



DESIGN & CONSULTING SERVICES

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HANDLING CARBON WITH CARE

February 25, 2008

Thank you for the invitation to review the environmental benefits of electronic submittals as they relate to the LEED® Innovation & Design credits.

Primary goals of the LEED Green Building Rating System® include market transformation, energy and resource efficiency, education, and behavior modification. The Submittal Exchange™ system for electronically managing shop drawings and other construction submittals contributes to all of these goals.

Electronic submittals save project owners thousands of dollars in reimbursements for printing, shipping, and billable hours. Saving money is the carrot for market transformation and other LEED® goals.

Submittal Exchange™ provides a quantifiable environmental benefit and is comprehensive in nature, key criteria to achieve an Innovation & Design credit. In addition, the education and behavior modification influence of Submittal Exchange™ is significant.

Quantifiable environmental benefit

- The traditional eight to ten paper copies of each submittal are eliminated in favor of one electronic (typically PDF) copy. On a \$15M project, over 52,000 pages of paper can be saved, or the equivalent of 6.25 trees.
- Shipping paper between construction and design team members is eliminated. On a \$15M project, this can avoid over 4,700 lbs of CO2 by less use of CO2-generating services such as UPS and FedEx, or the equivalent of recycling 6,000 aluminum cans.

Comprehensive

- The Submittal Exchange™ website is the comprehensive organizational system that keeps the process on track, creates accountability to ensure documents are received and reviewed electronically, and provides quantifiable data to measure impact.
- The website comprehensively captures the entire submittal process. Subcontractors, general contractors, construction managers, architects, engineers, and owners all access Submittal Exchange™ to work with submittals. Firms may have internal systems for tracking submittals currently, but these processes typically are not comprehensive and not accessed by all team members like Submittal Exchange™.

- The project owner receives the environmental and cost savings benefits. Reimbursement expenses for printing and shipping paper are significantly reduced. Once construction is complete, the owner receives electronic archive copies of all documents from Submittal Exchange™ for use in future facility operations.
- Many owners—including large school districts, universities, and the military—are active participants in the submittal process. With Submittal Exchange™, they have greater ability to monitor and oversee the process, as they can access all submittal information on the central website.

Education and behavior modification

- All project team members—including subcontractors, general contractor, construction manager, architect, engineering consultants, and project owner—participate in educational sessions at the beginning of the project to learn how to manage and review electronic submittals, presented by Submittal Exchange.
- Submittal Exchange staff provide ongoing education and support throughout the project, addressing questions that arise about working with electronic documents.
- The cost and resource savings of electronic submittals are the carrot, but if a stick is needed as well, the Submittal Exchange™ system can disable printing of project documents. This prevents unauthorized printing, accelerating the rate at which team members become acclimated to working with electronic documents.
- Once project team members become acclimated to electronic documents, they use them on other projects as well, amplifying the environmental benefit. Example:

"Working with Submittal Exchange helps old dogs learn new tricks, such as learning how to markup and use PDF documents. As a result of the training and support from Submittal Exchange, I now use PDF documents quite a bit when I previously would have used paper, and the contractors we work with are doing the same."

- Richard O'Hearn, PE, Construction Administrator, Bahr Vermeer Haecker Architects

Use of Submittal Exchange™ can also make the overall LEED® process smoother. Contractors and the design team can review the required submittal list on the website in order to evaluate if LEED® documentation and submittal requirements can be distilled to the essentials. Distillation of administrative tasks helps reduce anxiety and resistance that can arise in respect to the additional administrative time required by LEED®.

Sincerely,

Martha Norbeck, LEED® AP
President
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