



THE AMERICAN  
INSTITUTE  
OF ARCHITECTS

# 2030 COMMITMENT

*AIA 2030 Commitment*

Measuring Industry Progress Toward 2030

First Annual Report, May 2011



# 2030 COMMITMENT

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## Foreword

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BY WILLIAM J. WORTHEN, AIA LEED AP  
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The earth is increasingly becoming stressed—population growth, resource consumption, economic strain—in ways that may compromise the well-being of future generations. There is a need to shift our thinking and approach to the built environment. We can no longer consider sustainable design as a separate method of design and practice. Sustainable design is high performance design, which is good design.

To truly rise to the 2030 Challenge, we have to apply the principles of sustainable design to every project from its inception and early design through project completion and ongoing building operations—not just those projects where clients wish to pursue third party green building certification. Architects need to embrace the challenge at hand.

Working collaboratively requires an evolution of design and construction practices as we know them today. Sustainable design requires an understanding of the long term impact of the materials we use, the energy we require, and the social impacts of the buildings and communities we design. Building sustainably also requires a broader understanding of local and regional context. Architects are in a unique position to be leaders in regard to an expanded view of health, safety and welfare. The forthcoming high performance building codes are providing us with an opportunity to evolve as a profession—making high performance, best value design a core competency of every design professional.

The AIA is making every effort to provide the tools and resources that AIA members will need to allow their firms to meet this challenge. The intent of the AIA 2030 Commitment is to serve as a consistent, national framework with simple metrics and standardized reporting formats. As more practitioners become familiar with setting design goals that include energy performance targets and measuring building performance using standardized metrics, this will allow for meaningful understanding of predicted energy performance and actual energy use. The buildings we design can then begin to transform the way we, as a profession, practice architecture.



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## Introduction

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In December of 2005, the AIA adopted a *Sustainable Architectural Practice Position Statement* that set the profession on a trajectory toward carbon neutrality. It called for a 50 percent reduction from the current level of fossil fuel consumption used to construct and operate new and renovated buildings by the year 2010 and further reductions of remaining fossil fuel consumption by 10 percent or more in each of the following five years with the ultimate goal of zero fossil fuel consumption by the year 2030.

This position statement continues to serve as the guiding principle of our sustainability efforts. How do we educate the industry and the public about the impact of buildings on the environment and how do we provide our architect members with the knowledge and the resources to transform the way we design and construct buildings?

The AIA 2030 Commitment program is the AIA's cornerstone effort to demonstrate the progress AIA members are making toward reducing the operational energy use of their designs, while encouraging other architects to do the same. The program is a voluntary call for action for member firms to join and demonstrate progress toward the industry's widely adopted 2030 targets in both how the firms operate and how they design. To date, more than 170 firms have made the commitment, ranging in size from the sole practitioner to the multi-national practice.

Open dialogue regarding the challenges faced in transforming how firms design projects and operate as a firm is critical if we are committed in our desire to reduce the negative impact of the design and construction industry on the climate. Equally as important, the accountability of reporting brings the aspirational goals of 2030 into the real world of everyday architectural practice. It is also an opportunity for the profession to highlight achievements and successes. This initiative is not meant to serve simply as a report card. The AIA 2030 Commitment is about providing a consistent framework for firms to evaluate the impact design decisions have on an individual project's energy performance. Without that understanding of where we are now, it will be impossible for us to tell if we are improving as practitioners, as firms, and as a profession.



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## Reporting Approach

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### Operational Data Collection and Reporting

Within six months of joining the AIA 2030 Commitment, firms commit to implementing a minimum of four operational action items to reduce the negative impact firm operations have on the environment. Firms are expected to report progress on operational action items by inputting information directly into an online form as part of the reporting website.

The online form allows a firm to indicate whether a particular action was Implemented, Not Implemented, or In the Process of Implementation. Additionally, firms are asked to provide narrative information highlighting the specific strategies for implementing policies across a firm. This aspect of the initiative is about sharing successful strategies with other firms and the public as a knowledge resource.

### Design Portfolio Data Collection and Reporting

At the end of the 2010 calendar year, firms were asked to submit an assessment of their 2010 design work using a tool released by the AIA last year. The Excel-based tool outlines a method of tracking and measuring progress towards the 2030 goals that is simple, accessible, and normalized for firms of all types and sizes. It was important in the development of the AIA 2030 Commitment that the firm reports represent all of a firm's design work and not just the exemplary projects. Sustainable design is how we practice and it must be incorporated into every project from the outset; not just those seeking green building certification.

There was an expressed concern in the early development of the AIA 2030 Commitment that publishing individual firm reports would be used to inappropriately—and inaccurately—rank firms based on the results. The intent of this program is to drive fundamental change within the practice, not issue a report card on individual firm efforts. The program is meant to be a mutual commitment among the entire profession to share knowledge and institute the changes needed within architectural practice to reach our goal of zero impact buildings. For that reason, the data reported in this section reflects aggregated results of all the data submitted by firms.

Firms will report annually, providing information to the AIA by the end of the first quarter of the subsequent year. Updates to the reporting will be undertaken on a two year timeframe. This will allow firms to use the report before any modifications are introduced.



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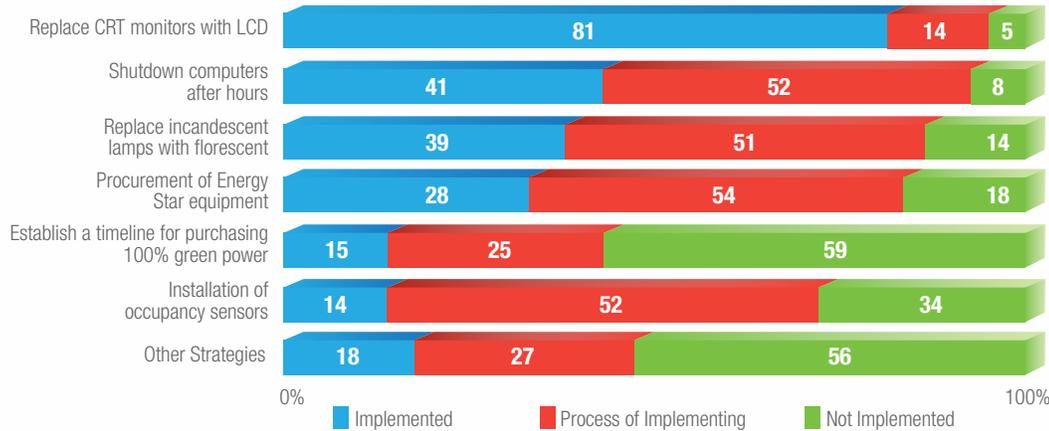
## Firm Operational Data

### Office Energy Use

Firms are making strides towards using less energy in the office. Generally, employees are encouraged to conserve electricity by not leaving on lights, computers, etc. when rooms are not occupied. More sophisticated changes, such as lighting sensors, natural lighting options, and certifications are all addressed as new office space is purchased and old space is remodeled.

