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®).

UMMS Albert Sherman Center

Project ID	1000000477
Rating system & version	LEED-NC v2009
Project registration date	06/09/2009

Certified (Gold)

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

LEED FOR NEW CONSTRUCTION & MAJOR RENOVATIONS (V2009)

ATTEMPTED: 64, DENIED: 1, PENDING: 0, AWARDED: 64 OF 110 POINTS

SUSTAINABLE SITES — 23 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
SSc4.1	Alternative Transportation-Public Transportation Access	6 / 6
SSc4.2	Alternative Transportation-Bicycle Storage and Changing Rooms	1 / 1
SSc4.3	Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	3 / 3
SSc4.4	Alternative Transportation-Parking Capacity	2 / 2
SSc5.1	Site Development-Protect or Restore Habitat	0 / 1
SSc5.2	Site Development-Maximize Open Space	1 / 1
SSc6.1	Stormwater Design-Quantity Control	1 / 1
SSc6.2	Stormwater Design-Quality Control	1 / 1
SSc7.1	Heat Island Effect, Non-Roof	1 / 1
SSc7.2	Heat Island Effect-Roof	1 / 1
SSc8	Light Pollution Reduction	0 / 1

WATER EFFICIENCY — 4 OF 10

WEp1	Water Use Reduction-20% Reduction	Y
WEc1	Water Efficient Landscaping	0 / 4
WEc2	Innovative Wastewater Technologies	0 / 2
WEc3	Water Use Reduction	4 / 4

ENERGY AND ATMOSPHERE — 12 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	7 / 19
EAc2	On-Site Renewable Energy	0 / 7
EAc3	Enhanced Commissioning	2 / 2
EAc4	Enhanced Refrigerant Mgmt	0 / 2
EAc5	Measurement and Verification	3 / 3
EAc6	Green Power	0 / 2

MATERIALS AND RESOURCES — 6 OF 14

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

MATERIALS AND RESOURCES — CONTINUED

MRc5	Regional Materials	1 / 2
MRc6	Rapidly Renewable Materials	0 / 1
MRc7	Certified Wood	1 / 1

INDOOR ENVIRONMENTAL QUALITY — 10 OF 15

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

INNOVATION IN DESIGN — 6 OF 6

IDc1.1	Innovation in Design	1 / 1
IDc1.2	Innovation in Design	1 / 1
IDc1.3	Innovation in Design	1 / 1
IDc1.4	Innovation in Design	1 / 1
IDc1.5	Innovation in Design	1 / 1
IDc2	LEED® Accredited Professional	1 / 1

REGIONAL PRIORITY CREDITS — 3 OF 4

SSc3	Brownfield Redevelopment	0 / 1
SSc6.1	Stormwater Design-Quantity Control	1 / 1
SSc7.1	Heat Island Effect, Non-Roof	1 / 1
SSc7.2	Heat Island Effect-Roof	1 / 1
EAc2	On-Site Renewable Energy	0 / 1
MRc1.1	Building Reuse-Maintain Existing Walls, Floors and Roof	0 / 1

TOTAL — 64 OF 110

CREDIT DETAILS

Project Information Forms

PIf1: Minimum Program Requirements — Approved

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been provided stating that the project complies with all Minimum Program Requirements. The project Owner has initialed 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 Worchester, Massachusetts.

07/26/2012 DESIGN FINAL REVIEW

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

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2012 DEC 5 CONSTRUCTION FINAL REVIEW

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PIf2: Project Summary Details — Approved

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Project Information Form has been provided including the following project summary details. There is one building in this LEED-NC application with a total of nine stories and 512,580 gross square feet. The project is 100% new construction. The total site area within the LEED-NC project boundary is 240,075 square feet and the building area to site area ratio is 213.51%. The form indicates that there are 1,220 parking spaces available to the occupants, nine floors above grade and zero floors below grade (excluding parking levels). The site was previously developed. The building uses energy from natural gas, electricity, fuel oil, district or campus heating, and district or campus cooling and uses water from a municipal potable water system. The sewage is conveyed to a municipal sewer system. The total project budget is $ 286,178,379.

However,the total parking capacity indicated on the form (1,220 parking spaces) is inconsistent with that indicated in the parking narrative provided in PIf4 Schedule and Overview Documents, SSc4.3 Alternative Transportation - Low Emitting and Fuel Efficient Vehicles, and SSc4.4 Alternative Transportation - Parking Capacity (1,329 total spaces, with 531 spaces located in one parking garage and 798 spaces located in another parking garage). The overall parking capacity available to the occupants of the LEED-NC project must be reported consistently throughout the LEED submittal.

Please note that the form does not indicate that the project is located on a campus. As numerous documents provided for other prerequisites and credits indicate that the project is located on a campus, form compliance is not affected. For future submittals, ensure that the form accurately conveys all project summary details.

TECHNICAL ADVICE:
Please provide a clarification narrative and revise the form, as necessary, to report the correct total parking capacity available to the occupants. Ensure that this value is reported consistently throughout the LEED submittal.

07/26/2012 DESIGN FINAL REVIEW

The LEED Project Information Form has been revised to address the issues outlined in the Preliminary Review comments and states that the project is located on a campus with a total of 1,080 parking spaces available to the building users. The revised number of parking spaces available to the building users is reported consistently throughout the LEED application. The documentation demonstrates form compliance.

12/05/2012 **CONSTRUCTION PRELIMINARY REVIEW**

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01/04/2013 **CONSTRUCTION FINAL REVIEW**

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PIf3: Occupant and Usage Data **Approved**

03/01/2012 **DESIGN PRELIMINARY REVIEW**

The LEED Project Information Form has been provided including the following occupant and usage data. The building consists primarily of laboratory spaces and is occupied by an academic institution. The building is intended to be owner-occupied after project completion. The occupancy includes standard occupancy patterns. The project building has an average and peak of 1,579 building users with 1,329 FTE occupants. The building is occupied 250 days per year.

07/26/2012 **DESIGN FINAL REVIEW**

This LEED Project Information Form was previously approved during the Design Preliminary Review. A revised LEED Project Information Form has been provided including a revised FTE occupancy value. The revised FTE value is reported consistently throughoutthe LEED application. A clarification narrative has been provided.

12/05/2012 **CONSTRUCTION PRELIMINARY REVIEW**

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01/04/2013 **CONSTRUCTION FINAL REVIEW**

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PIf4: Schedule and Overview Documents **Approved**

03/01/2012 **DESIGN PRELIMINARY REVIEW**

The LEED Project Information Form has been provided including the design and construction schedule. The estimated date of substantial construction completion is noted as November 15, 2012, and the estimated date of occupancy is noted as December 14, 2012. The following supporting documents have been provided: interior and exterior renderings, site plans, representative floor plans, elevations and section drawings, mechanical schedules and a parking narrative. Additionally, the building systems narrative and the project narrative have been provided.

07/26/2012 **DESIGN FINAL REVIEW**

This LEED Project Information Form was previously approved during the Design Preliminary Review. A revised parking narrative has been provided including revised data for the number of parking spaces provided for the building users in each of two parking garages. The total number of parking spaces available to the building users is reported consistently throughout the LEED application. Revised mechanical plans and schedules have been provided.

12/05/2012 **CONSTRUCTION PRELIMINARY REVIEW**

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01/04/2013 **CONSTRUCTION FINAL REVIEW**

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Sustainable Sites

SSp1: Construction Activity Pollution Prevention — Awarded

12/05/2012 **CONSTRUCTION PRELIMINARY REVIEW**

The LEED Prerequisite Form has been provided stating that the project has implemented an erosion and sedimentation control (ESC) plan which conforms to the 2003 EPA Construction General Permit (CGP). The requirements of the CGP are more stringent than local erosion and sedimentation control standards and codes. The ESC plan addresses the necessary requirements to prevent soil loss, sedimentation, and pollution of the air, as required. The date-stamped photographs have been provided to confirm that the ESC plan was implemented appropriately. The photographs demonstrate the ESC measures taken including any corrective actions taken. The ESC Plan and Stormwater Pollution Prevention Manual have also been provided.

SSc1: Site Selection — Awarded: 1

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

03/01/2012 **DESIGN 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

03/01/2012 **DESIGN 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. Scaled area plans showing the one half mile radius, the locations of the basic services, and the location of the residential district has been provided.

However, two issues are pending:
1. It is unclear if pedestrian access exists from the project site to all basic services as required. Specifically, it is unclear whether the Buca di Beppo restaurant or any of the services on the south side of Boston Turnpike are accessible to pedestrians from the project site.

