

**APPLICATION GUIDE FOR
MULTIPLE BUILDING PROJECTS IN**

**LEED® Canada
for Existing Buildings:
Operations and Maintenance**



LEED® Canada Supplement

PREFACE FROM THE CaGBC

The built environment has a profound impact on our natural environment, economy, health, and productivity. Breakthroughs in building science, technology, and operations are now available to designers, builders, operators, and owners who want to build green and maximize both economic and environmental performance.

The green building movement offers an unprecedented opportunity to respond to the most important challenges of our time, including global climate change, dependence on non sustainable and expensive sources of energy, and threats to human health. The work of innovative building professionals is a fundamental driving force in the green building movement. Such leadership is a critical component to achieving the Canada Green Building Council's (CaGBC's) vision of a transformed built environment leading to a sustainable future.

CaGBC Membership

The CaGBC's greatest strength is the diversity of our membership. CaGBC is a balanced, consensus based not-for-profit with more than 1,600 member companies and organizations. Since its inception in 2002, CaGBC has played a vital role in providing a leadership forum and a unique, integrating force for the building industry. CaGBC's programs have three distinguishing characteristics:

Committee-based

The heart of this effective coalition is our committee structure, in which volunteer members work with staff and expert consultants to design and implement strategies. Our committees provide a forum for members to resolve differences, build alliances, and forge cooperative solutions for influencing change in all sectors of the building industry.

Member-Driven

Membership is open and balanced and provides a comprehensive platform for carrying out important programs and activities. We target the issues identified by our members as the highest priority. We conduct an annual review of achievements that allows us to set policy, revise strategies, and devise work plans based on members' needs.

Consensus-Focused

We work together to promote green buildings and, in doing so, we help to foster greater economic vitality and environmental health at lower costs. We work to bridge ideological gaps between industry segments to develop balanced policies and programs that benefit the entire industry.

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INTRODUCTION

This Application Guide for Multiple Building Projects is for LEED Canada for Existing Buildings: Operations and Maintenance (LEED Canada EB:O&M) 2009 projects that are on a shared site under the control of a single entity and wish to apply for LEED certification as if they are a single building; for example, a corporate or educational campus, government installation or commercial development.

This guidance seeks to:

- encourage a holistic approach to project management
- define appropriate documentation requirements and capture economies of scale in the certification process
- maintain the technical integrity and rigor of the LEED rating systems

If projects are expected to have credit submittal documentation that is the same because they are on a multiple building site, this guidance can help streamline the documentation submitted for review under the standard LEED certification process. LEED Canada EB:O&M 2009 project teams that wish to utilize the multiple building approaches outlined in this guidance must meet all requirements outlined in the guidance.

The *Application Guide for Multiple Building Projects in LEED Canada EB:O&M* does NOT constitute a new rating system. The credit and prerequisite requirements are unchanged and remain consistent with the published LEED Canada EB:O&M 2009 Rating System, Reference Guide, Addenda, LEED Letter Templates and published Credit Interpretation Requests. This guidance is to be used in conjunction with the published LEED Canada EB:O&M reference material for LEED Canada EB:O&M Multiple Building Projects wishing to apply for LEED certification as if they are a single building.

MULTIPLE BUILDING PROJECT CERTIFICATION ELIGIBILITY

Multiple buildings may be certified as a group within one LEED project registration, where the entire group, with a single LEED project boundary, receives a single rating and certification, and is referenced under a single project name. All multiple building project documentation must demonstrate that the group of projects collectively meets the credit requirements using a multiple building credit path.

LEED Multiple Building Projects that elect to use this guidance must meet **all** of the following criteria:

- All buildings in the group must be under the same ownership and management, share the same performance period and have space types that are substantially similar.
- All buildings within a multiple building project certification must use the same compliance paths for all credits and prerequisites pursued, except where outlined in the credit guidance given in Table 1.
- All buildings are located on a single site, as defined in the *LEED Minimum Program Requirements (MPRs) for LEED Canada Rating Systems (July 2012)*.
- Calculations and documentation for all credits and prerequisites pursued must represent all real property and site features within the LEED project boundary for the multiple building project, unless specifically exempted by the MPRs or LEED Canada EB:O&M 2009 Reference Guide credit language. No selective exemptions, exclusions, or omissions are permitted.
- Each building in the multiple building project must independently qualify for the LEED Canada EB:O&M 2009 rating system, meeting all prerequisites with certain exceptions noted in the credit guidance given in Table 1, and *should* be able to independently meet the MPRs.
- The LEED Project must meet the MPRs, regardless of the project registration date.

