLE POINTS: 1

SSc7.1: Heat Island Effect, Non-Roof — **Not Attempted**
POSSIBLE POINTS: 1

SSc7.2: Heat Island Effect-Roof — **Not Attempted**
POSSIBLE POINTS: 1

SSc8: Light Pollution Reduction — **Not Attempted**
POSSIBLE POINTS: 1

Water Efficiency

WEp1: Water Use Reduction-20%Reduction — Awarded

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form and water use calculations have been provided stating that the project has reduced potable water use by 36% from a calculated baseline design. Aminimum reduction of 20% is required. Aplumbing fixture schedule has been provided. Plumbing drawings, email correspondence, manufacturer`s documentation, and a narrative have also been provided.

However, five issues are pending:
1. The metered/autocontrol faucet is listed as having a 10-second duration, which less than the 12-second default. Note that autocontrol/metered faucets have a default 12-second design case duration, as outlined in Table 2 within the WEp1: Water Use Reduction, 20% Reduction, section of the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010).

2. The flow rate for the Male Occupants fixture group`s water closets is inconsistent between the form (1.28 gpm) and the general plumbing notes on drawing P100 (1.6 gpm). Furthermore, the flow rate for the pre-rinse spray valve has been reported inconsistently between the form (0.94 gpm) and the manufacturer`s documentation (0.65 gpm). The flow rates for all fixtures must be reported consistently throughout the submittal.

3. No documentation has been provided to confirm the flow rates for all of the fixtures reported in the form, including the retrofit water closets for the Female Occupants fixture group.

4. The plumbing drawings indicate that the project includes two unisex restrooms that do not contain urinals (K31B and K31C). The calculations in the form automatically assume that 100% of male occupants will use restrooms that contain urinals. If a percentage of male occupants will not have access to or will not be expected to use restrooms with urinals, the default Total Daily Uses for water closets and urinals will need to be adjusted in the form accordingly.

5. The flow rate for the pre-rinse spray valve has been incorrectly reported in gallons per minute (gpm), instead of gallons per cycle (gpc). Based on the flow rate reported in the manufacturer`s documentation, the flow rate should be 0.13 gallons per cycle.

TECHNICAL ADVICE:
1. Please revise the calculations to utilize the default 12-second duration for auto control faucets when converting to gallons per cycle (gpc). Shorter durations are not permitted for LEED calculations as they are insufficient for typical hand washing.

2. Provide a revised form and/or plumbing fixture schedule which reports the flow rate for all fixtures consistently.

3. Provide a plumbing fixture schedule, as well as any necessary documentation, which confirms the flow rates reported in the form for all of the installed fixtures.

4. Provide a narrative and/or supporting daily use calculations to explain the anticipated urinal usage. Revise the form, as necessary, to ensure that the Total Daily Uses column for the water closets and urinals has been modified appropriately.

5. Provide a revised form which reports the flow rate for the pre-rinse spray valves in gallons per cycle.

Refer to the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010), and the Water Use Reduction Additional Guidance found on the USGBC website for additional information regarding how to document this prerequisite.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The LEED Prerequisite Form has been revised to address the issues outlined in the Preliminary Review and includes the default 12-second duration for auto control faucets. The plumbing fixture schedule and manufacturers` documentation have been provided reporting the flow rates of the fixtures consistently and confirming the flow rates reported in the form for all of the installed fixtures. The narrative has been provided explaining the anticipated urinal usage. The Total Daily Uses column for the water closets and urinals have been modified appropriately. The form states that the project has reduced potable water use by 40% from a calculated baseline design.

It is noted the dual-flush rate for the General Female water closet has not been calculated correctly. When dual-flush water closets are utilized, weighted calculations must be performed to determine the average flow rate. In this case, when recalculated using the correct weighted average (1.26 gpf), the project has reduced potable water use by 38% from a calculated baseline design. The documentation demonstrates prerequisite compliance.

WEc1: Water Efficient Landscaping — Awarded: 2

POSSIBLE POINTS: 4
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 2

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the landscaping and irrigation systems have been designed to reduce potable water consumption for irrigation, as well as the total water used for irrigation by 66.18% from a calculated baseline case. Aminimum reduction of 50% in potable water use is required. Landscape plans and form irrigation calculations have been provided which describe the landscape and irrigation design strategies employed by the project. Photographs and a supplemental narrative have also been

provided.

WEc2: Innovative Wastewater Technologies — Not Attempted

POSSIBLE POINTS: 2

WEc3: Water Use Reduction — Awarded: 3

POSSIBLE POINTS: 4

ATTEMPTED: 4, DENIED: 0, PENDING: 0, AWARDED: 3

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project has reduced potable water use by 36% from the calculated baseline design fixture performance. A minimum reduction of 30% is required.

However, WEp1: Water Use Reduction, 20% Reduction, has been denied pending clarifications.