#### Office Energy Use

Total Respondents 79



*"Office policy requires employees to shut down computers when leaving the office. In the event they forget, computers will be set to automatically shut down after 6:00 p.m. if they have not been used for 2 hours."*

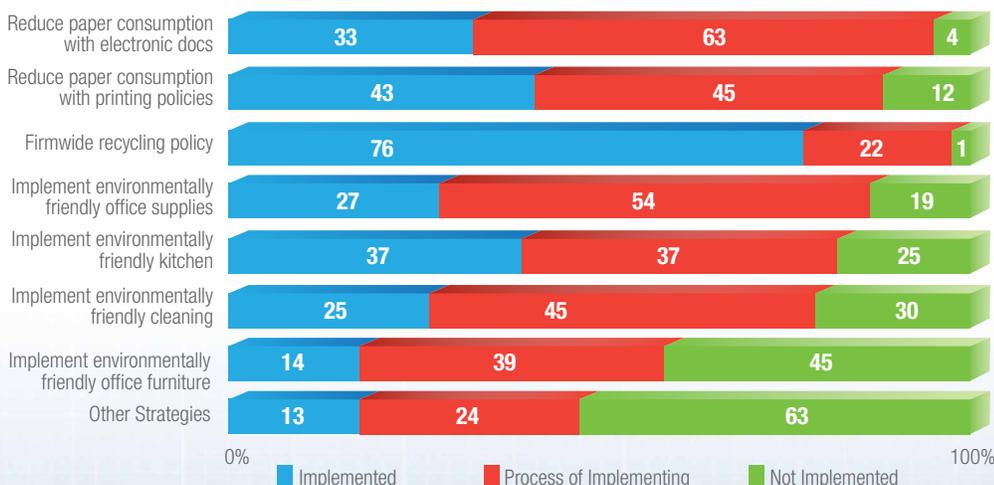
*"Occupancy sensors will be installed in all conference rooms and common areas as new office lease spaces are negotiated and constructed. Existing offices will install sensors at the time of lease renewals."*

### Waste Reduction and Supplies

Most firms are participating in firm-wide recycling, focusing not only on paper, but items such as batteries, cell phones, and ink cartridges.

#### Waste Reduction and Supplies

Total Respondents 67



*"We have changed our printer's settings so that it defaults to double-sided printing. We have a stack of discards and misprints next to the printer that can be used for other purposes. We have also re-purposed extra prints as notepads for office use."*



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## Waste Reduction and Supplies—Additional Policies Implemented by Firms

### Reduce Paper Consumption by Using Electronic Documents and Forms

- The greatest reduction in paper consumption is by firms making all internal documentation electronic. Forms such as time sheets and vacation requests are now all handled electronically.
- Additionally, one-third of those firms making strides on this strategy have installed software on employees computers such as PDF writing software to allow for the electronic transmission of documents.

### Reduce Waste with Printing Policies

- Firms working on this strategy have set internal printers to double-sided printing as a default and require employees to override the setting to print single sided.
- Additionally, discarded single-sided paper is used for drawing and sketch books.

### Institute Firm-wide Recycling

- Generally firms have a policy in place that requires employees to recycle. Many firms go as far as providing recycling receptacles at employee workstations.
- A few companies have also begun composting the kitchen waste generated in the buildings in which they are located.

### Purchasing

- When purchasing office, kitchen, and cleaning supplies, firms are looking for recycled materials. Furthermore, materials made with environmentally friendly processes and components that offer opportunities for future recycling are preferred.

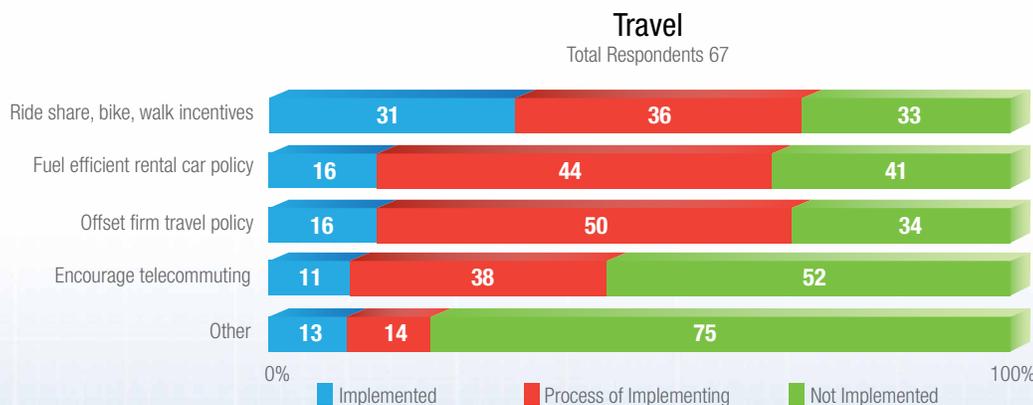
## Transportation

About one-third of firms responding have implemented a policy to provide incentives for employees to ride share, bike, or walk to work.

