



# DOCUMENT ADDENDA

For the documents titled: **LEED Reference Guide for Green Building Design and Construction, 2009 Edition** (*second edition, updated June 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/leed/tools/interpretations>.*

*Note: This document contains addenda pertaining to the LEED 2009 Alternative Compliance Paths for Projects Outside the U.S. This language was released in October, 2011 and was not reflected in the Reference Guide addenda. The 2009 Alternative Compliance Paths for Projects Outside the U.S. have been integrated into the rating system language as of the July 6, 2012 addenda release and all previous versions of these paths are no longer valid.*

Page	Location	Credit	Credit Title	Issue	Post Date
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 <a href="http://www.usgbc.org/projecttools">www.usgbc.org/projecttools</a> ."	11/3/2010
xiv	Above Registration section	n/a	n/a	Following the Minimum Program Requirements section, insert the following section:  <b>Multiple Buildings and On-Campus Projects</b> The 2010 LEED Application Guide for Multiple Buildings and On-Campus Building Projects (available at <a href="http://www.usgbc.org/campusguidance">www.usgbc.org/campusguidance</a> ) 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.	11/3/2010
xvi	Registration	n/a	n/a	In the fifth line of the paragraph, replace "errata" with "addenda"	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
xvi	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 <a href="http://www.usgb.org">www.usgb.org</a> and <a href="http://www.gbci.org">www.gbci.org</a>. 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. All communications related to Project CIRs and LEED Interpretations will be in electronic format.</p>	5/9/2011
xviii	IV. LEED-ONLINE DOCUMENTATION REQUIREMENTS	n/a	n/a	<p>Below the section "Credit Substitution," add the following section:</p> <p><b>Units of Measurement Guidance</b></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
xxi	LEED CSv2009	n/a	n/a	Change the "D" to "C" for both EAc5.1 and EAc2.	8/1/2011
xxv	Sustainable Sites	n/a	n/a	<p>Below SS Credit 7, add the following line:</p> <p>SS Credit 8      Light Pollution Reduction (Core &amp; Shell only)</p>	2/2/2011
xxv	Energy and Atmosphere	n/a	n/a	<p>Below EA Credit 3, add the following line:</p> <p>EA Credit 5      Measurement and Verification</p>	2/2/2011
xxv	Indoor Environmental Quality	n/a	n/a	<p>Below IEQ Credit 3, add the following line:</p> <p>IEQ Credit 4      Low Emitting Materials (Core &amp; Shell only)</p>	2/2/2011

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xxvii	X. TOOLS FOR REGISTERED PROJECTS	n/a	n/a	In the third line of the paragraph, replace "errata" with "addenda"	11/3/2010
xxvii	X. TOOLS FOR REGISTERED PROJECTS	n/a	n/a	Make the first sentence of the second paragraph bold so it becomes <b>"Declarant Definitions and Other Definitions."</b>	11/3/2010
7	4. Implementation	SSp1	Construction Activity Pollution Prevention	At the end of the 3rd paragraph, add the following text:  For major renovation projects whose scope of work includes only interior renovation, identify areas of potential pollution from construction activities including construction staging and access, and develop a plan that addresses these areas. Potential pollution could include pollution of the site or air with dust and particulate matter.	11/3/2010
11*	First paragraph	SSp2	Environmental Site Assessment	Add the following sentence at the end of the first paragraph: "Projects outside the U.S. may use a local equivalent to ASTM E1527-05 Phase I Environmental Site Assessment and ASTM E 1903-97 Phase II Environmental Site Assessment."	7/6/2012
15	Definitions, brownfield	SSp2	Environmental Site Assessment	Replace "whose use" with "or the expansion, redevelopment, or reuse of which"	10/1/2012
17*	Requirements	SSc1	Site Selection	Add the following to the end of the first bullet: "Projects outside the U.S. may use a local equivalent."	7/6/2012
17*	Requirements	SSc1	Site Selection	Add the following to the end of the second bullet: ", an equivalent local regulatory agency, or a professional hydrologist."	7/6/2012
17*	Requirements	SSc1	Site Selection	Add the following to the end of the third bullet: "Projects outside the U.S. may use a local equivalent."	7/6/2012
17*	Requirements	SSc1	Site Selection	Add the following to the fourth bullet after "Part 22": "or a local equivalent definition outside the U.S.,"	7/6/2012
17*	Requirements	SSc1	Site Selection	In the fifth bullet, replace "fish" with "aquatic life"	7/6/2012
17*	Requirements	SSc1	Site Selection	The end of the last bullet should read: "(park authority projects and projects which are operated by and support the function of the park are exempt)."	7/6/2012

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21	13. Definitions	SSc1	Site Selection	Replace the definition of " <b>Previously developed sites</b> " with "Previously developed sites are those altered by paving, construction, and/or land use that would typically have required regulatory permitting to have been initiated (alterations may exist now or in the past). Previously developed land includes a platted lot on which a building was constructed if the lot is no more than 1 acre; previous development on lots larger than 1 acre is defined as the development footprint and land alterations associated with the footprint. Land that is not previously developed and altered landscapes resulting from current or historical clearing or filling, agricultural or forestry use, or preserved natural area use are considered undeveloped land. The date of previous development permit issuance constitutes the date of previous development, but permit issuance in itself does not constitute previous development."	11/1/2011
28	6. Calculations, Option 1	SSc2	SSc2: Development Density and Community Connectivity	Delete a sentence in Step 1 so it reads: "Calculate the development density for the project by dividing the total square footage of the building by the total site area in acres (Equation 1)."	10/1/2013
33	13. Definitions	SSc2	Development Density and Community Connectivity	Replace the definition of " <b>Previously developed sites</b> " with "Previously developed sites are those altered by paving, construction, and/or land use that would typically have required regulatory permitting to have been initiated (alterations may exist now or in the past). Previously developed land includes a platted lot on which a building was constructed if the lot is no more than 1 acre; previous development on lots larger than 1 acre is defined as the development footprint and land alterations associated with the footprint. Land that is not previously developed and altered landscapes resulting from current or historical clearing or filling, agricultural or forestry use, or preserved natural area use are considered undeveloped land. The date of previous development permit issuance constitutes the date of previous development, but permit issuance in itself does not constitute previous development."	11/1/2011
35*	Requirements	SSc3	Brownfield Redevelopment	Below this section, add the following text as a new section:  Projects where asbestos is found and remediated may also earn this credit. Testing should be done in accordance with EPA Reg 40CFR part 763, when applicable.	11/3/2010
35*	Option 1	SSc3	Brownfield Redevelopment	Revise option to read as: "Develop on a site documented as contaminated by means of an ASTM E1903-97 Phase II Environmental Site Assessment, or a local voluntary cleanup program. Projects outside the U.S. may use a local equivalent to ASTM E1903-97 Phase II Environmental Site Assessment."	7/6/2012

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35*	Option 2	SSc3	Brownfield Redevelopment	Revise sentence to read as: "Develop on a site defined as a brownfield by a local, state, tribal or national government agency, whichever is most stringent."	7/6/2012
35*	Requirements	SSc3	Brownfield Redevelopment	Below Option 2, add the following: For projects where asbestos is found and remediated also earn this credit. Testing should be done in accordance with EPA Reg 40CFR part 763, when applicable.	7/6/2012
38	7. Documentation Guidance	SSc3	Brownfield Redevelopment	Below the second bullet, add a third bullet with the following text: <ul style="list-style-type: none"> <li>For projects where asbestos is found, prepare executive summary-level content from the investigation's report explaining the extent of the contamination and required action as well as documentation indicating an acceptable level of remediation was achieved based on an acceptable standard, such as RCRA or NESHAPs.</li> </ul>	11/3/2010
39	Below "Preliminary Remediation..." resource	SSc3	Brownfield Redevelopment	Add the following resource:  <b>U.S. EPA, Asbestos</b> <a href="http://www.epa.gov/asbestos/index.html">http://www.epa.gov/asbestos/index.html</a> This website provides information on the health effects of asbestos, where it is commonly found, and the laws and regulations governing testing of sites containing asbestos.	11/3/2010
40	Definitions, brownfield	SSc3	Brownfield Redevelopment	Replace "whose use" with "or the expansion, redevelopment, or reuse of which"	10/1/2012
41*	Option 1	SSc4.1	Alternative Transportation – Public Transportation Access	Revise the Option 1 to read: "OPTION 1. Rail Station, Bus Rapid Transit Station & Ferry Terminal Proximity Locate the project within 1/2-mile (800-meter) walking distance (measured from a main building entrance) of an existing or planned and funded commuter rail, light rail, or subway station, bus rapid transit <sup>1</sup> station or commuter ferry terminal."	7/6/2012
41*	Requirements	SSc4.1	Alternative Transportation – Public Transportation Access	Add Option 3: "OPTION 3. Rideshare Proximity Projects outside the U.S. may locate the project within 1/4-mile (400-meter) walking distance (measured from a main building entrance) of 1 or more stops for 2 or more existing rideshare options <sup>2</sup> that that meet the definition of public transportation <sup>3</sup> and are authorized by the local transit authority if one exists."	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
41*	Requirements	SSc4.1	Alternative Transportation – Public Transportation Access	Add Option 4: "OPTION 4. Rideshare Proximity Projects outside the U.S. may locate the project within 1/4-mile (400-meter) walking distance (measured from a main building entrance) of 1 or more stops for 2 or more existing rideshare options <sup>2</sup> that that meet the definition of public transportation <sup>3</sup> and are authorized by the local transit authority if one exists."	7/6/2012
41*	Footnotes	SSc4.1	Alternative Transportation – Public Transportation Access	Add the following footnotes: 1. Bus rapid transit is an enhanced bus system that operates on exclusive bus lanes or other transit rights-of-way; it is designed to combine the flexibility of buses with the efficiency of rail. 2. Rideshare is a transit service that involves sharing a single vehicle with multiple people, excluding large-scale vehicles such as buses and trains. The rideshare transit facility must include a signed stop and a clearly defined waiting area. Additionally, the rideshare must include an enclosed passenger seating area, fixed route service, fixed fare structure, continuous daily operation, and the ability to pick up and drop off multiple riders. Rideshare options must hold 4 or more passengers, except for human-powered conveyances which must hold 2 or more passengers. 3. Public transportation consists of bus, rail, or other transit services for the general public that operate on a regular, continual basis.	7/6/2012
43	Second paragraph	SSc4.1	Alternative Transportation – Public Transportation	Add the following sentence to the end of the second paragraph, "Shuttle buses should provide direct access to transit facilities within 2 miles of the project site, approximately a 5-10 minute drive, and must be available to all project occupants."	4/1/2012
47	Definitions, attendance boundary	SSc4.1	Alternative Transportation – Public Transportation	Replace the definition of "attendance boundary" with "The attendance boundary is the limit used by school districts to determine what school students attend based on where they live."	10/1/2012
55-56	Schools box	SSc4.2	Alternative Transportation – Bicycle Storage and Changing Rooms	(1) In the "STEP 1" section of the SCHOOLS box within section 6. Calculations, add "e. Part-time students" to the list of occupants. (2) At the end of the paragraph immediately below that ("STEP 2") add, "Part-time students are calculated in the same manner as part-time staff."	4/1/2012
61*	OPTION 1	SSc4.3	Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles	Delete the following text, "Providing a discounted parking rate is an acceptable substitute for preferred parking for carpool or vanpool vehicles. To establish a meaningful incentive in all potential markets, the parking rate must be discounted at least 20%. The discounted rate must be available to all customers (i.e., not limited to the number of customers equal to 5% of the vehicle parking capacity), publicly posted at the entrance of the parking area, and available for a minimum of 2 years."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
61*	Footnote 1	SSc4.3	Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles	Add a superscript for footnote 1 to each occurrence of the term "preferred parking".	11/1/2011
61*	Footnote 1	SSc4.3	Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles	Change footnote text to, "To establish a meaningful incentive in all potential markets, the parking rate must be discounted at least 20%. The discounted rate must be available to all eligible customers (i.e. not limited to the number of customers equal to 5% of the vehicle parking capacity), publicly posted at the entrance of the parking area, and available for a minimum of 2 years."	11/1/2011
61*	Footnote 2	SSc4.3	Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles	Change footnote text to, "For the purposes of this credit, low-emitting vehicles are defined as vehicles that are classified as Zero Emission Vehicles (ZEV) by the California Air Resources Board. Fuel-efficient vehicles are defined as vehicles that have achieved a minimum green score of 40 on the American Council for an Energy Efficient Economy (ACEEE) annual vehicle rating guide."	11/1/2011
62*	OPTION 3	SSc4.3	Alternative Transportation – Low-Emitting and Fuel-Efficient Vehicles	Switch the footnote numbers so the text becomes  Provide low-emitting and fuel-efficient vehicles <input type="checkbox"/> for 3% of full-time equivalent (FTE) occupants. Provide preferred parking <input type="checkbox"/> for these vehicles	7/19/2010
68	12. Resources	SSc4.3	Alternative Transportation - Low-Emitting and Fuel-Efficient Vehicles	Change the California Air Resources Board, Certified Vehicles List website from " <a href="http://www.arb.ca.gov/msprog/ccvl/ccvl.htm">http://www.arb.ca.gov/msprog/ccvl/ccvl.htm</a> " to " <a href="http://www.arb.ca.gov/">http://www.arb.ca.gov/</a> ".	8/1/2011
68	12. Resources	SSc4.3	Alternative Transportation - Low-Emitting and Fuel-Efficient Vehicles	Change the California Air Resources Board (CARB), Cleaner Car Guide website to " <a href="http://www.driveclean.ca.gov/">http://www.driveclean.ca.gov/</a> "	11/1/2011
71*	Requirements	SSc4.4	Alternative Transportation – Parking Capacity	Add a superscript for footnote 1 to each occurrence of the term "preferred parking".	11/1/2011
71*	Requirements	SSc4.4	Alternative Transportation – Parking Capacity	Add a superscript for footnote 2 to each occurrence of the term "preferred parking". Add a second footnote at the bottom of the Requirements: 2 "To establish a meaningful incentive in all potential markets, the parking rate must be discounted at least 20%. The discounted rate must be available to all eligible customers (i.e. not limited to the number of customers equal to 5% of the vehicle parking capacity), publicly posted at the entrance of the parking area, and available for a minimum of 2 years."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
71*	OPTION 2	SSc4.4	Alternative Transportation – Parking Capacity	Delete the following text in the subparagraph, "Providing a discounted parking rate is an acceptable substitute for preferred parking for carpool or vanpool vehicles. To establish a meaningful incentive in all potential markets, the parking rate must be discounted at least 20%. The discounted rate must be available to all customers (i.e., not limited to the number of customers equal to 5% of the vehicle parking capacity), publicly posted at the entrance of the parking area, and available for a minimum of 2 years."	11/1/2011
72*	Credit: Case 3	SSc4.4	Alternative Transportation-Parking Capacity	Add the following after "Option 2" in "Case 3": OR OPTION 3 For projects that have no minimum local zoning requirements, provide 25% fewer parking spaces than the applicable standard listed in the 2003 Institute of Transportation Engineers (ITE) "Parking Generation" study at <a href="http://www.ite.org">http://www.ite.org</a> .	4/1/2013
77*	CASE 1	SSc5.1	Site Development – Protect or Restore Habitat	Revise the first bulleted item to say "40 feet beyond the building perimeter and parking garages"	8/1/2011
77*	Requirements	SSc5.1	Site Development – Protect or Restore Habitat	Below this section, insert the following text:  Projects with limited landscape opportunities may also donate offsite land in perpetuity, equal to 60% of the previously developed area (including the building footprint), to a land trust within the same EPA Level III Ecoregion identified for the project site. The land trust must adhere to the Land Trust Alliance 'Land Trust Standards and Practices' 2004 Revision.	11/3/2010
77*	Credit: footnotes	SSc5.1	Site Development-Protect or Restore Habitat	Delete footnote 2 (previously developed sites) and renumber footnotes	4/1/2013
77*	Credit: footnotes	SSc5.1	Site Development-Protect or Restore Habitat	In footnote 1, delete: "those that are not previously developed or graded and remain in a natural state."  Replace with: "sites not previously developed or graded that could support open space, habitat, or agriculture."	4/1/2013