TECHNICAL ADVICE:
Please provide the requested clarifications for WEp1 and resubmit this credit.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The requested clarifications for WEp1: Water Use Reduction, 20% Reduction, have been provided address the issues outlined in the Preliminary Review. When WEp1, was recalculated based on the issues noted there; the project has demonstrated a reduction of potable water use of 38%. The documentation demonstrates credit compliance for three points.

Energy and Atmosphere

EAp1: Fundamental Commissioning of the Building Energy Systems — Awarded

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the fundamental Commissioning Report for the project`s energy-related systems has been completed. The required commissioning authority experience of the project Commissioning Agent has been provided, and the documentation confirms that the Owner`s Project Requirements (OPR) and Basis of Design (BOD) are consistent with the final construction documentation and completed project. The project Owner and project Commissioning Agent have signed the form, as required. Acopy of the Commissioning Plan Overview and an issues log have also been provided.

However, the Executive Summary of the Commissioning Report, including a list of the systems commissioned, a summary of issues corrected, and a list of any major outstanding/unresolved issues, has not been provided, as required. In addition, it appears that all systems, such as the domestic hot water system, included within the LEED-NC project scope of work have not been commissioned. All applicable fixtures/systems installed as part of the LEED-NC project scope of work must be included in the commissioning process. As a one-time exception, the project will be permitted to perform functional testing for the hot water system after the substantial completion of the project.

TECHNICAL ADVICE:
Please provide the Executive Summary of the Commissioning Report, including a list of the systems commissioned, a summary of issues corrected, and a list of any major outstanding/unresolved issues. In addition, provide documentation showing that the domestic hot water systems have been commissioned and are installed and calibrated to performing according to the Owner`s Project Requirements, Basis of Design, and construction documents.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The Executive Summary of the Commissioning Report has been provided to address the issues outlined in the Preliminary Review, including a list of the systems commissioned. Acommissioning issues log and prefunctional checklists have been provided to include a summary of issues corrected and a list of any major outstanding/unresolved issues. Arevised LEED Prerequisite form has been provided. The form and the Executive Summary of the Commissioning Report state that the domestic hot water systems have been commissioned and are installed and calibrated to perform according to the Owner`s Project Requirements, Basis of Design, and construction documents. The documentation demonstrates prerequisite compliance.

EAp2: Minimum Energy Performance — Awarded

12/11/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form and supporting documentation have been provided stating that the project has achieved an energy cost savings of 23.26% using the ASHRAE Standard 90.1-2007, Appendix G methodology. Additional documentation that consists of a Section 1.4 Tables spreadsheet, exceptional calculation measure calculations, Energy Star Statement of Energy Design Intent, input summary spreadsheets, and simulation input and output summary files has been provided. Energy efficiency measures include high efficiency fenestration, reduced interior lighting power density, reduced exterior lighting power, and hot gas reheat.

However, the following four review comments requiring a project team response (marked as Mandatory) must be addressed for the Final Review.

TECHNICAL ADVICE:
Provide revised energy modeling results, form, and supporting documentation in the form of input and output summaries including, at a minimum, the BEPS, BEPU, and ES-D reports for the 0-degree Baseline rotation and the Proposed case from the simulation program demonstrating that the following issues have been addressed. In addition, any documentation requested in the following review comments must also be provided for the Final Review. Further, provide a response narrative to each of the review comments and a narrative to describe any changes made in addition to the review comments.

REVIEW COMMENTS REQUIRING A PROJECT TEAM RESPONSE (Mandatory):
1.Table 1.4.2 indicates that the HVAC systems in the Baseline model include airside economizer control with a high-limit shutoff temperature of 65 degrees-F however, Section G3.1.2.6 requires that the Baseline HVAC systems include airside economizer control with a high-limit shutoff temperature of 70 degrees-F. Revise the Baseline model and update Table 1.4.2 so the high-limit shutoff temperature is modeled at 70 degrees-F for the airside economizer control.

2.The mechanical plans provided for PI Form 4: Schedule and Overview Documents indicate that the variable air handling unit serving the project area in the actual design may serve additional spaces in the building located outside of the LEED project boundary however, it is unclear if the spaces located outside of the LEED project boundary have been included in the Proposed and Baseline models. If the variable air handling unit serving this project area serves additional spaces located outside of the LEED project boundary, revise the Proposed and Baseline models to include these spaces. Ensure that all spaces that are located outside of the LEED project boundary are modeled identically (i.e. lighting power, VAV setpoints, receptacle loads, etc.) to the actual designed values, and that no additional credit is taken if the renovation of these spaces is not included in the LEED project scope. In addition, ensure that the variable air handling unit included in the Proposed model reflects the total equipment capacities (air volumes, fan power, cooling capacity, heating capacity, etc.) to reflect the actual design. Further, update Table 1.4.2, as needed, and provide a revised SV-Areport for the Proposed model reflecting the changes.