DOCUMENTING MULTIPLE BUILDING COMPLIANCE

A multiple building project pursues one certification and rating for the entire group and must use the credit specific documentation paths included in this guidance. Credits and prerequisites are awarded on the performance of the group of multiple buildings or on an individual building basis (see Credit Guidance section). Where credit documentation is site-wide or aggregated from multiple buildings, points are awarded to the multiple building project based on the performance of the project as a whole. For credits documented on an individual building, points are awarded to the multiple building project based on the lowest performing building except where noted (for example, EA c1) in the credit specific information in Table 1. The scope of the multiple building project must be consistent across all credits and prerequisites.

Projects teams shall summarize the multiple building project and LEED project boundary in the certification submission project narrative. The project information should be provided in a table format and must outline the following for each individual building as well as for the multiple building project as a whole:

- the address,
- the building construction date,
- the building floor area and number of floors,
- the occupancy types, number of building occupants and percentage of occupied space,
- a drawing which illustrates the LEED project boundary and buildings included in the project.

Design and Construction Streamlined Paths

For credits that offer compliance via the Design and Construction Streamlined path, the building(s) within the LEED project boundary that have previously certified individually and have earned the credit, may pursue the Streamlined path, where the remaining building(s) may pursue a different compliance path (as outlined in the credit guidance given in Table 1). However, for Sustainable Sites (SS) credits that offer compliance via the Design and Construction Streamlined path, all buildings within in the LEED project boundary, if previously certified individually, must have earned the credit in order to be eligible to use this compliance path.

GLOSSARY

Multiple building credit – A LEED prerequisite or credit that, when pursued within a multiple building project certification, requires credit documentation that is aggregated from multiple buildings. Points are awarded to the multiple building project based on the performance of the project as a whole.

Individual building credit – A LEED prerequisite or credit that, when pursued within a multiple building project certification, requires credit documentation and compliance be demonstrated on an individual building basis for all buildings within a multiple building project. Points are awarded to the multiple building project based on the lowest performing building except where noted in the credit specific information (Table 1).

Multiple building project – Multiple buildings that pursue one LEED certification and rating for the entire group of buildings.

LEED project boundary – The portion of the project site submitted for LEED certification. For multiple building developments, the LEED project boundary may be a portion of the development as determined by the project team.

LEED project building(s) – The structure(s) which is attempting or has earned certification.

LEED project registration – LEED Canada projects must register for certification online. This process is considered complete once payment is received.

Substantially similar – For LEED Canada EB:O&M multiple building certification, projects must contain buildings that function as a cohesive facility, such as a collection of office buildings or dormitories, or a corporate headquarters. In these cases, it is expected that all buildings are the same space type, but exceptions may be made for some projects with limited deviation, such as a corporate headquarters that has a separate cafeteria building that falls under the same central management and can legitimately be included as part of the multiple building certification.

CREDIT GUIDANCE

Many credits and prerequisites have additional conditions that must be met to be eligible as a multiple building credit. The credit-level application guidance that follows in Table 1 addresses every credit and prerequisite within the LEED Canada EB:O&M 2009 rating system.

The Credit path column contains an 'M' for credits and prerequisites that have multiple building credit application guidance that must be followed if pursued in a multiple building project certification. This column contains an 'I' for those where compliance must be demonstrated on an individual building basis for all buildings within a multiple building project. This column is intended for reference only.

Table 1. Credit and Prerequisite Application Guidance for Multiple Building Projects in the LEED Canada EB:O&M 2009 Rating System

Credit	Credit Name	Credit Guidance	Credit path
SUSTAINABLE SITES			
SSc1	LEED Certified Design and Construction	All of the buildings within the group must have been previously certified to achieve this credit.	M*
SSc2	Building Exterior and Hardscape Management Plan	The credit requirements apply to the area within the LEED project boundary. The same plan may be applied to all of the buildings on the site.	M
SSc3	Integrated Pest Management, Erosion Control and Landscape Management Plan	The credit requirements apply to the area within the LEED project boundary. The same plan may be applied to all of the buildings on the site.	M
SSc4	Alternative Commuting Transportation	The credit requirements may be met by performing one survey that encompasses all of the regular building occupants in all of the buildings within the LEED project boundary. Alternatively, a single survey may be conducted for each individual building and the results may be aggregated.	M
SSc5	Site Development - Protect or Restore Habitat	The credit requirements apply to the area within the LEED project boundary.	M
SSc6	Site Development - Stormwater Quantity Control	The credit requirements apply to the area within the LEED project boundary.	M
SSc7.1	Heat Island Reduction - Non-Roof	The credit requirements apply to the area within the LEED project boundary.	M