*"All five offices have implemented a policy of recycling all paper, plastics, glass and aluminum. Seattle and San Francisco offices have fully implemented composting programs and Los Angeles has partially implemented composting. The Seattle office is utilizing a composting worm bin for food leftovers and coffee grounds, in which they are producing soil for employees' gardens. The San Francisco office has removed all individual trash cans from desks and is utilizing zoned recycling, waste, and composting centers. Portland and San Francisco are using shredding services that are committed to recycling waste. All four U.S. offices have implemented programs for collection of unique recyclables such as batteries and computer equipment."*

*"Access through VPN to all internal network files has made working anywhere much simpler. An estimated 15% of staff firm wide work from home at least one day a week and office cultures support such telecommuting."*

*"We subsidize 50% of the cost of monthly transit passes or transit tickets for regular and temporary employees and allow payment of the remaining 50% with pre-tax compensation through payroll deductions. For employees that walk and/or bike to the office at least 75% of their scheduled working days in a month, we offer a cash incentive subsidy that amounts to \$30/month."*





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## Incentives for Employees Who Ride Share, Walk or Bike

- About one-third of those who have implemented incentives to ride share, walk, or bike offer pre-tax mass transit passes such as TransitCheck.
- Another third of employers offer bike storage for employees and 28% provide locker/shower rooms for employees biking or walking to work.
- Additional programs include guaranteed ride for after hours or emergencies and company cars/bikes for employees who use mass-transit or carpool to run errands during work hours.

## Establish a Policy for Fuel Efficient Rental Cars

- Two-thirds of companies who have established a policy for fuel efficient rental cars recommend that employees seek the most fuel efficient vehicle or hybrid vehicles whenever possible.
- Almost one-fourth have purchased hybrid or fuel-efficient cars for employee travel.
- Additionally, one-fourth have established a relationship with car rental vendors to supply employees with fuel efficient or hybrid cars.

## Establish a Policy for Offsetting Firm Travel

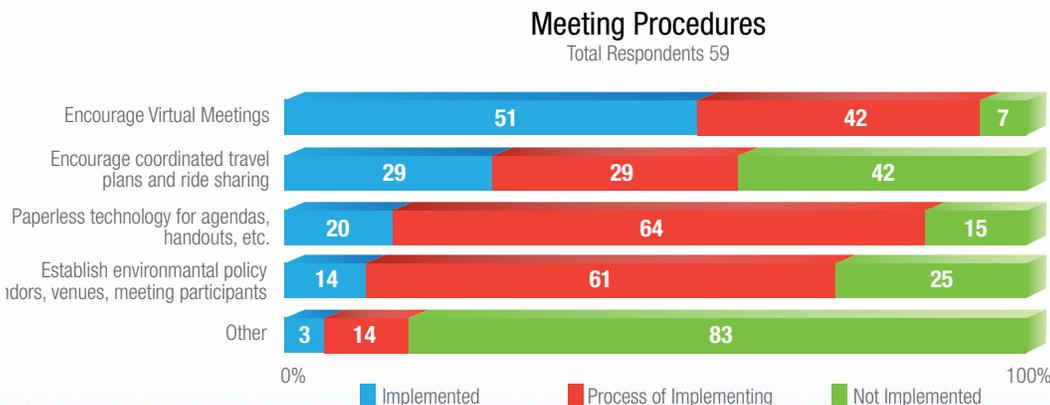
- Firms with a policy of offsetting travel generally do so by purchasing carbon credits through organizations such as the Bonneville Environmental Foundation.

## Encourage Telecommuting for Employees

- Among firms embracing this option, the installation of VPN and other remote access technologies is the most common task completed.

## Meeting Procedures

Virtual meetings are encouraged when possible, particularly between distant corporate offices.



*"We purchased WebEx software in order to host online meetings, allow desktop sharing among project team members, consultants, and clients, and to reduce the need for travel. Several trips to Hawaii, California, and Texas were eliminated by our ability to have virtual meetings using the WebEx software."*

*"We have shared our sustainability policy with lunch providers, reprographic houses, and office suppliers. The response has been good and we've managed to greatly reduce waste, particularly with catered lunches."*



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## Meeting Procedures—Additional Policies Implemented by Firms

### Use of Paperless Technology for Agendas, Handouts, and Presentations

- About half of those who have implemented or are in the process of implementing this procedure have simply created policies to encourage employees not to print meeting agendas.
- Slightly less than half have purchased and installed video equipment in conference and meeting rooms to allow for the projection of needed materials.
- Other strategies include document sharing/posting on network and installation of PDF software on computers.

### Encourage Virtual Meetings When Possible.

- To accomplish this goal firms are utilizing software such as WebEx and encouraging more meetings between distant offices to be managed electronically.

### Establish an Environmental Policy to Share With Venues, Vendors, and Attendees

- Nearly two-thirds of those making strides on this strategy have established a food/beverage policy which requires minimization of individually packaged products, elimination of bottled water, and usage of recyclable food service ware.

### Encourage Meeting Participants to Coordinate Travel Plans

- Generally to accomplish this goal employees are encouraged to use mass transit systems to and from airports and meeting locations.
- Some firms simply have a stated policy encouraging coordination of travel efforts.
- About one-third of those who have implemented this strategy or are in the process of implementing have a travel coordinator who facilitates ride sharing, etc.

## Design Portfolio Data

### Firm Demographics

By the end of the 2010 calendar year, 135 firms had joined the AIA 2030 Commitment. Taking into account firm merges and a handful of firms that joined late in November/December, the AIA expected approximately 125 firms to report progress. Of those 125, 56 firms uploaded an annual progress report by April 15 representing an approximate 48% response rate.

### AIA 2030 Commitment Energy Metrics Defined

Energy Use Intensity (EUI) is the basic standard unit for analyzing actual energy use in buildings and is measured in kBtu/sf/yr. The Department of Energy's Commercial Buildings Energy Consumption Survey (CBECS)—specifically the 2003 CBECS database—serves as a widely used baseline for determining the average energy use of a building in the United States, and it is against that baseline that operational energy use is measured. For the AIA 2030 Commitment, we use the term Predicted Energy Use Intensity (PEUI) to differentiate from actual operational (metered) energy use. Unlike CBECS, which records actual use data from existing buildings, PEUI is a measure of what we can broadly anticipate the building to consume based on the project's design.

