

# Sustainability Action Plan

AIA 2030 Commitment  
Fall 2012



Bergmeyer



# Introduction

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At Bergmeyer, respect for and consideration of the earth's natural resources is a core value, evident in the design of our projects and inherent in our internal operations. Our commitment to sustainable design and environmental stewardship drives the firm's efforts to incorporate environmental responsibility, high-performance design, building systems integration and sustainable strategies into all of our projects. We do our utmost to share our knowledge with our clients, our industry partners, and our employees about environmentally-sound design, building, and business practices and to be at the forefront in the practice of sustainable design.

Bergmeyer signed on to the American Institute of Architect's (AIA) 2030 Commitment in June 2011, thereby accepting the 2030 Challenge that all new buildings and major renovations the firm designs will be carbon neutral by 2030 and will not use fossil fuel, greenhouse gas-emitting energy to operate. Bergmeyer intends to help reduce the energy consumption in the built environment and lead our clients and industry partners in working together to create a more sustainable future.



Harvard University, 29 Garden Street, Cambridge, MA. Photograph: Peter Vanderwarker  
Next Page: Pond View Village, Gloucester, MA. Photograph: Richard Mandelkorn

# Sustainable Design Goals

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While we are aware of the environmental impact of our own operations, we recognize that the buildings and spaces we design will have a far greater impact on the future. Sustainable principles and strategies are incorporated into all our projects, and each of our projects will undergo sustainability goal-setting whether requested by the client or not.

In alignment with our 2030 goals, our projects are designed to reduce the amount of fossil-fuel-based energy required through a combination of passive building practices and active technological advances. Above and beyond our 2030 goals, we will strive to reduce the amount of potable water used and to eliminate the use of products and materials containing hazardous chemicals on our projects. We are working to develop a process whereby each project will set goals for energy and water use and carbon emissions.

From the outset of our projects, our clients, whether pursuing LEED certification or not, are encouraged to incorporate sustainability measures that will reduce their bottom line and create a healthier, more productive environment for project users.



Bergmeyer Office, Boston, MA. Photograph: Len Rubenstein  
Next Page: Bergmeyer Office, Boston, MA. Photograph: Len Rubenstein

# 1. Staff Engagement & Education

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Ensure that designers and technical staff are invested in the firm's sustainable design goals and are equipped with the necessary knowledge and skills to create sustainable, healthy spaces.

**A. Employ a Sustainability Manager** to engage, educate and support staff and clients on sustainability and LEED-related issues. The sustainability manager directs the firm's efforts to stay at the leading edge of sustainable design and keeps us up to date on best practices and developments in the field. She also tracks progress toward meeting our 2030 goals.

**B. Support staff education.** Staff members are encouraged to attend seminars, presentations and conferences that expand their knowledge in the field of sustainable design and then to share this new information with colleagues at in-house informational sessions. The sustainability manager provides information on upcoming educational opportunities to staff via the firm's Intranet. During 2012, Bergmeyer provided the opportunity for staff members to attend the Boston Society of Architects' (BSA) year-long AIA 2030 Professional Series, intermediate-level

courses covering specific strategies for making our built environment more energy efficient.

**C. Provide at least two events per month on sustainability or LEED topics.** Bergmeyer regularly holds continuing education presentations focused on sustainability and LEED topics in order to promote shared knowledge on new products and resources, emerging technologies, and green design principles. Bergmeyer also hosts a monthly webinar for the Massachusetts Chapter of the USGBC (USGBC-MA) to support LEED accredited staff and members of the Boston-area design community in their pursuit of credentialing maintenance hours. As part of our 2030 Commitment, we have instituted in-house training sessions for staff focused on the energy and greenhouse gas issues the firm is tackling as part of our 2030 goals.