Page	Location	Credit	Credit Title	Issue	Post Date
80	6. Calculations	SSc5.1	Site Development – Protect or Restore Habitat	Replace the text under “CASE 1” with the following:  There are no calculations required for this credit, unless a project cannot limit site disturbance for every parameter. In such a case, an average is acceptable, as long as 3 of the 4 disturbance limits are met. Project teams should calculate the amount of site disturbance allowed under the requirements for greenfield sites and then the amount of actual site disturbance. The actual should be less than the allowable.	11/3/2010
81	Figure 2	SSc5.1	Site Development – Protect or Restore Habitat	Replace the text to the right of the white square with, “Non-vegetated, pedestrian oriented hardscape & non-native vegetation areas, to be excluded from restored area”	5/9/2011
84	13. Definitions	SSc5.1	Site Development – Protect or Restore Habitat	Revise the text for “Building footprint” to be “ <b>Building footprint</b> 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
84	13. Definitions	SSc5.1	Site Development – Protect or Restore Habitat	Replace the definition of “ <b>Previously developed sites</b> ” with “Previously developed sites are those altered by paving, construction, and/or land use that would typically have required regulatory permitting to have been initiated (alterations may exist now or in the past). Previously developed land includes a platted lot on which a building was constructed if the lot is no more than 1 acre; previous development on lots larger than 1 acre is defined as the development footprint and land alterations associated with the footprint. Land that is not previously developed and altered landscapes resulting from current or historical clearing or filling, agricultural or forestry use, or preserved natural area use are considered undeveloped land. The date of previous development permit issuance constitutes the date of previous development, but permit issuance in itself does not constitute previous development.”	11/1/2011
84	13. Definitions	SSc5.1	Site Development-Protect or Restore Habitat	Change “development footprint” definition: “The development footprint is the total area of the building footprint and area affected by development or by project site activity. Hardscape, access roads, parking lots, nonbuilding facilities, and the building itself are all included in the development footprint.”	4/1/2013
86	Implementation, second paragraph	SSc5.2	Site Development-Maximize Open Space	Add this clause after “..the life of the building”: “and is within the contiguous limits of the campus where the applicable project is located.”	4/1/2012
91*	Requirements	SSc6.1	Stormwater Design – Quantity Control	Add new option title (option 1) that reads: “OPTION 1. Design Storms” below “Requirements”.	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
91*	Case 1	SSc6.1	Stormwater Design – Quantity Control	Change "OPTION 1" to "PATH 1"	7/6/2012
91*	Case 1	SSc6.1	Stormwater Design – Quantity Control	Change "OPTION 2" to "PATH 2"	7/6/2012
91*	Requirements	SSc6.1	Stormwater Design – Quantity Control	<p>Add the following after Case 2:</p> <p>OR</p> <p>OPTION 2. Percentile Rainfall Events</p> <p>CASE 1. Non-Zero Lot Line Projects</p> <p>In a manner best replicating natural site hydrology<sup>1</sup> processes, manage onsite<sup>2</sup> the runoff from the developed site for the 95th percentile of regional or local rainfall events using Low Impact Development (LID)<sup>3</sup> and green infrastructure<sup>4</sup>.</p> <p>Use daily rainfall data and the methodology in the United States Environmental Protection Agency's Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act to determine the 95th percentile amount.</p> <p>OR</p> <p>CASE 2. Zero Lot Line Projects</p> <p>For zero lot line projects located in urban areas with a minimum density of 1.5 FAR (13,800 square meters per hectare net), in a manner best replicating natural site hydrology processes, manage onsite the runoff from the developed site for the 85th percentile of regional or local rainfall events using LID and green infrastructure.</p>	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
91*	Footnotes	SSc6.1	Stormwater Design – Quantity Control	<p>Add the following footnotes:</p> <p>1. Natural Site Hydrology is defined as the natural land cover function of water occurrence, distribution, movement, and balance.</p> <p>2. Manage Onsite refers to capturing and retaining the specified volume of rainfall to mimic natural hydrologic function. This includes, but is not limited to, strategies that manage volume through evapotranspiration, infiltration, or capture and reuse.</p> <p>3. Low Impact Development (LID) is defined as an approach to managing stormwater runoff that emphasizes on-site natural features to protect water quality by replicating the natural land cover hydrologic regime of watersheds and addressing runoff close to its source. Examples include better site design principles such as minimizing land disturbance, preserving vegetation, minimizing impervious cover, and design practices like rain gardens, vegetated swales and buffers, permeable pavement, rainwater harvesting, and soil amendments. These are engineered practices that may require specialized design assistance.</p> <p>4. Green Infrastructure is a soil and vegetation-based approach to wet weather management that is cost-effective, sustainable, and environmentally friendly. Green infrastructure management approaches and technologies infiltrate, evapotranspire, capture and reuse stormwater to maintain or restore natural hydrologies (US EPA).</p>	7/6/2012
97	8. Examples	SSc6.1	Stormwater Design – 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
110	3. Summary of Referenced Standards	SSc7.1	Heat Island Effect, Non-Roof	Make the following text bold, "ASTM E408–71(1996)e1, Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques".	8/1/2011
112	Table 1	SSc7.1	Heat Island Effect, Non-Roof	Replace SRI for "Typical new gray concrete" with 38	5/9/2011
117	Definitions, solar reflectance (albedo)	SSc7.1	Heat Island Effect, Non-Roof	Replace the definition of "solar reflectance (SR)" with "the fraction of solar energy that is reflected by a surface on a scale of 0 to 1. Black paint has a solar reflectance of 0; white paint (titanium dioxide) has a solar reflectance of 1. The standard technique for its determination uses spectrophotometric measurements, with an integrating sphere to determine the reflectance at each wavelength. The average reflectance is then determined by an averaging process, using a standard solar spectrum, as documented by ASTM Standards E903 and E892."	10/1/2012
117	Definitions, heat island effect	SSc7.1	Heat Island Effect, Non-Roof	In the second sentence, delete "Particularly in urban areas"; revise the last clause so that it reads, "Other sources may include vehicle exhaust, air-conditioners, and street equipment. Reduced airflow because of tall buildings and narrow streets exacerbate the effect."	10/1/2012

Page	Location	Credit	Credit Title	Issue	Post Date
119*	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 image: <a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=9756">https://www.usgbc.org/ShowFile.aspx?DocumentID=9756</a> )	8/1/2011
119*	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 image: <a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=9757">https://www.usgbc.org/ShowFile.aspx?DocumentID=9757</a> )	8/1/2011
120	3. Summary of Referenced Standards	SSc7.2	Heat Island Effect-Roof	Make the following text bold, "ASTM E408–71(1996)e1, Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques".	8/1/2011
123	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
124	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 Design (ID) credit for exemplary performance by demonstrating that 100% 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
126	13. Definitions	SSc7.2	Heat Island Effect-Roof	In alphabetical order, add the term "An <b>appurtenance</b> is any built-in, nonstructural portion of a roof system, such as skylights, ventilators, mechanical equipment, partitions, and solar energy panels."	8/1/2011
126	13. Definitions	SSc7.2	Heat Island Effect-Roof	In alphabetical order, add the term, " <b>Roof area</b> 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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126	13. Definitions, solar reflectance (albedo)	SSc7.2	Heat Island Effect-Roof	Replace the definition of "solar reflectance (SR)" with "the fraction of solar energy that is reflected by a surface on a scale of 0 to 1. Black paint has a solar reflectance of 0; white paint (titanium dioxide) has a solar reflectance of 1. The standard technique for its determination uses spectrophotometric measurements, with an integrating sphere to determine the reflectance at each wavelength. The average reflectance is then determined by an averaging process, using a standard solar spectrum, as documented by ASTM Standards E903 and E892."	10/1/2012
<b>129*</b>	Credit: footnotes and "For Exterior Lighting"	SSc8	Light Pollution Reduction	Replace "Addenda I" and "Addenda 1" with "Addenda i"	4/1/2013
<b>129-131*</b>	Various	SSc8	Light Pollution Reduction	Replace all instances of "site boundary," "project site boundary," and "project boundary" with "LEED project boundary"	11/1/2011
133	Above Table 1	SSc8	Light Pollution Reduction	Add the following paragraph before Table 1: "The total exterior lighting power allowance for all exterior building applications is the sum of the base site allowance plus the individual allowances for areas that are designed to be illuminated and are permitted in Table 1 for the applicable lighting zone. Trade-offs are allowed only among exterior lighting applications listed in the "Tradable Surfaces" section of Table 1."	11/1/2011
133	Table 1	SSc8	Light Pollution Reduction	Replace "Table 1. Lighting Power Densities for Building Exteriors" with new "Table 1. Individual Lighting Power Allowances for Building Exteriors" <a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=10508">https://www.usgbc.org/ShowFile.aspx?DocumentID=10508</a>	11/1/2011
134	OPTION 1	SSc8	Light Pollution Reduction	Replace the entire first paragraph with the following, "All nonemergency interior lighting fixtures with a direct line of sight to any openings in the envelope must be automatically controlled and programmed to turn off or have their input power reduced by at least 50% between 11 p.m. and 5 a.m. Controls can be automatic sweep timers, occupancy sensors, or programmed master lighting control panels. The design can also include manual or occupancy based override capabilities that enable lights to be turned on after hours."	8/1/2011
135	First paragraph (begins with "of light pollution.")	SSc8	Light Pollution Reduction	At the end of the paragraph, add the sentence ""Flag lighting is not exempt from the requirements of this credit."	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
141	9. Exemplary Performance	SSc8	Light Pollution Reduction	<p>Replace text with the following:</p> <div> <p><b>NC &amp; Schools</b> This credit is not eligible for exemplary performance under the Innovation and Design section.</p> <p><b>CS</b> Projects that require and enforce installing automatic controls within 100% of the tenant space are eligible for exemplary performance under the Innovation in Design section.</p> </div>	2/2/2011
142	Definitions	SSc8	Light Pollution Reduction	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
145	Core & Shell Sustainable Design and Construction Features	SSc9	Tenant Design and Construction Guidelines	From the term "Lighting power" to "Heating, ventilation, and air-conditioning (HVAC)," indent the text to the left	11/3/2010
149*	Requirements	SSc9	Site Master Plan	At the end of the last paragraph, add the following sentence: "Projects where no future development is planned are not eligible for this credit."	11/1/2011
153*	Requirements	SSc10	SSc10: Joint Use of Facilities	Revise the text to include "types of" in the following instances: (1) Option 1, first paragraph: "...3 of the following types of spaces included..." (2) Option 2, first paragraph: "...to provide at least 2 types of dedicated-use spaces..." (3) Option 3, first paragraph: "...the following 6 types of spaces that are owned..."	8/1/2011
165*	NC, Schools, & CS box	WEp1	Water Use Reduction	Replace first table of the section: <a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=10510">https://www.usgbc.org/ShowFile.aspx?DocumentID=10510</a>	11/1/2011
167	Environmental Issues	WEp1	Water Use Reduction	Remove both instances of "potable" in the section	7/19/2010
168	4. Implementation	WEp1	Water Use Reduction	Replace the first three paragraphs with the following:  (see below text)	7/19/2010