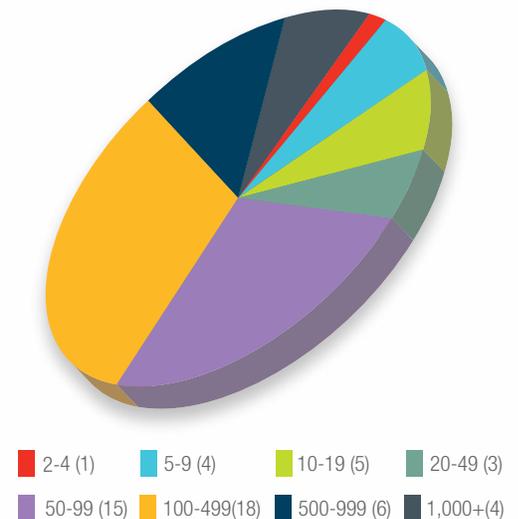
Additionally, reporting is based on site EUI, not source EUI. Source energy reflects the energy used not only at the building but also used in electricity generation, transmission, storage, etc. While this is an important measure of energy, and a vitally important part of calculating a "carbon footprint," the focus of this reporting is to start with analyzing the energy performance of the design work of AIA member firms. For each project which is not interior-only, % PEUI reduction from average is multiplied by the project's gross square footage (GSF). The sum of these products is divided by the sum of GSF of the same projects to yield a weighted average % reduction from average. This number represents the firm's progress toward the 2030 goals. This approach allows for two key features. First, it allows member firms of differing sizes to report in an equal basis. And, secondly, it emphasized the importance of project size; larger projects within a firm's portfolio have a larger impact.

For reporting, the AIA 2030 Commitment defines an active project as a project that was in an active design phase during the calendar year; architectural projects for which scope included, at a minimum, HVAC system modifications, and/or substantial envelope modifications; or interiors-only projects which included lighting design. Projects which were not in a design phase during the calendar year are not included. There is no question that the operational energy use of buildings is what matters at the end of the day, but this is an AIA program focused on the process of project design.

Additionally, the reporting tool collects data on Lighting Power Density (LPD) because, generally, the ability of an interior design project to affect building EUI is mostly limited to lighting design. Since interiors projects tend to not include HVAC system or envelope modifications, lighting power density is the criterion which is most applicable to interiors work. Please note that while Lighting Use Intensity (LUI) is a more meaningful prediction of how lighting contributes to overall energy use in a building, LUI can only be derived from energy modeling, which is seldom employed for interiors-only projects.

### 56 Firms Submitted Annual Progress Reports

Firm Breakdown by Size





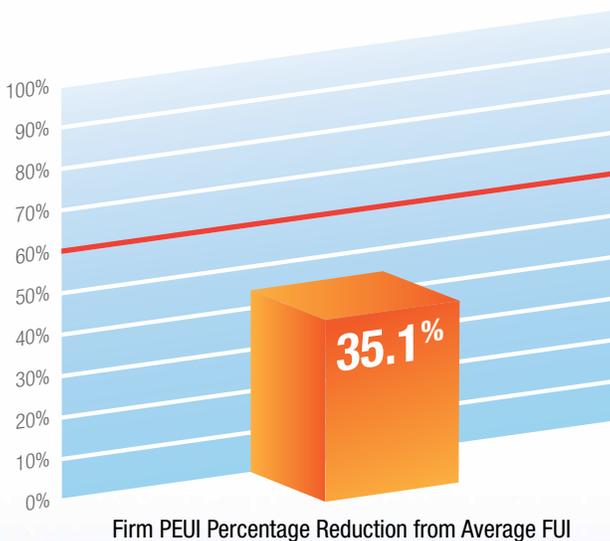
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The Gross Square Footage (GSF) of space accounted for by the 56 firms reporting for 2010 is nearly 385 million GSF.



## Firm PEUI % Reduction from Average EUI

This metric offers a snapshot of the firm's average reduction, weighted by Gross Square Foot (GSF), from the national average. Combined, the firms reporting saw an average 35% PEUI reduction from the national average EUI.



**70.6%**  
LARGEST PEUI REDUCTION  
REPORTED BY A FIRM

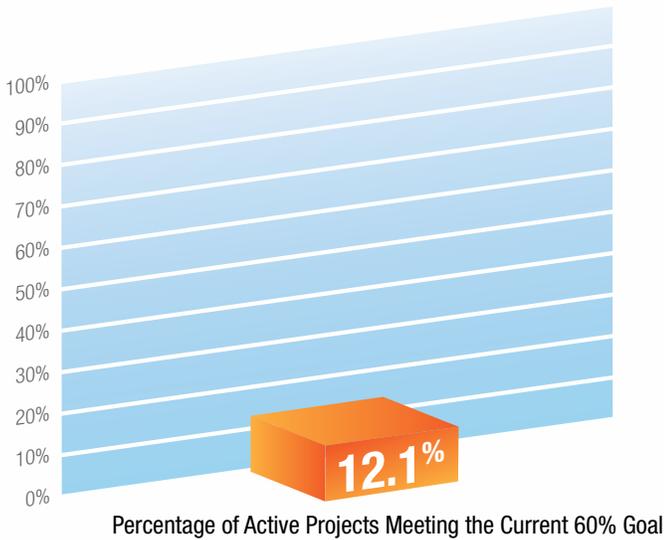
**11.6%**  
SMALLEST PEUI REDUCTION  
REPORTED BY A FIRM



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## Percentage of Active Projects Meeting the Current 60% Goal

This metric offers a snapshot of the percentage of a firm's design portfolio, weighted by Gross Square Foot (GSF), which is currently meeting the 60% energy reduction target. Roughly 12% of the combined firms design portfolio (based on PEUI) is meeting the current goal of a 60% reduction from the national average.



