Stakeholder Brainstorming

**Instructions**
Stakeholders are individuals or groups of people that have a “stake” in, or connection to, a project. Suppose a developer in your community wants to transform a large vacant lot in the area into a strip mall. Take a few minutes to brainstorm all the people that might be involved and/or impacted by this project. In the Building and Maintenance column, include all the individuals that play a role in the design, planning, and construction of the buildings. In the Additional Stakeholders column, list anyone else who might be impacted.

<table>
<thead>
<tr>
<th>Strip Mall Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building and Maintenance</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Stakeholder Brainstorming

Sample Answers

Instructions
Stakeholders are individuals or groups of people that have a “stake” in, or connection to, a project. Suppose a developer in your community wants to transform a large vacant lot in the area into a strip mall. Take a few minutes to brainstorm all the people that might be involved and/or impacted by this project. In the Building and Maintenance column, include all the individuals that play a role in the design, planning, and construction of the buildings. In the Additional Stakeholders column, list anyone else who might be impacted.

<table>
<thead>
<tr>
<th>Building and Maintenance</th>
<th>Additional Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building owner</td>
<td>Stores that will rent space in the strip mall</td>
</tr>
<tr>
<td>Developer</td>
<td>Employees of stores in the strip mall</td>
</tr>
<tr>
<td>Client</td>
<td>Mall managers and security guards</td>
</tr>
<tr>
<td>Design team members</td>
<td>Community representatives</td>
</tr>
<tr>
<td>Local regulatory agencies</td>
<td>Local environmental groups</td>
</tr>
<tr>
<td>Waste management contractors</td>
<td>People who live or drive near the strip mall</td>
</tr>
<tr>
<td>Landscape contractors</td>
<td>Local real estate and leasing specialists</td>
</tr>
<tr>
<td>Salvage and resale companies</td>
<td>Cleaning contractors</td>
</tr>
</tbody>
</table>

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Residents and Community Members
- Are the houses ideally located in relation to other buildings?
- How might the location of the residential section be changed to better suit the needs of residents?

Ecologist
- How would you describe the size and location of the open spaces in the neighborhood?
- How might the neighborhood design be altered to improve sustainability and increase open space?

Local Farmers and Grocers
- Could upstream businesses contaminate the river water that irrigates the agricultural sector?
- What are the most sustainable/community-friendly locations for the farm and grocery store?

Architects and Designers
- What components of the plan are not ideal in terms of aesthetics or architectural design?
- How might the layout be improved to create better aesthetics and architectural design?

Stormwater Specialists
- Where might the stormwater get contaminated within the community?
- How could the design be modified to reduce runoff and improve stormwater management?
Business Owners
• Are the businesses conveniently located for people to walk or take public transit?
• Is there a better location for businesses to improve consumer access?

Transportation Specialists
• Does the proposed design show a sustainable transportation pattern?
• Does the design support the effective implementation of a public transit system into the community?

Civil Engineer and Site Specialists
• What components of the plan are not ideal in terms of aesthetics or architectural design?
• How might the layout be improved to create better aesthetics and architectural design?

Contractors
• How might the current design require excess work from contractors?
• How could the design be altered to make the contractors’ work more efficient?

Energy Specialists
• What is the major energy source for the community?
• Is this source the most sustainable option? Explain.
• How might energy systems be designed to be more sustainable throughout the community?
Neighborhood Design Proposal

Part 1: Review

Closely examine the initial design proposal.
Neighborhood Design Proposal, continued

Part 2: Analyze

List your stakeholder group below. Then use the map on the previous page and your Stakeholder Card to answer the questions that follow.

Your stakeholder group: __________________________________________________________

1. Record the first question from your Stakeholder Card here, and then record your answer:

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

2. Record the second question from your Stakeholder Card here, and then record your answer:

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

3. How does the proposed layout affect your stakeholder group? In other words, what issues do you have with the proposal?

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________

_________________________________________________________________________________
Neighborhood Design Proposal, continued

4. Which buildings or natural spaces should be closest to and farthest from your stakeholder group? In other words, what is the ideal setup for your stakeholder group and why?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

5. How could the proposed design be changed to better support your stakeholder group?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
**Neighborhood Design Proposal, continued**

**Part 3: Listen and Record**

Listen carefully to the needs of each stakeholder group and take notes below for use in the next session.

