



DOCUMENT ADDENDA

For the documents titled: **LEED Reference Guide for Green Building Operations and Maintenance, 2009 Edition** (*second edition, updated April 2010*)

Note: This document contains addenda to the reference guide listed above and will be published on a quarterly basis beginning in April 2010. For more information, visit the USGBC website <http://www.usgbc.org/addenda>.

Page	Location	Credit	Credit Title	Issue	Post Date
viii	Water Efficiency (WE)	n/a	n/a	To the far right of the line for "Credit 4.2," insert "115"	7/19/2010
xiv*	Minimum Program Requirements	n/a	n/a	Replace the last sentence of the first paragraph with "To view the MPRs and the MPR Supplemental Guidance, visit the LEED Resources and Tools section of www.usgbc.org/projecttools ."	11/3/2010
xiv	Above Registration section	n/a	n/a	<p>Insert the following text:</p> <p>Multiple Buildings and On-Campus Projects The 2010 LEED Application Guide for Multiple Buildings and On-Campus Building Projects (available at www.usgbc.org/campusguidance) provides guidance on applying the LEED rating systems to multiple-building and on-campus projects that are on a shared site under the control of a single entity; for example, a corporate or educational campus or government installation. The 2010 LEED Application Guide for Multiple Buildings and On-Campus Building Projects provides guidance for the certification of projects under the Design and Construction and Interior Design and Construction rating systems as well as the LEED for Existing Buildings: Operations & Maintenance rating system. The guidance does not create a new rating system. Users may follow this guidance and apply it to existing rating system requirements for projects on a campus.</p>	11/3/2010
xv	Paragraph at top of page ("Registration" section)	n/a	n/a	In the second line of the paragraph, replace "errata" with "addenda"	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
xv	Credit Interpretation Requests and Rulings	n/a	n/a	<p>Replace the section with the following:</p> <p>In some cases, a LEED project team may encounter challenges when interpreting the requirements of a Minimum Program Requirement (MPR), prerequisite or credit for their project because a specific issue, situation, or a conflict is not addressed by available materials. To address such issues, two processes have been established for each LEED rating system: Project Credit Interpretation Rulings (Project CIR) and LEED Interpretations. See the USGBC and GBCI websites for more information, at www.usgb.org and www.gbci.org.</p> <p>Project CIRs and LEED Interpretations must be submitted online. Provide a brief but clear description of the challenge encountered, refer to the MPR, prerequisite or credit information found in the rating system, reference guide, or supporting documentation and emphasize the intent of the MPR, prerequisite or credit. If possible, the project team should offer potential solutions to the problem or a proposed interpretation.</p> <p>All communications related to Project CIRs and LEED Interpretations will be in electronic format.</p>	5/9/2011
xvii	V. INITIAL CERTIFICATION VS. RECERTIFICATION	n/a	n/a	<p>In the second paragraph, remove the following text:</p> <p>There is no registration fee for registering a recertification project, but recertification project teams must contact GBCI to ensure that the registration fee is waived. The recertification fee is 50% of the fee for the project's LEED for Existing Buildings: Operations & Maintenance initial certification. This fee is due when the application for recertification review is submitted.</p>	11/3/2010
xxii	Above the section "VIII. MULTITENANT BUILDING"	n/a	n/a	<p>Add the following section:</p> <p>Units of Measurement Guidance</p> <p>In order to facilitate certification review by U.S.-based reviewers, it is necessary to submit pertinent aspects of review-related documentation in English and convert units to U.S. Standard (i.e. Imperial) units of measure, unless noted otherwise in the credit or prerequisite description. It is not necessary to translate every aspect of every construction document into English and imperial units, but only those necessary for evaluation of LEED criteria. The project team should be prepared to provide additional translation(s) if requested by the reviewer in their preliminary review comments.</p>	11/3/2010