3.The energy savings for variable speed kitchen hood exhaust and makeup air fans is reflected in the Proposed model however, this energy efficiency measure must be simulated in an additional Proposed model and the energy savings and energy cost savings for this measure must be reflected in Section 1.7 of the form. Revise the Proposed model so the energy savings for variable speed kitchen hood exhaust and makeup air fans is reflected in an additional Proposed model and that the energy savings and energy costs savings are included in Section 1.7. Further, provide a narrative that includes all assumptions made for both the Proposed and Baseline models, theoretical or empirical information supporting these assumptions, and specific energy cost savings achieved based on the exceptional calculation for this exceptional calculation measure.

4.The exterior lighting power calculation spreadsheet appears to indicate that an additional lighting power allowance is being claimed in the Baseline model for surfaces that are not provided with lighting in the actual design (i.e. uncovered parking and walkways greater than ten feet in width) however, credit can only be taken for surfaces that include exterior lighting power in the actual design. Revise the Baseline model so an additional lighting power allowance is not claimed for surfaces that are not provided with lighting in the actual design. In addition, provide revised exterior lighting power calculations for each model reflecting the changes.

03/25/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The revised LEED Prerequisite Form has been provided to address the issues outlined in the Preliminary Review, stating that the project has achieved an energy cost savings of 36.69% using the ASHRAE Standard 90.1-2007, Appendix G methodology. Additional documentation that consists of a narrative response to the Preliminary Review, updated simulation output summary files, input summaries, and revised modeling results has been provided. The energy consumption for the Proposed case in the Final Review is 858,121 kWh of electricity, 8,004 therms of natural gas, 73,417 ton-hrs of purchased chilled water, and 14,520 therms of purchased hot water. The documentation demonstrates prerequisite compliance.

EAp3: Fundamental Refrigerant Management — Awarded

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that there are no CFC-based refrigerants in the HVAC systems which serve the LEED-NC project.

EAc1: Optimize Energy Performance — Awarded: 15

POSSIBLE POINTS: 19
ATTEMPTED: 15, DENIED: 0, PENDING: 0, AWARDED: 15

12/11/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form and supporting documentation have been provided stating that the project has achieved an energy cost savings of 23.26% using the ASHRAE Standard 90.1-2007, Appendix G methodology as demonstrated in EAp2: Minimum Energy Performance.

However, EAp2 is denied pending clarifications.

TECHNICAL ADVICE:
Please provide the requested clarifications to EAp2 to confirm compliance with this credit.

03/25/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The revised LEED Credit Form has been provided to address the issues outlined in the Preliminary Review, stating that the project has achieved an energy cost savings of 36.69% using the ASHRAE Standard 90.1-2007, Appendix G methodology as demonstrated in EAp2: Minimum Energy Performance. The documentation demonstrates credit compliance for 15 points.

EAc2: On-Site Renewable Energy — Not Attempted

POSSIBLE POINTS: 7

EAc3: Enhanced Commissioning — Awarded: 2

POSSIBLE POINTS: 2
ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that enhanced commissioning has been implemented. The project Commissioning Agent has signed the form, as required. The form includes the completion dates for the comprehensive commissioning review tasks. The Systems Manual covering the commissioned systems and future operating information and the proposal for enhanced commissioning services have been provided.

However, three issues are pending:
1. EAp1: Fundamental Commissioning of Building Energy Systems has been denied pending clarifications.

2. The contract between the Owner and the Commissioning Agent ensuring post-construction commissioning activities has not been provided.

3. The provided Systems Manual does not include all required information, as stated in EAp1: Fundamental Commissioning in the LEED;Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010), under Step 9 of the Timeline and Team section.

TECHNICAL ADVICE:
1. Please provide the requested clarifications for EAp1 and resubmit this credit.

2. Provide the contract between the Owner and the Commissioning Agent ensuring post-construction commissioning activities.

3. Provide a revised Systems Manual which includes the following:
a. The final version of the Basis of Design
b. System single-line diagrams for all systems
c. Control drawings
d. Arecommended schedule for retesting of commissioned systems with blank test forms from the original Commissioning Plan

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The requested clarifications for EAp1: Fundamental Commissioning have been provided to address the issues outlined in the Preliminary Review. The contract between the Owner and the Commissioning Agent ensuring post-construction commissioning activities has been provided. The Systems Manual has also been provided and includes the following: final version of the Basis of Design; system single-line diagrams for all systems; control drawings; and a recommended schedule for retesting of commissioned systems with blank test forms from the original Commissioning Plan. The documentation demonstrates credit compliance.

EAc4: Enhanced Refrigerant Management — Awarded: 2

POSSIBLE POINTS: 2
ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project selected refrigerants and HVAC systems that minimize or eliminate the emission of compounds that contribute to ozone depletion and global climate change. Additionally, any fire suppression systems in the LEED-NC project do not use ozone-depleting substances, including CFCs, HCFCs, or halons. The refrigerant impact calculation indicates that the total refrigerant impact of the LEED-NC project is 93 per ton, which is less than the maximum allowable value of 100.