Page	Location	Credit	Credit Title	Issue	Post Date
	<p><b>(text relating to above issue)</b></p> <p>Effective ways to reduce water use include installing flow restrictors and/or reduced flow aerators on lavatory, sink, and shower fixtures; installing and maintaining metering faucets; installing high-efficiency flush fixtures, such as high-efficiency water closets and urinals; and collecting rainwater.</p> <p>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.</p> <p>WaterSense, a partnership program sponsored by EPA, helps consumers identify the most water-efficient products and programs. WaterSense-labeled products exceed the requirements of the Uniform Plumbing Code and the International Plumbing Code for some fixtures and fittings. WaterSense products and other high-efficiency plumbing fixtures, fittings, and appliances can be installed in the same way as conventional EPAAct plumbing fixtures and fittings, as well as Energy Star appliances.</p>				
168	4. Implementation	WEp1	Water Use Reduction	Remove the paragraph beginning with, "Although water-efficient dishwashers..."	5/9/2011
168	4. Implementation	WEp1	Water Use Reduction	In the first line of the fifth paragraph, replace the word "conservation" with "efficiency" so the text becomes "...analyze the water efficiency options available..."	7/19/2010
169	Table 1	WEp1	Water Use Reduction	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
169	Table 1	WEp1	Water Use Reduction	In footnote "b," replace "2.0 gmp" with "2.0 gpm"	7/19/2010
170	6. Calculations	WEp1	Water Use Reduction	<p>After the section's first paragraph, insert the following:</p> <p>For additions to existing buildings, only the fixtures within the project scope must be counted for the prerequisite. To earn points under WE credit 3, all fixtures necessary to meet the needs of the addition occupants must be included, even if they are located within the existing building.</p>	5/9/2011
170	Fixture Usage Groups	WEp1	Water Use Reduction	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

Page	Location	Credit	Credit Title	Issue	Post Date
170	NC & CS box, Calculating Occupancy	WEp1	Water Use Reduction	At the end of the section, insert the following text as a new paragraph: "For hospitality 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 units in the project. Generally, assume 1.5 occupants per guest room and multiply the resulting total by 60% (average hotel occupancy per AH&LA 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. 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
171	Table 2a	WEp1	Water Use Reduction	In the sixth row ("Lavatory Faucet"), replace the duration (sec) of 15 with 30; <del>replace the related note below table with "Default duration for the metering type / autocontrol faucet is 15 seconds for the baseline and 12 seconds for the design case."</del>	2/2/2011
171	Table 2a (see above)	WEp1	Water Use Reduction	Autocontrol faucet baseline Addenda (all rating systems). In the 2/2/2011 Addenda, replace the baseline in the related note below table with "Default duration for the metering type / autocontrol lavatory faucet is 0.25 gallons per cycle (gpc) for the baseline case and 12 seconds for the design case."	4/1/2013
172	Schools box	WEp1	Water Use Reduction	(1) In the "Calculating Occupancy" section, add "e. Part-time students" (2) In the paragraph immediately below that, before the last sentence, add "Part-time students are calculated in the same manner as part-time staff."	5/9/2011



Page	Location	Credit	Credit Title	Issue	Post Date
174	Design Case Water Consumption	WEp1	Water Use Reduction	<p>Private or private use applies to plumbing fixtures in residences, apartments, and dormitories; private (non-public) bathrooms in transient lodging facilities (hotels and motels); and private bathrooms [and patient rooms] within hospitals and nursing facilities.</p> <p>Add the following to eligible fixtures section:</p> <p>“For healthcare projects, fixtures used for clinical use related to medical procedures, such as surgical scrub sinks and exam rooms sinks, in hospitals and medical office buildings are excluded from the water use calculations. Medication room sinks, utility room sinks, and other exam/procedure/observation room sinks for clinical use are also excluded. Should exam/procedure/observation room sinks be used primarily for hand-washing, they may be included in the water use calculations at the project team’s discretion under the public lavatory category. If included, project teams should provide a narrative explaining the usage assumptions for these sinks.</p> <p>Lavatories in hospital inpatient bathrooms and inpatient rooms are considered private. The inpatient lavatory and water closet should use the default residential usage assumptions (of five times per day per residential occupant), unless specific project conditions warrant an alternative. Lavatories in hospital inpatient rooms (outside the bathrooms) are considered private if used by patients and/or staff similarly to a residential lavatory, or can be exempt if they are used by staff primarily for medical or clinical use.</p> <p>Nutrition station (pantry) sinks and hospital staff lounge sinks should be included in the water use calculations under the kitchen sink category.”</p>	10/1/2014
174	Design Case Water Consumption	WEp1	Water Use Reduction	In the second line of the paragraph, remove the text “and subtracting any nonpotable water supply”	7/19/2010
174	Table 4	WEp1	Water Use Reduction	In the fifth row of the table in the column “Flow rate,” replace “1.8 gpm” with “≤ 2.2 gpm”	7/19/2010
174	Table 4	WEp1	Water Use Reduction	In the seventh row of the table in the “Flow Fixture” column, replace “Low-flow shower” with “WaterSense shower”	7/19/2010
174	Table 4	WEp1	Water Use Reduction	In the seventh row of the table in the “Flow Rate” column, replace “1.8 gpm” with “≤ 2.0 gpm”	7/19/2010

Page	Location	Credit	Credit Title	Issue	Post Date
174	Paragraph below Table 4	WEp1	Water Use Reduction	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
174	Eligible Fixtures	WEp1	Water Use Reduction	<p>Replace the section text with the following:</p> <p>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
174	Eligible Fixtures	WEp1	Water Use Reduction	Below the first paragraph, enter the following text as a new paragraph: "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
175	Figure 1	WEp1	Water Use Reduction	<p>See revised image:</p> <p><a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=9761">https://www.usgbc.org/ShowFile.aspx?DocumentID=9761</a></p>	8/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
176	12. Resources	WEp1	Water Use Reduction	In alphabetical order, insert the following text:  <b>Alliance for Water Efficiency</b> <a href="http://www.allianceforwaterefficiency.org/">http://www.allianceforwaterefficiency.org/</a> The Alliance for Water Efficiency provides information and assistance on water conservation efforts.	7/19/2010
176	12. Resources	WEp1	Water Use Reduction	Remove the following text:  <b>Fine Homebuilding Choosing a Toilet</b> <a href="http://www.taunton.com/finehomebuilding/pages/h00042.asp">http://www.taunton.com/finehomebuilding/pages/h00042.asp</a> This article includes several varieties of water-efficient toilets.	7/19/2010
176	12. Resources	WEp1	Water Use Reduction	In the resource "Rocky Mountain Institute, Water," replace the text below the resource header with the following:  <a href="http://www.rmi.org/rmi/pid172">http://www.rmi.org/rmi/pid172</a> This portion of RMI's website is devoted to water resource efficiency.	7/19/2010
176	12. Resources	WEp1	Water Use Reduction	Remove the following text:  <b>U.S. EPA, Water Use Efficiency Program</b> <a href="http://www.epa.gov/owm/water-efficiency">http://www.epa.gov/owm/water-efficiency</a> This website provides an overview of EPA's Water Use Efficiency Program and information about using water more efficiently.	7/19/2010
177	12. Resources	WEp1	Water Use Reduction	Replace the resource "Water Closet Performance Testing," with the following:  <b>Water Studies</b> <a href="http://www.ebmud.com/resource-center/publications/studies">http://www.ebmud.com/resource-center/publications/studies</a> The site provides a variety of studies related to water.	7/19/2010
177	Definitions	WEp1	Water Use Reduction	In alphabetical order, add the following definition for autocontrol faucets, " <b>Autocontrol faucets</b> have automatic fixture sensors or metering controls."	4/1/2012
177	Definitions, blackwater	WEp1	Water Use Reduction	Replace the first sentence with, "Blackwater is wastewater containing urine or fecal matter that should be discharged to the sanitary drainage system of the building or premises in accordance with the International Plumbing Code."	10/1/2012
179*	Option 1. Reduce by 50%	WEc1	Water Efficient Landscaping	Add "or using the month with the highest irrigation demand." to the end of the first sentence.	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
179*	PATH 2	WEc1	Water Efficient Landscaping	Replace the second sentence of the paragraph with “Temporary irrigation systems used for plant establishment are allowed only if removed within a period not to exceed 18 months of installation.”	7/19/2010
179*	Footnote	WEc1	Water Efficient Landscaping	Replace the footnote text with the following:  If the percent reduction of potable water is 100% AND the percent reduction of total water is equal to or greater than 50%, then Option 2 is earned, for a total of 4 points.	5/9/2011
183	Second paragraph on page (begins with “Hose bibs”)	WEc1	Water Efficient Landscaping	In the second line, replace “year” with “18 months” so the text becomes “...during the first 18 months of building...”	7/19/2010
183	Second paragraph on page (begins with “Hose bibs”)	WEc1	Water Efficient Landscaping	In the fifth line of the paragraph, replace “1 year” with “18 months” so the text becomes “...a period of 18 months depending on...”	7/19/2010
183	Technologies	WEc1	Water Efficient Landscaping	In the paragraph beginning with “Using groundwater...”, replace the last sentence with the following:  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
184	SCHOOLS box	WEc1	Water Efficient Landscaping	Replace the second sentence with “However, if such areas are included, they must be included in all other applicable Water Efficiency credit calculations (unless otherwise noted).”	7/19/2010
185	STEP 1	WEc1	Water Efficient Landscaping	At the end of the first paragraph, add the text “Any area that is being improved upon (for example site area that is being restored to its natural state) must be included in the landscape area.”	7/19/2010
186	Table 2	WEc1	Water Efficient Landscaping	Below the table, replace the first sentence of the paragraph with the following:  Determine, if applicable, the controller efficiency (CE), the percentage reduction in water use from any weather-based controllers or moisture sensor-based systems, not to exceed 30% for the peak month of July.	2/2/2011
186	Equation 3	WEc1	Water Efficient Landscaping	Replace “CE” with “(1 – CE)”	2/2/2011