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xxv	XIII. TOOLS FOR REGISTERED PROJECTS	n/a	n/a	Replace the first paragraph with the following: LEED offers additional resources for LEED project teams on the USGBC website, at www.usgbc.org/projecttools . The LEED Resources and Tools website provides resources for starting the project, including rating system addenda, documentation requirements, and referenced industry standards.	11/3/2010
xxv	XIII. TOOLS FOR REGISTERED PROJECTS	n/a	n/a	Make the first sentence of the second, third, and fourth paragraphs bold so it becomes " Minimum Narrative Requirements, Policy, Program, and Plan Models, and Declarant Definitions and Other Definitions ," respectively	11/3/2010
xxvi	XIII. TOOLS FOR REGISTERED PROJECTS	n/a	n/a	At the end of the last line of the fifth paragraph, remove the quotations	7/19/2010
5*	Requirements	SSc1	LEED Certified Design and Construction	Add the following text after OPTION 3: "OR OPTION 4 Show that the building has been previously certified under LEED for Retail: New Construction and Major Renovations. OR OPTION 5 Show that the building has been previously certified under LEED for Healthcare New Construction and Major Renovations. OR OPTION 6 Show that the building has previously been certified under any version of LEED for Existing Buildings and that ongoing performance has been tracked during the entire recertification period (from initial certification until the recertification application)."	11/1/2011
6	4. Implementation	SSc1	LEED Certified Design and Construction	Replace the section's first paragraph with the following text: "Buildings that have been previously certified for LEED for New Construction, LEED for Schools, LEED for Retail: New Construction, or LEED for Healthcare (rating systems that address design and construction activities for both new buildings and major renovations of existing buildings) can easily achieve this credit. If the building is not currently LEED certified for New Construction, Schools, Retail, or Healthcare, consider pursuing certification under the appropriate rating system during any major renovations to the HVAC system, envelope, or interior."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
6	4. Implementation	SSc1	LEED Certified Design and Construction	<p>Add the following paragraph after the second paragraph (before the last paragraph):</p> <p>"This credit is available to LEED for Existing Buildings projects that recertify using data from the entire recertification period (the period from initial certification until recertification application). It is not available to projects that certify once, stop tracking performance, then certify again with a new, three-month performance period."</p>	11/1/2011
7	7. Documentation Guidance	SSc1	LEED Certified Design and Construction	<p>Add the following as a third bulleted item under the second bulleted item:</p> <p>"For projects pursuing Option 6 (recertification of LEED for Existing Buildings projects), please provide with the application a narrative describing the measures that have been in place for ongoing tracking and any lapses in this tracking during the performance period."</p>	11/1/2011
28	APPROACH 1	SSc4	Alternative Commuting Transportation	<p>Replace section with that of the supplementary document: https://www.usgbc.org/ShowFile.aspx?DocumentID=9315</p>	5/9/2011
29-30	Accounting for Diverse Modes and Populations	SSc4	Alternative Commuting Transportation	<p>Replace text starting from "Accounting for Diverse Modes and Populations" on page 29 of Reference Guide up to (stopping before) "7. Documentation Guidance" on page 30 of Reference Guide with the following:</p> <p>Accounting for Diverse Modes and Populations</p> <p>For non-residential projects (i.e. those using calculations based on the annual nonhome-based commuting trips per employee), only regular building occupants can be included in the occupant commute survey. Those who are absent on 1 or more days of the survey period because they telecommute or work a compressed workweek must be listed as making zero trips for the day (or using zero vehicles, per the SCQAMD metric). Employees who walk, cycle, tele-commute, use public transit, or use a fuel-efficient vehicle (as defined in this credit) are counted as making zero conventional commute trips or using zero vehicles. Those who carpool or ride-share for more than 50% of their commuting trip distance are counted according to the number of other commuters in the vehicle. For example, if 2 people carpool to work together for most of the distance to the building, each is counted as making half a trip; 3 carpoolers are counted as making 33.3% of a trip each. Employees who report vacation or sick leave days should be noted but not included in the results.</p> <p>Example 4 Building D has 100 regular occupants, 25 of whom use alternative transportation for their daily commute. To determine the AVR for the building, divide total occupancy (100) by the number of conventional single-occupancy vehicles used for occupants' daily commute (75). In this instance</p>	4/1/2012

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				<p>the ARV is 1.3. To calculate the RCCT, divide the number of trips avoided or reduced by the use of alternative transportation (50) by the total commuting trips (200). The RCCT is 25%.</p> <p>For residential projects (i.e. those using calculations based on the annual home-based commuting trips per capita), residents' commute patterns only should be included in the occupant commute survey. For residential calculations, assign a value of zero to a trip in which a resident carpools.</p> <p>Example 5 Apartment building E provided a survey to its 10 occupants. After a preferred parking and transit voucher program was started, seven residents commute to work only using a single occupancy vehicle in both directions, 1 resident carpools to work but drives alone on the return trip, another resident carpools to work but takes transit home and a final resident takes transit in both directions. This building is considered to have reduced its number of regular commuting trips by 25% since 5 of the 20 commute trips used alternative transportation.</p> <p>Projects containing both residential and nonresidential occupants should use a combination of the approaches listed above if the majority building occupancy type (residential or employee) comprises less than 90% of the total building occupancy.</p>	
31	Second paragraph (above "9. Exemplary Performance" section)	SSc4	Alternative Commuting Transportation	In the fifth line, replace "4" with "5" so the text becomes "(100 occupants x 2 trips per day x 5 days per week)"	7/19/2010
31	9. Exemplary Performance	SSc4	Alternative Commuting Transportation	Replace 95% with 80% and remove "trips equivalent to an average vehicle ridership (as defined by SCAQMD) of 20"	5/9/2011
32	11. Resources	SSc4	Alternative Transportation	Change the California Air Resources Board, Certified Vehicles List website from " http://www.arb.ca.gov/msprog/ccvl/ccvl.htm " to " http://www.arb.ca.gov/ ".	8/1/2011
32	11. Resources	SSc4	Alternative Transportation	Change the California Air Resources Board (CARB), Cleaner Car Guide website to " http://www.driveclean.ca.gov/ "	11/1/2011
38	Equation 2	SSc5	Site Development – Protect or Restore Open Habitat	Replace with "Natural Vegetated Roof Area \geq 0.05 (Total Site Area)"	11/3/2010