2. It is unclear whether all of the basic services are available to the general public. For example, it is unclear whether each of the UMass facilities shown on the map is open to the general public. It is the intent of this credit that basic services are available to everyone and are not restricted to campus occupants and staff.

TECHNICAL ADVICE:
1. Please provide additional documentation confirming that pedestrian access is available to at least ten unique basic services and the existing residential district. In necessary, please revise the form and map to highlight revised pedestrian-accessible basic services.

2. Provide a clarification narrative which demonstrates that the noted services are accessible to the public. Revise the form and map as necessary to ensure that the documentation highlights ten unique, qualifying basic services (restaurants may be counted twice) that are within the one half mile distance from the project site and accessible to the public.

07/26/2012 **DESIGN FINAL REVIEW**

The LEED Credit Form and the scaled area plans have been revised to address the issues outlined in the Preliminary Review comments and include a revised list of ten basic community services, all of which are accessible to the public and via pedestrian pathways from the project building. The clarification narrative has been provided and confirms that each of the university-owned facilities shown on the revised area plan is open to the general public. The documentation demonstrates credit compliance.

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 2 and is served by five bus lines within one quarter mile walking distance of the project site. Bus schedules and a scaled map showing the location of the transit stops have been provided.

However, two issues are pending:
1. The drawing provided to show the location of the transit stops does not include a scale as required.

2. The map provided does not indicate the pedestrian route from the main entrance of the project to the transit stops. Note that this pedestrian route must be less than one quarter mile in order to meet credit requirements; a one quarter mile radius is not applicable to bus service.

TECHNICAL ADVICE:
1. 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.

2. Provide a revised drawing showing the pedestrian route from the main entrance of the project to each of the transit stops.

07/26/2012 DESIGN FINAL REVIEW

Arevised LEED Credit Form has been provided including a reference to the supporting documentation. Scaled campus maps have been provided illustrating the pedestrian routes from the main entrances of the project to each of the nearby transit stops, confirming that the transit stops are available via pedestrian access. The form indicates that the project building is served by five bus lines within one-quarter mile walking distance of the project site. The documentation demonstrates credit compliance.

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

Awarded: 1

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project includes institutional spaces and that bicycle storage facilities have been provided to serve 5.7% of the LEED-NC project FTE and transient occupants, measured at peak occupancy, and shower facilities for 1.13% of the LEED-NC project FTE occupants. Bicycle storage facilities must be provided for at least 5% of project FTE and transient occupants and shower facilities must be provided for at least 0.5% of FTE project occupants. Plans have been provided showing the locations of the bicycle storage and shower facilities. Additionally, a site plan highlighting the LEED project boundary has been provided.

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

Awarded: 3

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 1 and provides 61 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, a parking narrative, and parking plans highlighting the total parking capacity and the preferred parking spaces have been provided. Additionally, a site plan highlighting the LEED project boundary has been provided.

However, four issues are pending:
1. As noted under Plf2 Project Summary Details, the overall parking capacity available to LEED-NC project occupants is unclear, as it has not been reported consistently throughout the LEED submittal.

2. Based on the parking capacities noted in theparking narrative, it appears that an insufficient number of preferred parking spaces have been provided for low-emitting and fuel-efficient vehicles. For occupants of the LEED-NC project, the narrative indicates the total parking capacity is 1,329 spaces spread between two parking garages. Therefore, the minimum required number of preferred parking

spaces is 67 spaces.

3. Signage (either photographs or drawings) indicating the reserved status of the preferred parking spaces has not been provided as required. Please note that because the parking narrative indicates that the LEED-NC project parking is located in a portion of two parking areas which are shared with other occupants of the campus, the signage must designate that these preferred spaces are reserved for the occupants of the LEED-NC project only.

4. Parking plans have not been provided as required for one of the two parking garages which provide parking for the LEED-NC project.

TECHNICAL ADVICE:
1. Please address the comments within PIf2 and ensure that the correct total parking capacity available to the occupants is reported consistently throughout the LEED submittal.

2. Provide a revised LEED Credit Form and revised parking plans indicating that preferred parking spaces for low-emitting and fuel-efficient vehicles have been provided for at least 5% of the total parking capacity.

3. Provide 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.

4. Provide the required parking plans for all parking garages that provide parking for the LEED-NC project.

Alternatively, the project may comply with the requirements of this credit, as outlined in the Application Guide for Multiple Buildings and On-Campus Projects. In this case, include all parking located within the campus in the calculations (including parking associated with projects within the campus that are not pursuing LEED certification). Acampus parking plan must be provided in order to illustrate the site/campus parking and a reasonable distribution of preferred parking spaces for any projects seeking LEED certification.

07/26/2012 DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and lists the number of parking spaces consistently with PIf2 (Project Summary Details). The form states that there are a total of 1,080 parking spaces available to the building users, of which 54 have been reserved for low-emitting and fuel-efficient vehicles. Signage details have been provided and confirm that the low-emitting and fuel-efficient parking spaces are reserved for use solely by occupants of this LEED-NC project. Parking garage plans have been provided. The revised documentation confirms that preferred parking for low-emitting and fuel-efficient vehicles has been provided for 5.0% of the total parking capacity. The documentation demonstrates credit compliance.

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

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the LEED-NC project is non-residential and applies Case 1 - Option 1. The form indicates that the number of parking spaces provided to the base building does not exceed the minimum number required by local zoning regulations and the project provides 61 preferred parking spaces for car/vanpool vehicles (5% of total parking capacity). Preferred parking for car/vanpools must be provided for at least 5% of the total parking capacity. Asite plan, a parking narrative, and parking plans highlighting the total parking capacity and the preferred parking spaces have been provided.

However, four issues are pending:
1. As noted under PIf2 Project Summary Details, the overall parking capacity available to LEED-NC project occupants is unclear, as it has not been reported consistently throughout the LEEDsubmittal.

2. Based on the parking capacities noted in the parking narrative, it appears that an insufficient number of preferred parking spaces have been provided for car/vanpools. For occupants of the LEED-NC project, the narrative indicates the total parking capacity is 1,329 spaces spread between two parking garages. Therefore, the minimum required number of preferred parking spaces is 67 spaces.

3. Photographs or detail drawings of the installed signage confirming that the preferred car/vanpool parking spaces are reserved for use solely by occupants of the LEED-NC project have not been provided as required. As it appears that the parking areas are shared with other occupants of the campus, the signage must designate that these preferred spaces are reserved for the occupants of the LEED-NC project only.

4. Parking plans have not been provided as required for one of the two parking garages which provide parking for the LEED-NC project.

TECHNICAL ADVICE:
1. Please address the comments within PIf2 and ensure that the correct total parking capacity available to the occupants is reported consistently throughout the LEED submittal.

2. Provide a revised LEED Credit Form and revised parking plans indicating that preferred parking spaces for car/vanpools have been provided for at least 5% of the total parking capacity.

3. Provide photographs or signage details which confirm that the car/vanpool parking spaces are reserved for use solely by occupants of this LEED-NC project as required.

4. Provide the required parking plans for all parking garages that provide parking for the LEED-NC project.

Alternatively, the project may comply with the requirements of this credit, as outlined in the Application Guide for Multiple Buildings and On-Campus Projects. In this case, include all parking located within the campus in the calculations (including parking associated with projects within the campus that are not pursuing LEED certification). Acampus parking plan must be provided in order to illustrate the site/campus parking and a reasonable distribution of preferred parking spaces for any projects seeking LEED certification.

07/26/2012 DESIGN FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and lists the number of parking spaces consistently with PIf2 (Project Summary Details). The form states that there are a total of 1,080 parking spaces available to the building users, of which 54 have been reserved for car/vanpool vehicles. Signage details have been provided and confirm that the car/vanpool parking spaces are reserved for use solely by occupants of this LEED-NC project. Parking garage plans have been provided. The revised documentation confirms that preferred parking for car/vanpool vehicles has been provided for 5.0% of the total parking capacity. The documentation demonstrates credit compliance.

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project site has local open space zoning regulations therefore the project complies with Case 1. The project has provided 29.45% more open space than required by local zoning regulations. Additionally, 65.83% of this dedicated open space is vegetated. Aminimum of 25% more than zoning requirements is required and at least 25% of that dedicated open space must be vegetated. The project has provided 77,694 square feet of open space whereas zoning regulations require 60,019 square feet. Pedestrian hardscape has been included in the calculations of this credit. The calculations do not include wetlands or naturally designed ponds. The project Owner has initialed the form, as required. Site plans highlighting the dedicated open space and the LEED project boundary have been provided.