# 69.8%

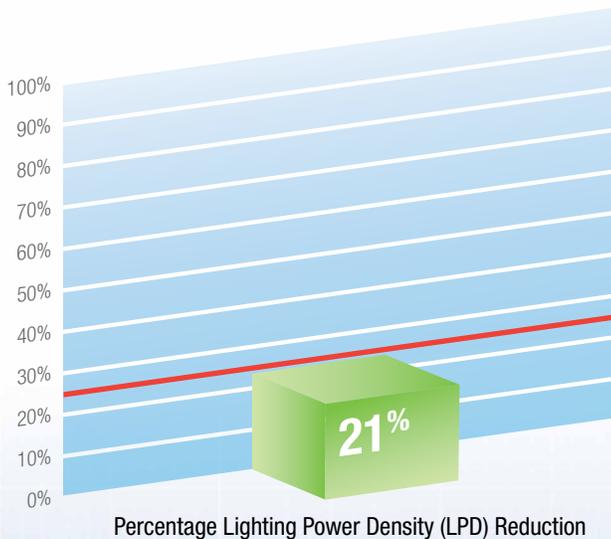
LARGEST % GSF OF ACTIVE PROJECTS MEETING GOAL REPORTED BY A FIRM

# 0%

SMALLEST % GSF OF ACTIVE PROJECTS MEETING GOAL REPORTED BY A FIRM  
*Reported by multiple firms*

## Lighting Power Density (LPD) Reduction

For various reasons, not all firms reported LPD data for their portfolio. Of the 56 firms reporting, 41 included LPD data representing approximately 255 million GSF.



## Percentage of Projects Being Modeled

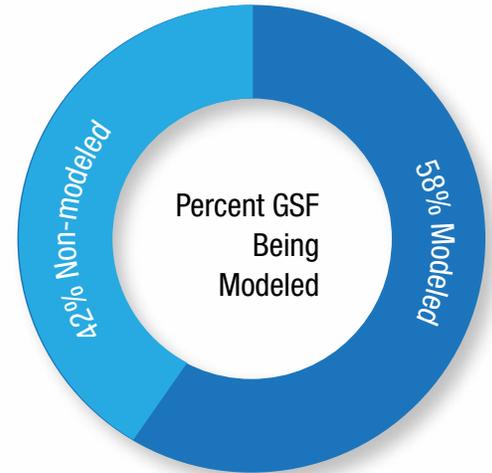
For each project entered into the annual progress report, it must be indicated whether or not the project is modeled. To date, energy modeling has largely been used to demonstrate energy code compliance, or used to demonstrate third party green rating system credit compliance. Architects have not typically been the primary responsible party when submitting energy compliance forms or building/interpreting the energy model input/outputs. Meeting energy performance requirements is a matter of design, with potential multidisciplinary impact on building façade, systems selection and the costs and function of ongoing building operations for the life of the project.

As we face the challenge of meeting the 2030 goals, it is very clear that designing the energy performance of our projects is as fundamental as meeting basic programmatic and financial needs. A deliberately multidisciplinary approach which begins at project inception with simple, easily manipulated modeling should be embedded in the design team's workflow. Basic resource modeling (energy, water, and waste) can capture early and effective design advantages, allowing informed concepts as the basis for high performance systems and details later in the process.

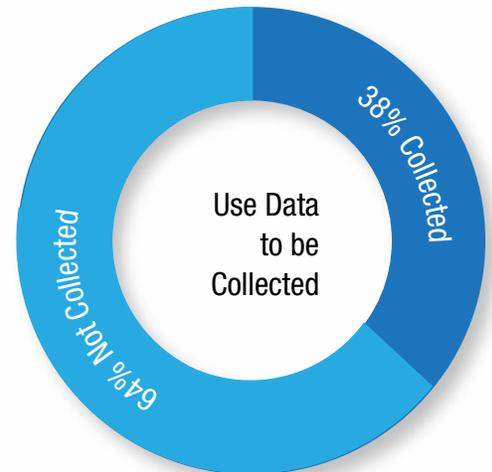
Having said this, today's energy modeling software engines and interfaces are not easily used or even accessible to most architects. One of the great challenges of making energy modeling a useful, iterative early design tool, on all project types and scales, is making sure the next round of energy modeling tools and training currently being developed at National Renewable Energy Laboratory (NREL), Lawrence Berkeley National Laboratory (LBNL), and Pacific Northwest National Laboratory (PNNL) include the needs of architects. The AIA is doing just that. For more detailed information on this subject go to *Sustainable AIA: 2031*.

## Percentage of Projects That Will Collect Actual Data

For each project entered into the annual progress report worksheet, it must be indicated whether or not a process is in place to collect actual building data upon project completion. While the emphasis on sustainable design continues to grow, there remains within the design and construction industry a fundamental disconnect between predicted and actual performance. Making the connection between design intent and actual building performance is critical to our progress toward carbon neutral buildings by 2030. Ongoing monitoring and reporting of data is the single best way to drive higher building performance because it will inform how issues such as occupant behavior or unanticipated building usage impact building performance in the real world. Buildings need to be monitored and managed and architects play a critical role working with building owners and operators to ensure buildings perform to the level they were designed.



*"I have learned how important an iterative modeling process, starting early at conceptual design, is to influencing design decisions."*



*"We now have a better basis of comparison between actual performance and simulated predictions."*



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## Summary

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### What Does the First Year of Firm Data Tell Us About the State of Practice?

The data in this report represents a quantitative measurement of our profession's actual progress towards the goal of carbon neutral design. The data clearly shows that many firms are designing buildings to meet the 2030 energy targets for a portion of the work within their practice, but the transformation of the market by making incremental energy efficiency improvements uniformly across a firm's practice clearly has many more complex challenges than just a desire to design and build green. These issues must be collectively addressed by the AEC industry, working with our clients and governmental agencies, if the long term goals of the green building movement and of 2030 are to be realized.

The data also shows that the profession must increase its effort to meet the 2030 goals. As this is our benchmark year, we cannot see trends or attempt to draw any conclusions. Each firm that participated now knows exactly where their own challenges and successes are and can now begin to effect change most appropriate for their firm operations and culture. Incremental change in every firm and supportive sharing of best practices and knowledge between firms of similar sizes and region is going to be the key indicator of success for the 2030 Commitment program. The results presented in this report also show a serious commitment for firms to endeavor in tracking, reporting, and even sharing this type of information. The profession should be inspired by these firms' efforts to collect and use this data to do better.