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40	12. Definitions	SSc5	Site Development-Protect or Restore Habitat	Revise the text for "Building footprint" to be " Building footprint is the area on a project site used by the building structure, defined by the perimeter of the building plan. Parking lots, parking garages, landscapes, and other nonbuilding facilities are not included in the building footprint."	8/1/2011
46	8. Examples	SSc6	Stormwater Quantity Control	Revise the third equation box to: $Q_r = (800 \text{ cf} / 259,200 \text{ sec}) = (0.003 \text{ cfs or } 1.35 \text{ gpm})$	11/1/2011
52	Table 1	SSc7.1	Heat Island Effect, Non-Roof	Replace SRI for "Typical new gray concrete" with 38	5/9/2011
57*	OPTION 1	SSc7.2	Heat Island Effect-Roof	Below equation, add the text and equation: Alternatively, the following equation may be used to calculate compliance: (see https://www.usgbc.org/ShowFile.aspx?DocumentID=9758)	8/1/2011
57*	OPTION 3	SSc7.2	Heat Island Effect-Roof	Below equation, add the text and equation: Alternatively, a weighted average approach may be used to calculate compliance for multiple materials: (see https://www.usgbc.org/ShowFile.aspx?DocumentID=9759)	8/1/2011
61	STEP 2	SSc7.2	Heat Island Effect-Roof	Add "skylights" to the list of things deducted from the roof area so that the sentence reads, "Determine the area of the roof covered by mechanical equipment, solar energy panels, skylights, and other appurtenances, and deduct these areas from the total roof surface area."	8/1/2011
62	9. Exemplary Performance	SSc7.2	Heat Island Effect-Roof	Replace the term "photovoltaic panels" with "solar energy panels" and add "other appurtenances" to the list of things deducted from the roof area so that the sentence reads "Projects may earn an Innovation in Operations (IO) credit for exemplary performance by demonstrating that 95% of the project's roof area (excluding any mechanical equipment, solar energy panels, skylights, and other appurtenances) consists of a vegetated roof system."	8/1/2011
63	12. Definitions	SSc7.2	Heat Island Effect-Roof	In alphabetical order, add the term "An appurtenance is any built-in, nonstructural portion of a roof system, such as skylights, ventilators, mechanical equipment, partitions, and solar energy panels."	8/1/2011
63	12. Definitions	SSc7.2	Heat Island Effect-Roof	In alphabetical order, add the term, " Roof area is the area of the uppermost surface of the building which covers enclosed Gross Floor Area, as measured when projected onto a flat, horizontal surface (i.e. as seen in Roof Plan view). 'Roofs', or portions of roofs, covering unenclosed areas (e.g. roofs over porches and open covered parking structures) are not included in the areas used to evaluate compliance with SSc7.2, though they may be applicable to SSc7.1."	8/1/2011