Credit	Credit Name	Credit Guidance	Credit path
SSc7.2	Heat Island Reduction - Roof	The credit requirements apply to the total combined roof area of all of the buildings within the LEED project boundary (total compliant roof area/total roof area).	M
SSc8	Light Pollution Reduction	<i>Exterior:</i> If using Option 2 for exterior lighting compliance, the requirements must be met at the LEED project boundary. <i>Interior:</i> Each building within the LEED project boundary must meet the credit requirements for interior lighting individually.	M*
WATER EFFICIENCY			
WEp1	Water Metering and Minimum Indoor Plumbing Fixture and Fitting Efficiency	Each building within the LEED project boundary must document and meet the prerequisite requirements individually. Each building within the LEED project boundary must have in place permanently installed water metering which measures the total potable water use for the entire building. One water audit report may be submitted that addresses each building individually.	I†
WEc1.1 & 1.2	Water Performance Measurement	Any end use contributing towards the achievement of this credit must be submetered in each individual building. For example, if indoor plumbing fixtures and fittings is a water subsystem contributing towards credit achievement, indoor plumbing fixtures and fittings must be submetered to the required threshold, in each individual building. All buildings in the LEED project can be served by the same submeter for campus systems, such as irrigation systems, cooling towers and reclaimed water, provided the required threshold of water for the subsystem is captured across the entire LEED project.	I
WEc2	Additional Indoor Plumbing Fixture and Fitting Efficiency	Submittal documentation must represent the total combined water use reduction in all LEED project buildings. The baseline adjustment for year of substantial system completion should be averaged based on all plumbing fixtures in all buildings. The Total Water Use Reduction can be calculated as: $[(\sum \text{Total Annual Volume Baseline} - \sum \text{Total Annual Volume Performance}) / (\sum \text{Total Annual Volume Baseline})] \times 100\%$	M†
WEc3	Water Efficient Landscaping	The credit requirements apply to the area within the LEED project boundary.	M
WEc4.1	Cooling Tower Water Management - Chemical Management	The cooling tower water management plan must apply to all of the cooling towers that serve any building within the LEED project boundary. Note that at least one building within the LEED project boundary must be served by a cooling tower in order to attempt this credit.	M*

Credit	Credit Name	Credit Guidance	Credit path
WEc4.2	Cooling Tower Water Management - Non-potable Water Source Use	The credit requirements apply to all of the cooling towers that serve any building within the LEED project boundary. In aggregate, the makeup water must consist of at least 50% non-potable water.	M*
ENERGY AND ATMOSPHERE			
EAp1	Energy Efficiency Best Management Practices - Planning, Documentation and Opportunity Assessment	The same process may be used for each building within the LEED project boundary. One report may be submitted that addresses each building individually. Note that systems narrative documentation, preventative maintenance documentation, and building operating plan may be combined for one or more buildings, but spaces with different operating parameters must be addressed separately within the documentation. The results of the ASHRAE Level 1 Walk-Through Analysis must be provided for each individual building.	M*
EAp2	Minimum Energy Efficiency Performance	Each building within the LEED project boundary must document and meet the prerequisite requirements individually.	I
EAp3	Refrigerant Management - Ozone Protection	Each building within the LEED project boundary must document and meet the prerequisite requirements individually.	I†
EAc1	Optimize Energy Efficiency Performance	If all buildings in the group consist of the same space type (i.e., has the same 'primary function' or 'property type') as defined by ENERGY STAR or CBECS), the number of points within this credit may be based on a square footage weighted average of the ENERGY STAR ratings or Case 2 calculator EUIs of each building. If the group consists of buildings of different space types, points must be based on the rating of the lowest-performing building.	M
EAc2.1	Existing Building Commissioning - Investigation and Analysis	Each building within the LEED project boundary must use the same compliance option to meet the credit requirements. One report may be submitted that addresses each building individually. The retrocommissioning, recommissioning or ongoing commissioning plan, report of findings after the completion of the investigation and analysis phase and completed ASHRAE Level II Analysis report must be building specific.	M*
EAc2.2	Existing Building Commissioning - Implementation	Each building within the LEED project boundary must use the same compliance option to meet the credit requirements. One report may be submitted that addresses each building individually.	M*
EAc2.3	Existing Building Commissioning - Ongoing Commissioning	Each building within the LEED project boundary must use the same compliance option to meet the credit requirements. One report may be submitted that addresses each building individually. The documentation must include a summary of the overall commissioning cycle for each building individually.	M*