However, SSc2 Design Development and Community Connectivity is pending clarifications. The pedestrian hardscape cannot be included in the calculations of this credit unless SSc2 is also achieved. When this area is excluded from the calculations, the project has provided 51,146 square feet of vegetated open space, which is 14.78% less than amount required by local zoning regulations.

TECHNICAL ADVICE:
Please see the comments within SSc2. Revise this form and supporting documentation as necessary to ensure credit compliance. Note that the open space must be maintained for the lifespan of the LEED-NC building to meet credit requirements.

07/26/2012 DESIGN FINAL REVIEW

Arevised LEED Credit Form has been provided including a clarification narrative. The requirements of SSc2 Design Development and Community Connectivity documentation have been met; therefore, pedestrian-oriented hardscape may be included in the SSc5.2 calculations. The documentation confirms that the project has provided 29.45% more open space than required by local zoning regulations, of which 65.83% is vegetated. The documentation demonstrates credit compliance.

SSc6.1: Stormwater Design-Quantity Control — Awarded: 1

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that prior to development of this LEED-NC project, the existing site imperviousness was less than or equal to 50%. Therefore, the project applies Case 1 - Option 1. Astormwater management plan has been implemented such that the post-development site runoff in both rate and quantity does not exceed the pre-development runoff rate and quantity for both the one- and two-year 24-hour storm events. The pre- and post-development runoff values have been provided within the form. The stormwater management plan, which includes the description of the stormwater management strategies and calculations supporting the claimed runoff values, has been provided.

SSc6.2: Stormwater Design-Quality Control — Awarded: 1

POSSIBLE POINTS: 1

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

03/27/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that stormwater runoff from 90% of the average annual rainfall is captured or treated such that 80% of the average annualpost-development Total Suspended Solids (TSS) is removed. The form lists the project BMPs and structural controls and describes the contribution to stormwater filtration of each, including their TSS removal rate and percent of annual rainfall volume treated. Supporting documentation includes TSS removal calculations and manufacturer documentation for the structural controls.

For future projects, please note that street sweeping is not considered an effective TSS removal measure and cannot aid in the compliance for this credit. While street sweeping may remove large debris, the intent of this credit is more concerned with the fine materials and particles that street sweeping is unable to remove effectively. In this case, credit compliance is not affected when recalculated to exclude street sweeping. The documentation demonstrates credit compliance.

SSc7.1: Heat Island Effect, Non-Roof — Awarded: 1

POSSIBLE POINTS: 1

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that 63% of nonroof base building hardscape surfaces will be mitigated through the use of materials with an SRI of at least 29 therefore the project complies with Option 1. Aminimum of 50% is required. The table listing materials with an SRI of at least 29 has been provided as required. The site plan, including information regarding paving materials, has been provided.

SSc7.2: Heat Island Effect-Roof — Awarded: 1

POSSIBLE POINTS: 1

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that 104% of the base building roof surface has Solar Reflectance Index of at least 78. Therefore, the project complies with Option 1. Aminimum of 75% of the roof with a minimum SRI of 78 is required. The roof slope is noted as less than or equal to 2:12. The table listing the compliant SRI roofing materials, a roof plan, paver specifications, and manufacturer documentation for the installed roofing materials have been provided.

Please note that, although construction specifications for the grey concrete pavers has been provided, manufacturer documentation has been not provided as required to verify the SRI value for the installed grey concrete pavers. As recalculating without the grey concrete pavers the documentation demonstrates that 100% of the base building roof surface has a Solar Reflectance Index of at least 78, credit compliance is not affected. For future submittals, ensure that all required supporting documentation is provided for each material contributing to credit compliance.

SSc8: Light Pollution Reduction — Not Attempted

POSSIBLE POINTS: 1

Water Efficiency

WEp1: Water Use Reduction-20%Reduction — Awarded

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form and water use calculations have been provided stating that the project has reduced potable water use by 41% from a calculated baseline design through the installation of FIXTURES. Aminimum reduction of 20% is required. Aplumbing fixture schedule has been provided.

However, two issues are pending:
1. As the supporting documentation provided for SSc4.2 Alternative Transportation - Bicycle Storage and Changing Rooms indicates that showers are available for the LEED-NC project occupants on the ground floor of the adjacent existing medical school building, it appears that all applicable fixtures have not been included in the calculations for this credit as required. Note that the calculations for that credit must include all fixtures which are utilized to meet the needs of LEED-NC project occupants (both newly installed/modified fixtures and existing fixtures) regardless of whether these fixtures are inside or outside of the LEED-NC project scope of work or the LEED-NC project boundary.

2. It is unclear whether the fitness center showers in the LEED-NC project are available to all of the LEED-NC project occupants, including both transient visitors and FTE occupants. If the fitness center showers are available to all of the LEED-NC project occupants, the default values for daily usage of these public showers must be used for both the FTE occupants and transients.

TECHNICAL ADVICE:
1. Please revise the form to include all applicable fixtures which are utilized to meet the needs of LEED-NC project occupants (both newly installed/modified fixtures and existing fixtures) regardless of whether these fixtures are inside or outside of the LEED-NC project scope of work or the LEED-NC project boundary.

2. Provide a detailed narrative to confirm whether all of the LEED-NC project occupants,including both transient visitors and FTE occupants have access to the fitness center showers. Revise the form as necessary to reflect the correct daily usage values for the fitness center showers among both FTE occupants and transients.

07/26/2012 DESIGN FINAL REVIEW

The LEED Prerequisite Form has been revised to address the issues outlined in the Preliminary Review comments and includes revised water use calculations. Aletter from the university has been provided confirming the anticipated flow rates of existing shower heads after a fixture upgrade has been completed. The revised form states that the project has reduced potable water use by 40% from a calculated baseline design through the installation of low-flow urinals, water closets, kitchen sinks, and showers. The documentation demonstrates prerequisite compliance.

Please note that the Total Daily Uses column in Table WEp1-3 Flush Fixture Data have been manually modified. Additionally, it is unclear if these values have been appropriately recalculated. As revising the calculations to use default values indicates that potable water usage has been reduced by 40.54%, prerequisite compliance is not affected. For future submittals, ensure that the calculations are appropriately revised for the Final Review.

WEc1: Water Efficient Landscaping — Not Attempted
POSSIBLE POINTS: 4

WEc2: Innovative Wastewater Technologies — Not Attempted
POSSIBLE POINTS: 2

WEc3: Water Use Reduction — Awarded: 4
POSSIBLE POINTS: 4
ATTEMPTED: 4, DENIED: 0, PENDING: 0, AWARDED: 4

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project has reduced potable water use by 41% from the calculated baseline design fixture performance. Aminimum reduction of 30% is required.

However, WEp1 Minimum Water Use Reduction has been denied pending clarifications.

TECHNICAL ADVICE:
Please see the comments within WEp1 and resubmit this credit.

07/26/2012 DESIGN FINAL REVIEW

The WEp1 (Water Use Reduction: 20% reduction) documentation has been revised to address the issues outlined in the Preliminary Review comments and indicates that the project has reduced potable water use by 40.54% from a calculated baseline design. The documentation demonstrates credit compliance.

Energy and Atmosphere

EAp1: Fundamental Commissioning of the Building Energy Systems — Awarded

12/05/2012 **CONSTRUCTION PRELIMINARY REVIEW**

The LEED Prerequisite Form has been provided stating that the fundamental commissioning report for the project energy-related systems is in progress and a contract is in place to ensure that the report will be completed. The required commissioning authority experience of the project team Commissioning Agent has been provided, and the documentation confirms that the Owner Project requirements (OPR) and Basis of Design (BOD) are consistent with the final construction documentation and completed project. The Owner and Commissioning Agent have initialed the form, as required. The copy of the commissioning plan which includes a list of the systems commissioned, a contract defining the scope of the commissioning services in progress, and sample checklists for at least two of the commissioned systems have been provided.

EAp2: Minimum Energy Performance — Awarded

03/01/2012 **DESIGN PRELIMINARY REVIEW**

The LEED Prerequisite Form and supporting documentation have been provided stating that the project is new construction and therefore complies with Option 1. The project has achieved an energy cost savings of 26.99% using the ASHRAE 90.1-2007 Appendix G methodology. A minimum energy cost savings of 10% is required for all new construction. The Architect, Mechanical Engineer, and Electrical Engineer have initialed the form, as required. Energy efficiency measures incorporated into the building design include an improved thermal envelope, high efficiency glazing, reduced interior lighting power density, daylighting controls, occupancy sensors, and energy recovery ventilators.

