



For the document titled:

**LEED for Core and Shell
Version 2.0
First Edition
Reference Guide
June 2006**

Note: updates to this document are posted on the Reference Guide electronic access Web page (via www.usgbc.org/myUSGBC).

Errata posted Spring 2007

Credit	Page	Erratum
Intro	ii	Change the USGBC address to: U.S. Green Building Council 1800 Massachusetts Ave, NW Suite 300 Washington, DC 20036
Intro	13	Under the second paragraph of LEED Green Building Rating System: History of LEED, add the definition of LEED so the first sentence begins: “The first LEED (Leadership in Energy and Environmental Design) Pilot Project Program...”
SSc1	33	Clarification of “water body” definition. Under Approach and Implementation, add a new paragraph after the second paragraph that reads: “Regarding the fifth bullet point of the Requirements, LEED clarifies the term “water body” from the Clean Water Act by exemption small man-made ponds, such as those used in Storm water retention, fire suppression and recreation. Man-made wetlands and other water bodies created to restore natural habitat and ecological systems are not exempt. Wetlands are addressed specifically by the fourth bullet point of the Requirements.”
SSc1	36	Under the heading “ESRI”, replace the existing link with www.esri.com/hazards

SSc2	43	<p>Delete the text under “Exemplary Performance” and replace with the following language from the CIR dated September 22, 2006:</p> <p>“Based on evidence that higher density locations can achieve substantially and quantifiably higher environmental benefits, the following threshold requirements can be used to qualify a project for an exemplary performance Innovation Credit:</p> <p>A LEED for New Construction project must first meet the requirements of Option 1 of SSc2 (density path) in LEED for New Construction v2.2. Additionally, the project must meet one of the two following requirements:</p> <ul style="list-style-type: none"> ▪ The project itself must have a density of at least double that of the average density within the calculated area (see equation 2). <i>OR</i> ▪ The average density within an area twice as large as that for the base credit achievement must be at least 120,000 square feet per acre. To double the area, use equation 2 but double the property area first. <p>These requirements are based on the decision that a project achieving exemplary performance for this credit should:</p> <ul style="list-style-type: none"> ▪ Not lower the existing average density of the area, ▪ Achieve a density of at least twice the threshold of the base credit, <i>AND/OR</i> ▪ Locate within an area of established density that is larger than that required for the base credit, which is why the radius used in the base credit has been doubled.”
SSc2	46	<p>Add to the definition of Square Footage:</p> <p>“Only 2 stories of a parking structure may be counted as part of building square footage. Surface parking (only 1 story of parking) cannot count as part of building square footage. This is to ensure efficient use of land adjacent to the building footprint.”</p>
SSc4.1	55	<p>Under Exemplary Performance, add a new paragraph with language from Credit Ruling dated September 11, 2006:</p> <p>“Based on evidence that locations with higher transit density can achieve substantially and a quantifiably higher environmental benefit, meeting the following threshold qualifies a project for exemplary performance Innovation Credit. This follows the Center for Clean Air Policy’s finding that average transit rider ship increases by 0.5% for every 1.0% increase in growth of transit service levels, which leads to the conclusion that quadrupling transit service generally doubles transit rider ship.</p> <p>To accomplish this quadrupling of service and doubling of rider ship, at a minimum:</p> <ul style="list-style-type: none"> ▪ Locate the project within ½ mile of at least two existing commuter rail, light rail, or subway lines, <i>OR</i> locate project within ¼ mile of at least two or more stops for four or more public or campus bus lines usable by building occupants; <i>AND</i> ▪ Frequency of service must be such that at least 200 transit rides per day are available in total at these stops. A combination of rail and bus is allowable. This strategy is based on the assumption that the threshold of the base credit would provide, in most cases, at least 50 transit rides per day (half-hourly service 24 hours per day or more frequent service for less than 24 hours per day). If, on