Page	Location	Credit	Credit Title	Issue	Post Date
188	EXAMPLE 1	WEc1	Water Efficient Landscaping	In the first line of the first paragraph, replace the first sentence with "An office building in Austin, Texas, has 6,000 square feet of landscape area."	7/19/2010
188	EXAMPLE 1	WEc1	Water Efficient Landscaping	In the first line of the second paragraph, replace the first sentence with "The baseline case uses the same reference ETo and total landscape area."	7/19/2010
190	Definitions, graywater	WEc1	Water Efficient Landscaping	Replace the definition of "graywater" with "Graywater is untreated household waste water which has not come into contact with toilet waste. Graywater typically includes used water from bathtubs, showers, bathroom wash basins, and water from clothes-washer and laundry tubs, though definitions may vary. Some states and local authorities also allow kitchen sink wastewater to be included in graywater. Project teams should comply with the graywater definition established by the authority having jurisdiction in the project area."	10/1/2012
191	13. Definitions	WEc1	Water Efficient Landscaping	Insert the term "Landscape area" in alphabetical order with the accompanying text "The <b>landscape area</b> of the site is the total site area less the building footprint, paved surfaces, water bodies, areas being left in a natural state, and patios."	7/19/2010
201	13. Definitions, blackwater	WEc2	Innovative Wastewater Technologies	Replace the first sentence with, "Blackwater is wastewater containing urine or fecal matter that should be discharged to the sanitary drainage system of the building or premises in accordance with the International Plumbing Code."	10/1/2012
<b>203*</b>	NC, Schools, & CS box	WEc3	Water Use Reduction	Replace first table of the section: <a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=10511">https://www.usgbc.org/ShowFile.aspx?DocumentID=10511</a>	11/1/2011
<b>207*</b>	Requirements	WEc4	Process Water Use Reduction	In the first line of the third bullet item, replace "At least 4 process items" with "All appliances within at least 4 equipment types"	7/19/2010
208	4. Implementation	WEc4	Process Water Use Reduction	In the beginning of the first line of the first paragraph, insert the text "With the exception of prerinse spray valves"	7/19/2010
211	13. Definitions	WEc4	Process Water Use Reduction	In alphabetical order, insert the term "once-through (single-pass) cooling a system" with the text "A once-through (single pass) cooling system is one which water from any source is used to transfer heat from equipment or processes and then discharged."	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
237*	OPTION 1	EAp2	Minimum Energy Performance	Add the following second paragraph:  For projects that registered after April 7, 2016 and are subject to the four point mandatory minimum, demonstrate an 18% improvement in the proposed building performance rating for new buildings, or a 14% improvement in the proposed building performance rating for major renovations to existing buildings, compared with the baseline building performance rating.	7/1/2016
237*	OPTION 1	EAp2	Minimum Energy Performance	Core and Shell only, add the following second paragraph: For projects that register after April 7, 2016 and are subject to the four point mandatory minimum, demonstrate a 14% improvement in the proposed building performance rating for new buildings, or a 10% improvement in the proposed building performance rating for major renovations to existing buildings, compared with the baseline building performance rating.	7/1/2016
237*	Option 1	EAp2	Minimum Energy Performance	Add "Projects outside the U.S. may use a USGBC approved equivalent standard <sup>2</sup> ." to the end of the second paragraph.	7/6/2012
237*	Option 1	EAp2	Minimum Energy Performance	Add, "or USGBC approved equivalent." to the end of the first bullet.	7/6/2012
237*	Option 1	EAp2	Minimum Energy Performance	Add, "or USGBC approved equivalent." to the end of the first sentence in the third bullet.	7/6/2012
237*	Option 1	EAp2	Minimum Energy Performance	Add: "or USGBC approved equivalent" after "(ANSI/ASHRAE/IESNA Standard 90.1-2007 G2.5)" in the paragraph beginning with "For this credit, process loads..."	7/6/2012
237*	Footnotes	EAp2	Minimum Energy Performance	Add footnote 2, "Projects outside the U.S. may use an alternative standard to ANSI/ASHRAE/IESNA Standard 90.1-2007 if it is approved by USGBC as an equivalent standard using the process located at <a href="http://www.usgbc.org/leedisglobal">www.usgbc.org/leedisglobal</a> ."	7/6/2012
238*	OPTION 2	EAp2	Minimum Energy Performance	Add the following note above the first paragraph: "**Please note that Option 2 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum."	7/1/2016
238*	Option 2	EAp2	Minimum Energy Performance	Add "Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone." to the end of the first paragraph.	7/6/2012
239*	OPTION 3	EAp2	Minimum Energy Performance	Add the following note above the first paragraph: "**Please note that Option 3 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum."	7/1/2016
239*	Option 3	EAp2	Minimum Energy Performance	Add "Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone." to the end of the option.	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
239*	OPTION 3	EAp2	Minimum Energy Performance	Remove the third and fourth bullet of the section: <ul style="list-style-type: none"> <li>Office, school, public assembly, and retail projects less than 100,000 square feet must comply with Section 1 and Section 2 of the Core Performance Guide.</li> <li>Other project types less than 100,000 square feet implement the basic requirements of the Core Performance Guide.</li> </ul>	2/2/2011
241	Paragraph above Table 1	EAp2	Minimum Energy Performance	Remove paragraph (begins with "The energy cost budget method.")	11/1/2011
244	Third from last paragraph (starts with "Project teams")	EAp2	Minimum Energy Performance	Remove "energy cost budget or" so that the paragraph reads, "Project teams must meet the minimum efficiency requirements for system components listed in ASHRAE 90.1-2007, Tables 6.8.1A-G, even if using the performance-based compliance method."	11/1/2011
244	Implementation, 90.1-2007 Overview, Section 5	EAp2	Minimum Energy Performance	Add the following at the end of the section, prior to the heading for Section 6: <p>For an expanded reference of international locations, ASHRAE 169-2013 Table A-5 (Canada) or Table A-6 (International) may be consulted. ASHRAE 169-2013 subdivides Climate Zone 1 into two climate zones (Climate Zone 1 and Climate Zone 0). Locations listed in ASHRAE 169-2013 in Climate Zone 1 and Climate Zone 0 should be considered Climate Zone 1 under ASHRAE 90.1-2010.</p>	7/1/2015
250	Definitions, baseline building performance	EAp2	Minimum Energy Performance	Replace the definition of "baseline building performance" with "Baseline building performance is the annual energy cost for a building design, used as a baseline for comparison with above-standard design."	10/1/2012
251*	Requirements	EAp3	Fundamental Refrigerant Management	Add the following text as a second paragraph in the section: <p>Existing small HVAC units (defined as containing less than 0.5 pounds of refrigerant) and other equipment, such as standard refrigerators, small water coolers and any other equipment that contains less than 0.5 pounds of refrigerant, are not considered part of the base building system and are not subject to the requirements of this prerequisite.</p>	2/2/2011
252	4. Implementation	EAp3	Fundamental Refrigerant Management	After the first sentence, add, "HCFCs are not part of this prerequisite."	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
255	Definitions, chlorofluorocarbons (CFCs)	EAp3	Fundamental Refrigerant Management	Replace the definition of "chlorofluorocarbons (CFCs)" with "a compound of carbon, hydrogen, chlorine and fluorine, once commonly used in refrigeration, that depletes the stratospheric ozone layer."	10/1/2012
<b>257*</b>	Points	EAc1	Optimize Energy Performance	Add the following note next to point breakdown: "(4 points mandatory for projects registered after April 7, 2016)"	7/1/2016
<b>257-259*</b>	Option 1	EAc1	Optimize Energy Performance	Add the following sentence before the last sentence of the first paragraph. "Projects outside the U.S. may use a USGBC approved equivalent standard <sup>2</sup> ."	7/6/2012
<b>257-259*</b>	Option 1	EAc1	Optimize Energy Performance	Add, "or USGBC approved equivalent." to the end of the first bullet.	7/6/2012
<b>257-259*</b>	Option 1	EAc1	Optimize Energy Performance	Add, "or USGBC approved equivalent." to the end of the first sentence in the third bullet.	7/6/2012
<b>257-259*</b>	Option 1	EAc1	Optimize Energy Performance	Add: "or USGBC approved equivalent" after "(ANSI/ASHRAE/IESNA Standard 90.1-2007 G2.5)" in the paragraph beginning with "For this credit, process loads..."	7/6/2012
<b>257-259*</b>	Footnotes	EAc1	Optimize Energy Performance	Add footnote 2, "Projects outside the U.S. may use an alternative standard to ANSI/ASHRAE/IESNA Standard 90.1-2007 if it is approved by USGBC as an equivalent standard using the process located at <a href="http://www.usgbc.org/leedisglobal">www.usgbc.org/leedisglobal</a> ."	7/6/2012
<b>257-259*</b>	Option 2	EAc1	Optimize Energy Performance	Add "Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone." to the end of the first paragraph	7/6/2012
<b>258*</b>	OPTION 2	EAc1	Optimize Energy Performance	Add the following note above the first paragraph: "**Please note that Option 2 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum."	7/1/2016
<b>259*</b>	OPTION 3	EAc1	Optimize Energy Performance	Add the following note above the first paragraph: "**Please note that Option 3 currently is not an eligible compliance option for projects that registered after April 7, 2016 to meet the four point mandatory minimum."	7/1/2016
<b>257-259*</b>	Option 3	EAc1	Optimize Energy Performance	Add "Projects outside the U.S. may use ASHRAE/ASHRAE/IESNA Standard 90.1-2007 Appendices B and D to determine the appropriate climate zone." to the end of the option.	7/6/2012
262	Below Table 1	EAc1	Optimize Energy Performance	In the text "ASHRAE Advanced Energy Design Guide for Small Office Buildings, 2006," replace 2006 with 2004	11/1/2011



Page	Location	Credit	Credit Title	Issue	Post Date
277	First paragraph on page (begins with "Separate point")	EAc1	Optimize Energy Performance	<p>At the end of paragraph, add the following text:</p> <p>For projects that are a combination of renovated and new construction, use the following equation to determine minimum energy cost savings percentage for each point threshold for each line of the table:</p> <p>Target Percent = (Existing SF/Total SF)*Existing Percent + (New SF/Total SF)*New Percent</p> <p>Or</p> $\text{Target Percent} = \left( \frac{\text{Existing SF}}{\text{Total SF}} \times \text{Existing Percent} \right) + \left( \frac{\text{New SF}}{\text{Total SF}} \times \text{New Percent} \right)$	2/2/2011
286	Definitions, baseline building performance	EAc1	Optimize Energy Performance	Replace the definition of "baseline building performance" with "Baseline building performance is the annual energy cost for a building design, used as a baseline for comparison with above-standard design."	10/1/2012
292	After the bullet point, "Landfill gas"	EAc2	On-Site Renewable Energy	Following the last bulleted item, add the following text as a new paragraph: "To qualify as an eligible on-site system, the fuel source must meet one of the following conditions: the fuel source must be wholly contained/produced on-site; the project team must demonstrate full ownership of the fuel source, including ownership of all its environmental attributes; or, if the fuel source is not owned, and in cases where use of a substitute, non-renewable fuel is possible, projects must enter into a 2-year contract for purchase of the renewable fuel source, with an ongoing commitment to renew for a period of 10 years total."	11/1/2011
293	Retention of Renewable Energy Environmental Attributes	EAc2	On-Site Renewable Energy	In the first bullet, change "200%" to "100%", so that it reads, "RECs equal to 100% of the system's..."	5/9/2011
293	Retention of Renewable Energy Environmental Attributes	EAc2	On-Site Renewable Energy	Remove the text from "The rationale for the 1-for-2 ratio..." through "This allows green building projects to capture the value of RECs created by on-site renewable while reducing next CO2."	11/3/2010
295	12. Resources	EAc6	Green Power	<p>Add the following resource:</p> <p>Low Impact Hydropower Institute  <a href="http://lowimpacthydro.org">http://lowimpacthydro.org</a>  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.</p>	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
305*	Requirements	EAc4	Enhanced Refrigerant Management	Update equation on bottom of page to read: $\sum (LCGWP + LCODP \times 105) \times Q_{unit} \leq 100 Q_{total}$	5/9/2011
308	Implementation	EAc4	Enhanced Refrigerant Management/Ozone Depletion	In the third paragraph under Implementation, edit the last sentence so it now reads: "For buildings connected to an existing chilled water system, including District Energy Systems, the chilled water supplier must perform the required calculation and submit a letter showing compliance with the requirements."	4/1/2013
310	6. Calculations	EAc4	Enhanced Refrigerant Management	In the first bulleted item, replace the text with "Refrigerant charge (Rc) in pounds of refrigerant per ton of Gross ARI rated cooling capacity."	7/19/2010
310	Implementation	EAc4	Enhanced Refrigerant Management/Ozone Depletion	Delete the following sentence under District Energy Systems: "Follow the guidance in effect at the time of registration."	4/1/2013
311	Text below third box	EAc4	Enhanced Refrigerant Management	Replace the text with "If there are multiple pieces of base building HVAC&R equipment, use a weighted average of all equipment, based on Gross ARI rated cooling capacity:"	7/19/2010
311	Bottom of Calculations	EAc4	Enhanced Refrigerant Management	Replace the two bulleted items with the following: •Qunit = Gross ARI rated cooling capacity of an individual HVAC or refrigeration unit (tons) •Qtotal = Total Gross ARI rated cooling capacity of all HVAC or refrigeration	5/9/2011
314	Definitions, chlorofluorocarbons (CFCs)	EAc4	Enhanced Refrigerant Management	Replace the definition of "chlorofluorocarbons (CFCs)" with "a compound of carbon, hydrogen, chlorine and fluorine, once commonly used in refrigeration, that depletes the stratospheric ozone layer."	10/1/2012
315*	NC & Schools	EAc5	Measurement and Verification	Add the following option after OPTION 2:  OR OPTION 3 (1 point) Meet MPR 6 through compliance Option1: Energy and Water Data Release Form. Projects must register an account in ENERGY STAR's Portfolio Manager tool and share the project file with the USGBC master account.	2/2/2011
315*	Requirements- Option 3	EAc5	Measurement and Verification	Change the Option 3 title to:  "Option 3. Third Party Data Source (1 point)"	10/1/2013

Page	Location	Credit	Credit Title	Issue	Post Date
316*	CS	EAc5.1	Measurement and Verification – Base Building	Add the following option after OPTION 2:  OR OPTION 3 (1 point) Meet MPR 6 through compliance Option1: Energy and Water Data Release Form. Projects must register an account in ENERGY STAR's Portfolio Manager tool and share the project file with the USGBC master account.	2/2/2011
316*	Requirements- Option 3	EAc5.1	Measurement and Verification- Base Building	Change the Option 3 title to:  "Option 3. Third Party Data Source (1 point)"	10/1/2013
319	3. Summary of Referenced Standards	EAc5	Measurement and Verification	In the first paragraph, replace "International Performance Measurement and Verification Protocol, Volume III, EVO 30000.1–2006, Concepts and Options for Determining Energy Savings in New Construction, effective January, 2006" with "International Performance Measurement & Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction, April, 2003"	7/19/2010
323	9. Exemplary Performance	EAc5	Measurement and Verification	NC, CS, and Schools projects pursuing Option 3 in addition to Options 1 or 2 are eligible for exemplary performance.	2/2/2011
324	12. Resources	EAc5	Measurement and Verification	At the end of the section, add the following resource:  <u>USGBC Building Performance Partnership</u> <u><a href="http://www.usgbc.org/BPP">www.usgbc.org/BPP</a></u> USGBC's Building Performance Partnership (BPP) engages commercial and residential LEED building owners and managers in an effort to optimize the performance of buildings through data collection, analysis and action. This partnership among USGBC and the thousands of LEED project owners will result in the population of a comprehensive green building performance database, enable standardization of reporting metrics and analytics, and establish new performance benchmarks. USGBC's BPP participants are eligible for annual performance reports, report cards and real-time data interfaces to aid in their building performance goals. Together, USGBC and BPP participants will transform the way the world views building operations.  (removed 10/1/2013)	2/2/2011
325*	Requirements	EAc6	Green Power	Add "or an equivalent" to the end of the first paragraph.	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
325*	Requirements	EAc6	Green Power	Add a new paragraph Add a new paragraph after the second paragraph that reads: "If the green power is not Green-e Energy certified, equivalence must exist for both major Green-e Energy program criteria: 1) current green power performance standards, and 2) independent, third-party verification that those standards are being met by the green power supplier over time."	7/6/2012
328	4. Implementation, bullet 3	EAc6	Green Power	Add the following paragraph to the end of item 3: "The vintage of any REC purchased to meet the Green Power credit requirements must be valid according to the Green-e vintage requirements as written on the date of purchase. Project teams must affirm in writing that the purchased RECs are being claimed for use on this particular LEED Project only."	8/1/2011
328	6. Calculations	EAc6	Green Power	After the first sentence, add the following: "If an energy model was used to document compliance with EAc1: Optimize Energy Performance, the data from the energy model must be used as the basis for determining the electricity consumption for this credit."	4/1/2012
337	Calculating Materials Costs to Achieve MR Credits	n/a	n/a	In the first paragraph, add the following after "...Furniture and Furnishings as long as this is done consistently across all MR credits.", "Exclude artwork, interior plants, and musical instruments."	5/9/2011
349	6. Calculations	MRc1.1	Building Reuse-Maintain Existing Walls, Floors and Roof	After the first sentence of the first paragraph, add the text "New construction additions are not included in the calculation for credit."	8/1/2011
359	6. Calculations	MRc2	Construction Waste Management	Add the following to end of first paragraph:  For commingled recycling the average annual recycling rate for a sorting facility is acceptable for recording diversion rates only when the facility's method of recording and calculating the recycling rate is regulated by a local or state government authority.	5/9/2011
379*	Requirements	MRc5	Regional Materials	Replace "500 miles" with "a specified distance"	7/6/2012
379*	Requirements	MRc5	Regional Materials	Add "OPTION 1"	7/6/2012
379*	Option 1	MRc5	Regional Materials	Add the following language for the new option 1: "All building materials or products have been extracted, harvested or recovered, as well as manufactured within a 500 mile (800 kilometer) radius of the project site."	7/6/2012
379*	Requirements	MRc5	Regional Materials	Add "OR" "OPTION 2"	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
379*	Option 2	MRc5	Regional Materials	Add the following language for the new option 2: "Building materials or products shipped by rail or water have been extracted, harvested or recovered, as well as manufactured within a 500 mile (800 kilometer) total travel distance of the project site using a weighted average determined through the following formula: (Distance by rail/3) + (Distance by inland waterway/2) + (Distance by sea/15) + (Distance by all other means) ≤ 500 miles [800 kilometers]"	7/6/2012
379*	Requirements	MRc5	Regional Materials	The sentence about mechanical equipment should read: "Mechanical, electrical and plumbing components and specialty items such as elevators and equipment must not be included in all calculations."	7/6/2012
380	4. Implementation	MRc5	Regional Materials	Remove the first paragraph:  The point of manufacture is considered the place if final assembly of components into the building product that is furnished and installed by tradesworkers. For example, if the hardware comes from Dallas, and lumber comes from Vancouver, and the joist is assembled in Kent, Washington, then the location of the final assembly is Kent, Washington.	7/19/2010
382	Recycled Materials	MRc5	Regional Materials	Replace the paragraph with the following text:  Recycled materials that satisfy the requirements of MR Credit 4 may also contribute to MR Credit 5. The extraction point for recycled materials is the location of the raw material prior to the manufacturing of the final building product. As such, the point of extraction could include a recycling facility, scrap yard, depository, stockpile, or any other location where the material was collected and packaged for market purchase before manufacturing. It is not necessary to track the origin of the raw material before it arrived at the point of extraction.  The point of manufacture for recycled material products is the location of the final finished product manufacturer. However, if products are manufactured at multiple locations then all steps of the manufacturing process(s) must be within the 500 mile radius of the project site in order to qualify for MR Credit 5. In such a situation the point of manufacture should be listed as the location farthest from the project site.	7/19/2010