However, the following seven review comments requiring a project response (marked as Mandatory) must be addressed for the Final Review.
TECHNICAL ADVICE:
REVIEW COMMENTS REQUIRING A PROJECT RESPONSE (Mandatory):
1. The energy savings reported for fans and lighting do not appear to be substantiated based on the energy inputs reported in the Section 1.4 - Supplemental Tables. Review the Baseline and Proposed inputs for the model to confirm that they conform to ASHRAE 90.1-2007 and LEED modeling protocol. Provide sufficient information regarding the energy inputs in the Section 1.4 Tables and an accompanying narrative to justify the reported energy savings. Additionally, provide revised input and output summary reports BEPU, BEPS, ES-D, PS-E, LV-H, LV-I, SV-A, and PV-A for the Baseline and Proposed Case to justify that the energy inputs correctly reflect ASHRAE 90.1-2007 and LEED modeling protocol.

2. It is unclear whether the Baseline case fan power was modeled in accordance with ASHRAE 90.1-2007 Section G3.1.2.9. If necessary, revise the sum of the design supply, return, exhaust, and relief fans for each Baseline HVAC system to be equal to the power calculated in G3.1.2.9 where CFM refers to the design supply CFM. Please note that without pressure adjustments the expected Baseline case fan power inputs based on reported CFM values in the uploaded document G-Fanpower-90_1_2007.pdf by system are as follows: System 1 = 101.05 kW, System 2 = 209.66 kW, System 3 = 109.16 kW, System 4 = 49.98 kW, System 5 = 55.27 kW, System 6 = 47.86 kW, System 7 = 93.89 kW, and System 8 = 50.65 kW. Indicate any pressure adjustments reflected in the revised fan power calculations. Report the total fan power in the Section 1.4 -Supplemental Table 1.4.2, and update the energy models, input and output summaries, and form as necessary.

3. In Section 1.4 - Supplemental Table 1.4.5, the average interior lighting power density has been reported for the Building Area Method. However, the reported input values for Offices (1.1 W/SF) and Labs (1.4 W/SF) appear to have been taken from Table 9.6.1 Lighting Power Densities Using the Space-by-Space Method. Please note that if the Building Area Method is selected, Baseline case input values must be taken from Table 9.5.1 Lighting Power Densities Using the Building Area Method. Additionally, note that per 9.5.1(a), For building area types not listed, selection of a reasonably equivalent type shall be permitted. However, the reasonably equivalent type selected must be taken from the table corresponding with the appropriate compliance path. Revise the energy models, update Section 1.4 - Supplemental Table 1.4.5, and revise the supporting documentation as necessary.

4. From the information provided, it is unclear if automatic daylighting controls are included in the Proposed Case energy model. If daylighting controls are included, provide a narrative describing the controls and how they are implemented in the Proposed energy model. Describe how the controls conform to Table G3.1 Paragraph 6(f). Revise the energy models, update Section 1.4 - Supplemental Table 1.4.5, and revise the supporting documentation as necessary.

5. Exterior lighting has been modeled identically for the Baseline and Proposed Case. Provide a narrative confirming that the Proposed Case exterior lighting reflects the actual building design and the Baseline Case reflects the allowed lighting power from Section 9. Ensure that no credit is taken in the Proposed Design Case for lighting reductions on non-tradable surfaces. Additionally, note that additional lighting power allowance cannot be claimed in the Baseline model for surfaces that are not provided with lighting in the actual design, and lighting fixtures cannot be double counted for different exterior surfaces. Ensure that the tradable and non-tradable surface lighting power are reported separately (in units of Watts or Kilowatts) for both the Baseline and Proposed Case within Section 1.4 - Supplemental Table 1.4.5 and verify that these values are appropriately reflected in the model outputs and Tables EAp2-4 and EAp2-5.

6. In Table EAp2-5 of the LEED Credit Form, exterior lighting has been reported as a process load, which is unexpected. Please revise

Table EAp2-5 to exclude exterior lighting from process loads or provide a narrative describing the reasons for classifying exterior lighting consumption as a process load.

7. It is unclear whether the controls for Chilled water temperature reset and Hot water temperature reset were modeled in the Baseline case as required by Section G3.1.3.9 and G3.1.3.4, respectively. Revise the Baseline model, as necessary, to reflect the specified temperature reset controls and include these controls in the input parameters described in the Section 1.4 - Supplemental Tables 1.4.2 and 1.4.3. Indicate any reset controls modeled for the Proposed Case.

07/26/2012 **DESIGN FINAL REVIEW**

The LEED Prerequisite Form has been revised to address the issues outlined in the Preliminary Review and states that the project has achieved an energy cost savings of 25.52% using the ASHRAE 90.1-2007 Appendix G methodology. Revised supporting documentation has been provided including a narrative response to Preliminary Review comments, and updated simulation input and output summary files. Sufficient information has been provided to address all issues raised in the Preliminary Review. The total predicted annual energy consumption for the project is 12,166,103 kWh/year of electricity, 25,518 MMbtu/year of chilled water, and 20,994 MMbtu/year of steam. The documentation demonstrates prerequisite compliance.

EAp3: Fundamental Refrigerant Management — Awarded

03/01/2012 **DESIGN PRELIMINARY REVIEW**

The LEED Prerequisite Form has been provided stating that the project is served by existing mechanical cooling equipment that uses CFC-refrigerants. In addition, the form indicates that an audit conducted by a third party shows that CFC phase-out (replacement or conversion) is economically infeasible for some or all mechanical cooling equipment using CFC-based refrigerants.

EAc1: Optimize Energy Performance — Awarded: 7

POSSIBLE POINTS: 19
ATTEMPTED: 7, DENIED: 0, PENDING: 0, AWARDED: 7

03/01/2012 **DESIGN PRELIMINARY REVIEW**

The LEED Credit Form and supporting documentation have been provided stating that the project is new construction and has achieved an energy cost savings of 26.99% using the ASHRAE 90.1-2007 Appendix G methodology. A minimum energy cost savings of 12% is required for all new construction projects.

However, EAp2 Minimum Energy Performance is denied pending clarifications.

TECHNICAL ADVICE:
Please see the comments within EAp2 and resubmit this credit.

07/26/2012 **DESIGN FINAL REVIEW**

The LEED Credit Form and supporting documentation have been provided stating that the project is new construction and has achieved an energy cost savings of 25.52% using the ASHRAE 90.1-2007 Appendix G methodology. A minimum energy cost savings of 12% is required for all new construction projects. When EAp2 was recalculated based on the issues noted there, the project has demonstrated an energy cost savings of 25.52%. The documentation demonstrates credit compliance.

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

12/05/2012 **CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that enhanced commissioning has been implemented. The project team

Commissioning Agent has initialed the form as required. The form includes the completion dates for the comprehensive commissioning review tasks. A table of contents for the systems manual and the contract between the Owner and the Commissioning Agent ensuring post-construction commissioning activities have been provided.

However, although a table of contents for the systems manual has been provided, this documentation does not include sufficient details to serve as a draft systems manual.

TECHNICAL ADVICE:
Please provide detailed draft of the systems manual which covers the commissioned systems and future operating information.

01/04/2013 CONSTRUCTION FINAL REVIEW

A revised LEED Credit Form has been provided including a reference to the supporting documentation. Copies of individual sections of the draft systems manual have been provided, including sequences of operations for installed equipment, a training plan, a re-commissioning plan, a monitoring plan, and a calibration plan. The documentation demonstrates credit compliance.

EAc4: Enhanced Refrigerant Management — Not Attempted

POSSIBLE POINTS: 2

EAc5: Measurement and Verification — Awarded: 3

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project complies with Option 1 and has developed and implemented a Measurement and Verification Plan consistent with Option D (Calibrated Simulation Savings Estimation Method) of the 2003 IPMVP. A Measurement and Verification Plan consistent with the 2003 IPMVP Option D has been provided along with a points list.

EAc6: Green Power — Not Attempted

POSSIBLE POINTS: 2

Materials and Resources

MRp1: Storage and Collection of Recyclables — Awarded

03/01/2012 DESIGN 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 floor plan showing the location of the recycling storage areas within the LEED-NC project have been provided. The area is adequately sized and located, and the narrative confirms the expected volume and pick-up frequencies. Floor plans have been provided, along with a supplemental narrative describing the campus-wide recycling initiative.

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: 2

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project has diverted 89.3% of the on-site generated construction waste from landfill. Aminimum of 50% diverted is required. Calculations and a Construction Waste Management Plan have been provided to document the waste types and receiving agencies for the diverted materials. Documentation has been provided for all commingled waste as required.