EAc5: Measurement and Verification — Not Attempted

POSSIBLE POINTS: 3

EAc6: Green Power — Awarded: 2

POSSIBLE POINTS: 2
ATTEMPTED: 2, DENIED: 0, PENDING: 0, AWARDED: 2

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project has a two-year purchase agreement to procure 40% (341,000 kWh) of the electricity for this LEED-NC project that meets the Green-e definition for renewable power, and therefore, applies Option 1. A minimum of 35% of the required electricity must be provided by green power. The project has utilized the whole-building energy simulation method in EAp2: Minimum Energy Performance, as outlined in ASHRAE/IESNA Standard 90.1-2007. The proof of purchase for the off-site renewable energy has been provided.

However, EAp2 has been denied pending clarifications. As such, the total annual electricity usage of the building cannot be confirmed.

TECHNICAL ADVICE:
Please provide the requested clarifications for EAp2 and resubmit this credit. Revise this form and supporting documentation, as necessary, to confirm that at least 35% of the total annual electricity usage is provided by green power. Ensure that the form reflects the total annual electric energy usage reported in the final EAp2 form.

03/25/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The revised LEED Credit Form has been provided stating that the project has a two-year purchase agreement to procure 40% (682,000 kWh) of the electricity for this LEED-NC project that meets the Green-e definition for renewable power and therefore applies Option 1. A minimum of 35% of the required electricity must be provided by green power. Further, the requested clarifications have been provided for EAp2: Minimum Energy Performance. The documentation demonstrates credit compliance.

Materials and Resources

MRp1: Storage and Collection of Recyclables — Awarded

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project has provided appropriately sized dedicated areas for the collection and storage of materials for recycling, including cardboard, paper, plastic, glass, and metals. The narrative describing the size, accessibility, and dedication of recycling storage areas, and a site plan showing the location of the recycling storage areas within the LEED-NC project have been provided. The narrative confirms the expected volume and pick-up frequencies.

However, the provided site plan only highlights the common collection recycling storage area. The locations of the localized recycling areas have not been highlighted on the provided drawings.

TECHNICAL ADVICE:
Please provide a revised site plan which clearly highlights the locations of the localized recycling areas

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

Photographs have been provided to address the issues outlined in the Preliminary Review, showing the localized recycling areas. Asite plan and floor plans have also been provided. The documentation demonstrates prerequisite compliance.

MRc1.1: Building Reuse-Maintain Existing Walls, Floors and Roof — Not Attempted
POSSIBLE POINTS: 3

MRc1.2: Building Reuse, Maintain 50% of Interior — Not Attempted
POSSIBLE POINTS: 1

MRc2: Construction Waste Management — Awarded: 1
POSSIBLE POINTS: 2
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project has diverted 60.81% of the on-site generated construction waste from landfill. Aminimum of 50% diverted is required. Asupplemental report has also been provided.

However, a Construction Waste Management Plan has not been provided, as required.

TECHNICAL ADVICE:
Please provide a Construction Waste Management Plan identifying the diversion goals of the project, relevant construction debris and materials diverted, implementation protocols, and parties responsible for implementing the plan.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The Construction Waste Management Plans have been provided to address the issues outlined in the Preliminary Review, identifying the diversion goals of the project, relevant construction debris and materials diverted, implementation protocols, and parties responsible for implementing the plan. The documentation demonstrates credit compliance.

MRc3: Materials Reuse — Not Attempted
POSSIBLE POINTS: 2

MRc4: Recycled Content — Awarded: 1
POSSIBLE POINTS: 2
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form and supplemental calculations have been provided stating that 11.09% of the total building materials content, by value, has been manufactured using recycled materials. Aminimum of 10% is required. The recycled material meets the ISO 14021 definitions of post- and pre-consumer material. Manufacturers` documentation has been provided.

However, manufacturers` data has not been provided for 20% of the compliant materials, as required. Note that LEED material content forms are not an acceptable substitute for manufacturers` data.

TECHNICAL ADVICE:
Please provide manufacturers` data for 20% of the compliant materials.

It is noted that the recycled content for the Ceiling and Wall SystemsWoodWorks Linear Ceiling Tile-5407W1 reported in the form (46% pre-consumer) is inconsistent with the manufacturer`s documentation (92% pre-consumer). For future submittals, ensure that all recycled content values have been reported consistently throughout the submittal. In this case, a more conservative (lower) recycled content value has been used. Therefore, this issue does not affect credit compliance.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The manufacturers` documentation for 20% of the compliant materials has been provided to address the issues outlined in the Preliminary Review. The revised LEED Credit Form and supplemental calculations have been provided stating that 11.09% of the total building materials content, by value, has been manufactured using recycled materials.

It is noted that the pre-consumer content for the Forbo Marmoleum has been reported inconsistently on the form (47%) and on the manufacturer`s documentation (46.5%) and the content for the Belden Brick has been reported inconsistently on the form (0% pre-consumer and 42% post-consumer content) and on the manufacturer`s documentation (42% pre-consumer and 0% post-consumer content). For future projects, ensure that the recycled content has been consistently reported throughout the project. When the inconsistency issues are addressed and the form is recalculated, the project has demonstrated that 10.96% of the total building materials content, by value, has been manufactured using recycled materials. The documentation demonstrates credit compliance for one point.