		average, transit rider ship increases by 0.5% for every 1.0% increase in transit service, then quadrupling the number of rides available would, on average, double the transit rider ship. (4 x 50 rides = 200 rides). Include a transit schedule and map within your LEED certification submittal.”
SSc4.2	57	Under Requirements, the last line of Case 1, “5% of Full-time Equivalent (FTE)” should be changed to “0.5% of Full-time Equivalent (FTE)”.
SSc4.2	57	Under Requirements, the last line of Case 2, “5% of Full-time Equivalent (FTE)” should be changed to “0.5% of Full-time Equivalent (FTE)”.
SSc4.2	59	In item 7. under Calculations, change “5%” to “0.5%”
SSc4.2	59	In item 4. under Case 2, change “5%” to “0.5%”
SSc4.2	59	In Equation 4, change “0.05” to “0.005”
SSc4.2	60	In Equation 8, change “0.05” to “0.005”
SSc4.2	60	In “ <i>Example: Case 1</i> ” under Case 3, in “Shower and changing facilities = 500 x 0.05 = 2.5, therefore provide 3” change “0.05” to “0.005”
SSc4.3	69	Under the heading “Natural Gas Vehicle Coalition” replace the existing web link with http://www.ngvc.org
SSc4.4	71	Under Requirements, below the italicized text in NOTES, add: “When parking minimums are not defined by relevant local zoning requirements, or when there are no local zoning requirements, either: A) Meet the requirements of Portland, Oregon, Zoning Code: Title 33, Chapter 33.266 (Parking and Loading) OR, if this standard is not appropriate for the building type, B) Install 25% less parking than the building type's average listed in the Institute of Transportation Engineers' Parking Generation study, 3rd Edition.”
SSc4.4	72	Replace the text under Summary of Referenced Standard with the following text: “Portland, Oregon, Zoning Code: Title 33, Chapter 33.266 (Parking and Loading) Available through http://www.portlandonline.com/planning/ . Institute of Transportation Engineers' <i>Parking Generation</i> , 3rd Edition
SSc5.1	75	Within the requirements for previously developed sites, replace the last sentence with the following text. “Projects earning SS Credit 2 and using vegetated roof surfaces may apply the vegetated roof surface to this calculation (if the plants meet the definition of native/adapted), in which case the requirement is 20% of the <i>total</i> site area.” Thus, the building footprint is included in the denominator of the equation. This option is intended for urban sites with little or no building setback (i.e. zero-lot-line).
SSc5.2	85	The definition of Open Space Area needs clarification. Replace with: “Open Space Area is as defined by local zoning requirements. If local zoning requirements do not clearly define open space, it is defined for the purposes of LEED calculations as the property area minus the development footprint; and it must be vegetated and pervious, with exceptions only as noted in the credit requirements section. For projects located in urban areas that earn SS Credit 2, open space also includes non-vehicular, pedestrian-oriented hardscape spaces.”
SSc7.1	103	Under the heading “American Concrete Pavement Association”, replace the second link with http://www.pavement.com/Downloads/RT/RT3.05.pdf
SSc7.2	107	In Table 1, the row for Aluminum should be labeled “Aluminum Coating”. The SRI should be “50”.

SSc8	120	Under “Sky & Telescope” replace the existing web link with http://skytonight.com/resources/darksky
WEc1	138	In the first column, delete the following: “The values for ET in various regions throughout the United States can be found in regional agricultural data (see Resources section).” To be replaced by: “The Resources section provides a link to ET data.”
WEc1	142	Under Resources, replace the reference to “Texas Evapotranspiration Web Site” with the following: Rain Bird® ET Manager™ Scheduler http://www.rainbird.com/landscape/products/controllers/etmanager.htm This free software provides sufficient local evapotranspiration data for the United States and Canada. Use data from the closest or most climate-appropriate location.
WEc1	143	Under the heading “Water-Efficient Landscaping: Preventing Pollution and Using Resources Wisely”, replace the existing web link with http://www.epa.gov/owm/water-efficiency/
WEc2	154	Under the heading “On-site Wastewater Treatment Systems Manual”, replace the existing web link with http://www.epa.gov/OW-OWM.html/septic/pubs/septic_management_handbook.pdf
EA	170	Under Table 1, change EAc5.1 & EAc5.2 to Construction Submittals, “*”
EAp1	180	Under the heading “Building Commissioning Association”, replace the existing web link with http://www.bcx.org/resources/index.shtml
EAc1	220	Under the heading “Energy-10™ Energy Simulation Software”, replace the existing web link with http://www.nrel.gov/buildings/energy10.html
EAc1	221	Under the heading “Office of Energy and Renewable Energy” replace the existing web link with http://www.eere.energy.gov/buildings/
EAc2	230	Under the heading “Net Metering”, change the existing web link to http://www.eere.energy.gov/greenpower/markets/netmetering.shtml
EAc5.1	249	Delete first bullet point of Requirements. Replace second bullet point of Requirements with the following: <ul style="list-style-type: none"> • “Develop and implement a Measurement & Verification (M&V) Plan consistent with Option D: Calibrated Simulation (Savings Estimation Method 2), or Option B: Energy Conservation Measure Isolation, as specified by the International Performance Measurement & Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction, April, 2003. The documentation is to include 1) a description of the metering infrastructure design, 2) existing meter locations, 3) existing meter specifications, 4) 1-line electrical schematics identifying end-use circuits, 5) guidelines for carrying out tenant sub-metering.
EAc5.1	252	Under Certification Submittal Documentation, change the first sentence to say “Construction Submittal”
EAc5.1	253	Under the heading “International Performance Measurement & Verification protocol” replace the existing web link with http://www.evo-world.org/index.php?option=com_content&task=view&id=61&Itemid=80
EAc5.2	255	In the last sentence under Potential Technologies and Strategies, delete “savings”.