However, the required signatory for this credit is the project team Contractor, but the form has been initialed by a person (Lisa Jaroz) who has not been assigned any role in LEED Online.

TECHNICAL ADVICE:
Please provide a revised form with the required signatory completed by the project Contractor. Note that the Contractor must be designated the proper role in the Team Administration Tab in LEED Online and must be logged in withhis or her own account when initialing the form.

01/04/2013 CONSTRUCTION FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and has been initialed by the Contractor. The form confirms that the project has diverted 89.3% of the on-site generated construction waste from landfill. The documentation demonstrates credit compliance.

MRc3: Materials Reuse — Not Attempted

POSSIBLE POINTS: 2

MRc4: Recycled Content — Awarded: 2

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form and the LEED Materials and Resource Calculator have been provided stating that 23.83% of the total building materials content, by value, have been manufactured using recycled materials. Aminimum of 10% is required. The recycled material meets the ISO 14021 definitions of post- and pre-consumer material. Manufacturer documentation has been provided for at least 20% of the compliant materials, as required.

However, as Drawers are listed among the materials contributing to credit compliance for MRc7 Certified Wood, it appears that furniture has been included in the calculations of MRc7. When furniture is included within the calculations of a LEED-NC project, then all of the furniture must be included consistently in the calculations for the MR credits (MRc3 - MRc7).

TECHNICAL ADVICE:
Please revise the calculations to include furniture in the calculations of this credit. Provide additional documentation as necessary to ensure that vendor invoices are provided for all FSC certified wood products. Alternatively, provide a narrative and supporting product documentation to confirm that the Drawers material is not furniture.

01/04/2013 CONSTRUCTION FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and excludes furniture. A clarification narrative has been provided. The calculations indicate that 23.83% of the total building materials content, by value, have been manufactured using recycled materials. The documentation demonstrates credit compliance.

MRc5: Regional Materials — Awarded: 1

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form and the LEED Materials and Resource Calculator have been provided stating that 14.53% of the total building materials value includes building materials and products that have been manufactured and extracted within 500 miles of the project site. Aminimum of 10% must be extracted and manufactured within 500 miles of the project site. Manufacturer documentation has been provided for at least 20% of the compliant materials, as required.

However, as Drawers are listed among the materials contributing to credit compliance for MRc7 Certified Wood, it appears that furniture has been included in the calculations of MRc7. When furniture is included within the calculations of a LEED-NC project, then all of the furniture must be included consistently in the calculations for the MR credits (MRc3 - MRc7).

TECHNICAL ADVICE:
Please revise the calculations to include furniture in the calculations of this credit. Provide additional documentation as necessary to ensure that vendor invoices are provided for all FSC certified wood products. Alternatively, provide a narrative and supporting product documentation to confirm that the Drawers material is not furniture.

01/04/2013 CONSTRUCTION FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and excludes furniture. A clarification narrative has been provided. The calculations indicate that 14.53% of the total building materials value includes building materials and products that have been manufactured and extracted within 500 miles of the project site. The documentation demonstrates credit compliance.

MRc6: Rapidly Renewable Materials — Not Attempted

POSSIBLE POINTS: 1

MRc7: Certified Wood — Awarded: 1

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form and the LEED Materials and Resources Calculator have been provided stating that 98.28% of the total wood-based building materials are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC). A minimum of 50% is required. Vendor invoices have been provided for 100% of all FSC certified wood products.

However, two issues are pending:
1. The supporting documentation provided for the Nevamar wood products indicates that these products are FSC Mixed, but the form calculations indicate that these products are 100% FSC certified wood.

2. As Drawers are listed among the materials contributing to credit compliance for MRc7, it appears that furniture has been included in the calculations of MRc7. When furniture is included within the calculations of a LEED-NC project, then all of the furniture must be included consistently in the calculations for the MR credits (MRc3 - MRc7).

TECHNICAL ADVICE:
1. Please revise the calculations to reflect only the specific FSC Mixed percentages for each new wood product that are FSC wood.

2. Revise the calculations to include furniture in the calculations of this credit. Provide additional documentation as necessary to ensure that vendor invoices are provided for all FSC certified wood products. Alternatively, provide a narrative and supporting product documentation to confirm that the Drawers material is not furniture.

01/04/2013 CONSTRUCTION FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and excludes furniture. Additionally, the calculations have been revised to include only the FSC percentage of the Nevamar wood products. A clarification narrative has been provided. The calculations indicate that 98.11% of the total wood-based building materials are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC). The documentation demonstrates credit compliance.

Indoor Environmental Quality

IEQp1: Minimum Indoor Air Quality Performance — Awarded

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Prerequisite Form has been provided stating that the project is mechanically ventilated and mechanically conditioned, therefore the project applies Case 1. The form indicates that the project is pursuing an alternative compliance path to document this credit. Anarrative and a copy of the ASHRAE 62MZCalc calculator for each AHU have been provided. The 62MZCalc calculators indicate that the mechanical ventilation system is comprised of multiple zone units. The MEP Engineer has initialed the form. The ventilation rate procedure and designed outdoor air intake rates confirming that the breathing zone outdoor air intake ventilation rates for all occupied spaces meets the minimum established in ASHRAE 62.1-2007 have been provided.

However, two issues are pending:
1. It appears that the calculations may not have been performed for the worst-case conditions. Generally, worst-case conditions are during heating mode. The values used for zone air distribution effectiveness (Ez) do not appear to be substantiated based on the type of system, and the mode of operation. Note that this value is most often 0.8 for an overhead distribution system in heating mode.

2. It appears that the total square footage listed in the supporting calculators (387,531 square feet) differs significantly from that listed in Plf2 Project Summary Details (512,580 square feet). Some differences in square footage are reasonable, given that only occupiable space is included in IEQp1, but additional information is required to address large square footage differences.

TECHNICAL ADVICE:
1. Please provide additional information to confirm that the ASHRAE 62.1 Ventilation Rate Procedure (VRP) calculations have been performed for the worst-case conditions, or provide calculations document compliance for worst-case conditions. Provide additional information to justify the value used for Ez, or update the value to 0.8.

2. Either revise the IEQp1 documentation to include all occupiable space in the project building and provide an explanatory narrative of the changes made, or provide a narrative verifying that all occupiable spaces are included in IEQp1 and explaining the source of the square footage difference between EQp1 and Plf2.

07/26/2012 DESIGN FINAL REVIEW

The clarification narrative has been provided to address the issues outlined in the Preliminary Review comments and confirms that the ASHRAE 62.1 Ventilation Rate Procedure (VRP) calculations have been performed for the worst-case conditions. In addition, area calculations have been provided confirming that all occupiable spaces are included in IEQp1 and explaining the source of the square footage difference between IEQp1 and Plf2 Project Summary Details. An excerpt from the Basis of Design has been provided. The documentation demonstrates prerequisite compliance.

IEQp2: Environmental Tobacco Smoke (ETS) Control — Awarded

03/01/2012 DESIGN 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 initialed the form as required. Asite plan and drawings confirming the signage system communicating the exterior smoking policy have been provided.

IEQc1: Outdoor Air Delivery Monitoring — Awarded: 1

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the project meets the credit criteria for a mechanically ventilated space. ACO2 sensor has been installed within each densely occupied space and these sensors are programmed to generate an alarm when the conditions vary by 10% or more from the design value. In addition, an outdoor airflow measurement device has been installed for all systems where 20% or more of the design supply airflow services non-densely occupied spaces and these devices are programmed to generate an alarm when the conditions vary by 10% or more from the design value. Drawings showing the outdoor airflow measurement devices have been provided. Site plans, floor plans, and specifications have been provided.

However, although annotated mechanical plans have been provided to confirm the location of the CO2 sensors, the file labeled

IEQc1_UMMS-ASC-MECHANICAL PLANS CONTROLS.pdf includes information only on page 1. As the other supporting documentation does not clearly highlight the location of the CO2 sensors, compliance cannot be confirmed.

TECHNICAL ADVICE:
Please provide additional mechanical plans and drawings that clearly highlight the location of the CO2 sensors within each densely occupied space.

07/26/2012 DESIGN FINAL REVIEW

A revised LEED Credit Form has been provided including an updated list of densely occupied spaces. A clarification narrative and revised mechanical plans have been provided confirming the locations of the CO2 sensors within each densely occupied space. The documentation demonstrates credit compliance.

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

12/05/2012 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. Photographs from at least two different time periods have been provided highlighting the implemented IAQ measures. Permanently installed air handling units were operated during construction. A copy of the Construction IAQ Management Plan has been provided.