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Issues</th>
<th>Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents and Community Members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecologists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local Farmers and Grocers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architects and Designers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civil Engineers and Site Specialists</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Neighborhood Design Proposal, continued

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Issues</th>
<th>Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Owners</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation Specialists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater Specialists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Specialists</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Neighborhood Design Planning

Instructions
Cut out the figures with the solid black lines. Then use those to configure a sustainable neighborhood design on the blank map on the next page. You will need to draw in roads to effectively connect people and resources, and the figures with the dotted lines are reminders—you will want to draw those in yourself to adjust for size.

Cut these out: 

Draw these yourself so you can size them appropriately:

- Recreational Space
- Industrial District
- Agricultural District
- Commercial District
- Town Park & Protected Open Space
- Parking
- Gas Station
- Row Homes
- Apartments
- Parking Garage
Neighborhood Design Planning, continued

**Instructions**

Rethink the original design proposal, using the space here to create a more sustainable design.
# Sustainable Design Proposal Evaluation

## Instructions

Use the following chart to evaluate the sustainable design recommendations presented by stakeholder groups.

## Sustainable Design Evaluation Table

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Team 1:</th>
<th>Team 2:</th>
<th>Team 3:</th>
<th>Team 4:</th>
<th>Team 5:</th>
<th>Team 6:</th>
<th>Team 7:</th>
<th>Team 8:</th>
<th>Team 9:</th>
<th>Team 10:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses regenerative design principles. (20 points max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supports the triple bottom line. (20 points max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback loops considered. (20 points max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systems thinking clearly applied. (20 points max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cradle-to-cradle design applied. (20 points max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonus! Works with each of the six key LEED categories (LT, SS, WE, EA, MR, EQ) (10 points max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total # of points**

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## Participation Checklist

**Instructions**

Use the following checklist to keep track of students’ class participation.

**Key**

_Y_: YES, the student does this regularly.

_N_: NO, the student never does this.

_ST_: Sometimes the student does this, but it is not a habit.

<table>
<thead>
<tr>
<th>Participation</th>
<th>Student 1</th>
<th>Student 2</th>
<th>Student 3</th>
<th>Student 4</th>
<th>Student 5</th>
<th>Student 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actively participated in activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Followed instructions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can independently share knowledge about topic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worked well with group members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrated a positive attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used creativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional observations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Neighborhood Planning Group Evaluation

## Instructions

Reflect on this experience by answering the following questions.

1. Using the following scale, how much effort would you say you put into this activity?
   _______ points.

<table>
<thead>
<tr>
<th>Very Little (Distracted)</th>
<th>An Average Amount (Engaged)</th>
<th>A Lot (Highly Engaged)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–1 points</td>
<td>2–3 points</td>
<td>4–5 points</td>
</tr>
</tbody>
</table>

2. Constructively describe your teammates’ participation in this activity. Describe each person’s contribution, factoring in the skills they used, the knowledge they shared, their enthusiasm, their leadership, etc.

**Team Contributions**

<table>
<thead>
<tr>
<th>Name</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. What was your favorite part of this activity? Explain.

________________________________________________________________________

________________________________________________________________________

4. What was your *least* favorite part of this activity? Explain.

________________________________________________________________________

________________________________________________________________________
Integrated Design Meets the Real World

By Allyson Wendt and Nadav Malin, May 1, 2010

The integrated project team behind Manassas Park Elementary School influenced site selection and used computer modeling to maximize daylighting. The building won an AIA COTE Top Ten award.

What happens when project teams buck the conventional linear design and construction process in favor of an integrated approach? According to proponents of integrated design, they produce buildings with higher environmental performance at lower costs. Integrated design gets more design team members around the table, inviting collaboration across disciplines and spurring innovation. Although this process may appear to require more design time and cost more, proponents say that it merely shifts design costs to the front end of the process, saving time in construction documents. Examples abound of integrating a building’s systems cost-effectively—like downsizing the mechanical system in response to envelope upgrades.