Credit	Credit Name	Credit Guidance	Credit path
EAc3.1	Performance Measurement - Building Automation System	The credit requirements may be met by implementing a campus-wide Building Automation System as long as parameters are set for each individual building. Alternatively, if the project does not have a campus-wide Building Automation System, the credit requirements must be met for each building individually.	M*
EAc3.2 & 3.3	Performance Measurement - System-Level Metering	Any end use contributing towards the achievement of this credit must be submetered in each individual building. For example, if lighting is one of the largest energy use categories contributing towards credit achievement, lighting must be submetered in each individual building.	I
EAc4	On-site and Off-site Renewable Energy	The credit requirements may be met by aggregating the total energy use, total on-site renewable energy, and total off-site renewable energy certificates from each of the buildings within the LEED project boundary.	M
EAc5	Enhanced Refrigerant Management	Each building within the LEED project boundary must meet the credit requirements individually.	I†
EAc6	Emissions Reduction Reporting	Each building within the LEED project boundary must meet the credit requirements individually.	I
MATERIALS AND RESOURCES			
MRp1	Sustainable Purchasing Policy	The same purchasing policy may be used for all of the buildings within the LEED project boundary.	M
MRp2	Solid Waste Management Policy	The same waste management policy may be used for all of the buildings within the LEED project boundary.	M
MRc1	Sustainable Purchasing - Ongoing Consumables	Submittal documentation must represent the total combined ongoing consumable purchases for all LEED project buildings.	M
MRc2	Sustainable Purchasing - Durable Goods	Submittal documentation must represent the total combined durable goods purchases for all LEED project buildings.	M

Credit	Credit Name	Credit Guidance	Credit path
MRc3	Sustainable Purchasing - Facility Alterations and Additions	At least one qualifying facility alteration or addition is required to have occurred in at least one of the buildings within the LEED project boundary during the performance period in order to attempt this credit, i.e., it is not required for a facility alteration or addition to occur in each building within the LEED project boundary. However, if this credit is attempted, the purchases pertaining to all qualifying facility alterations and additions that occurred in any building within the LEED project boundary during the performance period must be included in the credit calculations.	M*
MRc4	Sustainable Purchasing - Reduced Mercury in Lamps	Submittal documentation must represent the total combined lamp purchases for all LEED project buildings.	M
MRc5	Sustainable Purchasing - Food	Submittal documentation must represent the total combined food purchases for all LEED project buildings.	M
MRc6	Solid Waste Management - Waste Stream Audit	A waste audit must be performed for each individual building within the LEED project boundary.	I
MRc7	Solid Waste Management - Ongoing Consumables	Submittal documentation must represent the total combined ongoing consumables waste for all LEED project buildings.	M
MRc8	Solid Waste Management - Durable Goods	Submittal documentation must represent the total combined durable goods waste for all LEED project buildings.	M
MRc9	Solid Waste Management - Facility Alterations and Additions	At least one qualifying facility alteration or addition is required to have occurred in at least one of the buildings within the LEED project boundary during the performance period in order to attempt this credit, i.e., it is not required for a facility alteration or addition to occur in each individual building within the LEED project boundary. However, if this credit is attempted, the waste pertaining to all qualifying facility alterations and additions that occurred in any building within the LEED project boundary during the performance period must be included in the credit calculations.	M*