The number of firms and total square footage of this first year data is merely a snapshot of the profession, but these are also the firms that freely elected to participate in this program in its earliest of stages. The square footage of work represented by these firms is notable—the nearly 385 million square feet of active design projects compares to approximately one billion square feet of buildings all LEED projects certified over the past 11 years. In its initial year, the 2030 commitment program, representing just 56 firms, has provided data equal to an equivalent more than one-third of all certified LEED buildings. For the profession to truly meet the challenge of 2030, the profession must implement the design strategies embodied by green building certification programs into every project we design. Firms can no longer pursue these energy targets for only a handful of projects whose client's are seeking green building certification. These goals must be a fundamental consideration of every project across a firm's practice.

The power of the AIA 2030 Commitment to truly affect industry-wide change in a meaningful, substantive way is remarkable in its potential. Change can only come with the transformation of the profession towards establishing operational energy use targets at the onset of every design, and monitoring the implementation of that energy target throughout the design process. In doing this, firms will become increasingly fluent in understanding the operational energy use of their designs and understanding the relationship between design strategies and their impacts to operational energy use. The value of the 2030 Commitment reporting protocols is that it provides the framework to establish the needed literacy and awareness for these critical metrics, for both the participating firms and the profession, to collectively meet this challenge. Member firms have collected data of the PEUI of their entire practice. Just the collection itself creates literacy and understanding of these key metrics. With this awareness, firms can see where they have been successful and where they need to improve.



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## What is the AIA Doing to Support Firms?

The AIA is committed to developing the needed tools and resources to assist every member and every firm to meet the challenges of 2030 and the shifting landscape of architectural practice:

- **2030 Commitment Reporting Tool Development:** We recognize that the current data only represents design intent and predicted energy usage. That is only the first step and we must link actual energy performance to predicted energy performance in order for practitioners to close the feedback loop of their designs. The AIA will work to develop future iterations of the tool that provide an area for firms to go back and record actual energy use for several subsequent years once their designs are completed and in operation. Additionally, we must consider adding another Y/N question in the report tool to ask whether the active project will be commissioned as this is an important consideration to ensure systems are constructed to the design efficiencies consistent with predicted energy use. We further recognize the value of other important resources, notably potable water use. Future versions of the tool will include metrics for predicted potable water use.
- **Energy Modeling Practitioner's Guide:** The AIA is currently working on a guide which will outline the current landscape of energy modeling software. The purpose of the paper is to define the current scope of energy modeling tools available to practitioners, identify the gaps that exist which keep software tools from being used by architects, and recommend and outline the necessary steps that should be taken to begin filling the knowledge gap.
- **AIA Contract Documents:** In May, the AIA released *AIA Document D503-2011, Guide for Sustainable Projects*, including agreement amendments and supplementary conditions. The guide is free and was developed to assist users of AIA Contract Documents in understanding contractual considerations unique to sustainable design and construction projects. The guide also provides model language that can be used to amend or supplement key AIA Contract Documents in the A201 Family for use in these types of projects.
- **International Green Construction Code (IgCC):** Once adopted by local jurisdictions, it will have a game-changing impact on the practice of architecture by taking what has been a best practices approach to design and making it the minimum requirement for every project. The AIA will focus in the next year on developing the resources needed to prepare every member and every firm for the impact IgCC will have on the profession once it is published in March 2012. [www.aia.org/igcc](http://www.aia.org/igcc)
- **Sustainable Design Resources:** Since 2007, the AIA has developed a number of resources for members. Please visit [www.aia.org/sustainability](http://www.aia.org/sustainability) for a complete list of available resources.





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*“It has been very rewarding to see some scientific rigor come back in as part of the everyday design process. It’s great to see building designs evolve with informed information about the energy efficiency of the proposed solution. Our designers now understand that energy modeling can play a role in shaping the architecture.”*

*“Organizing our thoughts and strategies toward sustainability in the office...More fully analyzing our own internal consumption.”*

### What has been the most challenging aspect of implementing the 2030 Commitment across your firm?

*“While convincing some of our clients of the value of prioritizing integrated energy performance early in design is challenging, arguably a bigger challenge early on has been our own internal process—collecting metrics on all projects, early in design, in a firm of our size. Even more difficult since as clear as the original goals of the commitment, and the 2030 Challenge are, they often do not directly fit a project for a variety of reasons (either international project, or unique program, or something else).”*

*“As a large, global firm, it’s been a significant challenge to 1) communicate a new emphasis on energy performance in a discipline that’s traditionally not focused on energy, 2) revamp project processes to include energy analysis, 3) collect data from busy design teams, 4) collect consistent data in a global environment.”*

*“A major challenge involves transitioning from tried-and-true work methods while at the same time reinventing and testing new Marketing, Management, and Design strategies to prioritize energy efficiency. Because today’s competitive economic climate necessitates reaching out to prospective clients who may not hold energy reduction as a priority, deciding how to define contract scope and fees to support an integrated design approach, including an extended “Discovery” phase, is a current challenge we are working on.”*

*“So far the most challenging aspect has been our ability to convince our leadership in a large global architecture and engineering company that we can work towards complying with the commitment.”*





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## What have you learned about your firm while implementing the AIA 2030 Commitment?

*"I've learned that, while it is challenging to retool our traditional work methods, people in our firm are interested and eager to take on the challenge when empowered by the proper tools and support/commitment coming from our firm's partnership."*

*"We have a very long way to go with incorporating sustainability in the typical design process. For our LEED projects, there's no issue because the client is asking for sustainability. But for our average project, we're still very timid about pushing green initiatives and aren't yet confident enough in the evidence-base to push the non-LEED client in that direction."*

*"I suspect our firm is not that different than many—we can tell a good story on some of our projects, but there is a larger number for which we aren't following through."*

*"We have learned that we are doing very well compared to conventional practice but that we have a LONG way to go to have all of our projects net carbon neutral by the year 2030. And as design professionals, we find that to be a very exciting challenge, pushing us to tap our creative juices."*

*"Many of us have already been wanting to engage in conversations about performance and this initiative has provided a consistent format to do so—it's very welcome!"*

## What are your firm's current three top priorities today for sustainable design and operations?

*"The ability to gather consistent energy and other sustainable design metrics across the firm (for our own record keeping, but also for reporting to the 2030 Commitment); Improve our integrated design process firm-wide; Raise the level of staff education around sustainable design."*

*"Internal education on the tools and approaches required to reduce energy use intensity in our designs; external education of architectural clients and building owners (we are a consulting engineering firm) that achieving these goals requires integrated project process and that design must be collaborative; consistent energy use intensity reporting."*

*"Post-occupancy monitoring and evaluation; using actual energy performance to further analyze modeled predictions; trend from the technically complex to essential elegance."*

*"Net Zero structures; targeting clients interested in deep energy retrofits; affecting social change within our own local community."*



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## How can the AIA best support your progress toward the 2030 Commitment goals and beyond?