In 2004, Environmental Building News (EBN) wrote in some depth on integrated design (see EBN Nov. 2004), but with new collaboration technologies on the market and six years of practice to learn from, we thought it was time for an update. We contacted several experts who work with integrated design often and asked what was working, what wasn’t, and what tricks of the trade they’d be willing to share. We were also curious whether new software and communication tools have evolved to the point where they can really support the process. What we found was that, by and large, humans—not technology—are the drivers of the integrated design process. As Chris Garvin, AIA, of Cook + Fox, puts it, “The fundamental tools are long-term relationships between team members. The technical tools are secondary.”
The Ideal Process
The image of the visioning charrette, with all stakeholders—sometimes dozens of people—gathered in a room, has come to define what is different about integrated design. “When most people talk about integrated design, they’re talking about a few upfront design charrettes,” says Kathy Wardle, director of research at Busby Perkins + Will and a contributor to the report titled “Roadmap for the Integrated Design Process” that the firm developed for the BC Green Roundtable in British Columbia. But that initial meeting should be only one of many. “You need at least five charrettes to do it well,” said John Boecker, AIA, of 7group, about the integrated design process; a recent project of his had 11 full-team meetings. Wardle notes that these meetings should not stop at the end of design or even construction. True integrated design, she said, continues “from start to occupancy, which not a lot of firms are practicing.”

These ongoing meetings allow the team to collaborate and test ideas in what Boecker calls the iterative nature of integrative design. Boecker (along with the rest of 7group and Bill Reed, AIA) outlines this process in detail in his book The Integrative Design Guide to Green Building. Essentially, the team comes up with design ideas and tests them through modeling or other means, discusses the results, adjusts the model, and tests again. For example, a team might want to test the energy and cost performance of several types of windows and compare the results. Or team members might want to look at a few different building configurations for energy performance and land use. Boecker encourages teams to hold off on making final decisions for as long as possible—a far cry from a conventional process in which they would make basic decisions early. “Integrative design requires a high tolerance for ambiguity,” he told EBN.

In the ideal integrated design process, the additional time spent on meetings earlier in the process is balanced out by less time spent on construction documents, says Boecker. When it’s done well, integrated design also reduces construction costs by eliminating redundancy in the design and resolving potential conflicts between systems before construction, rather than during.

Making It Work
Of course, integrated design in the real world is hardly as straightforward as it seems on paper. In-person meetings are expensive and sometimes difficult to schedule, clients change their minds, team members are unfamiliar with the integrated process, and budgets can be limiting. Working around these real-world obstacles can be tricky, but these tips and tricks from the field presented below might help.

“[The integrated design process] relies upon a multi-disciplinary and collaborative team whose members make decisions together based on a shared vision and a holistic understanding of the project. It follows the design through the entire project life, from pre-design through occupancy and into operation.”

—Roadmap for the Integrated Design Process
Get in the Room

“Nothing beats a set of brains in the same room at the same time,” says Boecker, and most others agree that in-person meetings, especially at the start of the process, are essential to the success of the project. Continued meetings, however, are also needed. “Having concentrated and focused charrettes with experts and support teams on specific issues is really valuable,” said Wardle. She cautions, however, that clients might ask, “There’s $4,000 an hour at the table, and what am I getting out of it?” Boecker noted that such questions—and the client resistance that comes with them—can be headed off by being absolutely clear about what the integrated design process will look like from the very beginning.

Joshua Radoff, principal and co-founder of consulting firm YRG Sustainability, noted that planning charrettes can energize a team and encourage outside-the-box thinking. Radoff cautions, however, that it’s important not to let the brainstorming get too wild. There’s a balance, he says, between “being open to the ideas and questions as they come up and knowing how to focus them and make them into something productive.”

Despite the consensus that nothing can replace in-person meetings, they can be expensive and aren’t always possible or practical, and, if the team is not all local, they have a high carbon footprint. Video-conferencing can work for smaller meetings, but success depends on having the right system. Radoff has used the free online video-conferencing software Skype for international projects but says, “It’s not optimal.” EHDD Architects in San Francisco invested—and got many of their consultants and clients to invest—in high-definition video conferencing software to reduce travel costs and impacts. The cost of these systems ranges from $5,000 for a simple two-way setup to over $100,000 for a complete “tele-presence” environment that simulates the experience of sitting around a common table for people in multiple remote locations.