EAc5.1	256	Under the heading “International Performance Measurement & Verification protocol” replace the existing web link with http://www.evo-world.org/index.php?option=com_content&task=view&id=61&Itemid=80
EAc5.2	256	Under Submittal Documentation, change the first sentence to say “Construction Submittal”
EAc6	260	Before the numbered items in Approach and Implementation insert the following: “NOTE: The power product purchased to comply with credit requirements need not be Green-e certified, but projects are required to document to USGBC that their renewable supplier has 1) met the Green-e criteria, and 2) properly accounted for the eligible renewable resources sold. This documentation to USGBC must include some type of meaningful verification work performed by a qualified, disinterested third party. Example documentation methods to USGBC that meet this requirement include: a) providing a state-mandated power disclosure label from the renewable supplier in states with meaningful regulatory requirements for renewable energy disclosure and accounting practices, as well as meaningful penalties for violations; b) providing a green power scorecard or rating from a credible, independent entity that performs meaningful verification of green power characteristics and accounting practices. In either case projects must confirm that the third-party entity’s regulatory or verification programs are meaningful, summarizing those programs to USGBC as part of their certification application and highlighting any auditing or other independent checks the program performs. Other documentation methods will be considered on a case-by-case basis.”
MR	266	Under Table 1, change the second occurrence of “MRc4.1” to MRc4.2”
MR	266	Under Table 1, change the second occurrence of “MRc5.1” to “MRc5.2”
MRc1.3	277	In the first sentence under Potential Technologies & Strategies, delete “interior non-structure”
MRc1.3	277	Change title of credit to: “Building Reuse: Maintain 75%, of Existing Walls, Floors & Roof”
MRc1.3	277	Where it says “1 point”, change to “1 Point in addition to MRc1.1 & 1.2”
MRc2.1	281	Add to last sentence on the page, in regards to salvage materials: “(see page 283)”
MRc2	283	Insert as the last sentence of the Approach & Implementation section: “Materials salvaged and reused on-site can contribute to this credit if they are not included in Credit 3 calculations.”
MRc3	290	Revise the last sentence in the second column, first paragraph, to read “Materials contributing toward achievement of Credit 3 cannot be applied to MR Credits 1, 2, 4, 6 or 7. If MRc3 is not being attempted, applicable materials can be applied to another LEED credit if eligible.”
EQp2	328	Move the first sentence in bullet 5 of Option 3 to the end of the 4 th bullet on page 327.
EQc2	347	Under Building Air Quality Action Plan, replace existing web link with http://www.epa.gov/iaq/largebldgs/#Building%20Air%20Quality%20Action%20Plan
EQc4.1	357	Under Green Seal Standard 36, replace the existing web link with http://www.greenseal.org/certification/standards/commercialadhesives.cfm
EQc4.1	358	Under Green Seal Standard 36, replace the existing web link with http://www.greenseal.org/certification/standards/commercialadhesives.cfm
EQc4.2	359	In the third bullet under Requirements, add “The following list of SCAQMD VOC limits are examples. Refer to the standards for complete details.” After the last sentence and before the sub bullets.
EQc4.2	359	In the second bullet under Requirements, replace “GC-03” with “GS-03” to fix the typographical error.
EQc4.2	359	Under Requirements, add to the end of the first bullet point: “Primers must meet the VOC limit for non-flat paint.”

EQc4.2	360	Under Green Seal Standard GS-11, replace the existing web link with http://www.greenseal.org/certification/standards/paints.cfm
EQc4.2	360	Under Green Seal Standard GS-03, replace the existing web link with http://www.greenseal.org/certification/standards/anti-corrosivepaints.cfm
EQc4.3	364	Under Testing Criteria, replace the existing web link with http://www.dhs.ca.gov/ps/deodc/ehlb/IAQ/VOCS/LORS/Section01350_7_15_2004_FINAL%20WITH%20ADDENDUM-2004-01.doc
EQc5	379	Under Green Seal, replace the existing web link with http://www.greenseal.org/findaproduct/index.cfm#cleaners
EQc5	380	Under Janitorial Products Pollution Prevention project, replace the existing web link with http://www.westp2net.org/janitorial/jp4.cfm
EQc8.1	404	Under The Whole Building Design Guide, Daylighting, replace the existing web link with http://www.wbdg.org/design/daylighting.php
EQc8.1	404	Under Lighting Controls, replace the existing web link with http://www.wbdg.org/design/electriclighting.php
EQc8.1	404	Under New Buildings Institute's Productivity and Building Science Program, replace the existing link with http://www.newbuildings.org/lighting.htm
EQ8.2	411	Under New Buildings Institute's Productivity and Building Science Program, replace the existing link with http://www.newbuildings.org/lighting.htm
EQ8.2	411	Under The Whole Building Design Guide, Daylighting, replace the existing web link with http://www.wbdg.org/design/daylighting.php
EQ8.2	412	Under Lighting Controls, replace the existing web link with http://www.wbdg.org/design/electriclighting.php