Page	Location	Credit	Credit Title	Issue	Post Date
386	12. Resources	MRc5	Regional Materials	Insert the term "Extraction, harvest or recovery point" in alphabetical order with the accompanying text " <b>Extraction, harvest or recovery point</b> refers to the location of raw materials prior to manufacturing of the building material or product that is furnished and installed in the project building."	7/19/2010
<b>387*</b>	Requirements	MRc6	Rapidly Renewable Materials	In the second line of the paragraph, replace "plants" with "agricultural products"	8/1/2011
396	Chain-of-Custody Requirements	MRc7 (MRc6 for CS)	Certified Wood	At the end of the first paragraph, insert the following text:  Entities that install an FSC-certified product on the project building/site (typically project contractors or subcontractors, but also furniture installers and the like), do not require CoC certification as long as they do not modify the product's packaging or form except as is required for installation. Contractors and sub-contractors that temporarily possess FSC-certified material prior to installation should be careful not mix or contaminate the FSC-certified material with non-FSC-certified material.	7/19/2010
397	6. Calculations	MRc7 (MRc6 for CS)	Certified Wood	Replace the first paragraph with the following:  List all new wood products (not reclaimed, salvaged, or recycled) on the project and identify which components are FSC certified. The cost of all new wood products, both FSC certified and not, must be tallied. Develop a spreadsheet to calculate the amount of new wood and the amount of FSC certified wood permanently installed on the project. Wood products that are not FSC certified and those that are identified on invoices as FSC Pure and FSC Mixed Credit should be valued at 100% of the product cost unless the product is an assembly in which case only the new wood portion of the product counts for credit, see the guidance for assemblies in this credit. Wood products identified as FSC Mixed (NN)% should be valued at the indicated percentage of their cost, for example, a product identified as FSC Mixed 75% should be valued at 75% of the cost. FSC does not allow partial claims of certified products, wood products with non-controlled wood components will not earn FSC certification. The entire product must be FSC-certified, Pure, Mixed (NN)%, or Mixed Credit to contribute towards the credit threshold for MR Credit 7. For example, a product that includes multiple wood components, like a door, the entire product must be FSC certified. The door cannot be labeled, or claim, that only the door core is FSC certified.	7/19/2010

Page	Location	Credit	Credit Title	Issue	Post Date
398	Assemblies	MRc7 (MRc6 for CS)	Certified Wood	In the first sentence of the first paragraph replace, "such as windows and furniture systems that combine wood and nonwood materials" with "such as windows, doors, and some furniture that combine multiple material types, only the new wood portion can be applied toward the credit." In the first paragraph, replace the second sentence with "To determine the value of the wood component(s), calculate the amount of new wood as a percentage of the total weight or volume and the amount of FSC-certified wood as a percentage of the total weight or volume."	7/19/2010 (updated 8/1/2011)
399	Definitions, chain of custody	MRc7 (MRc6 for CS)	Certified Wood	Replace the definition of "chain-of-custody (COC)" with "the path taken by raw materials, processed materials, and products from the forest to the consumer, including all successive stages of processing, transformation, manufacturing and distribution. A chain-of-custody certificate number on invoices for nonlabeled products indicates that the certifier's guidelines for product accounting have been followed. A chain-of-custody certification is not required by distributors of a product that is individually labeled with the Forest Stewardship Council logo and manufacturer's chain-of-custody number. Chain of Custody (CoC) certification requirements are determined by Forest Stewardship Council Chain of Custody Standard 40-004 v2-1."	10/1/2012
407*	Requirements	IEQp1	Minimum Indoor Air Quality Performance	Delete current language under "Requirements" and "Case 1"	7/6/2012
407*	Requirements	IEQp1	Minimum Indoor Air Quality Performance	Add a new Case title to read: "CASE 1. Mechanically Ventilated Spaces"	7/6/2012
407*	Case 1	IEQp1	Minimum Indoor Air Quality Performance	Add the following language under Case 1: "Mechanical ventilation systems must be designed using the ventilation rate procedure as defined by ASHRAE 62.1-2007, or the applicable local code, whichever is more stringent."	7/6/2012
407*	Case 1	IEQp1	Minimum Indoor Air Quality Performance	Add a new Option title to read: "OPTION 1. ASHRAE Standard 62.1-2007 or Non-U.S. Equivalent"	7/6/2012
407*	Case 1, Option 1	IEQp1	Minimum Indoor Air Quality Performance	Case 1, Option 1 should read: "Meet the minimum requirements of Sections 4 through 7 of ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality (with errata but without addenda). Projects outside the U.S. may use a local equivalent to Sections 4 through 7 of ASHRAE Standard 62.1-2007."	7/6/2012
407*	Case 1	IEQp1	Minimum Indoor Air Quality Performance	Add a new Option title to read: "OPTION 2. CEN Standards EN 15251: 2007 and EN 13779: 2007"	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
407*	Case 1, Option 2	IEQp1	Minimum Indoor Air Quality Performance	Add the following language under Case 1, Option 2: "Projects outside the U.S. may earn this prerequisite by meeting the minimum requirements of Annex B of Comité Européen de Normalisation (CEN) Standard EN 15251: 2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics; and the requirements of CEN Standard EN 13779: 2007, Ventilation for nonresidential buildings, Performance requirements for ventilation and room conditioning systems, excluding Section 7.3 – Thermal environment, 7.6 – Acoustic Environment, A.16, and A.17."	7/6/2012
416*	Option 2, Case 2	IEQp2	Environmental Tobacco Smoke (ETS) Control	In the 7th paragraph, add the following after the first sentence: "Projects outside the U.S. may use a local equivalent to ANSI/ASTM-E779-03, Standard Test Method for Determining Air Leakage Rate By Fan Pressurization."	7/6/2012
423*	Case 1, Option 2	IEQp3	Minimum Acoustical Performance	Add the following to the heading for Option 2: "or Non-U.S. Equivalent"	7/6/2012
423*	Case 1, Option 2	IEQp3	Minimum Acoustical Performance	Add the following sentence to the end of the paragraph: "Projects outside the U.S. may use a local equivalent to ANSI Standard S12.60-2002."	7/6/2012
423*	Case 2	IEQp3	Minimum Acoustical Performance	Add the following sentence to the end of the paragraph: "Projects outside the U.S. may use a local equivalent to ANSI Standard S12.60-2002."	7/6/2012
433	Definitions	IEQp3	Minimum Acoustical Performance	In alphabetical order, add the following definition for <b>ancillary learning spaces</b> , "Ancillary learning spaces are spaces where good communication is important to a student's educational progress but for which the primary educational functions are informal learning, social interaction or similar activity other than formal instruction. These areas include, but are not limited to, corridors, cafeterias, gymnasias, and indoor swimming pools."	11/1/2011
433	Definitions	IEQp3	Minimum Acoustical Performance	Revise the definition for <b>core learning spaces</b> to be, "Core learning spaces are spaces for educational activities where the primary functions are teaching and learning and where good speech communication is critical to a student's academic achievement. These spaces include, but are not limited to, classrooms, enclosed or open plan), instructional pods or activity areas, group instruction rooms, conference rooms, libraries, offices, speech clinics, offices used for educational purposes and music rooms for instruction, practice and performance."	11/1/2011



Page	Location	Credit	Credit Title	Issue	Post Date
435*	CASE 1	IEQc1	Outdoor Air Delivery Monitoring	<p>Update the footnote references in the section so the text becomes the following:</p> <p>Monitor CO2 concentrations within all densely occupied spaces (those with a design occupant density of 25 people or more per 1,000 square feet). CO2 monitors must be between 3 and 6 feet above the floor.□</p> <p>Provide a direct outdoor airflow measurement device capable of measuring the minimum outdoor air intake flow with an accuracy of plus or minus 15% of the design minimum outdoor air rate, as defined by ASHRAE 62.1-2007 (with errata but without addenda□) for mechanical ventilation systems where 20% or more of the design supply airflow serves nondensely occupied spaces.</p>	7/19/2010
435*	Case 1	IEQc1	Outdoor Air Delivery Monitoring	In the second paragraph of Case 1, replace "as defined by ASHRAE 62.1-2007 (with errata but without addenda )" with "based on the value determined in IEQ Prerequisite 1: Minimum Indoor Air Quality Performance,"	7/6/2012
435*	CASE 2	IEQc1	Outdoor Air Delivery Monitoring	At the end of the paragraph, remove the footnote "□"	7/19/2010
435*	Footnotes	IEQc1	Outdoor Air Delivery Monitoring	<p>Re-number the footnotes so they become the following:</p> <p>□ CO2 monitoring is required in densely occupied spaces, in addition to outdoor air intake flow measurement.</p> <p>□ Project teams wishing to use ASHRAE approved addenda for the purposes of this credit may do so at their discretion. Addenda must be applied consistently across all LEED credits.</p>	7/19/2010
435*	Footnote	IEQc1	Outdoor Air Delivery Monitoring	Remove Footnote, "CO2 monitoring is required in densely occupied spaces, in addition to outdoor air intake flow measurement."	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
437	Outdoor Air Flow Monitoring	IEQc1	Outdoor Air Delivery Monitoring	<p>Replace the last two sentences of the paragraph with the following text:</p> <p>To satisfy the requirements of this credit, the measurement device must be capable of measuring the minimum outdoor air intake flow with an accuracy of plus or minus 15% when the system is providing the design minimum outdoor air rate. When the measurement device generates a measurement of outdoor air intake flow that is more than 10% below the design outdoor air minimum values, the monitoring system should be configured to deliver a visible or audible alert to the system operator to indicate that operational adjustments may be necessary.</p>	11/3/2010
441	Definitions	IEQc1	Outdoor Air Delivery Monitoring	Revise the definition for <b>densely occupied spaces</b> 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
442	Definitions	IEQc1	Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for <b>non-densely occupied space</b> , "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
442	Definitions	IEQc1	Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for <b>nonoccupied spaces</b> , "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
442	Definitions	IEQc1	Outdoor Air Delivery Monitoring	In alphabetical order, add the following definition for <b>occupied spaces</b> , "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
<b>443*</b>	Case 1	IEQc2	Increased Ventilation	Add the following title immediately following Case 1: "OPTION 1. ASHRAE Standard 62.1-2007 or Non-U.S. Equivalent"	7/6/2012
<b>443*</b>	Case 1, Option 1	IEQc2	Increased Ventilation	Add the following sentence to the end of the paragraph: "Projects outside the U.S. may use a local equivalent to ASHRAE Standard 62.1-2007 if the same is used for IEQ Prerequisite 1: Minimum Indoor Air Quality Performance."	7/6/2012
<b>443*</b>	Case 1	IEQc2	Increased Ventilation	Add the following title after Case 1, Option 1: "OPTION 2. CEN Standards EN 15251: 2007 and EN 13779: 2007"	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
443*	Case 1, Option 2	IEQc2	Increased Ventilation	Add the following paragraph: " Projects outside the U.S. may earn this credit by increasing breathing zone outdoor air ventilation rates to all occupied spaces by at least 30% above the minimum rates required by Annex B of Comité Européen de Normalisation (CEN) Standard EN 15251: 2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics, as determined by IEQ Prerequisite 1: Minimum Indoor Air Quality Performance."	7/6/2012
443*	Case 2, Option 1	IEQc2	Increased Ventilation	Option 1 should be titled: "OPTION 1. CIBSE or Non-U.S. Equivalent"	7/6/2012
443*	Case 2, Option 1	IEQc2	Increased Ventilation	Path 1 should read: "PATH 1. Use CIBSE Applications Manual 10: 2005, Natural Ventilation in Non-domestic Buildings. Projects outside the U.S. may use a local equivalent."	7/6/2012
443*	Case 2, Option 1	IEQc2	Increased Ventilation	Path 2 should read: "PATH 2. Use CIBSE AM 13:2000, Mixed Mode Ventilation. Projects outside the U.S. may use a local equivalent."	7/6/2012
443*	Case 2, Option 2	IEQc2	Increased Ventilation	Option 2 should read: "OPTION 2. Airflow Model"	7/6/2012
443*	Case 2, Option 2	IEQc2	Increased Ventilation	In the first sentence, replace "Chapter" with "section" after "ASHRAE Standard 62.1-2007"	7/6/2012
443*	Case 2, Option 2	IEQc2	Increased Ventilation	Add the following sentence to the end of the paragraph: "Projects outside the U.S. may use Annex B of Comité Européen de Normalisation (CEN) Standard EN 15251: 2007 or a local equivalent to section 6 of ASHRAE Standard 62.1-2007 to define the minimum ventilation rates."	7/6/2012
453*	Requirements	IEQc3.1 IEQc3	Construction Indoor Air Quality Management Plan – During Construction	The third bullet should read: "If permanently installed air handlers are used during construction, filtration media must be used at each return air grille that meets one of the following criteria below. Replace all filtration media immediately prior to occupancy."	7/6/2012
453*	Requirements	IEQc3.1 IEQc3	Construction Indoor Air Quality Management Plan – During Construction	Under the third bullet, add three bullets, indented:	7/6/2012
453*	Requirements	IEQc3.1 IEQc3	Construction Indoor Air Quality Management Plan – During Construction	The first new bullet should read: "Filtration media with a Minimum Efficiency Reporting Value (MERV) of 8 as determined by ASHRAE Standard 52.2-1999 (with errata but without addenda)."	7/6/2012
453*	Requirements	IEQc3.1 IEQc3	Construction Indoor Air Quality Management Plan – During Construction	The second new bullet should read: "Filtration media is Class F5 or higher, as defined by CEN Standard EN 779-2002, Particulate air filters for general ventilation, Determination of the filtration performance"	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
453*	Requirements	IEQc3.1 IEQc3	Construction Indoor Air Quality Management Plan – During Construction	The third new bullet should read: "Filtration media with a minimum dust spot efficiency of 30% or higher and greater than 90% arrestance on a particle size of 3–10 µg"	7/6/2012
461*	OPTION 2. Air Testing	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	<p>(1) In the first sentence of the paragraph, replace the text "and as additionally detailed in the LEED Reference Guide for Green Building Design and Construction, 2009 Edition" with "or the ISO method listed in the table below. Testing must be done in accordance with one standard; project teams may not mix requirements from the EPA Compendium of Methods with ISO"</p> <p>(2) In the table, insert two columns to the right (refer to supplementary guidance:  <a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=9318">https://www.usgbc.org/ShowFile.aspx?DocumentID=9318</a>)</p> <p>(3) In the third bullet item, replace the second sentence (begins with "For each portion") with "The number of sampling locations must include the entire building and all representative situations."</p>	5/9/2011
466	Air Quality Testing	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	In the fourth paragraph, add "and the ISO methods" after "The protocols described in the referenced publication, EPA's Compendium of Methods for the Determination of Air Pollutants in Indoor Air,"	5/9/2011
466	Air Quality Testing	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	In the fourth paragraph, add in after "...the greatest presumed contaminant source strength", "Determine the number of ventilation systems serving the building. Then, determine if the individual floor plates served by each single ventilation system are larger or smaller than 25,000 square feet. If they are smaller, take at least one sample for every 25,000 square feet, or fraction thereof, served by a single ventilation system. If they are larger, take one sample per floor plate. For example, a 110,000 square foot building with ten 11,000 square foot floors, served by a single ventilation system, needs only five samples – one per 25,000 square feet (or fraction thereof) because each 11,000 foot floor plate is smaller than 25,000 square feet. However, a building with ten 30,000 square foot floors, also served by a single ventilation system, needs ten samples for the building because each 30,000 floor plate is larger than the 25,000 sq ft criterion." Delete, "For example" in the following sentence.	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
466	Air Quality Testing	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	In the fourth paragraph, add in after "...at normal daily start times and at the minimum outside airflow rate.", "For projects with standardized identical construction, such as classrooms in a school or multifamily residential units, identify which rooms are identical in construction, finishes, configuration, square footage, and HVAC systems. For these scenarios, project teams can sample the identical spaces by testing one in seven."	5/9/2011
466	5. Timeline and Team	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	In the second paragraph, add in "optionally" before "including furniture and furnishings" so the sentence reads, "After construction and installation of all finishes (optionally including furniture and furnishings)..."	10/1/2012
469	Definitions	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	In alphabetical order, add the following definition for <b>nonoccupied spaces</b> , "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
469	Definitions	IEQc3.2	Construction Indoor Air Quality Management Plan – Before Occupancy	In alphabetical order, add the following definition for <b>occupied spaces</b> , "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
471*	Requirements table	IEQc4.1	Low-Emitting Materials – Adhesives and Sealants	In the "Sealants" section, remove the items "Nonmembrane roof, 300" and "Single-ply roof membrane, 450"	11/3/2010
471*	Requirements	IEQc4.1	Low-Emitting Materials –Adhesives and Sealants	Add footnote number 2 at the end of the first bullet, "This table excludes adhesives and sealants listed in Rule #1168 that are non-building related or are integral to the roof waterproofing system."	11/3/2010
474	Table 1	IEQc4.1	Low-Emitting Materials – Adhesives and Sealants	In the "Sealants" section, remove the items "Nonmembrane roof, 300" and "Single-ply roof membrane, 450"	11/3/2010
474	Table 1	IEQc4.1	Low-Emitting Materials – Adhesives and Sealants	Below the table, insert the note:  This table excludes adhesives and sealants integral to the water-proofing system or that are not building related.	11/3/2010

