

ISSUES WITH THE LEED® SYSTEM

WITH RESPECT (OR LACK THEREOF)
TO COMMISSIONING



Craig Hawkins, CxA

SESSION OVERVIEW

- Understanding the Issue
 - Industry Standards
 - LEED “Requirements”
- Understanding the Impact
 - Basic Process Steps Perceived as “Extra”
 - Cx Viewed as “Line Item”
- Taking a Stand
 - Not Allowing Process to Be Split
 - Informing Clients/Owners on “True” Process
- Affecting a Change

The ISSUE

The USGBC has taken the recognized, Cx Process, as established and published by the:

- BCA
- AGC
- ASHRAE
- and GSA

and divided the process into what they deem “Fundamental” (only 5 steps out of usual 19) which are “required” and then choose another 6 steps (for a total of 11 of 19) as an “option”.

They are sending the message that the established whole multi-step process can be boiled down to just a few of the steps, and some of the remaining steps can be “purchased” as extra, “optional” steps.

No! This is an established process that works best when it remains together!!

The Issues with Cx and LEED

The Commissioning Process	Industry
OPR (Review & Comment)	X
BOD (Review against OPR & Comment)	X
Commissioning Plan	X
Design Team Meetings	X
Design Review(s)	X
Commissioning Specifications	X
Pre-Functional Checklists	X
Submittal Review(s)	X
Cx Kick-Off Meeting	X
Site Observations	X
Start-Up Review	X
Tab Review	X
Pre-Functional Forms Completed	X
Functional Performance Testing	X
O&M / Systems Manuals	X
Training	X
Seasonal/Occupancy Testing	X
10-Month Warranty Review	X
Final Commissioning Report	X

Per ACG
Guideline,
GAS
Guideline,
ASHRAE
Guideline 0,
and the
BCA
Handbook

The Issues with Cx and LEED

The Commissioning Process	Industry	LEED Fundamental
OPR (Review & Comment)	X	X
BOD (Review against OPR & Comment)	X	X
Commissioning Plan	X	X
Design Team Meetings	X	
Design Review(s)	X	
Commissioning Specifications	X	X
Pre-Functional Checklists	X	
Submittal Review(s)	X	
Cx Kick-Off Meeting	X	
Site Observations	X	X
Start-Up Review	X	
Tab Review	X	
Pre-Functional Forms Completed	X	
Functional Performance Testing	X	X
O&M / Systems Manuals	X	
Training	X	
Seasonal/Occupancy Testing	X	
10-Month Warranty Review	X	
Final Commissioning Report	X	X

12 of 19
steps
missing!

The Issues with Cx and LEED

The Commissioning Process	Industry	LEED Fundamental	LEED Enhanced
OPR (Review & Comment)	X	X	
BOD (Review against OPR & Comment)	X	X	
Commissioning Plan	X	X	
Design Team Meetings ★	X		
Design Review(s)	X		X
Commissioning Specifications	X	X	
Pre-Functional Checklists ★	X		
Submittal Review(s)	X		X
Cx Kick-Off Meeting ★	X		
Site Observations	X	X	
Start-Up Review ★	X		
Tab Review ★	X		
Pre-Functional Forms Completed ★	X		
Functional Performance Testing	X	X	
O&M / Systems Manuals	X		X
Training	X		X
Seasonal/Occupancy Testing ★	X		
10-Month Warranty Review	X		X
Final Commissioning Report	X	X	

In Other Words...

- LEED Fundamental does not equal industry recognized commissioning.
 - Without design & submittal reviews, Owners are only getting “Acceptance Testing” NOT commissioning.
 - Even adding Enhanced does not get you full service commissioning.
- By only contracting for LEED Fundamental, Owners are not seeing the full benefits of commissioning
 - No design review
 - No submittal review
 - No services past FPT
 - Forced to accept what the designers and installers give them (Isn't this where we came in?).
- LEED is diluting the commissioning industry
 - By contracting “Acceptance Testing” instead of “Commissioning”, LEED is confusing the issue and giving Owners a false sense of accomplishment.

The Impact of the Issue

- Owner's unfamiliar with industry standards who contract for Fundamental only, **ARE NOT RECEIVING COMMISSIONING SERVICES!** But they think they are.
- By dividing the Cx Process, relegating critical steps to "Enhanced", Owners not familiar with Commissioning may think they can either do without, or these are "extra" steps when they are, in fact, **INTEGRAL PARTS OF THE PROCESS!**
- USGBC is misrepresenting the Cx Industry by splitting the Cx Process, making part required, and part "purchased". **This is one multi-step process that has a logical order that builds on the previous step.**

Taking a Stand

- Educate, Inform, Teach, Lead.....
 - Owners
 - Help them understand what they are asking for and getting (or not getting), and why they need the whole process (not just a portion).
 - Architects
 - Educate them on how Cx can benefit the design process if started early (OPR's & design reviews).
 - Design Consultants
 - Promote collaborative effort to ensure a complete and accurate design/specs.
 - Work as a team, not "Them vs. Us".
 - General Contractors
 - Help them understand their role in the Cx process.

Affecting a Change

- Get involved
 - Make your voice heard
 - Stand up for YOUR industry
-and say what?

**Lobby the USGBC to put the
Process back together, and
include the entire Cx Process!**

Possible Changes

- The USGBC needs to recognize the entire Cx Process as a whole is most effective when performed as a process, not as selective steps like a Chinese menu.
- Steps that could truly enhance the Cx Process:
 - Preventive Maintenance Programming
 - Re-Commissioning
 - Energy Benchmarking and Monitoring

Final Thoughts

- A double-edged sword:
 - By requiring Commissioning as one of its prerequisites, the LEED Program has introduced Cx to Owners that would probably not have included it in their projects.
 - However, it would have been better for the Owners, the projects and our industry, had the USGBC included the whole process.

Questions....

Thank You !!



Craig Hawkins, CxA

VP of Commissioning Operations

chawkins@testmarc.com

206-853-4100