Why Your Green Building Project Needs a Commissioning Authority

by Joel W. Darrington

As the drive for more sustainable buildings continues to intensify and permeate the construction industry, owners, designers, contractors and their counsel need to become familiar with the requirements of the Leadership in Energy and Environmental Design (LEED®) rating program of the U.S. Green Building Council (USGBC). This is especially true for California projects, where the 2010 Building Code now includes the California Green Building Standards Code (CALGreen), and where municipalities are including green building ordinances that either directly tie into LEED® standards or have similar requirements to LEED®. San Francisco’s touted Green Building Ordinance, for example, requires certain projects to achieve various levels of LEED® certification or LEED® credits.

One particular LEED® requirement impacts all projects seeking a LEED® rating for new construction or major renovations – the need for a commissioning authority to oversee the commissioning of the building’s new systems. In addition, CALGreen requires commissioning for new private nonresidential buildings greater than 10,000 square feet, and with some care in structuring commissioning activities, a project should be able to satisfy the commissioning requirements of both LEED® and CALGreen without much added difficulty. San Francisco’s Green Building Ordinance now requires all new “mid-size” and “large” commercial buildings to meet LEED® commissioning requirements.


a systematic quality-focused effort to ensure that building systems are designed, specified, procured, installed and functioning in accordance with the owner’s intent. The process uses planning, documentation, and verification of testing to review and oversee the activities of both designer and constructor.

1. CALGreen does not require LEED® certification or particular LEED® credits, but many CALGreen requirements are clearly derived in large part from LEED® requirements.


Under the LEED® Reference Guide, there are two paths for the commissioning of building systems for a new building or major renovation: (1) “Fundamental Commissioning,” which is a prerequisite for LEED® certification at any rating; or (2) “Enhanced Commissioning,” which is an optional credit that provides two points toward a LEED® rating. (While optional for LEED®, Enhanced Commissioning is mandatory for new “mid-size” and “large” commercial buildings in San Francisco.)

Under either Fundamental or Enhanced Commissioning, the project needs someone designated as the “commissioning authority” (CxA) to lead, review and oversee the project’s commissioning process. **The requirements for a CxA are different under Fundamental and Enhanced Commissioning.** Of particular note, the CxA must be “independent” of the project’s design and construction management, and the independence requirements differ between Fundamental and Enhanced Commissioning.

The LEED® Reference Guide, pages 217-303, sets forth the CxA requirements for both Fundamental and Enhanced Commissioning, which are summarized in the table below. Common requirements are listed first, followed by the differences.
### Table - CxA Requirements

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<th>Fundamental Commissioning</th>
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| **Common Requirements**| - CxA must have documented commissioning authority experience in at least 2 projects of similar managerial and technical complexity
- CxA serves as an “objective advocate” for the owner and must report results, findings and recommendations directly to the owner
- CxA must ensure the design team’s basis of design reflects the owner’s project requirements
- CxA should review the design documents for achieving the owner’s project requirements & basis of design, and for the coordination of the commissioned systems
- CxA directs the commissioning team and process, and coordinates and oversees (and may perform) the commissioning testing
- CxA must verify installation and performance of commissioned systems
- CxA must complete a summary commissioning report
- Independence: CxA must be independent of the project’s design and construction management. However, CxA may be a construction manager not holding any construction contracts. CxA may also be an employee or independent consultant of Owner.
- “Disinterested,” when applicable (see below), means CxA must have no project responsibilities other than commissioning and not have any responsibility for design or for construction. |
| **Different Requirements**| - Independence Carve-Outs. The CxA may be a “disinterested” employee or consultant of any firms providing design or construction services to the Project. Also, for projects less than 50,000 GSF, the CxA may simply be a qualified person with the requisite experience (i.e., no independence or disinterested requirement). |
|                        | - Stricter Independence. The CxA may be a “disinterested” subconsultant of a design firm, but CxA may not be an employee of a design firm nor an employee or subcontractor of a firm holding construction contracts. |
|                        | - Design Review. CxA must conduct at least 1 commissioning design review prior to mid-construction documents phase, and back-check the review comments in the subsequent design submission. |
|                        | - Submittals Review. Concurrent with the architect/engineer of record’s review, CxA must review contractor submittals applicable to commissioned systems. |
|                        | - O&M Review. CxA must be involved in reviewing the building’s operations with facility staff and occupants within 10 months after substantial completion. |

While the LEED® Reference Guide is not entirely clear on the point, there does seem to be a relevant distinction between the need for a CxA to be “independent” and the need for it to be “disinterested.” The distinction could have ramifications for structuring the team relationships on a LEED® project since the LEED® definition of “disinterested” requires the CxA to have no project responsibilities other than commissioning.

Since the LEED® Reference Guide only explicitly applies the “disinterested” requirement to employees or subconsultants/subcontractors of the firms providing design services or holding construction contracts, any CxA employed by the owner

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4 Under CALGreen, the person responsible for commissioning a “mid-size” or “large” commercial building need only be a “trained” person with commissioning experience on “projects of comparable size and complexity.” Section 5.410.2 of CALGreen.
or a construction manager that does not hold construction contracts need not be "disinterested", though it must be "independent." What is the distinction? If a CxA only needed to meet the "independent" requirement, the CxA must not have responsibility for design or construction, but could have other project responsibilities (e.g., owner representation, general management, inspection, safety). If the CxA needed to also be "disinterested", it may only have one project responsibility: commissioning.

Some key take-aways:

- If your project is seriously considering going for Enhanced Commissioning, the contractor should not provide the CxA as a member of its staff or as a subconsultant unless its role is strictly that of an agent construction manager. Doing so would violate the “independence” requirement noted in the table above and could prevent getting the credit for Enhanced Commissioning. Also, design firms must not provide the CxA as a member of their staff, though a design firm could engage a subconsultant to act as the CxA if the subconsultant was responsible only for commissioning.

- If your project has determined to go with Fundamental Commissioning, consult with knowledgeable legal counsel before having a contractor or designer provide the CxA as a member of its staff or as a subconsultant. The LEED® requirements make some distinctions between being “independent” and being “disinterested” that can be a trap for the unwary.

- Where projects want the flexibility to have the CxA wear more than one hat on the project, the best course would be to have the owner or an agent construction manager engage the CxA, rather than to have the CxA hired by or through the design or constructor firms. Even then, the independence requirement constrains what hats the CxA can wear.

- If your project is using Integrated Project Delivery, be careful how you involve the CxA in the collaborative processes. You do not want to jeopardize your project’s LEED® rating by causing the CxA to run afoul of the “independence” or “disinterested” requirements. Again, knowledgeable legal counsel can help you navigate this potential minefield.