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69	Rule 3	SSc8	Light Pollution Reduction	Replace the second to last sentence to read, "Finally, measure the angle between this fixture line of sight and the perpendicular with the vertex located at the fixture edge."	8/1/2011
69	Figure 3	SSc8	Light Pollution Reduction	See revised image: https://www.usgbc.org/ShowFile.aspx?DocumentID=9760	8/1/2011
70	OPTION 2	SSc8	Light Pollution	At end of the second paragraph, add the sentence "Lighting of flags must also meet the shielding requirements."	11/3/2010
75	Definitions	SSc8	Light Pollution	In alphabetical order, insert the term "emergency lighting" with the text "Emergency lighting as defined by the Illuminating Engineering Society of North America is lighting designed to supply illumination essential to the safety of life and property in the event of failure of the normal supply."	5/9/2011
81*	Requirements	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the section, replace the three instances of "1993" with "1994"	7/19/2010
82	Environmental Issues	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the section, remove both instances of "potable"	7/19/2010
84	Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the fourth row of the table in the "EPA WaterSense Standards" column, replace "1.5 - 2.0^b" with "2.0^b"	7/19/2010
84	Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In footnote "b," replace "2.0 gmp" with "2.0 gpm"	7/19/2010
84	Paragraph below table	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Replace the paragraph with the following: In certain cases, faucets with low-flow rates are not appropriate. For example, in kitchen sinks, faucets are used to fill pots and buckets. Using a low-flow rate for tasks where the volume of water is predetermined does not save water and will likely cause user dissatisfaction and inefficiencies. Consider alternative strategies to reduce water use, such as installing special-use pot fillers and faucets or foot pedal-operated faucets.	7/19/2010
84	Second paragraph below Table 1	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Remove the paragraph beginning with, "Although water-efficient dishwashers..."	5/9/2011
84	4. Implementation	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Insert the following paragraph at the bottom of the page: "For hospitality projects, commercial kitchen sinks and bar sinks including pot sinks, prep sinks, wash down, and cleaning sinks are considered process water and are not included in the water use calculations. Hand washing sinks located in commercial kitchen areas that do not pass through a grease interceptor should be included in the water use calculations under the kitchen sink category."	11/1/2011

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85	Fixture Usage Groups	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	At the end of the section, insert the following text as a new paragraph: "For hospitality projects, fixture usage groups generally include a usage group for guest rooms and a usage group for common areas and back of house. For the purposes of the credit calculations, assume that hotel guests use the fixtures and fittings in their room, employees use back of house and / or common areas, and transient guests use common area restrooms."	11/1/2011
85	Occupancy	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	After the first paragraph, insert the following text as a new paragraph: "For lodging projects, FTE and transient occupants are calculated per the typical methodology for the respective occupancy types. Hotel guests may be determined based on the number and size of guest room units in the project. Generally, assume 1.5 occupants per guest room and multiply the resulting total by 60% (average hotel occupancy per American Hotel & Lodging Association information) to determine the total number of hotel guests. Alternatively, occupants may be derived from actual historical occupancy numbers. Fixture use assumptions for hotel guests follow the fixture assumptions for residential occupants. Accordingly, lavatories located in guest rooms are considered to be private lavatories. Additionally, day use guests at the hotel should be included in the value for transient / visitor occupants and are assumed to use common area restrooms. Per typical fixture use assumptions, this category of occupants assumes zero shower uses throughout the day. Example: 123 room hotel Total Hotel Guests = $123 \times 1.5 \times 60\%$ Total Hotel Guests = 111"	11/1/2011
87	Table 3a	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the sixth row ("Lavatory Faucet"), replace the duration (sec) of 15 with 30	2/2/2011
87	Table 4	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the fifth row of the table in the column "Flow rate," replace "1.8 gpm" with " ≤ 2.2 gpm"	7/19/2010
87	Table 4	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the seventh row of the table in the "Flow Fixture" column, replace "Low-flow shower" with "WaterSense shower"	7/19/2010
87	Table 4	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the seventh row of the table in the "Flow Rate" column, replace "1.8 gpm" with " ≤ 2.0 gpm"	7/19/2010

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88	First paragraph on page (above "Baseline Case Water Consumption" section)	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Replace the first sentence with "Private or private use applies to plumbing fixtures in residences, apartments, and dormitories, to private (non-public) bathrooms in transient lodging facilities (hotels and motels), and to private bathrooms in hospitals and nursing facilities."	7/19/2010
88	Below "Baseline Case Water Consumption"	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	<p>Add in the following section: Eligible Fixtures This prerequisite is limited to savings generated by the following water using fixtures and fixture fittings as applicable to the project: water closets, urinals, lavatory faucets, showers, kitchen sink faucets and pre-rinse spray valves, as shown in Table 1.</p> <p>The "Kitchen sinks" category encompasses all sinks in public or private buildings that are used with patterns and purposes similar to a sink in a residential kitchen; break room sinks would be included. However professional grade / commercial faucets such as those used in a commercial kitchen would not be included. The "Public lavatory faucets" and "Private lavatory faucets" categories encompass all sinks used primarily for hand-washing regardless of location. Faucets whose usage patterns and flow rates are regulated for medical or industrial purposes (e.g. laboratory sinks) and do not fall under the definition of private or public use are not included. Faucets used exclusively for filling operations (e.g. pot-filler) can be excluded. All other fixtures and fixtures fittings must be included in the calculations unless there are special circumstances that justify excluding them.</p>	2/2/2011
90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	<p>In alphabetical order, insert the following text:</p> <p>Alliance for Water Efficiency http://www.allianceforwaterefficiency.org/ The Alliance for Water Efficiency provides information and assistance on water conservation efforts.</p>	7/19/2010
90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	<p>Remove the following text:</p> <p>Fine Homebuilding Choosing a Toilet http://www.taunton.com/finehomebuilding/pages/h00042.asp This article includes several varieties of water-efficient toilets.</p>	7/19/2010