*“I think you’ve got a pretty good start, this process has certainly been thought provoking...”*

*“Client education: Member firms will feel well served if AIA works to effectively communicate to public and corporate entities that designing for the 2030 Commitment energy-reduction targets involves additional design effort (at a cost), but the payback in energy savings far outweighs design costs.”*

*“Education, Tools, and Resources: Continue to provide template information and examples of what other firms have done; Support programs like Seattle Chapter’s AIA+2030 Series and help make them available to practitioners in remote areas that don’t have access; resources, white papers and firm-profiles that offer ideas on implementing change within a practice; the spreadsheet is a great tool for measuring energy. Maybe additional spreadsheets for measuring other sustainability efforts.”*

*“Improved Energy Benchmarks: I think the AIA could do more work developing reporting and tracking tools, as well as getting further into simple, but subtle, aspects of developing appropriate benchmarks for projects. Lobby for and promote developing a better building performance database that combines data collected by multiple entities. There are currently many disconnected silos of actual building performance information that are not accessible to architects. Data collection should be based on a nationally agreed upon survey. Database should be able to be accessed by architects and engineers who are committed to designing better buildings and should include more building types than CBECS does. Better comparative data is a huge need right now for firms trying to set and meet EUI targets.”*

*“Contract Tools for Architects: Provide suggested contract language for energy-reduction scope and new suggested phase percentages as a guide for Integrated Design approach. A breakdown of related additional services would also be helpful.”*

*“We’ve come a long way in developing databases and metrics to track our projects, and we were one of the earlier firms to do this. At the same time, we still have a ways to go, especially in order to track our projects in a way that makes reporting for this commitment easier (for instance, LPD hasn’t been something we have directly tracked so far). I think the AIA could do more work developing reporting and tracking tools, as well as getting further into simple, but subtle, aspects of developing appropriate benchmarks for projects.”*

*“In lieu of an Excel spreadsheet for tracking progress toward the challenge, we really need a web-based database that project teams can enter the data directly. We have thought about developing this internally but there would be great value in the Institute taking it to this next level. We would be happy to help.”*



# 2030 COMMITMENT

## AIA 2030 Commitment—Program Elements

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### Identify Sustainability Team

Within two months of signing the commitment, the firm will establish a team or leader to guide the development of the firm's sustainability efforts and implementation of its commitment plan.

### Immediate Operational Actions

Within six months of signing the commitment, the firm will implement a minimum of four operational action items from, but not limited to, the list provided. These actions will be undertaken while the long-term sustainability plan is in development.

#### Office Energy Use

- Track and report energy use in the office
- Install occupancy sensors in meeting rooms and other common spaces
- Use Energy Star rated equipment and appliances
- Encourage employees to shut down computer equipment and turn off power strips
- Replace any existing CRT monitors with LCD monitors
- Guidelines for purchasing “green” power

#### Waste Reduction and Supplies

- Enact policies for reducing paper use (electronic documents and forms)
- Establish guidelines for purchasing office supplies
- Guidelines for purchasing kitchen supplies
- Guidelines for purchasing cleaning supplies
- Institute a recycling policy
- Guidelines for purchasing office furniture and materials

#### Transportation

- Offer incentives for employees who ride share, walk, or bike
- Establish a policy for fuel efficient rental cars for firm travel
- Establish a policy for offsetting firm travel
- Encourage telecommuting options for employees

#### Meeting Procedures

- Use paperless technology for agendas, handouts, and presentations
- Encourage virtual meetings when possible



# 2030 COMMITMENT

## Sustainability Action Plan

Within one year of signing the commitment, the firm must develop a long range sustainability action plan that aligns with the stated 2030 benchmarks for achieving carbon neutrality. While action plans will differ from firm to firm, a successful sustainable action plan should address the following aspects:

### Develop Sustainable Design Goals

Set quantifiable design goals for every project regardless of whether required by the client.

- Design projects to reduce the amount of fossil-fuel based energy used to align with 2030 goals
- Reduce the amount of potable water used in all projects
- Improve indoor air quality (IAQ) through the elimination of hazardous materials used in all projects
- Have every project undergo a green building evaluation whether or not the project is seeking certification
- Document all projects in case study format with consistent criteria to help measure performance and progress

### Institute Staff Training and Education

Ensure staff is invested in the firm's sustainable design goals and can contribute to the success of those goals.

- Determine a minimum amount of staff training and education on sustainable design issues
- Provide support for staff to attend conferences and education programs focusing on sustainable design programs
- Implement programs that recognize individual and team sustainable design contributions

### Evaluate the Design Process

Engage in a design process that is multidisciplinary, collaborative, goal-oriented, and metric driven.

- Use an integrated design process that promotes early involvement of stakeholders and engages in collaborative design process
- Use life-cycle cost analysis and consider the life-cycle effects of the materials and systems used in a project
- Develop metrics for sustainable design goals at the outset of the project
- Develop consistent measurement standards for building and site design performance
- Create feedback procedures to gather information about building performance that include things such as meters, sensors, controls, and post-occupancy evaluations

### Sustainable Operations

Develop a sustainable operations plan that sets goals aimed at reducing the negative impact of firm operations related to:

- Office Energy Use
- Waste Reduction and Supplies
- Transportation
- Meetings



# 2030 COMMITMENT

## Develop a Business Strategy

Develop a business strategy that communicates why a sustainable design approach is important and why the firm is qualified.