Whether in person or over a video feed, getting the right people around the table is important. That often includes people who aren’t necessarily thought of during the design process, like code officials. David Eisenberg, who has long worked on introducing green building concepts to code organizations, notes, “These folks have crucial knowledge to contribute, concerns that need to be addressed, and, crucially, the authority to undo everything we’re trying to achieve when they don’t understand what we’re doing or why we’re doing it.” Having a code official at the table early on, says Eisenberg, can also keep design options on the table that might otherwise be dismissed. “How many of the best and most brilliant things that could be achieved through integrated design are rejected out of hand in the design process because of the belief that they won’t or can’t be approved?” he asked.
Integrated Design Meets the Real World, continued

Martin Nielsen, a colleague of Kathy Wardle’s at Busby Perkins + Will, tells a story about the design of the Centre for Interactive Research on Sustainability (CIRS), currently under construction in Vancouver. A fire code official was at a design meeting where the team was discussing the fire rating and code requirements for the four-story, wood building. Listening to the conversation, the code official suddenly asked about the cisterns that were planned for the building: if the team could guarantee that the water in those cisterns would be kept at a minimum level, they could be used to supply the sprinkler system, and the fire code requirements for the building could be downgraded. This idea saved the client quite a bit of money, according to Nielsen, but may not have been pursued by the team if the code official hadn’t been at the meeting.

Communicate

Communication—lots of it—is necessary for integrated design and must continue between meetings. For local teams, an approach taken by Michael Rossetto and Megan Koehler at KMD Architects in San Francisco might help. They’ve turned an empty conference room in their office into a “war room” for a current project, with renderings, models, and other documentation hung on the walls and laid out on tables. Team members from their office and others stop by to check on the status of the project or consider design options.

For all teams, a good project manager is essential to controlling the flow of communication and ensuring that it stays steady. “Half of integrated design is good project management,” says Radoff. A project manager can not only ensure that communication happens, he or she can keep a team on track to hit key milestones and check that the project is meeting any set environmental performance goals.
Integrated Design Meets the Real World, continued

There are several software packages and web-based tools designed to facilitate communication and project management. But experts whom EBN spoke with said that many of these tools are more trouble to master than they are useful. According to Ralph DiNola, principal at Green Building Services in Portland, Oregon, tools that require a learning curve often get ignored in favor of e-mail and phone calls. “They’re very functional software tools,” he said. “The problem is getting people to use them.” Radoff agreed, saying, “If we get too fancy, people aren’t equipped to keep up.” And these tools will not replace a good project manager—someone still needs to be managing the software and making sure it’s being used appropriately.

Set Goals—and Stick to Them

Setting goals for a project is an important first step in the integrated design process. When pursuing certification for their buildings, project teams often use a rating system checklist as their guideline for goal-setting. Although this can be helpful, Radoff notes that it’s a starting point, not an ending one. “The best hope is that there is some absolute target like net-zero-energy, but that’s rare,” he said. In the absence of a specific requirement drawn from a rating system or other source, Radoff told EBN, “We try to use precedent, and present what is ‘best in class’ out there.” He tries to include as many metrics as possible: percentage energy savings over the relevant ASHRAE standard, inches of rainwater infiltrated onsite, or footcandles of lighting, for example. He and his colleagues often develop “Sustainability Concept Plans,” in which they sum up the findings of initial charrettes, including any goals the design team set and an explanation of how it arrived at those goals.

To reach their goals, design teams need to have everyone on board with the process. Depending on the team, there may be one or more members who have not participated in an integrated design process or worked on a green building before. There may be resistance to green goals, the process, or both. Such resistance can derail the design process, and addressing it can be tricky. DiNola notes that what may come across as resistance might not be conscious and doesn’t always indicate a bad attitude. “Sometimes they may have underlying motivations that we’re not aware of,” he said, and addressing the problem without placing blame or embarrassing anyone is important. He suggests asking people to explain their thinking when they’re pushing a specific technology or design solution.

In many cases, resistance comes from not being familiar with the approaches being suggested. Alan Scott, AIA, also of Green Building Services, notes that finding experts familiar with new or uncommon technologies can be useful. “Look for comparable projects or draw on the expertise or experience of a peer to show how alternate technologies can work,” he said.

It’s also important for the leaders of the team and the client to keep the overall message about the project consistent. “If the owner continually changes focus, budget, or schedule, the team can burn out adjusting to the uncertainty,” said Garvin.

Test Assumptions

“Assumptions and rules of thumb must be replaced by strong analytical tools and creative thinking,” Garvin told EBN. The data-rich design environment provided by building information modeling (BIM) can be useful, but it can also introduce new challenges. “BIM has the potential to further exacerbate the use of assumptions,” said Garvin, because the software requires users to input information about building systems, insulation levels, and materials—and that requires them to make decisions. “Once these are in the system, it becomes difficult to alter” the design or one’s thinking about it, he noted.
Integrated Design Meets the Real World, continued

The best practice is to allow time early in the process for key team members to review all these assumptions as they go into the model, and document them clearly for the team so they can easily be reassessed and modified later.