Credit	Credit Name	Credit Guidance	Credit path
INDOOR ENVIRONMENTAL QUALITY			
IEQp1	Minimum Indoor Air Quality Performance	Each building within the LEED project boundary must document and meet the prerequisite requirements individually.	I
IEQp2	Environmental Tobacco Smoke (ETS) Control	<i>Option A Only:</i> Designated smoking areas located anywhere on the project site must be located at least 7.5 metres away from building entrances and openings. The prerequisite requirements for interior smoking rooms must be met for each individual building within the LEED project boundary. <i>All other options:</i> Each building within the LEED project boundary must document and meet the prerequisite requirements individually.	M*†
IEQp3	Green Cleaning Policy	The same green cleaning policy may be used for all of the buildings within the LEED project boundary. Different space types must be addressed separately in the policy as needed.	M
IEQc1.1	IAQ Best Management Practices - IAQ Management Plan	One IAQ audit may be performed that encompasses all of the buildings within the LEED project boundary. The same protocols used to manage significant pollutant sources may be used for all of the buildings within the LEED project boundary. A plan must be established to address all of the IAQ issues with each of the buildings. The protocol for receiving and responding to occupant IAQ complaints must encompass each of the buildings.	M
IEQc1.2	IAQ Best Management Practices - Outdoor Air Delivery Monitoring	Each building within the LEED project boundary must document and meet the credit requirements individually.	I
IEQc1.3	IAQ Best Management Practices - Increased Ventilation	Each building within the LEED project boundary must document and meet the credit requirements individually.	I
IEQc1.4	IAQ Best Management Practices - Reduced Particulates in Air Distribution	Each building within the LEED project boundary must document and meet the credit requirements individually.	I

Credit	Credit Name	Credit Guidance	Credit path
IEQc1.5	IAQ Best Management Practices - IAQ Management for Facility Alterations and Additions	The same IAQ management plan may be used for each of the buildings within the LEED project boundary. The plan must be implemented for each of the applicable facility alterations or additions that occur in any of the buildings.	M
IEQc2.1	Occupant Comfort - Occupant Survey	Each building within the LEED project boundary must document and meet the credit requirements individually.	I
IEQc2.2	Controllability of Systems - Lighting	Each building within the LEED project boundary must document and meet the credit requirements individually.	I [†]
IEQc2.3	Occupant Comfort - Thermal Comfort Monitoring	Each building within the LEED project boundary must document and meet the credit requirements individually.	I
IEQc2.4	Daylight and Views	Each building within the LEED project boundary must document and meet the credit requirements individually.	I [†]
IEQc3.1	Green Cleaning - High Performance Cleaning Program	The same high performance green cleaning program may be used for all of the buildings within the LEED project boundary. Different space types must be addressed separately in the program as needed.	M
IEQc3.2	Green Cleaning - Custodial Effectiveness Assessment	A separate APPA cleanliness audit must be performed for each individual building with the LEED project boundary.	I
IEQc3.3	Green Cleaning - Purchase of Sustainable Cleaning Products and Materials	Submittal documentation must represent the total combined cleaning product purchases for all LEED project buildings.	M
IEQc3.4	Green Cleaning - Sustainable Cleaning Equipment	Submittal documentation must represent the total combined cleaning equipment inventories and purchases for all LEED project buildings.	M
IEQc3.5	Green Cleaning - Indoor Chemical and Pollutant Source Control	Each building within the LEED project boundary must document and meet the credit requirements individually.	I [†]
IEQc3.6	Green Cleaning - Indoor Integrated Pest Management	The same Indoor Integrated Pest Management plan may be used for all of the buildings within the LEED project boundary. All buildings are required to comply with the plan 100% of the time during the performance period.	M

Credit	Credit Name	Credit Guidance	Credit path
INNOVATION IN OPERATIONS			
IOc1	Innovation in Operations	Multiple Building Project-wide strategies may be documented as such, but strategies that apply to individual buildings must be documented for every building. Note that there is no change to the requirements for achieving exemplary performance under the applicable credits.	M*
IOc2	LEED Accredited Professional	The credit requirements apply to the area within the LEED project boundary.	M
IOc3	Documenting Sustainable Building Cost Impacts	The sustainable building cost impacts may be documented at the multiple building level. Alternatively, each individual building may document the sustainable building cost impacts separately.	M
REGIONAL PRIORITY			
RPc1	Regional Priority	The credit requirements apply to the area within the LEED project boundary. Note that there is no change to the requirements for achieving regional priority under the applicable pre-selected credits.	M
<p>* Not eligible as multiple building credit for all compliance options.</p> <p>† Building(s) that were previously certified individually, may pursue the Design and Construction Streamlined path, and the remaining building(s) may pursue a different compliance path.</p>			