MRc5: Regional Materials — Not Attempted
POSSIBLE POINTS: 2

MRc6: Rapidly Renewable Materials — Not Attempted
POSSIBLE POINTS: 1

MRc7: Certified Wood — Not Attempted
POSSIBLE POINTS: 1

Indoor Environmental Quality

IEQp1: Minimum Indoor Air Quality Performance — Awarded

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project is mechanically ventilated and mechanically conditioned, and therefore, the project applies Case 1. The project has utilized the ASHRAE 62MZCalc Spreadsheets, as well as the Ventilation Rate Procedure (VRP) calculations in Table IEQp1-1 within the form. The project Ventilation Systems Designer has signed the form, as required. The ASHRAE 62MZCalc Spreadsheets have been provided confirming that the breathing zone outdoor air intake ventilation rates for all occupied spaces meet the minimum established in ASHRAE Standard 62.1-2007. Asystem and zone air-side summary report and floor plans have also been provided.

However, three issues are pending:
1. PIf4: Schedule and Overview Documents has been denied pending clarifications regarding the mechanical schedules.

2. It appears that the ASHRAE 62MZCalc Spreadsheets include several air handling units.Note that a separate calculation is required for each ventilation system. Furthermore, note that the version of the form currently utilized (Form v3.0) does not apply to multiple-zone systems. While the form can be used in conjunction with supplemental documentation to confirm compliance of this prerequisite for multi-zone systems, the form itself is only appropriate for a limited type of system designs (i.e. single-zone systems). An upgraded version of the IEQp1: Minimum IAQ Performance form (Form v04) is available, which includes a calculator appropriate for documenting multiple-zone recirculating systems however, it cannot properly calculate ventilation requirements for multiple-zone recirculating systems with recirculation at the zone level (e.g. fan powered induction units). Though not required, it is strongly encouraged that the project upgrade to the most recent version of the form. Projects may request a form upgrade through the feedback button in LEED Online. Include the specific prerequisite form, project number, project name, and rating system when requesting an upgrade.

3. It appears that the project ventilation systems also serve spaces outside the LEED-NC project scope, and it is unclear if these spaces have been accounted for in the VRP calculations.

TECHNICAL ADVICE:
1. Please provide the requested clarifications for PIf4 and resubmit this prerequisite.

2. Provide separate ASHRAE 62MZCalc Spreadsheets for each of the air handling units serving the LEED-NC project scope. Alternatively, a revised and upgraded version of the form may be provided.

3. Provide a narrative describing the HVAC systems that serve the spaces within the LEED-NC project scope of work and the rest of the building. Clarify whether the HVAC systems that serve the spaces within the LEED-NC project scope of work also serve building area outside the project scope of work. If any system(s) serving the project spaces also serve other spaces in the building, the calculation must account for the total system population, area, supply air, and outdoor air volumes, though the critical zone may be determined based on the spaces listed for the project. Identify the total building area and the zones served by the system, the area (of that total) within the LEED-NC project scope and the remaining area which is outside the LEED-NC project scope. The VRP calculation for each ventilation system must include all building area and all zones served, whether the zone is within or outside the LEED-NC project scope. The calculation for each system must account for the total system population (the population of all zones served), and supply air volumes for all zones, though the critical zone may be determined based on the spaces listed for the project. Ensure that the zone areas and zone populations for the spaces outside the project scope are included in the calculations and reflect the current conditions.

Alternatively, if the project is being served by base building ventilation systems providing a specific percentage of outdoor air by volume and the majority of space use and occupancy within the building is consistent with the LEED-NC project, this percentage of outdoor air may be used to determine the design outdoor airflow volume to the LEED-NC project and to demonstrate compliance using the VRP calculation documenting only the project spaces. In this case, provide a narrative to describe how the percentage of outdoor air by volume was determined and to describe the space use within the building outside of the LEED-NC project.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

The requested clarifications for PIf4: Schedule and Overview Documents have been provided to address the issues outlined in the Preliminary Review. The revised mechanical schedules have been provided for PIf4. The separate ASHRAE 62MZCalc Spreadsheet has been provided for AHU-1 and an upgraded version of the form (v05) has been provided, which includes Ventilation Rate Procedure (VRP) calculations for the three 100% outdoor air MAU units. The narrative describes the HVAC systems that serve the spaces within the LEED-NC project scope of work and the rest of the building and clarifies whether the HVAC systems that serve the spaces within the LEED-NC project scope of work also serve building area outside the project scope of work. The calculations confirm that the breathing zone outdoor air intake ventilation rates for all occupied spaces meet the minimum established in ASHRAE Standard 62.1-2007.

It is noted that the form and ASHRAE 62MZCalc Spreadsheet indicates that the design outdoor air intake flow for AHU-1 is 6,922 cfm, whereas the mechanical schedule indicates that the minimum design outdoor air intake flow for AHU-1 is 6,626.48 cfm. In this case, the required outdoor air intake flow is 6,580 cfm, so sufficient outdoor air has been provided. The documentation demonstrates prerequisite compliance.