Page	Location	Credit	Credit Title	Issue	Post Date
477	9. Exemplary Performance	IEQc4	Low-Emitting Materials – Adhesives and Sealants	<p>Replace text with the following:</p> <div> <p><b>NC &amp; Schools</b> This credit is not eligible for exemplary performance under the Innovation and Design section.</p> <p><b>CS</b> Projects that require and enforce tenants to meet the requirements in IEQ Credit 4 (4.1, 4.2, 4.3, and 4.4) throughout the tenant space are eligible for exemplary performance under the Innovation in Design section.</p> </div>	2/2/2011
479	Definitions, sealant	IEQc4.1	Low-Emitting Materials-Adhesives and Sealants	Add the following sentence to the end of "sealant" definition, "Sealants are used on wood, fabric, paper, corrugated paperboard, plastic foam and other materials with tiny openings, often microscopic, that may absorb or discharge gas or fluid."	10/1/2012
479	Definitions, volatile organic compounds (VOCs)	IEQc4.1	Low-Emitting Materials-Adhesives and Sealants	Replace the definition of "volatile organic compounds (VOC's)" with "a carbon compound that vaporizes (becomes a gas) at normal room temperatures. VOCs contribute to air pollution directly and through atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate) to produce secondary air pollutants, principally ozone and peroxyacetyl nitrate."	10/1/2012
481*	Schools box	IEQc4.2	Low-Emitting Materials – Paints and Coatings	Replace, "installed in the building interior" with "used on the interior of the building (i.e., inside of the weatherproofing system and applied on-site)"	5/9/2011
481*	NC & CS box	IEQc4.2	Low-Emitting Materials – Paints and Coatings	<p>Replace the text of the third bullet with the following:</p> <p>Clear wood finishes, floor coatings, stains, primers, sealers, and shellacs applied to interior elements must not exceed the VOC content limits established for those coating types in South Coast Air Quality Management District (SCAQMD) Rule 1113, Architectural Coatings, rules in effect on January 1, 2004.</p>	7/19/2010
483	Table 1	IEQc4.2	Low-Emitting Materials – Paints and Coatings	In the note, delete "including water"	11/3/2010
483	3. Summary of Referenced Standards, Table 1.	IEQc4.2	Low-Emitting Materials-Paints and Coatings	<p>Replace Table 1 with the one in the supplementary document:</p> <p><a href="http://www.usgbc.org/resources/ieqc42-table-1-applicable-voc-limits">http://www.usgbc.org/resources/ieqc42-table-1-applicable-voc-limits</a></p>	10/1/2013

Page	Location	Credit	Credit Title	Issue	Post Date
483	Table 2	IEQc4.2	Low-Emitting Materials – Paints and Coatings	Remove Table 2. Standard VOC Limits	11/3/2010
484	9. Exemplary Performance	IEQc4	Low-Emitting Materials – Paints and Coatings	<p>Replace text with the following:</p> <div> <p><b>NC &amp; Schools</b> This credit is not eligible for exemplary performance under the Innovation and Design section.</p> <p><b>CS</b> Projects that require and enforce tenants to meet the requirements in IEQ Credit 4 (4.1, 4.2, 4.3, and 4.4) throughout the tenant space are eligible for exemplary performance under the Innovation in Design section.</p> </div>	2/2/2011
485	Definitions, volatile organic compounds (VOCs)	IEQc4.2	Low-Emitting Materials – Paints and Coatings	Replace the definition of " <b>volatile organic compounds (VOC's)</b> " with "a carbon compound that vaporizes (becomes a gas) at normal room temperatures. VOCs contribute to air pollution directly and through atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate) to produce secondary air pollutants, principally ozone and peroxyacetyl nitrate."	10/1/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The first bullet should read: "All carpet installed in the building interior must meet one of the following requirements:"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Under the first bullet, add three new bullets, indented:	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The first new bullet should read: "Meets the testing and product requirements of the Carpet and Rug Institute Green Label Plus"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The second new bullet should read: "Maximum VOC concentrations are less than or equal to those specified in the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda, using the office scenario as defined in Table 7.5 within the practice. The additional VOC concentration limits listed in Section 9.1a must also be met."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The third new bullet should read: "Maximum VOC concentrations meet the California requirements specified above based on the following:"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add 2 bullets below the third new bullet, indented further:	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The first indented bullet should read: "California Department of Public Health (CDPH) Standard Method V1.1-2010 using test results obtained at the 14 day time point"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The second indented bullet should read: "Projects outside the U.S. may use the German AgBB/DIBt testing method and all testing methods based on AgBB/DIBt method (GUT, EMICODE, Blue Angel) using test results obtained at the 3 day or 7 day or 14 day time point. For caprolactam, if test results obtained at the 3 day or 7 day time point is used, the emission concentration must be less than ½ of the concentration limit specified above because the emission may not have peaked at the measured time points."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add a new paragraph after the bullets that reads: "If a European testing method (AgBB/DIBt GUT, EMICODE, Blue Angel) had used parameters for calculating test results different from those specified in the referenced California method, then the European test results for carpets or floorings need to be converted into California air concentrations by multiplication with 0.7."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The fourth original bullet should read: "All hard surface flooring installed in the building interior must meet one of the following requirements:"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Under the fourth original bullet, add three new bullets, indented:	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The first new bullet should read: "Meet the requirements of the FloorScore standard (current as of the date of this rating system, or more stringent version) as shown with testing by an independent third-party."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The second new bullet should read: "Demonstrate maximum VOC concentrations less than or equal to those specified in the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda, using the office scenario as defined in Table 7.5 within the practice."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The third new bullet should read: "Maximum VOC concentrations meet the California requirements specified above based on the following:"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add 2 bullets below the third new bullet, indented further:	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The first indented bullet should read: "California Department of Public Health (CDPH) Standard Method V1.1-2010 using test results obtained at the 14 day time point"	7/6/2012



Page	Location	Credit	Credit Title	Issue	Post Date
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The second indented bullet should read: "Projects outside the U.S. may use the German AgBB/DIBt testing method and all testing methods based on AgBB/DIBt method (GUT, EMICODE, Blue Angel) using test results obtained at the 3 day or 7 day or 14 day time point. For caprolactam, if test results obtained at the 3 day or 7 day time point is used, the emission concentration must be less than ½ of the concentration limit specified above because the emission may not have peaked at the measured time points."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add a new paragraph after the bullets that reads: "If a European testing method (AgBB/DIBt GUT, EMICODE, Blue Angel) had used parameters for calculating test results different from those specified in the referenced California method, then the European test results for carpets or floorings need to be converted into California air concentrations by multiplication with 0.7."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add a new bullet at the end of Option 1 that reads: "For carpet adhesive, concrete, wood, bamboo and cork floor finishes, and tile setting adhesives, compliance can be demonstrated with test results of:"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add a new indented bullet after the last bullet that reads: "Total volatiles fraction, based on one of the following, provided that water and exempt compounds are subtracted from total volatiles test results and the mass VOC content is calculated consistent with SCAQMD Rule 1113 and Rule 1168:"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add three new bullets, indented further, after the new indented bullet:	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The first new indented bullet should read: "ASTM D2369"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The second new indented bullet should read: "EPA method 24"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The third new indented bullet should read: "ISO 11890 part 1"	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add a new bullet after the three options, indented to the same level as the bullet for "Total volatiles fraction" that reads: "Total volatile organic compounds fraction, based on one of the following, provided that all VOCs with a boiling point up to 280°C (536°F) are included, and exempt compounds are subtracted from total volatiles test results and the mass VOC content is calculated consistent with SCAQMD Rule 1113 and Rule 1168."	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	Add two new bullets, indented further, after the new indented bullet:	7/6/2012
487-488*	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The first new indented bullet should read: "ASTM D6886"	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
<b>487-488*</b>	Option 1	IEQc4.3	Low-Emitting Materials – Flooring Systems	The second new indented bullet should read: "ISO 11890 part 2"	7/6/2012
489	3. Summary of Referenced Standards	IEQc4.3	Low-Emitting Materials – Flooring Systems	Under "Carpet and Rug Institute (RCI) Green Label Plus Testing Program, replace "http://www.carpet-rug.com" with "http://www.carpet-rug.org."	10/1/2012
492	9. Exemplary Performance	IEQc4	Low-Emitting Materials – Flooring Systems	<p>Replace text with the following:</p> <div> <p><b>NC &amp; Schools</b> This credit is not eligible for exemplary performance under the Innovation and Design section.</p> <p><b>CS</b> Projects that require and enforce tenants to meet the requirements in IEQ Credit 4 (4.1, 4.2, 4.3, and 4.4) throughout the tenant space are eligible for exemplary performance under the Innovation in Design section.</p> </div>	2/2/2011
<b>495*</b>	Schools box	IEQc4	Low-Emitting Materials – Composite Wood and Agrifiber Products	Add the following to the end of the section, "Wood and agrifiber products shall be treated as walls within the classroom scenario when determining compliance."	5/9/2011
493	Definitions, volatile organic compounds (VOCs)	IEQc4.3	Definitions, volatile organic compounds (VOCs)	Replace the definition of "volatile organic compounds (VOC's)" with "a carbon compound that vaporizes (becomes a gas) at normal room temperatures. VOCs contribute to air pollution directly and through atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate) to produce secondary air pollutants, principally ozone and peroxyacetyl nitrate."	10/1/2012