The strength of the integrated design process is that it allows—and encourages—outside-the-box thinking. To support this, team members must be willing to test and retest design ideas through analysis. Boecker and his colleagues at 7group start energy modeling quite early in the process, often before the initial charrette. Knowing the basic program of a building and its site, they can develop several models that play with key parameters of building size, shape, and orientation as well as insulation levels, window performance, and other energy-use variables. When the project team arrives at the charrette, it has quantitative data on which to base design decisions, rather than assuming that a long, narrow building will perform better than a square one, for example.

Still, Boecker admits that getting design team members to model early and often can be a challenge. For team members paid based on a percentage of construction cost, running extra models isn’t necessarily cost-effective. To reduce cost and complexity, Boecker suggests that early models encompass a representative section of a building, rather than the whole thing. The promise of BIM is to allow teams to analyze design iterations quickly and easily, but many say the technology isn’t quite there yet. Autodesk is inching towards that kind of capability with each new release of its popular Revit design suite. The subscription options for the 2011 versions of Revit Architecture and Revit MEP include, by default, unlimited access to Autodesk’s Green Building Studio energy modeling service (see EBN May 2007). Autodesk is working on a feature, not yet publicly available, that will make it possible to send multiple iterations of a design to Green Building Studio and receive a file showing a side-by-side comparison of the results.

Image courtesy of 7Group and Bill Reed, graphics by Corey Johnston.

In the integrated (or integrative) design process, team members may test several iterations of a design through modeling and other means. Although this may take more time in the early part of the process, it usually saves time in the construction documents phase.
Integrated Design Meets the Real World, continued

Even as the software interoperability gets better, many users aren’t yet able to take full advantage of these features. To do energy modeling on an architectural model, “You have to make the model tight so it doesn’t leak—the walls and ceilings need to meet,” said Scott, and not everyone knows how to do that in modeling software. Even when users know what they’re doing, the software isn’t as advanced as some would like. For Boecker, most BIM software doesn’t make it easy enough to adjust to changing assumptions on the fly. You can input underlying data—insulation levels of walls, for example—as you’re creating the model, but “What we don’t see yet is the ability to change the backup data in real time,” he said.

Even when the software does support quick iterations and analysis of design options, it won’t necessarily improve collaboration across disciplines. “In an ideal world, there is a single model on a server. In the real world, we’re still getting up to speed on BIM,” said Nielsen.

That ideal world exists today in pioneering tools like BIMStorm from Onuma, but use of those tools is not yet widespread. More mainstream software, however, including Autodesk’s Revit, supports the conventional division of labor by establishing separate but interlinked models for a project. An architecture firm creates a model of the architectural form, then allows consultants to view that model. Engineers can then, with corresponding structural, civil, and MEP versions of Revit, create models of their respective systems that are keyed to the architecture model but controlled separately. This marginally integrated approach explains the importance of yet another tool, so-called “clash detection” software. Tools like Autodesk’s Navisworks merge simplified versions of architecture and engineering models into one so they can detect problems, such as a duct running through a structural column. It can also be used between disciplines to share suggested changes to other aspects of a design. Fundamentally, however, the current generation of BIM software doesn’t ensure collaboration any more than previous design tools—working together is up to the team.

Integrated Design in the Real World

Integrated design in the real world is a complex interaction between human minds, technology, budgets, and deadlines. The technological side of the equation is advancing, enabling project teams to do what they need to do faster and more efficiently, but success still comes down to human interaction. A strong project manager, respect among team members, the energy in a room full of thinking minds—all of these are vital to the success of any integrated design process.

Project teams should strive to integrate the design process as much as possible, even if they can’t achieve the ideal process. A single visioning charrette, if that’s all you have the time and money for, allows the team to set measurable goals and brainstorm innovative solutions. Solid communication throughout the rest of the process can carry those goals and ideas forward.

Teams new to integrated design—and new to green—may find that the process takes more time and costs more money than they are used to. Most experts whom EBN spoke with noted that they got better at the process over time, especially when they were able to work with the same team members more than once. Once they’d gone through the process, they found it valuable, and many couldn’t imagine doing design any other way.

For More Information