IEQp2: Environmental Tobacco Smoke (ETS) Control — Awarded

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Prerequisite Form has been provided stating that the project minimizes exposure to ETS-containing air by prohibiting smoking on site. Additionally, smoking is prohibited within the building. The project Owner has signed the form, as required.

However, documentation has not been provided confirming the signage system communicating the exterior smoking policy, as required. Note that a building policy is insufficient to achieve this prerequisite. Signage must be provided to communicate the building smoking policy to all occupants, visitors, and passersby, including those individuals who may be unfamiliar with the policy.

TECHNICAL ADVICE:
Please provide documentation, such as drawings or photographs, communicating the non-smoking policy.

12/10/2012 **DESIGN AND CONSTRUCTION FINAL REVIEW**

The photographs communicating the non-smoking policy have been provided to address the issues outlined in the Preliminary Review. Anarrative has also been provided. The documentation demonstrates prerequisite compliance.

IEQc1: Outdoor Air Delivery Monitoring **Not Attempted**
POSSIBLE POINTS: 1

IEQc2: Increased Ventilation **Not Attempted**
POSSIBLE POINTS: 1

IEQc3.1: Construction IAQ Management Plan-During Construction **Awarded: 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that the project developed and implemented a Construction IAQ Management Plan that followed the referenced SMACNA Guidelines. The form narrative describes how absorptive materials were protected from moisture damage during the construction and pre-occupancy phases. The project Contractor has signed the form, as required. Permanently installed air handling units were operated during construction. For all permanently installed air handling units that were operated during construction, a MERV 8 filter was installed at each return air grille during construction. Copies of the Construction IAQ Management Plans and photographs have been provided.

IEQc3.2: Construction IAQ Management Plan-Before Occupancy **Awarded: 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that an IAQ Management Plan was implemented for this project which includes post-construction measures, and therefore, the project applies Option 1, Path 2. Prior to initial occupancy, the space was flushed out with a minimum of 3,500 cubic feet of outdoor air per square foot of floor area. Once occupied, the space was ventilated at a minimum rate of 0.30 cfm per square foot of outside air or the design minimum outside air rate determined in IEQp1: Minimum Indoor Air Quality Performance, whichever is greater, until a total of 14,000 cubic feet per square foot of outside air was delivered to the space. Acopy of the IAQ Management Plan and a narrative describing the flush-out procedure, including flush-out dates, date of occupancy, outdoor delivery rates, internal temperature, and relative humidity have been provided.

IEQc4.1: Low-Emitting Materials-Adhesives and Sealants **Awarded: 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that all adhesive and sealant products comply with the VOC limits of the referenced standards for this credit. Asummary of all interior adhesive and sealant products has been provided, along with VOC data for each product, confirming that they comply with the referenced VOC limits. The project Contractor has signed the form, as required. Manufacturers` documentation has been provided for at least 20% of the products, as required.

IEQc4.2: Low-Emitting Materials-Paints and Coatings **Awarded: 1**
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that all interior paints and coatings applied on site comply with the VOC limits of the

referenced standards for this credit. A summary of all interior paints and coatings has been provided, along with VOC data for each product, confirming that they comply with the referenced VOC. The project Contractor has signed the form, as required. Manufacturers` documentation has been provided for at least 20% of the products, as required.

IEQc4.3: Low-Emitting Materials-Flooring Systems **Awarded: 1**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that all interior flooring materials and finishes meet or exceed applicable criteria for the Carpet and Rug Institute, South Coast Air Quality Management District, or FloorScore. The adhesives used have a VOC level of less than 50 g/L that complies with IEQc4.1: Low-Emitting Materials, Adhesives and Sealants. A summary of the products, along with data for each product, has been provided in the form. Manufacturers` documentation has been provided for at least 20% of the materials and for at least 20% of the adhesive and sealant products, as required.

However, it does not appear that all of the flooring systems installed within the LEED-NC project scope have been included in the form. Table L-5: Flooring Adhesives and Sealants includes a carpet adhesive, but no carpet has been listed in Table;IEQc4.3-1: Flooring Materials and Finishes.

TECHNICAL ADVICE:
Please provide a revised form which includes all of the flooring systems installed within the LEED-NC project scope. A narrative may be provided to explain any special circumstances.

03/22/2013 **DESIGN AND CONSTRUCTION FINAL REVIEW**

The revised LEED Credit Form has been provided to address the issues outlined in the Preliminary Review and includes all of the flooring systems installed within the LEED-NC project scope. Additional manufacturers` documentation, LEED product forms, and a narrative have also been provided. The documentation demonstrates credit compliance.