Page	Location	Credit	Credit Title	Issue	Post Date
497	9. Exemplary Performance	IEQc4	Low-Emitting Materials – Composite Wood and Agrifiber Products	<p>Replace text with the following:</p> <div> <p><b>NC &amp; Schools</b> This credit is not eligible for exemplary performance under the Innovation and Design section.</p> <p><b>CS</b> Projects that require and enforce tenants to meet the requirements in IEQ Credit 4 (4.1, 4.2, 4.3, and 4.4) throughout the tenant space are eligible for exemplary performance under the Innovation in Design section.</p> </div>	2/2/2011
499	Definitions, urea-formaldehyde	IEQc4.4	Low-Emitting Materials-Composite Wood and Agrifiber Products	Replace the definition of "urea-formaldehyde" with "a combination of urea and formaldehyde used in some glues and adhesives, particularly in composite wood products. At room temperature, ureaformaldehyde emits formaldehyde, a toxic and possibly carcinogenic gas."	10/1/2012
501*	Schools box	IEQc4	Low-Emitting Materials – Furniture and Furnishings	Replace Option 1 with the following: Classroom furniture and seating must meet the emissions requirements of the GREENGUARD Children and Schools standards, with testing conducted in an independent third-party air quality testing laboratory.	5/9/2011
501*	Schools box	IEQc4	Low-Emitting Materials – Furniture and Furnishings	In Option 2, delete the following, "Calculated indoor air concentrations that are less than or equal to those listed in Table 1 for furniture systems and seating determined by a procedure based on the EPA Environmental Technology Verification (ETV) Large Chamber Test Protocol for Measuring Emissions of VOCs and Aldehydes (September 1999) testing protocol conducted in an independent air quality testing laboratory."	5/9/2011
501*	Schools box	IEQc4	Low-Emitting Materials – Furniture and Furnishings	Delete, "OR OPTION 3"	5/9/2011

Page	Location	Credit	Credit Title	Issue	Post Date
501*	Schools box	IEQc4	Low-Emitting Materials – Furniture and Furnishings	Revise the language in the paragraph beginning with "Calculated indoor air concentrations..." to read, "Calculated indoor air concentrations shall be less than or equal to those established in Table 1 for classroom furniture and seating when determined by a procedure based on ANSI/BIFMA M7.1-2007 and ANSI/BIFMA X7.1-2007 testing protocol, when modeled using the classroom scenario of the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda, with testing conducted in an independent third-party air quality testing laboratory."	5/9/2011
505	Definitions, volatile organic compounds (VOCs)	IEQc4.5	Low-Emitting Materials-Furniture and Furnishings	Replace the definition of "volatile organic compounds (VOC's)" with "a carbon compound that vaporizes (becomes a gas) at normal room temperatures. VOCs contribute to air pollution directly and through atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate) to produce secondary air pollutants, principally ozone and peroxyacetyl nitrate."	10/1/2012
510	Definitions, volatile organic compounds (VOCs)	IEQc4.6	Low-Emitting Materials- Ceiling and Wall Systems	Replace the definition of "volatile organic compounds (VOC's)" with "a carbon compound that vaporizes (becomes a gas) at normal room temperatures. VOCs contribute to air pollution directly and through atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate) to produce secondary air pollutants, principally ozone and peroxyacetyl nitrate."	10/1/2012
511*	Requirements	IEQc5	Indoor Chemical and Pollutant Source Control	The second sub-bullet (5th bullet overall) should read: "These filters or devices shall meet one of the following criteria:"	7/6/2012
511*	Requirements	IEQc5	Indoor Chemical and Pollutant Source Control	Add 3 new bullets below the second sub-bullet. Indent these bullets farther.	7/6/2012
511*	Requirements	IEQc5	Indoor Chemical and Pollutant Source Control	The first new bullet should read: "Filtration media is rated at a minimum efficiency reporting value (MERV) of 13 or higher in accordance with ASHRAE Standard 52.2."	7/6/2012
511*	Requirements	IEQc5	Indoor Chemical and Pollutant Source Control	The second new bullet should read: "Filtration media is Class F7 or higher, as defined by CEN Standard EN 779: 2002, Particulate air filters for general ventilation, Determination of the filtration performance"	7/6/2012
511*	Requirements	IEQc5	Indoor Chemical and Pollutant Source Control	The third new bullet should read: "Filtration media has a minimum dust spot efficiency of 80% or higher and greater than 98% arrestance on a particle size of 3–10 µg."	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
511*	NC, SCHOOLS & CS box	IEQc5	Indoor Chemical and Pollutant Source Control	<p>Replace the third bullet item with the following text:</p> <ul style="list-style-type: none"> <li>• In mechanically ventilated buildings, each ventilation system that supplies outdoor air shall comply with the following: <ul style="list-style-type: none"> <li>◦ Particle filters or air cleaning devices shall be provided to clean the outdoor air at any location prior to its introduction to occupied spaces.</li> <li>◦ These filters or devices shall be rated a minimum efficiency reporting value (MERV) of 13 or higher in accordance with ASHRAE Standard 52.2.</li> <li>◦ Clean air Filtration media shall be installed in all air systems after completion of construction and prior to occupancy.</li> </ul> </li> </ul>	7/19/2010
511*	NC, SCHOOLS & CS box	IEQc5	Indoor Chemical and Pollutant Source Control	<p>Remove the fourth bullet item:</p> <p>Provide containment (i.e. a closed container for storage for off-site disposal in a regulatory compliant storage area, preferably outside the building) for appropriate disposal of hazardous liquid wastes in places where water and chemical concentrate mixing occurs (e.g., housekeeping, janitorial and science laboratories).</p>	7/19/2010
512	Environmental Issues	IEQc5	Indoor Chemical and Pollutant Source Control	<p>Replace the paragraph with the following:</p> <p>This credit recognizes projects that reduce or mitigate human contact with airborne chemicals and particles. Additional materials and energy may be required to provide entryway systems and isolated chemical-use areas.</p>	7/19/2010
513	4. Implementation	IEQc5	Indoor Chemical and Pollutant Source Control	<p>In the fourth line of the paragraph, remove the text "...; in addition, the storage, mixing and disposal of housekeeping liquids may adversely affect human health"</p>	7/19/2010
513	Entryway Systems	IEQc5	Indoor Chemical and Pollutant Source Control	<p>In the first and second paragraphs, replace both instances of "high-traffic" with "regularly used"</p>	7/19/2010

Page	Location	Credit	Credit Title	Issue	Post Date
514	Hazardous Chemical Areas	IEQc5	Indoor Chemical and Pollutant Source Control	Remove the sixth paragraph of the section:  Rooms where chemicals are mixed and disposed of should be isolated. These rooms should include sinks and/or drains in appropriate locations to ensure that chemicals are disposed of properly and are not dumped into inadequate spaces (e.g., restrooms). Local codes requiring separate drain lines must be followed.	7/19/2010
515	5. Timeline and Team	IEQc5	Indoor Chemical and Pollutant Source Control	Replace the second paragraph with the following text:  During the design phase, the architect should consider the location and type of entryway systems and allow adequate space for entryway systems. During the schematic design phase, the team should confirm the locations of areas where chemicals and high-volume copy, fax, and print equipment will be used. It may be possible to locate such rooms above or adjacent to 1 another to make individual exhaust systems unnecessary and minimize exhaust ductwork. Also confirm that chemical and equipment rooms are properly isolated from adjacent spaces. The mechanical engineer should incorporate MERV 13 filters, dedicated exhaust systems; these elements will affect the fan sizing, shaft layout, and underground coordination.	7/19/2010
526	Definitions	IEQc6.1	Controllability of Systems – Lighting	Replace the definition for <b>group multioccupant spaces</b> with the following definition for <b>multi-occupant space</b> , "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
<b>527*</b>	Requirements	IEQc6.2 IEQc6	Controllability of Systems – Thermal Comfort	In the first sentence of the second paragraph, replace "ASHRAE Standard 55-2004 (with errata but without addenda)" with "IEQ Credit 7.1: Thermal Comfort - Design"	7/6/2012
529	Individual Thermal Comfort	IEQc6.2	Controllability of Systems – Thermal Comfort	Add the following paragraph after the second paragraph:  Individual comfort plug-in devices are acceptable for meeting the intent of this credit provided they are included in the proposed design model but not in the baseline model for EA Prerequisite 2: Minimum Energy Performance and EA Credit 1:Optimize Energy Performance	2/2/2011
532	Definitions	IEQc6.2	Controllability of Systems – Thermal Comfort	Revise the definition for <b>individual occupant spaces</b> 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

Page	Location	Credit	Credit Title	Issue	Post Date
532	Definitions	IEQc6.2	Controllability of Systems – Thermal Comfort	In alphabetical order, add the following definition for <b>multi-occupant space</b> , "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
535*	Requirements	IEQc7.1 IEQc7	Thermal Comfort – Design	The first sentence should read: "Design heating, ventilating and air conditioning (HVAC) systems and the building envelope to meet the requirements of one of the options below."	7/6/2012
535*	Requirements	IEQc7.1 IEQc7	Thermal Comfort – Design	Add new option title that reads: "OPTION 1. ASHRAE Standard 55-2004 or Non-U.S. Equivalent"	7/6/2012
535*	Option 1	IEQc7.1 IEQc7	Thermal Comfort – Design	Option 1 should read: "Meet the requirements of ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy (with errata but without addenda <sup>37</sup> ). Demonstrate design compliance in accordance with the Section 6.1.1 documentation. Projects outside the U.S. may use a local equivalent to ASHRAE Standard 55-2004 Thermal Comfort Conditions for Human Occupancy Section 6.1.1."	7/6/2012
535*	Requirements	IEQc7.1 IEQc7	Thermal Comfort – Design	Add new option title that reads: "OPTION 2. ISO 7730: 2005 & CEN Standard EN 15251: 2007"	7/6/2012
535*	Option 2	IEQc7.1 IEQc7	Thermal Comfort – Design	Option 2 should read: "Projects outside the U.S. may earn this credit by designing heating, ventilating and air conditioning (HVAC) systems and the building envelope to meet the requirements of International Organization for Standardization (ISO) 7730: 2005 Ergonomics of the thermal environment, Analytical determination and interpretation of thermal comfort using calculation of the PMV and PPD indices and local thermal comfort criteria; and CEN Standard EN 15251: 2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics."	7/6/2012
542	Definitions	IEQc7.1	Thermal Comfort - Design	In alphabetical order, add the following definition for <b>nonoccupied spaces</b> , "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
542	Definitions	IEQc7.1	Thermal Comfort - Design	In alphabetical order, add the following definition <b>for occupied spaces</b> , "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
543*	Requirements	IEQc7.2	Thermal Comfort – Verification	In the last sentence of the first paragraph, replace "ASHRAE Standard 55-2004 (with errata but without addenda)" with "the standard used for design in IEQ Credit 7.1: Thermal Comfort - Design."	7/6/2012

Page	Location	Credit	Credit Title	Issue	Post Date
545	First paragraph on page (above "Planning and Design Phase" section)	IEQc7.2	Thermal Comfort - Verification	At the end of the paragraph, add the addition text "For residential projects, the occupants have a higher level of control over the building systems and are therefore not eligible for this credit."	7/19/2010
547	Definitions	IEQc7.2	Thermal Comfort - Verification	In alphabetical order, add the following definition for <b>nonoccupied spaces</b> , "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
547	Definitions	IEQc7.2	Thermal Comfort - Verification	In alphabetical order, add the following definition for <b>occupied spaces</b> , "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
<b>Entire section</b>	All	IEQc8.1	Daylights and Views - Daylight	Replace section with that of the supplementary document. <a href="https://www.usgbc.org/ShowFile.aspx?DocumentID=9376">https://www.usgbc.org/ShowFile.aspx?DocumentID=9376</a>	5/9/2011
<b>549*</b>	OPTION 1	IEQc8.1	Daylights and Views - Daylight	In the first line of the paragraph, replace "75% (NC, Schools & CS) or 90% (Schools Only) or more of all regularly occupied spaces" with "applicable spaces" so the text becomes "Demonstrate through computer simulation that the applicable spaces achieve..."	11/3/2010
<b>551*</b>	OPTION 3	IEQc8.1	Daylights and Views - Daylight	In the first paragraph, replace the first sentence with "Demonstrate through records of indoor light measurements that a minimum daylight illumination level of 25 fc has been achieved in the applicable spaces."	11/3/2010
<b>551*</b>	OPTION 4	IEQc8.1	Daylights and Views - Daylight	In the first paragraph, replace the first sentence with "Any of the above calculation methods may be combined to document the minimum daylight illumination in the applicable spaces."	11/3/2010
564	Definitions	IEQc8.1	Daylight and Views - Daylight	In alphabetical order, add the following definition for <b>non-regularly occupied space</b> , "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
564	Definitions	IEQc8.1	Daylight and Views - Daylight	In alphabetical order, add the following definition for <b>nonoccupied spaces</b> , "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
564	Definitions	IEQc8.1	Daylight and Views-Daylight	In alphabetical order, add the following definition for <b>occupied spaces</b> , "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
564	Definitions	IEQc8.1	Daylight and Views-Daylight	Revise the definition for <b>regularly occupied spaces</b> 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
567	6. Calculations	IEQc8.2	Daylight and Views-Views	In the first paragraph, replace the text "Movable furniture and partitions are included in the scope of this credit calculation. See Figure 2." with "Movable furniture and partitions are not included in the scope of this credit calculation. See Figure 2. 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
570	Figure 4	IEQc8.2	Daylight and Views-Views	Change figure title to "Figure 4. Unobstructed View through Window over Low Partition."	5/9/2011
573	13. Definitions	IEQc8.2	Daylight and Views-Views	After the definition for glare, add "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
573	Definitions	IEQc8.2	Daylight and Views-Views	In alphabetical order, add the following definition for <b>non-regularly occupied space</b> , "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
573	Definitions	IEQc8.2	Daylight and Views-Views	In alphabetical order, add the following definition for <b>nonoccupied spaces</b> , "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
573	Definitions	IEQc8.2	Daylight and Views-Views	In alphabetical order, add the following definition for <b>occupied spaces</b> , "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