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90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the resource "Rocky Mountain Institute, Water," replace the text below the resource header with the following: http://www.rmi.org/rmi/pid172 This portion of RMI's website is devoted to water resource efficiency.	7/19/2010
90	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	In the resource "U.S. EPA, Watersense," underline the website " http://www.epa.gov/watersense/. "	7/19/2010
91	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Remove the following text: U.S. EPA, Water Use Efficiency Program http://www.epa.gov/owm/water-efficiency This website provides an overview of EPA's Water Use Efficiency Program and information about using water more efficiently.	7/19/2010
91	11. Resources	WEp1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	Replace the resource "Water Closet Performance Testing," with the following: Water Studies http://www.ebmud.com/resource-center/publications/studies The site provides a variety of studies related to water.	7/19/2010
105	Project Site Viability Calculation	WEc3	Water Efficient Landscaping	Replace the second and third sentences of the paragraph with "A site without vegetation or ecologically appropriate features on the grounds is eligible for this credit if its roof and/or courtyard garden space or outdoor planters constitute at least 5% of the total area. Project site viability is determined by calculating the portion of the total building site area covered with planters and/or gardens."	7/19/2010
105	Irrigation Water Use Calculation	WEc3	Water Efficient Landscaping	At the end of the third paragraph, add the following text: Additionally the credit can be met when landscape irrigation is provided by raw water (excluding naturally occurring surface bodies of water, streams, or rivers, and ground water) that would otherwise be treated specifically for nonpotable uses. Only ponds designed solely for the purposes of stormwater retention or detention can be used for this credit.	2/2/2011
109	Equation 5	WEc3	Water Efficient Landscaping	Replace "CE" with "(1 – CE)"	2/2/2011