- Put together information that supports the value of the firm's sustainable design services (include information on projects costs, operating costs, and occupant satisfaction)
- Develop marketing materials that highlight the sustainable design aspects of the firm: define the design philosophy; list accredited staff; highlight benefits of sustainable design, etc.
- Make your sustainable actions and operations available to clients

## Report Annual Progress

Perhaps the most critical aspect of the AIA 2030 Commitment is the pledge to measure and report annual progress of a firm's design portfolio towards the 2030 goals. Firms are asked to track all active design projects for the reporting year, not just ones that are seeking green building certification, and the reports developed through the tool are meant to provide a year-to-year look of a firm's work. Firms of all sizes and building type expertise will use the same tool and report in the same manner.

A firm's annual progress is reported by uploading the report generated by using the AIA 2030 Commitment Progress Reporting Tool to assess the predicted energy use of a firm's design work at the end of each calendar year. The Excel-based tool generates four easy-to-decipher graphs that aggregate the individually listed active projects within the Excel sheet. These graphs represent the report that firms will forward to the AIA. The charts will show a snapshot of the firm portfolio including: the percentage of GSF of active projects meeting the current reduction goal, the percentage of GSF being modeled, and percentage of GSF for which the firm will gather actual energy performance.



# 2030 COMMITMENT

## Participating Firms Firms in red print are included in the design portfolio data. 2011 firms will not report until 2012.

- ADD, Inc.  
Aguirre Roden  
Albert Kahn Associates, Inc.  
Aztec Architects LLC  
The Beck Group  
BNIM  
Braun+Yoshida Architects  
BRS Architects  
Callison  
Cannon Design  
CBT Architects  
Clark Richardson Architects  
Cooper Carry, Inc.  
Davison Architecture + Urban Design  
Design Atlantic  
Digsau  
DLR Group  
Dull Olson Weekes Architects  
Durrant  
EHDD  
Epstein  
Eskew+Dumez+Ripple  
EwingCole  
Faridy Veisz Fraytak P.C.  
Firmintas Architecture & Planning  
FKP Architects  
Frederick + Frederick Architects  
FXFOWLE Architects, LLP  
Gensler  
GGLO  
Goettsch Partners  
Gould Evans Affiliates, PC  
Gresham Smith and Partners  
Group Goetz Architects  
Harley Ellis Devereaux  
Harriman  
HDR  
Helix  
Hellmuth + Bicknese Architects  
Helpert Architects  
HGA  
High Plains Architects  
HKS, Inc.  
HMC Architects
- HOK  
HOLT Architects  
IKM  
In Balance  
Innovative Design  
Interactive Resources  
ISTUDIO Architects  
Jacobs Global Buildings, NA  
Kaplan McLaughlin Diaz  
Kaplan Thompson Architects  
Kevin Harris Architect, LLC  
KlingStubbins  
L.M. Holder III, FAIA  
Lake | Flato  
Legat Architects  
Leo A Daly  
Licata Hansen  
Lionakis  
Little Diversified Architectural Consulting  
LMN Architects  
Lord Aeck Sargent  
LS3P Associates, Ltd.  
M.C. Harry and Associates, Inc.  
M+NLB  
Mahlum  
Mancini Duffy  
Map-Lab, Inc.  
Marilyn R. Nepomechie Architect  
Marnier Architecture PC  
Meyer, Scherer, and Rockcastle, Ltd  
The Miller | Hull Partnership  
Mithun  
Mode Associates  
Morris Architects  
MorrisSwitzer  
NACIArchitecture  
Nathan Kipnis Architects, Inc.  
NBBJ  
Nicholson Kovalchick Architects  
\_o2 Architecture  
Page & Turnbull  
PageSoutherlandPage  
Perkins + Will  
Poirier + Associates Architects
- PSA-Dewberry Inc.  
Quinn Evans | Architects  
Ratcliff  
2RB+B Architects  
Renaissance 3 Architects, P.C.  
RCM Architects  
RDG  
RNL  
Rossetti  
RSC Architects  
RSP Architects  
RTKL  
S/L/A/M Collaborative  
Schmidt Associates  
Scott Architecture  
Sclater Partners Architects  
SERA Architects  
Serena Sturm  
Shepley Bulfinch Richardson & Abbott  
The Sheward Partnership, LLC  
SHP Leading Design  
SHW Group  
SmithGroup  
Spiegle Architectural Group, Inc.  
Swanke Hayden Connell Architects  
T. Howard + Associates Architects, Inc.  
Thompson Young Design  
Thornton Tomasetti  
TLC Engineering for Architecture  
TRO Jung | Brannen  
Tsoi / Kobus & Associates  
tvsdesign  
VOA Associates, Inc.  
WATG  
WBRC  
Weber Thompson  
WHR Architects, Inc.  
Wallace Roberts & Todd, LLC  
Wight & Company  
WLC Architects  
Yost Grube Hall  
Zero Energy Design  
Ziger/Snead LLP Architects  
Zimmer Gunsul Frasca Architects LLP



# 2030 COMMITMENT

## Participating Firms (continued)

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### 2011 Firms

AECOM  
ARC/Architectural Resources Cambridge  
Ayers Saint Gross  
Ballinger  
BKSK Architects  
Booth Hansen  
Building Center No. 3  
BVH Architects  
Cunningham Group  
Cunningham | Quill Architects  
Dattner Architects  
DesignGroup  
Dettmeyer Architects  
Ehrlich Architects  
El Dorado, Inc.  
EYP Architecture & Engineering  
Fairfield Architecture PLLC  
Frye Gillam Molinaro  
Garcia Architecture + Design Architects  
gkkworks  
Habitat Studio Architecture  
Hahnfeld Hoffer Stanford  
Hord Coplan Macht  
In. Site: Architecture  
Kalban Architects  
Leddy Maytum Stacy Architects  
Lehrer Architects  
Marmon Mok Architecture  
Norris Architects  
Payette  
Ross Barney Architects  
RVK Architects  
SHKS  
Solomon Cordwell Buenz  
Studio2G  
STUDIOS Architecture  
Taylor & Syfan Consulting Engineers, inc.  
Westlake Reed Leskosky  
William Rawn Associates