However, three issues are pending:
1. Although Table IEQc3.1-1 Filtration Media indicates that some permanently installed air handling units were operated during construction (on the second floor and in the penthouse), it is unclear which specific air handling units were operated and equipped with new filters immediately prior to project occupancy. As the HVAC system narrative provided for PIf4 Schedule and Overview Documents indicates that there are multiple interconnected AHUs located throughout the building serving regularly occupied lab and office spaces, it is unclear that all appropriate AHUs have been included in the form.

2. Although the form states that 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 and these filters were replaced immediately prior to project occupancy with a MERV 8 filter, this claim is inconsistent with the documentation provided for IEQc5 Indoor Chemical and Pollutant Source Control which states that all supply air systems serving regularly occupied spaces have been outfitted with new filtration media with a rating of at least MERV 13 immediately prior to occupancy.

3. The form narrative does not include sufficient details describing how absorptive materials were protected from moisture damage during the construction and preoccupancy phases. Note that the form narrative includes a construction IAQ management plan but does not include information on the measures implemented at the project building.

TECHNICAL ADVICE:
1. Please provide a narrative confirming that all permanently installed air handling units that were operated during construction were equipped with a MERV 8 filter on all return air grilles during construction which was then replaced with a new filter with a rating of at least MERV 8 immediately prior to project occupancy.

2. Provide a revised LEED Credit Form and supporting documentation confirming whether all supply air systems serving regularly occupied spaces have been outfitted with new filtration media with a rating of at least MERV 13 immediately prior to occupancy as required for compliance with IEQc5. Alternatively, revise the documentation provided for IEQc5 and/or unattempt that credit, if necessary, to ensure consistency between IEQc3.1 and IEQc5.

3. Provide a revised form including a more detailed narrative describing how absorptive materials were protected from moisture damage during the construction and preoccupancy phases.

01/04/2013 CONSTRUCTION FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and includes additional details on HVAC protection, source control, and filtration. Filter manufacturer documentation has been provided for the MERV 13 filters installed on all AHUs after construction and prior to occupancy. Additionally, flush-out calculations have been provided.

Please note that although the form narrative has been revised to indicate that MERV 13 filters were installed after construction, the form table still indicates that MERV 8 filters were installed after construction. As it appears that this is a documentation oversight, credit compliance is not affected. For future submittals, ensure that the form accurately indicates the filtration media installed at the project

building.

IEQc3.2: Construction IAQ Management Plan-Before Occupancy — Denied

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

12/05/2012 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 1. Acopy of the flush-out plan for the project has been provided.

However, two issues are pending:
1. Although a copy of the flush-out plan has been provided indicating that the project conducted a flush-out prior to occupancy, no narrative describing the flush-out procedure has been provided and the flush-out plan does not include sufficient details to confirm that the project was flushed-out while maintaining an internal temperature of at least 60 degrees Fahrenheit and relative humidity no higher than 60%, as required. In addition, the flush-out plan does not confirm the outside air delivery rates that were achieved in each space as required.

2. Although the documentation provided for PIf3 (Occupant and Usage Data) indicates that the total gross area of the project is 512,580 square feet, of which only 5,000 square feet is unconditioned space, the flush-out plan indicates that a total of only 486,000 square feet of floor area was flushed-out. Therefore it is unclear whether the flush-out process supplied a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area, as required.

TECHNICAL ADVICE:
1. Please provide a detailed narrative that includes specific information regarding the outdoor air delivery rates, minimum internal temperatures, and maximum relative humidity levels that were maintained during the flush-out process.

2. Revise the flush-out plan and provide supporting documentation as necessary to confirm that the flush-out process supplied a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area as required. Ensure that the revised documentation for this credit is consistent with the documentation provided for PIf3 as required.

01/04/2013 CONSTRUCTION FINAL REVIEW

Arevised LEED Credit Form has been provided including a a revised narrative. Flush-out calculations have been provided.

However, two issues remain that prevent credit compliance:
1. Although a copy of the flush-out plan was provided during the Preliminary Review indicating that the project conducted a flush-out prior to occupancy, no narrative describing the flush-out procedure has been provided and the flush-out plan does not include sufficient details to confirm that the project was flushed-out while maintaining an internal temperature of at least 60 degrees Fahrenheit and relative humidity no higher than 60%, as required. In addition, the flush-out plan does not confirm the outside air delivery rates that were achieved in each spaceas required. Note that no further information has been provided to address this issue from the Preliminary Review comments.

For future submittals, please provide a detailed narrative that includes specific information regarding the outdoor air delivery rates, minimum internal temperatures, and maximum relative humidity levels that were maintained during the flush-out process.

2. Although the documentation provided for PIf3 (Occupant and Usage Data) indicates that the total gross area of the project is 512,580 square feet, of which only 5,000 square feet is unconditioned space, the flush-out plan indicates that a total of only 486,000 square feet of floor area was flushed-out. Therefore it is unclear whether the flush-out process supplied a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area, as required. Note that the revised flush-out calculations still include only 486,000 square feet of floor area.

For future submittals, revise the flush-out plan and provide supporting documentation as necessary to confirm that the flush-out process supplied a total air volume of 14,000 cubic feet of outdoor air per square foot of floor area as required. Ensure that the revised documentation for this credit is consistent with the documentation provided for PIf3 as required.

The documentation does not demonstrate credit compliance.

IEQc4.1: Low-Emitting Materials-Adhesives and Sealants — Awarded: 1

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

12/05/2012 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. A summary 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. Manufacturer documentation has been provided for at least 20% of the products as required.

However, the required signatory for this credit is the project team Contractor, but the form has been initialed by a person (Lisa Jaroz) who has not been assigned any role in LEED Online.

TECHNICAL ADVICE:
Please provide a revised form with the required signatory completed by the project Contractor. Note that the Contractor must be designated the proper role in the Team Administration Tab in LEED Online and must be logged in with his or her own account when initialing the form.

01/04/2013 CONSTRUCTION FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and has been initialed by the Contractor. The documentation demonstrates credit compliance.

IEQc4.2: Low-Emitting Materials-Paints and Coatings — Awarded: 1

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

12/05/2012 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 limits. Manufacturer documentation has been provided for at least 20% of the products as required.

However, the required signatory for this credit is the project team Contractor, but the form has been initialed by a person (Lisa Jaroz) who has not been assigned any role in LEED Online.

TECHNICAL ADVICE:
Please provide a revised form with the required signatory completed by the project Contractor. Note that the Contractor must be designated the proper role in the Team Administration Tab in LEED Online and must be logged in with his or her own account when initialing the form.

01/04/2013 CONSTRUCTION FINAL REVIEW

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and has been initialed by the Contractor. The documentation demonstrates credit compliance.

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

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

12/05/2012 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. Manufacturer documentation has been provided for at least 20% of the materials and for at least 20% of the adhesive and sealant products as required.

IEQc4.4: Low-Emitting Materials-Composite Wood and Agrifiber Products — Awarded: 1

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

12/05/2012 **CONSTRUCTION PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that all composite wood, agrifiber products, and laminate adhesives used in the building contain no added urea-formaldehyde resins. A product summary of all products has been provided indicating that the products do not contain added urea-formaldehyde. Manufacturer documentation has been provided for at least 20% of the materials as required.

However, two issues are pending:
1. Based on the documentation provided for MRc4 (Recycled Content), MRc5 (Regional Materials), and MRc7 (Certified Wood), it appears that the list of composite wood, agrifiber products, and laminate adhesives is not comprehensive. For example, it appears that the Wurth Baer Supply MDF Core product listed in MRc4, MRc5, and MRc7 has been inappropriately excluded from this credit. Similarly, it is unclear whether the Allied Building Products Corp. Fire Treated Wood, Seatply Products Inc. Plywood, Stanley Sliding Door Telescoping 5000 Doors Series, Vesta FR Flakeboard and MDF Paneling, Atlantic Plywood Corp Anigre Plywood, Doors, MDF, and Particleboard, Forbo Bulletin Board, Flexible Materials Edge Banding, CCF Industries Drawers, and Wurth Baer Supply White Melamine products listed in MRc4, MRc5, and MRc7 have been inappropriately excluded from this credit.

2. The required signatory for this credit is the project team Contractor, but the form has been initialed by a person (Lisa Jaroz) who has not been assigned any role in LEED Online.

TECHNICAL ADVICE:
1. Please provide a revised form including all laminate adhesives, plywood, doors, and any other composite wood or agrifiber products within the scope of work that may not be listed and/or a narrative explaining why these items were not used. To support the information, provide manufacturer documentation confirming that the products contain no added urea-formaldehyde resins. Ensure that the revised form and supporting documentation are consistent with the documentation provided for MRc4, MRc5, and MRc7.