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141*	CASE 2, OPTION 1	EAp2	Minimum Energy Efficiency Performance	Replace the paragraph with the following text: Demonstrate energy efficiency performance that is better than 69% of similar buildings (69th percentile or better) by benchmarking against national source energy data provided in the Portfolio Manager tool as an alternative to energy performance ratings. Follow the detailed instructions in the LEED Reference Guide for Green Building Operations & Maintenance, 2009 Edition.	11/3/2010
143	3. Summary of Referenced Standards	EAp2	Minimum Energy Efficiency Performance	Replace the text with "Refer to the Summary of Referenced Standards section in EA Credit 1."	11/3/2010
146	4. Implementation	EAp3	Fundamental Refrigerant Management	After the first sentence, add, "HCFCs are not part of this prerequisite."	5/9/2011
152*	CASE 2, OPTION 1	EAc1	Optimize Energy Performance	Replace the paragraph with the following text: Demonstrate energy efficiency performance that is better than 71% of similar buildings (71st percentile or better) by benchmarking against national source energy data provided in the Portfolio Manager tool as an alternative to energy performance ratings. Follow the detailed instructions in the LEED Reference Guide for Green Building Operations & Maintenance, 2009 Edition.	11/3/2010
157	First paragraph on page (begins with "EPA continues")	EAc1	Optimize Energy Performance	Replace the last sentence of the paragraph with "If the location for an international project is not listed, consult ASHRAE 90.1-2007 Appendices B and D to determine a comparable US city."	11/3/2010
159	6. Calculations	EAc1	Optimize Energy Performance	Delete the last sentence in the second paragraph, "Renewable energy generated and consumed on-site is excluded from these calculations."	4/1/2012
160	CASE 2, OPTION 1: Adjusted Benchmark Score	EAc1	Optimize Energy Performance	In the fifth line of the first paragraph, replace "average" with "mean" so the text becomes "...better than the national mean to calculate..."	11/3/2010
161	CASE 2, OPTION 2B	EAc1	Optimize Energy Performance	Remove the last paragraph "If this process results in fewer than 2 points under EA Credit 1, then a refined baseline in Option 2C should be considered."	8/1/2011
162	Recent Energy Efficiency Improvements	EAc1	Optimize Energy Performance	Remove the last line of the section's paragraph (starts with "If the minimum")	11/1/2011
208	First paragraph (begins with "can purchase")	EAc4	On-Site and Off-Site Renewable Energy	In the third line, insert "of" after "purchase" so the text becomes "The purchase of Green-e certified RECs..."	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
210	Equation 1	EAc4	On-Site and Off-Site Renewable Energy	In the seventh line of the paragraph, replace "(1 MBtus/1,000 MBtus)" with "(10 MBtus/1,000 MBtus)"	11/3/2010
211	11. Resources	EAc4	On-Site and Off-Site Renewable Energy	Add the following resource: Low Impact Hydropower Institute http://lowimpacthydro.org The Low Impact Hydropower Institute is a non-profit organization and certification body that establishes criteria against which to judge the environmental impacts of hydropower projects in the United States.	5/9/2011
220	Table 2	EAc5	Enhanced Refrigerant Management	In the column header on the far right, replace "Absorption" with "Centrifugal" so the header becomes "23-Year Life (Screw, Centrifugal Chillers)"	11/3/2010
221	Paragraph that begins with "Refrigerant leakage"	EAc5	Enhanced Refrigerant Management	Add the following after the first sentence, "If new equipment is being installed, use a default leakage rate of 2%."	11/1/2011
221	Paragraph that begins with "Refrigerant leakage"	EAc5	Enhanced Refrigerant Management	Remove the last sentence: "Guidance for submitting approval for nondefault leakage rates can be found on the LEED Registered Project Tools page (http://www.usgbc.org/projecttools)."	11/3/2010
223	Sample Calculation 2	EAc5	Enhanced Refrigerant Management	In the first line of the first bullet item, replace "absorption" with "centrifugal"	11/3/2010
223	Sample Calculation 3	EAc5	Enhanced Refrigerant Management	In the first bullet item, replace "absorption" with "centrifugal"	11/3/2010
237	Table	n/a	n/a	In the fifth row of the "Title" column, insert a dash between "Electric" and "Powered" so the text becomes "Sustainable Purchasing – Electric-Powered Equipment"	7/19/2010
241	4. Implementation	MRp1	Sustainable Purchasing Policy	In the second paragraph, replace the third sentence with the following: The sustainable purchasing policy must adhere to the LEED 2009 for Existing Buildings: Operations & Maintenance policy model located in the Introduction section of this Reference Guide.	7/19/2010

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249	11. Resources	MRp2	Solid Waste Management Policy	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011
251*	Requirements	MRC1	Sustainable Purchasing – Ongoing Consumables	In the fifth line of the first paragraph, replace the period after "5" with a colon so the text becomes "...MR Credit 5: Sustainable Purchasing..."	7/19/2010
283*	Requirements	MRC4	Sustainable Cleaning Products and Materials	Remove the third paragraph.	8/1/2011
304	11. Resources	MRC6	Solid Waste Management – Waste Stream Audit	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011
309	11. Resources	MRC7	Solid Waste Management – Ongoing Consumables	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011
315	11. Resources	MRC8	Solid Waste Management – Durable Goods	Replace "U.S. EPA WasteWise Program" title, website and description with the following: U.S. EPA WasteWise Program www.epa.gov/wastewise WasteWise is a free, voluntary EPA program that U.S. organizations can use to track, manage, and reduce their municipal solid waste and select industrial wastes.	5/9/2011
365	Ventilation Airflow Monitoring in Nondensely Occupied Spaces	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	Delete the last sentence in the section, "Outdoor air delivery monitoring within nondensely occupied spaces may be counted..."	5/9/2011