Page	Location	Credit	Credit Title	Issue	Post Date
573	Definitions	IEQc8.2	Daylight and Views-Views	Revise the definition for <b>regularly occupied spaces</b> 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
<b>575*</b>	Intent	IEQc9	Enhanced Acoustical Performance	In the first line, replace "facilitates" with "facilitate"	11/3/2010
<b>575*</b>	Sound Transmission	IEQc9	Enhanced Acoustical Performance	Replace the text "the building shell, classroom partitions and other core learning space partitions" with "classrooms and other core learning spaces" so that the first sentence reads, "Design classrooms and other core learning spaces to meet the Sound Transmission Class (STC) requirements of ANSI Standard S12.60-2002, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools, except windows, which must meet an STC rating of at least 35."	11/1/2011
<b>575*</b>	Sound Transmission	IEQc9	Enhanced Acoustical Performance	Add the following sentence at the end of the paragraph: "Projects outside the U.S. may use a local equivalent to ANSI Standard S12.60-2002."	7/6/2012
576	Summary of Referenced Standards	IEQc9	Enhanced Acoustical Performance	In the first standard (ANSI), remove "/ASHRAE"	11/3/2010
580	Bullet item at top of page	IEQc9	Enhanced Acoustical Performance	In the second line of the bulleted item, replace "45 dBA" with "40 dBA"	8/1/2011
582	Definitions	IEQc9	Enhanced Acoustical Performance	In alphabetical order, add the following definition for ancillary learning spaces, "Ancillary learning spaces are spaces where good communication is important to a student's educational progress but for which the primary educational functions are informal learning, social interaction or similar activity other than formal instruction. These areas include, but are not limited to, corridors, cafeterias, gymnasias, and indoor swimming pools."	11/1/2011
582	Definitions	IEQc9	Enhanced Acoustical Performance	Revise the definition for <b>core learning spaces</b> to be, "Core learning spaces are spaces for educational activities where the primary functions are teaching and learning and where good speech communication is critical to a student's academic achievement. These spaces include, but are not limited to, classrooms, enclosed or open plan), instructional pods or activity areas, group instruction rooms, conference rooms, libraries, offices, speech clinics, offices used for educational purposes and music rooms for instruction, practice and performance."	11/1/2011
589	Definitions, U value	IEQc10	Mold Prevention	Replace the definition of "U value" with "describes how well a building element conducts heat. It measures the rate of heat transfer through a building element over a given area, under standardized conditions. The greater the U-value, the less efficient the building element is as an insulator. The inverse of (1 divided by) the U-value is the R-value."	10/1/2012

Page	Location	Credit	Credit Title	Issue	Post Date
593*	PATH 3. Pilot Credit	IDc1	Innovation in Design	In the header, change "(1 point)" to "(1 – 5 points for NC and CS, 1 - 4 points for Schools)"	2/2/2011
593*	PATH 3. Pilot Credit	IDc1	Innovation in Design	Replace the last sentence of the paragraph with "NC and CS projects may pursue up to 5 Pilot Credits total, Schools projects may pursue up to 4 Pilot Credits total."	2/2/2011
609*	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
613	Table 2	n/a	n/a	In the "Restaurant" row, replace the FTE of 225 with 435	5/9/2011
619	Table 2	n/a	n/a	Replace the fourth bullet "EA Credit 1 (performance path only)" with "EA Credit 1 (Option 1 - Whole Building Energy Simulation only)"	
623	Glossary	n/a	n/a	In alphabetical order, add the following definition for <b>ancillary learning spaces</b> , "Ancillary learning spaces are spaces where good communication is important to a student's educational progress but for which the primary educational functions are informal learning, social interaction or similar activity other than formal instruction. These areas include, but are not limited to, corridors, cafeterias, gymnasias, and indoor swimming pools."	
623	Glossary	n/a	n/a	In alphabetical order, add the term "An <b>appurtenance</b> is any built-in, nonstructural portion of a roof system, such as skylights, ventilators, mechanical equipment, partitions, and solar energy panels."	8/1/2011
624	Glossary	n/a	n/a	Replace the definition of "attendance boundary" with "The <b>attendance boundary</b> is the limit used by school districts to determine what school students attend based on where they live."	10/1/2012
624	Glossary	n/a	n/a	In alphabetical order, add the following definition for autocontrol faucets, " <b>Autocontrol faucets</b> have automatic fixture sensors or metering controls."	4/1/2012
624	Glossary	n/a	n/a	Replace the definition of "baseline building performance" with " <b>Baseline building performance</b> is the annual energy cost for a building design, used as a baseline for comparison with above-standard design."	10/1/2012
624	Glossary	n/a	n/a	Replace the first sentence with, " <b>Blackwater</b> is wastewater containing urine or fecal matter that should be discharged to the sanitary drainage system of the building or premises in accordance with the International Plumbing Code."	10/1/2012
625	Glossary, brownfield	n/a	n/a	Replace "whose use" with "or the expansion, redevelopment, or reuse of which"	10/1/2012

Page	Location	Credit	Credit Title	Issue	Post Date
625	Glossary	n/a	n/a	Revise the text for "Building footprint" to be " <b>Building footprint</b> 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
625	Glossary, chain-of-custody	n/a	n/a	Replace the definition of "chain-of-custody (COC)" with "the path taken by raw materials, processed materials, and products from the forest to the consumer, including all successive stages of processing, transformation, manufacturing and distribution. A chain-of-custody certificate number on invoices for nonlabeled products indicates that the certifier's guidelines for product accounting have been followed. A chain-of-custody certification is not required by distributors of a product that is individually labeled with the Forest Stewardship Council logo and manufacturer's chain-of-custody number. Chain of Custody (CoC) certification requirements are determined by Forest Stewardship Council Chain of Custody Standard 40-004 v2-1."	10/1/2012
625	Glossary, chlorofluorocarbons	n/a	n/a	Replace the definition of "chlorofluorocarbons (CFCs)" with "a compound of carbon, hydrogen, chlorine and fluorine, once commonly used in refrigeration, that depletes the stratospheric ozone layer."	10/1/2012
625	Glossary (duplicate above from 10/1/2012)	n/a	n/a	<del>Replace the definition of "chain-of-custody (COC)" with "the path taken by raw materials, processed materials, and products from the forest to the consumer, including all successive stages of processing, transformation, manufacturing and distribution. A chain-of-custody certificate number on invoices for nonlabeled products indicates that the certifier's guidelines for product accounting have been followed. A chain-of-custody certification is not required by distributors of a product that is individually labeled with the Forest Stewardship Council logo and manufacturer's chain-of-custody number. Chain of Custody (CoC) certification requirements are determined by Forest Stewardship Council Chain of Custody Standard 40-004 v2-1."</del>  (removed 10/1/2013)	4/1/2013
627	Glossary	n/a	n/a	Revise the definition for <b>core learning spaces</b> to be, "Core learning spaces are spaces for educational activities where the primary functions are teaching and learning and where good speech communication is critical to a student's academic achievement. These spaces include, but are not limited to, classrooms, enclosed or open plan), instructional pods or activity areas, group instruction rooms, conference rooms, libraries, offices, speech clinics, offices used for educational purposes and music rooms for instruction, practice and performance."	11/1/2011

Page	Location	Credit	Credit Title	Issue	Post Date
627	Glossary	n/a	n/a	Revise the definition for <b>densely occupied spaces</b> 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
628	Glossary	n/a	n/a	In alphabetical order, insert the term " <b>emergency lighting</b> " 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
629	Glossary	n/a	n/a	Insert the term "Extraction, harvest or recovery point" in alphabetical order with the accompanying text " <b>Extraction, harvest or recovery point</b> refers to the location of raw materials prior to manufacturing of the building material or product that is furnished and installed in the project building."	7/19/2010
631	Glossary	n/a	n/a	Replace the definition of "graywater" with " <b>Graywater</b> is untreated household waste water which has not come into contact with toilet waste. Graywater typically includes used water from bathtubs, showers, bathroom wash basins, and water from clothes-washer and laundry tubs, though definitions may vary. Some states and local authorities also allow kitchen sink wastewater to be included in graywater. Project teams should comply with the graywater definition established by the authority having jurisdiction in the project area."	10/1/2012
631	Glossary	n/a	n/a	In alphabetical order, add the term " <b>Gross floor area</b> (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 face 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

Page	Location	Credit	Credit Title	Issue	Post Date
631	Glossary, heat island effect	n/a	n/a	In the second sentence, delete "Particularly in urban areas"; revise the last clause so that it reads, "Other sources may include vehicle exhaust, air-conditioners, and street equipment. Reduced airflow because of tall buildings and narrow streets exacerbate the effect."	10/1/2012
632	Glossary	n/a	n/a	Revise the definition for <b>individual occupant spaces</b> 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
633	Glossary, Landscape area	n/a	n/a	Replace the term description with the text "The <b>landscape area</b> of the site is the total site area less the building footprint, paved surfaces, water bodies, areas being left in a natural state, and patios."	7/19/2010
635	Glossary	n/a	n/a	In alphabetical order, insert the term " <b>movable furniture and partitions</b> " 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."	5/9/201
635	Glossary	n/a	n/a	Replace the definition for <b>group multioccupant spaces</b> with the following definition for <b>multi-occupant space</b> , "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
635	Glossary	n/a	n/a	In alphabetical order, add the following definition for <b>non-densely occupied space</b> , "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
635	Glossary	n/a	n/a	In alphabetical order, add the following definition for <b>non-regularly occupied space</b> , "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
635	Glossary	n/a	n/a	Revise the definition for <b>nonoccupied spaces</b> 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
636	Glossary	n/a	n/a	In alphabetical order, add the following definition for <b>occupied spaces</b> , "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

Page	Location	Credit	Credit Title	Issue	Post Date
636	Glossary	n/a	n/a	In alphabetical order, insert the term " <b>once-through (single-pass) cooling system</b> " with the text "A once-through (single pass) cooling system is one which water from any source is used to transfer heat from equipment or processes and then discharged."	5/9/2011
637	Glossary	n/a	n/a	Replace the definition of " <b>postconsumer material</b> " with "waste generated by end users (households or commercial, industrial and institutional facilities) of a product no longer able to be used for its intended purpose that is recycled into raw material for a new product."	10/1/2012
637	Glossary (duplicate above from 10/1/2012)	n/a	n/a	<del>Replace the definition of "postconsumer material" with "waste generated by end users (households or commercial, industrial and institutional facilities) of a product no longer able to be used for its intended purpose that is recycled into raw material for a new product."</del>  (removed 10/1/2013)	4/1/2013
638	Glossary, Preconsumer recycled content	n/a	n/a	In the fourth line of the term description, make the "E" of "Excluded" not bold	11/3/2010
638	Glossary	n/a	n/a	Replace the definition of " <b>Previously developed sites</b> " with "Previously developed sites are those altered by paving, construction, and/or land use that would typically have required regulatory permitting to have been initiated (alterations may exist now or in the past). Previously developed land includes a platted lot on which a building was constructed if the lot is no more than 1 acre; previous development on lots larger than 1 acre is defined as the development footprint and land alterations associated with the footprint. Land that is not previously developed and altered landscapes resulting from current or historical clearing or filling, agricultural or forestry use, or preserved natural area use are considered undeveloped land. The date of previous development permit issuance constitutes the date of previous development, but permit issuance in itself does not constitute previous development."	11/1/2011
639	Glossary	n/a	n/a	Revise the definition for <b>regularly occupied spaces</b> 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

Page	Location	Credit	Credit Title	Issue	Post Date
640	Glossary	n/a	n/a	In alphabetical order, add the term, " <b>Roof area</b> 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
641	Glossary	n/a	n/a	Add the following sentence to the end of "sealant" definition, " <b>Sealants</b> are used on wood, fabric, paper, corrugated paperboard, plastic foam and other materials with tiny openings, often microscopic, that may absorb or discharge gas or fluid."	10/1/2012
641	Glossary, solar reflectance	n/a	n/a	Replace the definition of "solar reflectance (SR)" with "the fraction of solar energy that is reflected by a surface on a scale of 0 to 1. Black paint has a solar reflectance of 0; white paint (titanium dioxide) has a solar reflectance of 1. The standard technique for its determination uses spectrophotometric measurements, with an integrating sphere to determine the reflectance at each wavelength. The average reflectance is then determined by an averaging process, using a standard solar spectrum, as documented by ASTM Standards E903 and E892."	10/1/2012
643	Glossary	n/a	n/a	In alphabetical order, add the definition of "U value". " <b>U value</b> describes how well a building element conducts heat. It measures the rate of heat transfer through a building element over a given area, under standardized conditions. The greater the U-value, the less efficient the building element is as an insulator. The inverse of (1 divided by) the U-value is the R-value."	10/1/2012
644	Glossary, urea-formaldehyde	n/a	n/a	Replace the definition of "urea-formaldehyde" with "a combination of urea and formaldehyde used in some glues and adhesives, particularly in composite wood products. At room temperature, ureaformaldehyde emits formaldehyde, a toxic and possibly carcinogenic gas."	10/1/2012
644	Glossary, volatile organic compounds (VOCs)	n/a	n/a	Replace the definition of "volatile organic compounds (VOC's)" with "a carbon compound that vaporizes (becomes a gas) at normal room temperatures. VOCs contribute to air pollution directly and through atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate) to produce secondary air pollutants, principally ozone and peroxyacetyl nitrate."	10/1/2012

\*Shaded rows denote rating system changes. The purpose of these rating system changes within the rating system portions of the *LEED Reference Guide for Green Building Design and Construction* is to align with the LEED Rating Systems that comprise the guide.



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.