New Guide on Integrated Green Building Construction Is Available



Buildings in North America are major consumers of electricity and water and contribute an estimated 35% of the continent's total GHG emissions. Although the building sector offers cost-effective opportunities for reducing GHG emissions, only a small fraction of building renovation and construction projects in North America use green solutions.

That's why the Commission for Environmental Cooperation (CEC) released a new guide on how to lower the environmental impact and cost of construction projects. *Improving Green Building Construction in North America: Guide to Integrated Design and Delivery* promotes better green building practices and blends information from more than 30 industry professionals and in consultation with experts in Canada, Mexico and the US.

The guide is tailored for the core members of a construction project'from architect and engineer to contractor and owner. It highlights best practices and tools for 10 workforce sectors, and is supported by seven case studies and more than 50 reference documents.

The guide recommends the following steps to enhance collaboration between professionals and stakeholders, and better integrate their respective responsibilities to deliver a greener, more energy-efficient and cheaper building:

Step #1: Align values. Start with a kick-off meeting to explore the values that underlie the project and agree in their alignment to them, which establishes common ground for the project and develops the deep-rooted working relationships that'll be necessary for the team to work together, negotiate a contract and communicate effectively.

Step #2: Align goals. In an integrated design and delivery project, team members mutually define the desired outcomes of the project and work together to set performance goals. These goals should reflect the integrated nature and open-ended potential of an integrated project. In other words, whereas conventional goals are different for each team member, integrated goals are shared and project-centric.

Step #3: Select a business model and contract structure. Integration is most likely to succeed if it's the path of least resistance, from both an individual and a corporate standpoint, which is accomplished by aligning incentive structures with this new way of engaging'something best achieved with an Integrated Project Delivery contracting approach. Integrated Project Delivery aligns incentive structures by contractually linking two or more parties' risk and profit.

Step #4: Plan the roadmap. The team should next agree on a procedure for frequent and effective collaboration. For example, identify the sub-teams in charge of organizing and executing specific tasks, and assign responsibility for tracking progress in relation to green performance goals. Team members may work on the respective issues of their specialty separately but reassemble for a deep discussion with the whole team at targeted points. So develop a project roadmap for each period of time between each meeting and schedule smaller meetings for targeted subgroups where there are likely to be synergies. Planning the approximate number of meetings establishes clear expectations for what 'integrative' actually means.

Step #5: Follow through. Once the project team has agreed on values and goals through early alignment workshops, chosen an appropriate business model and a contract structure, and agreed on a roadmap for implementation, it's ready to implement the project process and follow through to project completion.

For more information, tools and other resources on green building and related issues, see the following:

- A study on the impact of indoor environmental quality conditions in green and conventional buildings on workers' cognitive function
- A checklist to inspect your facility for some of the common causes of indoor air quality problems
- How to properly maintain the IAQ in your facility.