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369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	Revise the definition for densely occupied spaces to be, "Densely occupied spaces are areas with a design occupant density of 25 people or more per 1,000 square feet (40 square feet or less per person)."	11/1/2011
369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for non-densely occupied space , "Non-densely occupied spaces are areas with a design occupant density of less than 25 people per 1,000 square feet (40 square feet or more per person)."	11/1/2011
369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for nonoccupied spaces , "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
369	12. Definitions,	IEQc1.2	Indoor Air Quality Best Management Practices – Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for occupied spaces , "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
379*	Requirements	IEQc1.4	Indoor Air Quality Best Management Practices – Reduce Particulates in Air Distribution	Replace the paragraph with the following: In mechanically ventilated buildings, each ventilation system that supplies outdoor air shall comply with the following during the performance period: <ul style="list-style-type: none"> • Particle filters or air cleaning devices shall clean the outdoor air at any location prior to its introduction to occupied spaces. • These filters or devices shall be rated a minimum efficiency reporting value (MERV) of 13 in accordance with ASHRAE Standard 52.2 or greater for all outside air intakes and inside air recirculation returns. • Establish and follow a regular schedule for maintenance and replacement of these filtration media according to the manufacturer's recommended interval. 	11/3/2010
382	Definitions	IEQc1.4	Indoor Air Quality Best Management Practices – Reduce Particulates in Air Distribution	In alphabetical order, add the following definition for nonoccupied spaces , "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
382	Definitions	IEQc1.4	Indoor Air Quality Best Management Practices – Reduce Particulates in Air Distribution	In alphabetical order, add the following definition for occupied spaces , "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
402	Definitions	IEQc2.2	Controllability of Systems: Lighting	Revise the definition for individual occupant spaces to be, "In individual occupant spaces, occupants perform distinct tasks from one another. Such spaces may be contained within multi-occupant spaces and should be treated separately where possible. Individual occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011
402	Definitions	IEQc2.2	Controllability of Systems: Lighting	In alphabetical order, add the following definition for multi-occupant spaces , "Multi-Occupant Spaces are places of egress, congregation, or where occupants pursue overlapping or collaborative tasks. Multi occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011
408	Definitions	IEQc2.3	Occupant Comfort – Thermal Monitoring	In alphabetical order, add the following definition for nonoccupied spaces , "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
408	Definitions	IEQc2.3	Occupant Comfort – Thermal Monitoring	In alphabetical order, add the following definition for occupied spaces , "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
Entire section	All	IEQc2.4	Daylight and Views	Replace section with that of the supplementary document: https://www.usgbc.org/ShowFile.aspx?DocumentID=9378	5/9/2011
424	Definitions	IEQc2.4	Daylight and Views	In alphabetical order, add the following definition for non-regularly occupied space , "Non-regularly occupied spaces are spaces that occupants pass through, or spaces used in pursuit of focused activities for less than one hour per person per day (on average)."	11/1/2011
424	Definitions	IEQc2.4	Daylight and Views	In alphabetical order, add the following definition for nonoccupied spaces , "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
424	Definitions	IEQc2.4	Daylight and Views	In alphabetical order, add the following definition for occupied spaces , "Occupied Spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
424	Definitions	IEQc2.4	Daylight and Views	Revise the definition for regularly occupied spaces to be, "Regularly occupied spaces are areas where one or more individuals normally spend time (more than one hour per person per day on average) seated or standing as they work, study, or perform other focused activities inside a building."	11/1/2011
453*	Requirements	IEQc3.5	Green Cleaning – Indoor Chemical and Pollutant Source Control	Remove the second paragraph: Provide containment drains plumbed for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs for laboratory purposes.	7/19/2010
455	Maintenance	IEQc3.5	Green Cleaning – Indoor Chemical and Pollutant Source Control	Remove the second paragraph: Give special consideration to the location of containment drains to ensure that hazardous waste is disposed of properly and prevent environmental damage or contamination of water systems.	7/19/2010
461	11. Resources	IEQc3.6	Green Cleaning – Indoor Chemical and Pollutant Source Control	Revise the entry for Integrated Pest Management Institute of North America, Inc to read: IPM Institute of North America Inc. The IPM Institute is an independent non-profit organization formed in 1998 to foster recognition and rewards in the marketplace for goods and service providers who practice Integrated Pest Management.	11/1/2011
467*	Requirements	IOc1	Innovation in Operations	In the header, change "(1 point)" to "(1 – 4 Points)"	2/2/2011
467*	Requirements	IOc1	Innovation in Operations	Replace the last sentence of the paragraph with "Projects may pursue up to 4 Pilot Credits total."	2/2/2011
487*	Requirements	RPc1	Regional Priority	In the second paragraph, replace the last sentence with "The USGBC has prioritized credits for projects located in the U.S., Puerto Rico, the U.S. Virgin Islands, and Guam. All other international projects should check the database for eligible Regional Priority credits."	11/3/2010