2. Provide a revised form with the required signatory completed by the project Contractor. Note that the Contractor must be designated the proper role in the Team Administration Tab in LEED Online and must be logged in with his or her own account when initialing the form.

01/04/2013 **CONSTRUCTION FINAL REVIEW**

The LEED Credit Form has been revised to address the issues outlined in the Preliminary Review comments and has been initialed by the Contractor. Additionally, the revised form includes all non-furniture composite wood and agrifiber products used in the project. A clarification narrative has been provided. The documentation demonstrates credit compliance.

IEQc5: Indoor Chemical and Pollutant Source Control

Awarded: 1

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

03/27/2012 **DESIGN PRELIMINARY REVIEW**

The LEED Credit Form has been provided stating that the project includes high-volume exterior entryways. Permanent entryway systems that are at least ten feet long in the primary direction of travel have been installed immediately within the required entryways to capture dirt and particulates. Floor plans showing the locations and measurements of the installed permanent entryway systems have been provided.

However, two issues are pending:

1. Although mechanical plans and drawings have been provided, the documentation does not clearly highlight the location of chemical/hazardous gas usage areas, room separations, and associated exhaust systems.

2. Although mechanical plans and drawings have been provided, the documentation does not clearly highlight the MERV rating for all air handling units installed in the project.

TECHNICAL ADVICE:

1. Provide additional mechanical plans and drawings that clearly highlight the location of chemical/hazardous gas usage areas, room separations, and associated exhaust systems.

2. Provide additional mechanical plans and drawings to confirm the MERV rating for all air handling units installed on the project. Note that the documentation must confirm that supply air systems, including both outside air and return air delivered as supply, serving all regularly occupied areas, must have filtration of MERV 13 or better.

07/26/2012 **DESIGN FINAL REVIEW**

A revised LEED Credit Form has been provided including a revised list of chemical/hazardous gas usage areas and a clarification narrative. In addition, mechanical plans and schedules have been provided and confirm that all supply air systems, including both

outside air and return air delivered as supply, serving all regularly occupied areas, have filtration of MERV 13 or better. A clarification narrative has been provided. The documentation demonstrates credit compliance.

IEQc6.1: Controllability of Systems-Lighting — Awarded: 1

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form and a supplemental calculations spreadsheet have been provided stating that lighting controls are provided to enable 100% of occupants to make adjustments to suit individual task needs and preferences. A minimum of 90% of individual workstations must have individual lighting controls. The calculations spreadsheet states that the project includes shared multi-occupant spaces and lighting controls have been provided for 100% of the shared multi-occupant spaces. A minimum of 100% of shared multi-occupant spaces must have lighting controls. Lighting plans confirming the locations of the individual controls and the locations of shared multi-occupant spaces, including activities and types of lighting controls, have been provided. Task lighting specifications have been provided.

However, two issues are pending:
1. It appears that breakroom AS2-1015 and several kitchen spaces have been inappropriately classified as shared multi-occupant spaces. Note that in individual occupant spaces, workers use standard workstations to conduct individual tasks. Examples are private offices and open office areas with multiple workers. Shared multi-occupant spaces include conference rooms, classrooms, and other indoor spaces used as places of congregation. Kitchens and breakrooms are not considered shared multi-occupant workspaces.

2. As a number of multi-occupant spaces are described as having wall switches and occupancy sensors with a manual override switch, it is not clear whether multi-occupant spaces have the required level of lighting control. Note that on/off switches for task lighting are acceptable controls for individual workstations, but the requirements for lighting controls in multi-occupant spaces are different. For multi-occupant spaces, on/off switches and motion sensors with manual override switches do not do not meet the credit intent to provide high levels of lighting system control. The lighting controls for multi-occupant spaces must be adjustable to suit group activities and allow flexibility in lighting for different uses.

TECHNICAL ADVICE:
1. Please provide a narrative describing the activities that take place within breakroom AS2-1015 and all kitchen spaces listed as shared multi-occupant spaces. Revise the form and documentation as necessary to ensure that all spaces are appropriately classified. Note that spaces must be classified consistently throughout all submittal documentation.

2. Provide a narrative describing how the lighting systems are designed to provide multiple levels of lighting control in the multi-occupant spaces with wall switches and occupancy sensors with a manual override. Revise the form and documentation as necessary to ensure that only multi-occupant spaces with multiple levels of lighting control are counted towards credit compliance.

07/26/2012 DESIGN FINAL REVIEW

The supplemental calculations spreadsheet has been revised to address the issues outlined in the Preliminary Review comments and includes only regularly occupied spaces. A clarification narrative has been provided confirming that the lighting systems are designed to provide multiple levels of lighting control in all of the multi-occupant spaces. The documentation confirms that lighting controllability is in place for 100% of individual workstations and 100% of shared multi-occupant spaces. The documentation demonstrates credit compliance.

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been provided stating that the mechanically ventilated and mechanically conditioned project space is in compliance with ASHRAE 55-2004. The project has utilized Table IEQc7.1-1 to determine credit compliance. 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 and are considered unlikely. Supporting documentation to confirm that all design conditions fall within the ASHRAE 55-2004 acceptable ranges has been provided, and includes detailed narratives, copies the basis of design and owners project requirements documentation, specifications, and psychrometric charts.

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

POSSIBLE POINTS: 1

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

03/01/2012 DESIGN 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 initialed the form as required. A sample questionnaire has 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 — Awarded: 1

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

12/05/2012 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 a LEED 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. The documentation provided for the development of a signage program and a website complies with the Reference Guide requirements. Floor plans, draft signage documents, and a narrative summarizing the green features of the project have been provided.

IDc1.2: Innovation in Design — Awarded: 1

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that the project team has developed and implemented a building envelop commissioning strategy. Detailed narratives describing the proposed innovation credit have been provided along with copies of curtain wall performance testing procedures and water test results. There are two basic criteria listed in the reference guide that need to be addressed for achieving an ID point: 1. quantitative performance improvements (comparing a baseline and design case); and 2. a comprehensive strategy (more than one product or process). Additionally, the ID strategy must be significantly better than standard sustainable design practices. The documentation demonstrates credit compliance.

IDc1.3: Innovation in Design — Awarded: 1

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

12/05/2012 CONSTRUCTION PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that the project team has developed and implemented a fume hood commissioning strategy. A detailed narrative describing the proposed innovation credit has been provided along with a copy the contract for commissioning the fume hoods. There are two basic criteria listed in the reference guide that need to be addressed for achieving an ID point: 1. quantitative performance improvements (comparing a baseline and design case); and 2. a comprehensive strategy (more than one product or process). Additionally, the ID strategy must be significantly better than standard sustainable design practices.

However, although the proposed strategy is commendable, including the fume hoods in the systems to be commissioned on the project does not warrant the award of an innovation credit as this is already covered in EAp1 (Fundamental Commissioning of the Building Energy Systems). In addition, for some building owners and commissioning providers, fume hood commissioning is considered standard practice.

Note that although this proposed strategy was previously listed in the ID Credit Catalog, the ID Credit Catalog is meant as a brainstorming tool only to assist project teams in the development of new ID credits. It does not set any precedent to be upheld during a LEED Certification Review. Similarly, although this proposed strategy was approved for use as an ID credit in LEED-NC v2.1 projects per LEED Interpretations 5793 and 5794, these LEED Interpretations are not currently applicable to LEED-NC v2.2 or LEED-NC 2009 projects.

TECHNICAL ADVICE:
The project may apply for an alternative Innovation in Design credit for the Final Review.

01/04/2013 CONSTRUCTION FINAL REVIEW

A clarification narrative has been provided including a copy of LEED Interpretation 1739, confirming that ASHRAE 110 commissioning of fume hoods is an appropriate Innovation in Design strategy. The documentation demonstrates credit compliance.

IDc1.4: Innovation in Design — Awarded: 1

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

01/04/2013 CONSTRUCTION FINAL REVIEW

This credit was submitted for initial review during the Final Review. The LEED Credit Form has been submitted stating that the project achieves exemplary performance for MRc7 (Certified Wood) as specified in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010). The requirement for exemplary performance in MRc7 is for at least 95% of the total wood-based building materials are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC). The MRc7 documentation indicates that 98.11% of the total wood-based building materials are certified in accordance with the principles and criteria of the Forest Stewardship Council (FSC), which meets the exemplary performance requirement.