IEQc4.4: Low-Emitting Materials-Composite Wood and Agrifiber Products **Not Attempted**

POSSIBLE POINTS: 1

IEQc5: Indoor Chemical and Pollutant Source Control **Not Attempted**

POSSIBLE POINTS: 1

IEQc6.1: Controllability of Systems-Lighting **Not Attempted**

POSSIBLE POINTS: 1

IEQc6.2: Controllability of Systems-Thermal Comfort **Not Attempted**

POSSIBLE POINTS: 1

IEQc7.1: Thermal Comfort-Design **Awarded: 1**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that the mechanically ventilated and mechanically conditioned project space is in compliance with ASHRAE Standard 55-2004. The project has utilized Table IEQc7.1-1 to determine credit compliance. The project Mechanical Engineer has signed the form, as required. The metabolic rate and clothing insulation, weather design conditions, and operating conditions have been provided for both the cooling and heating mode. Local discomfort effects have been considered unlikely. Supporting documentation has been provided to confirm that all design conditions fall within the ASHRAE Standard 55-2004 acceptable ranges.

IEQc7.2: Thermal Comfort-Verification **Awarded: 1**

POSSIBLE POINTS: 1

ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 **DESIGN AND CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that a permanent monitoring system and process for corrective action are in place to ensure performance to the desired comfort criteria, as determined by the credit requirements. IEQc7.1: Thermal Comfort, Design, has been earned, as required. The project Owner has signed the form, as required. A sample questionnaire and a narrative which identifies the parties responsible for administering the survey have been provided.

IEQc8.1: Daylight and Views-Daylight **Not Attempted**
POSSIBLE POINTS: 1

IEQc8.2: Daylight and Views-Views **Not Attempted**
POSSIBLE POINTS: 1

Innovation in Design

IDc1.1: Innovation in Design — Not Attempted
POSSIBLE POINTS: 1

IDc1.2: Innovation in Design — Awarded: 1
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that the project has developed and implemented a Green Housekeeping program. To receive an Innovation in Design point, the project team must demonstrate compliance with LEED-EBOM v2009 IEQp3: Green Cleaning Policy. The Green Cleaning Policy has been provided. The Green Cleaning Policy follows the LEED-EBOM Policy Model and demonstrates the development of a comprehensive and quantitative green cleaning program, which includes detailed information regarding staff training, cleaning processes and chemicals, and occupant feedback. Manufacturer`s data has also been provided.

It is noted that the LEED-EBOM v2009 IEQp3 form has not been provided. In addition, there are three files uploaded to LEED Online that were unable to be opened. It appears that these files have been provided in a file format (.ashx) which is unsupported by LEED Online. For future projects, ensure that the form is provided and all supporting files are provided in format supported by LEED Online. The following file formats are currently supported by LEED Online: DOC, PDF, ZIP, JPG, or XLS. In this case, credit compliance is not affected.

IDc1.3: Innovation in Design — Awarded: 1
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that the project team has developed and implemented a Public Education program. This strategy is detailed in LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010). To take advantage of the educational value of the green building features of a project and to earn an Innovation in Design point, any approach should be actively instructional. At least two ongoing instructional initiatives must be documented, such as a comprehensive signage program, a case-study highlighting the successes of the LEED project, guided tours using the project as an example, an educational outreach program that engages occupants or the public through periodic events covering green building topics, and / or a website or electronic newsletter.

However, documentation has been provided for only one educational component (comprehensive signage).

TECHNICAL ADVICE:
Please document the second component, as required. Provide documentation demonstrating the development of a case-study (pdf of the hardcopy), guided tours (a script and tour stop description drawing), an educational outreach program (detailed narrative and supporting document), and/or a website (pdf of the website) or electronic newsletter (pdf of the hardcopy) comply with the Reference Guide requirements.

03/22/2013 DESIGN AND CONSTRUCTION FINAL REVIEW

Anarrative and the screen shots of the website have been provided to address the issues outlined in the Preliminary Review, and demonstrate the development of a second educational component (website). The documentation demonstrates credit compliance.

IDc1.4: Innovation in Design — Not Attempted
POSSIBLE POINTS: 1

IDc1.5: Innovation in Design — Not Attempted
POSSIBLE POINTS: 1

IDc2: LEED® Accredited Professional — Awarded: 1
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: 0, PENDING: 0, AWARDED: 1

12/10/2012 DESIGN AND CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that a LEED AP has been a participant on the project development team. A copy of the LEED AP award certification for Christopher Pinkowski has been included, as required.

Regional priority

SSc1: Site Selection
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms
POSSIBLE POINTS: 1

SSc5.1: Site Development-Protect or Restore Habitat
POSSIBLE POINTS: 1

SSc5.2: Site Development-Maximize Open Space
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

SSc6.1: Stormwater Design-Quantity Control
POSSIBLE POINTS: 1

WEc1: Water Efficient Landscaping
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 0

TOTAL	**110**	**59**	**3**	**0**	**55**

REVIEW SUMMARY

Review	SUBMITTED	RETURNED	POINTS: SUBMITTED	DENIED	PENDING	AWARDED
Design and Construction Preliminary	**08/15/2012**	**01/11/2013**	**55**	**3**	**31**	**21**

Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Plf1: Minimum Program Requirements	Approved		0	0	0	0
Plf2: Project Summary Details	Not Approved		0	0	0	0
Plf3: Occupant and Usage Data	Not Approved		0	0	0	0
Plf4: Schedule and Overview Documents	Not Approved		0	0	0	0
SSp1: Construction Activity Pollution Prevention	Awarded	Construction	0	0	0	0
SSc1: Site Selection	Awarded	Design	2	0	0	2
SSc2: Development Density and Community Connectivity	Awarded	Design	5	0	0	5
SSc4.1: Alternative Transportation-Public Transportation Access	Pending	Design	6	0	6	0
SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	Pending	Design	3	0	3	0
SSc4.4: Alternative Transportation-Parking Capacity	Awarded	Design	2	0	0	2
SSc5.2: Site Development-Maximize Open Space	Pending	Design	2	0	2	0
WEp1: Water Use Reduction, 20% Reduction	Pending	Design	0	0	0	0
WEc1: Water Efficient Landscaping	Awarded	Design	2	0	0	2
WEc3: Water Use Reduction	Pending	Design	3	0	3	0
EAp1: Fundamental Commissioning of the Building Energy Systems	Pending	Construction	0	0	0	0
EAp2: Minimum Energy Performance	Pending	Design	0	0	0	0
EAp3: Fundamental Refrigerant Management	Awarded	Design	0	0	0	0
EAc1: Optimize Energy Performance	Pending	Design	8	0	8	0
EAc3: Enhanced Commissioning	Pending	Construction	2	0	2	0
EAc4: Enhanced Refrigerant Management	Awarded	Design	2	0	0	2
EAc6: Green Power	Pending	Construction	2	0	2	0
MRp1: Storage and Collection of Recyclables	Pending	Design	0	0	0	0
MRc2: Construction Waste Management	Pending	Construction	1	0	1	0
MRc4: Recycled Content	Pending	Construction	1	0	1	0
IEQp1: Minimum Indoor Air Quality Performance	Pending	Design	0	0	0	0
IEQp2: Environmental Tobacco Smoke (ETS) Control	Pending	Design	0	0	0	0
IEQc3.1: Construction IAQ Management Plan-During Construction	Awarded	Construction	1	0	0	1
IEQc3.2: Construction IAQ Management Plan-Before Occupancy	Awarded	Construction	1	0	0	1
IEQc4.1: Low-Emitting Materials-Adhesives and Sealants	Awarded	Construction	1	0	0	1
IEQc4.2: Low-Emitting Materials-Paints and Coatings	Awarded	Construction	1	0	0	1

IEQc4.3: Low-Emitting Materials-Flooring Systems	**Pending**	Construction	**1**	**0**	**1**	**0**
IEQc7.1: Thermal Comfort-Design	**Awarded**	Design	**1**	**0**	**0**	**1**
IEQc7.2: Thermal Comfort-Verification	**Awarded**	Design	**1**	**0**	**0**	**1**
IDc1.2: Green Cleaning Program	**Awarded**	Design	**1**	**0**	**0**	**1**
IDc1.3: Educational Signage Dashboard	**Pending**	Design	**1**	**0**	**1**	**0**
IDc2: LEED® Accredited Professional	**Awarded**	Construction	**1**	**0**	**0**	**1**

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Credit	STATUS	TYPE	POINTS: ATTEMPTED	DENIED	PENDING	AWARDED
Plf1: Minimum Program Requirements	Approved		0	0	0	0
Plf2: Project Summary Details	Approved		0	0	0	0
Plf3: Occupant and Usage Data	Approved		0	0	0	0
Plf4: Schedule and Overview Documents	Approved		0	0	0	0
SSc4.1: Alternative Transportation-Public Transportation Access	Awarded	Design	6	0	0	6
SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	Denied	Design	3	3	0	0
SSc5.2: Site Development-Maximize Open Space	Awarded	Design	2	0	0	2
WEp1: Water Use Reduction, 20% Reduction	Awarded	Design	0	0	0	0
WEc3: Water Use Reduction	Awarded	Design	4	0	0	3
EAp1: Fundamental Commissioning of the Building Energy Systems	Awarded	Construction	0	0	0	0
EAp2: Minimum Energy Performance	Awarded	Design	0	0	0	0
EAc1: Optimize Energy Performance	Awarded	Design	15	0	0	15
EAc3: Enhanced Commissioning	Awarded	Construction	2	0	0	2
EAc6: Green Power	Awarded	Construction	2	0	0	2
MRp1: Storage and Collection of Recyclables	Awarded	Design	0	0	0	0
MRc2: Construction Waste Management	Awarded	Construction	1	0	0	1
MRc4: Recycled Content	Awarded	Construction	1	0	0	1
IEQp1: Minimum Indoor Air Quality Performance	Awarded	Design	0	0	0	0
IEQp2: Environmental Tobacco Smoke (ETS) Control	Awarded	Design	0	0	0	0
IEQc4.3: Low-Emitting Materials-Flooring Systems	Awarded	Construction	1	0	0	1
IDc1.3: Educational Signage Dashboard	Awarded	Design	1	0	0	1