489	Glossary	n/a	n/a	In alphabetical order, add the term "An appurtenance is any built-in, nonstructural portion of a roof system, such as skylights, ventilators, mechanical equipment, partitions, and solar energy panels."	8/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
490	Glossary, breathing zone	n/a	n/a	Make bold the "B" of the first word so the text becomes " Breathing zone is the region..."	7/19/2010
491	Glossary, Building footprint	n/a	n/a	Revise the text for "Building footprint" to be " Building footprint is the area on a project site used by the building structure, defined by the perimeter of the building plan. Parking lots, parking garages, landscapes, and other nonbuilding facilities are not included in the building footprint."	8/1/2011
493	Glossary	n/a	n/a	Revise the definition for densely occupied spaces to be, "Densely occupied spaces are areas with a design occupant density of 25 people or more per 1,000 square feet (40 square feet or less per person)."	11/1/2011
494	Glossary	n/a	n/a	In alphabetical order, insert the term " emergency lighting " with the text "Emergency lighting as defined by the Illuminating Engineering Society of North America is lighting designed to supply illumination essential to the safety of life and property in the event of failure of the normal supply."	5/9/2011
497	Glossary	n/a	n/a	In alphabetical order, add the term " Gross floor area (based on ASHRAE definition) is the sum of the floor areas of the spaces within the building, including basements, mezzanine and intermediate-floored tiers, and penthouses with headroom height of 7.5 ft (2.2 meters) or greater. Measurements must be taken from the exterior 39 faces of exterior walls OR from the centerline of walls separating buildings, OR (for LEED CI certifying spaces) from the centerline of walls separating spaces. Excludes non-enclosed (or non-enclosable) roofed-over areas such as exterior covered walkways, porches, terraces or steps, roof overhangs, and similar features. Excludes air shafts, pipe trenches, and chimneys. Excludes floor area dedicated to the parking and circulation of motor vehicles. (Note that while excluded features may not be part of the gross floor area, and therefore technically not a part of the LEED project building, they may still be required to be a part of the overall LEED project and subject to MPRs, prerequisites, and credits.)"	8/1/2011
498	Glossary	n/a	n/a	Revise the definition for individual occupant spaces to be, "In individual occupant spaces, occupants perform distinct tasks from one another. Such spaces may be contained within multi-occupant spaces and should be treated separately where possible. Individual occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011
501	Glossary	n/a	n/a	In alphabetical order, insert the term " movable furniture and partitions " with the text "Movable furniture and partitions are those that can be moved to provide access to the view by the user without the need for tools or assistance from special trades and facilities management."	5/9/2011
501	Glossary	n/a	n/a	Replace the definition for group multioccupant spaces with the following definition for multi-occupant space , "Multi occupant spaces are places of egress, congregation, or where occupants pursue overlapping or collaborative tasks. Multi occupant spaces may be regularly or non-regularly occupied spaces."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
501	Glossary	n/a	n/a	In alphabetical order, add the following definition for non-densely occupied space, "Non-densely occupied spaces are areas with a design occupant density of less than 25 people per 1,000 square feet (40 square feet or more per person)."	11/1/2011
501	Glossary	n/a	n/a	Revise the definition for nonoccupied spaces to be, "Nonoccupied spaces are defined as spaces designed for equipment and machinery or storage with no human occupancy except for maintenance, repairs, and equipment retrieval."	11/1/2011
501	Glossary	n/a	n/a	In alphabetical order, add the following definition for non-regularly occupied space , "Non-regularly occupied spaces are spaces that occupants pass through, or spaces used in pursuit of focused activities for less than one hour per person per day (on average)."	11/1/2011
501	Glossary	n/a	n/a	In alphabetical order, add the following definition for occupied spaces , "Occupied spaces are defined as enclosed spaces that can accommodate human activities. Occupied spaces are further classified as regularly occupied or non-regularly occupied spaces based on the duration of the occupancy, individual or multi-occupant based on the quantity of occupants, and densely or non-densely occupied spaces based upon the concentration of occupants in the space."	11/1/2011
505	Glossary	n/a	n/a	Revise the definition for regularly occupied spaces to be, "Regularly occupied spaces are areas where one or more individuals normally spend time (more than one hour per person per day on average) seated or standing as they work, study, or perform other focused activities inside a building."	11/1/2011
506	Glossary	n/a	n/a	In alphabetical order, add the term, " Roof area is the area of the uppermost surface of the building which covers enclosed Gross Floor Area, as measured when projected onto a flat, horizontal surface (i.e. as seen in Roof Plan view). 'Roofs', or portions of roofs, covering unenclosed areas (e.g. roofs over porches and open covered parking structures) are not included in the areas used to evaluate compliance with SSc7.2, though they may be applicable to SSc7.1."	8/1/2011

*Shaded rows denote rating system and reference guide changes. The purpose of these rating system changes within the rating system portions of the *LEED Reference Guide for Green Building Operations and Maintenance* is to align with the LEED Rating System that comprises the guide:
<http://www.usgbc.org/ShowFile.aspx?DocumentID=5545>

Note: The online version of the rating system takes precedent over the rating system portions of the LEED Reference Guides in project guidance and application; project teams are required to adhere to the rating system and rating system addenda effective at the time of the project's registration date.

