

A call for collaboration

Adapting integrated project delivery to roofing projects seems feasible

by Mark S. Graham

Integrated project delivery, sometimes referred to as IPD, is an alternative construction project delivery method that encourages a high degree of collaboration between a building owner, project designer and contractors throughout a building's construction process to maximize efficiencies. IPD also can fit well with some roofing projects.

The IPD process helps building owners achieve their primary project goals

IPD

IPD integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all project participants to optimize efficiency and reduce waste through all phases of project design, fabrication and construction.

IPD proponents report it improves project efficiencies and reduces waste, which significantly affects project costs. Also, the IPD process helps building owners achieve their primary project goals, such as reduced costs, improved energy efficiency, sustainability and ease of maintenance. Integrated construction processes are acknowledged and encouraged in sustainable rating systems, such as LEED,[®] and energy-efficiency and sustainability standards, such as ASHRAE 189.1, "Standard for the Design of High-Performance Green Buildings."

One key to successful IPD is the establishment of an IPD project team at a project's inception. An IPD project team typically consists of the building owner, project designer, primary contractor (general contractor) and key subcontractors, which can include the roofing contractor. IPD best functions when

specific participants are identified and involved in the IPD project team from the project's onset. Great care needs to be taken to establish an IPD project team where participants can work together as a collaborative unit.

With IPD, all project-related decisions are agreed upon unanimously by the IPD project team and not by a single entity (such as the building owner or general contractor). The IPD process includes specific mechanisms for resolving a lack of consensus and disputes within the project team.

IPD projects involve contractual relationships that may significantly differ from traditional construction contract models. Although it is entirely possible (and most likely) to structure an IPD project through separate contractual relationships, it also is possible to carry out IPD projects as a single-purpose entity, such as a limited liability company or joint venture.

The American Institute of Architects (AIA) has developed a series of standard form contract documents specific to IPD projects. AIA also publishes *Integrated Project Delivery: A Guide*, which provides more detailed information about IPD.

Isn't it just design-build?

Although IPD has some similarities to the design-build process, it differs significantly.

Design-build is characterized by a single point of responsibility for design and construction. Many building owners choose design-build to reduce project-based risk. The designer-builder accepts the owner's design criteria and exerts greater control over the project with minimal additional input from the building owner. Project success is most often measured by improved project delivery time and cost savings.

Conversely, in an IPD situation, the building owner actively participates through the project's duration and there is greater collaboration among all participants. In a sense, IPD is an alternative to the design-build process.

Roofing projects

IPD processes—particularly early and continual collaboration, consensus-derived decision making and all parties working for a common goal—lend themselves well to roofing projects, particularly complex reroofing projects involving multiple trades.

Ideally, a project team for an IPD roofing project should include the building owner, roof system designer (a licensed design professional or roof consultant), roof system materials manufacturer and roofing contractor. Also, depending on the project's complexity, major subcontractors may be included.

The IPD roofing project team also should consider and establish post-construction, preventative roof system maintenance.

Most roofing contractors acknowledge early involvement in a project's design, including roof system selection and construction detail design, can streamline field

coordination issues and minimize unforeseen project conditions—both of which can significantly affect a project's schedule and cost.

IPD, or at least IPD processes, warrant some additional consideration by the roofing industry. 📍🔗

For an article related to IPD, see "A novel approach," January issue, page 32.

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