IDc1.5: Innovation in Design — Awarded: 1

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

03/01/2012 DESIGN PRELIMINARY REVIEW

The LEED Credit Form has been submitted stating that the project achieves exemplary performance for SSc4.1 (Alternative Transportation - Public Transportation Access) as specified in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition (Updated June 2010). The SSc4.1 documentation includes transit schedules. In order to meet the exemplary performance requirement, a minimum of 200 transit rides per day is required.

However, the base credit is pending clarifications.

TECHNICAL ADVICE:
Please see the comments within SSc4.1. Ensure that any issues noted there are addressed within the exemplary performance documentation when resubmitting this credit.

07/26/2012 DESIGN FINAL REVIEW

The SSc4.1 Alternative Transportation - Public Transportation Access documentation has been revised to address the issues outlined in the Preliminary Review comments and confirms that the five nearby bus lines provide 236 transit rides to building users per day, which meets the exemplary performance requirement. The documentation demonstrates credit compliance.

IDc2: LEED® Accredited Professional — Awarded: 1

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

12/05/2012 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 BD+C award certification for Michael Pulaski has been included as required.

Regional priority

SSc3: Brownfield Redevelopment
POSSIBLE POINTS: 1

SSc6.1: Stormwater Design-Quantity Control
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

SSc7.1: Heat Island Effect, Non-Roof
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

SSc7.2: Heat Island Effect-Roof
POSSIBLE POINTS: 1
ATTEMPTED: 1, DENIED: , PENDING: , AWARDED: 1

EAc2: On-Site Renewable Energy
POSSIBLE POINTS: 1

MRc1.1: Building Reuse-Maintain Existing Walls, Floors and Roof
POSSIBLE POINTS: 1

TOTAL	**110**	**64**	**1**	**0**	**64**

REVIEW SUMMARY

Review	SUBMITTED	RETURNED	POINTS: SUBMITTED	DENIED	PENDING	AWARDED
Design Preliminary	**02/07/2012**	**03/27/2012**	**41**	**0**	**34**	**7**

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	Approved		0	0	0	0
Plf4: Schedule and Overview Documents	Approved		0	0	0	0
SSc1: Site Selection	Anticipated	Design	1	0	0	1
SSc2: Development Density and Community Connectivity	Pending	Design	5	0	5	0
SSc4.1: Alternative Transportation-Public Transportation Access	Pending	Design	6	0	6	0
SSc4.2: Alternative Transportation-Bicycle Storage and Changing Rooms	Anticipated	Design	1	0	0	1
SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	Pending	Design	3	0	3	0
SSc4.4: Alternative Transportation-Parking Capacity	Pending	Design	2	0	2	0
SSc5.2: Site Development-Maximize Open Space	Pending	Design	1	0	1	0
SSc6.1: Stormwater Design-Quantity Control	Anticipated	Design	1	0	0	1
SSc6.2: Stormwater Design-Quality Control	Anticipated	Design	1	0	0	1
SSc7.2: Heat Island Effect, Roof	Anticipated	Design	1	0	0	1
WEp1: Water Use Reduction, 20% Reduction	Pending	Design	0	0	0	0
WEc3: Water Use Reduction	Pending	Design	4	0	4	0
EAp2: Minimum Energy Performance	Pending	Design	0	0	0	0
EAp3: Fundamental Refrigerant Management	Anticipated	Design	0	0	0	0
EAc1: Optimize Energy Performance	Pending	Design	8	0	8	0
MRp1: Storage and Collection of Recyclables	Anticipated	Design	0	0	0	0
IEQp1: Minimum Indoor Air Quality Performance	Pending	Design	0	0	0	0
IEQp2: Environmental Tobacco Smoke (ETS) Control	Anticipated	Design	0	0	0	0
IEQc1: Outdoor Air Delivery Monitoring	Pending	Design	1	0	1	0
IEQc5: Indoor Chemical and Pollutant Source Control	Pending	Design	1	0	1	0
IEQc6.1: Controllability of Systems-Lighting	Pending	Design	1	0	1	0
IEQc7.1: Thermal Comfort-Design	Anticipated	Design	1	0	0	1
IEQc7.2: Thermal Comfort-Verification	Anticipated	Design	1	0	0	1
IDc1.5: Innovation in Design: SSc4.1 Exemplary Performance	Pending	Design	1	0	1	0

Design Final	07/13/2012	07/31/2012	32	0	0	32

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
SSc2: Development Density and Community Connectivity	Anticipated	Design	5	0	0	5
SSc4.1: Alternative Transportation-Public Transportation Access	Anticipated	Design	6	0	0	6
SSc4.3: Alternative Transportation-Low-Emitting and Fuel-Efficient Vehicles	Anticipated	Design	3	0	0	3
SSc4.4: Alternative Transportation-Parking Capacity	Anticipated	Design	2	0	0	2
SSc5.2: Site Development-Maximize Open Space	Anticipated	Design	1	0	0	1
WEp1: Water Use Reduction, 20% Reduction	Anticipated	Design	0	0	0	0
WEc3: Water Use Reduction	Anticipated	Design	4	0	0	4
EAp2: Minimum Energy Performance	Anticipated	Design	0	0	0	0
EAc1: Optimize Energy Performance	Anticipated	Design	7	0	0	7
IEQp1: Minimum Indoor Air Quality Performance	Anticipated	Design	0	0	0	0
IEQc1: Outdoor Air Delivery Monitoring	Anticipated	Design	1	0	0	1
IEQc5: Indoor Chemical and Pollutant Source Control	Anticipated	Design	1	0	0	1
IEQc6.1: Controllability of Systems-Lighting	Anticipated	Design	1	0	0	1
IDc1.5: Innovation in Design: SSc4.1 Exemplary Performance	Anticipated	Design	1	0	0	1

Construction Preliminary	11/15/2012	12/12/2012	23	0	15	9

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
SSp1: Construction Activity Pollution Prevention	Awarded	Construction	0	0	0	0
SSc7.1: Heat Island Effect-Non-Roof	Awarded	Construction	2	0	0	2
EAp1: Fundamental Commissioning of the Building Energy Systems	Awarded	Construction	0	0	0	0
EAc3: Enhanced Commissioning	Pending	Construction	2	0	2	0
EAc5: Measurement and Verification	Awarded	Construction	3	0	0	3
MRc2: Construction Waste Management	Pending	Construction	2	0	2	0
MRc4: Recycled Content	Pending	Construction	1	0	2	0
MRc5: Regional Materials	Pending	Construction	1	0	1	0
MRc7: Certified Wood	Pending	Construction	1	0	1	0
IEQc3.1: Construction IAQ Management Plan-During Construction	Pending	Construction	1	0	1	0
IEQc3.2: Construction IAQ Management Plan-Before Occupancy	Pending	Construction	1	0	1	0
IEQc4.1: Low-Emitting Materials-Adhesives and Sealants	Pending	Construction	1	0	1	0
IEQc4.2: Low-Emitting Materials-Paints and Coatings	Pending	Construction	1	0	1	0
IEQc4.3: Low-Emitting Materials-Flooring Systems	Awarded	Construction	1	0	0	1
IEQc4.4: Low-Emitting Materials-Composite Wood and Agrifiber Products	Pending	Construction	1	0	1	0
IDc1.1: Green Education	Awarded	Construction	1	0	0	1
IDc1.2: Building Envelope Commissioning	Awarded	Construction	1	0	0	1
IDc1.3: Fume Hood Commissioning	Pending	Construction	1	0	1	0
IDc2: LEED® Accredited Professional	Awarded	Construction	1	0	0	1

Construction Final	**12/20/2012**	**01/10/2013**	**14**	**1**	**0**	**64**

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
EAc3: Enhanced Commissioning	Awarded	Construction	2	0	0	2
MRc2: Construction Waste Management	Awarded	Construction	2	0	0	2
MRc4: Recycled Content	Awarded	Construction	1	0	0	2
MRc5: Regional Materials	Awarded	Construction	1	0	0	1
MRc7: Certified Wood	Awarded	Construction	1	0	0	1
IEQc3.1: Construction IAQ Management Plan-During Construction	Awarded	Construction	1	0	0	1
IEQc3.2: Construction IAQ Management Plan-Before Occupancy	Denied	Construction	1	1	0	0
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
IEQc4.4: Low-Emitting Materials-Composite Wood and Agrifiber Products	Awarded	Construction	1	0	0	1
IDc1.3: Fume Hood Commissioning	Awarded	Construction	1	0	0	1
IDc1.4: Innovation in Design MRc7 Certified Wood	Awarded	Construction	1	0	0	1