**D. Encourage and support LEED accreditation for staff.** The firm encourages technical staff to become LEED Accredited and to use that knowledge in their design and specification efforts on behalf of our clients. The firm provides resources and support to staff who wish to pursue LEED Green Associate or LEED AP accreditation. Staff are informed of Bergmeyer's financial and test-prep assistance during their orientation to the firm, and the sustainability manager regularly posts reminders and updates about available resources and support services. Currently, 60% of the firm's technical staff is LEED Accredited, with additional staff members studying for the LEED AP and/or Green Associate exams. Bergmeyer's goal is to increase the number of LEED Accredited staff by 10% annually.



MARS Snackfood National Headquarters, Hackettstown, NJ. Photograph: Eric Laignel

Next Page: Bergmeyer Office, Boston, MA. Photograph: Len Rubenstein

## 2. Design Process

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Consider sustainability and environmental issues as part of an integrated design approach on each of our projects and in the design, construction, use and reuse of buildings and the built environment.

### **A. Create integrated design teams.**

Promote a design culture and process that is multidisciplinary, collaborative, and goal-orientated. Early on in the design process, invite team members, including the owner, engineers, energy modeler, commissioning agent, contractor, and any others who may be involved in the project to the table. Foster the development of standard processes to facilitate active design integration and interdisciplinary cooperation on all projects. Incorporate sustainable design standards into comprehensive design programs such as firm-wide design reviews and project presentations during the design phase, and develop project planning templates and technical specifications geared towards sustainability.

### **B. Use minimal means for a maximum impact.**

Make intelligent decisions on how to use resources within a design.

Advocate for passive solutions within the design along with the active solutions. Use a constrained budget as an opportunity to have a thoughtful, focused design. Utilize payback analyses to make selections on materials and systems.

### **C. Hold eco-design charrettes for every project**

regardless of plans for LEED or other sustainable certifications. Conduct a charrette early in the process with the client and full design team to establish goals and baselines and flesh out strategies to achieve them. Utilize the 2030 Commitment, Living Building Challenge, and LEED matrix as baselines for setting goals.



Staples Store, New York, NY, Photograph: Chun Y Lai  
Next Page: Bergmeyer Office, Boston, MA. Photograph: Len Rubenstein



**D. Utilize Building Information Modeling (BIM)** to bring integration to the entire design process and estimate energy use, potential climate issues, and overall building performance. Utilize the technology at our disposal to fully understand the design and manipulate it to improve upon it in the design phase, while continuing to maintain the model throughout construction in order to document all construction-phase modifications.

**E. Advocate for energy modeling on all new construction and major renovation projects.** Encourage clients with suitable projects to conduct energy modeling, including conceptual-level modeling, in order to shape and inform

the building's overall energy strategy and the resulting design. Our goal is to have 100% of our new construction and major renovation projects pursue energy modeling by 2015.

**F. Integrate the triple bottom line.** Think beyond the materials specified and economic aspects of a project and consider the social equity aspect of the choices we make. Does the project have a positive impact on its community? Are the building methods and products being specified helping to provide jobs and revenue to a community? Are there ways we can help the client make decisions that will have a positive effect on the community?

**G. Become leaders in the design and implementation of LED lighting.** Educate ourselves and our clients about the newest lighting technology with regard to energy efficiency and sustainable lighting options. Since a large part of Bergmeyer's work is interior architecture, we have the opportunity to make considerable progress towards meeting our 2030 goals through energy efficient lighting design. Encourage our clients to apply for rebates and incentives in locations where available and assist them in the process.



Bergmeyer Office, Boston, MA. Photograph: Richard Mandelkorn

Next Page: Bergmeyer's Annual Waste Audit

# 3. Sustainable Operations

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Engage our employees to actively think about how we purchase and consume resources as an organization. Motivate our vendors to provide products and services that reduce their impact on the planet.

**A. Pursue paperless options** for employee benefits, communication, document management, and Business Information Management systems. Continue to reduce paper copies for projects by utilizing web-based BIM systems for project document management. Use company Intranet for employee communication, benefit information, and on-line forms.

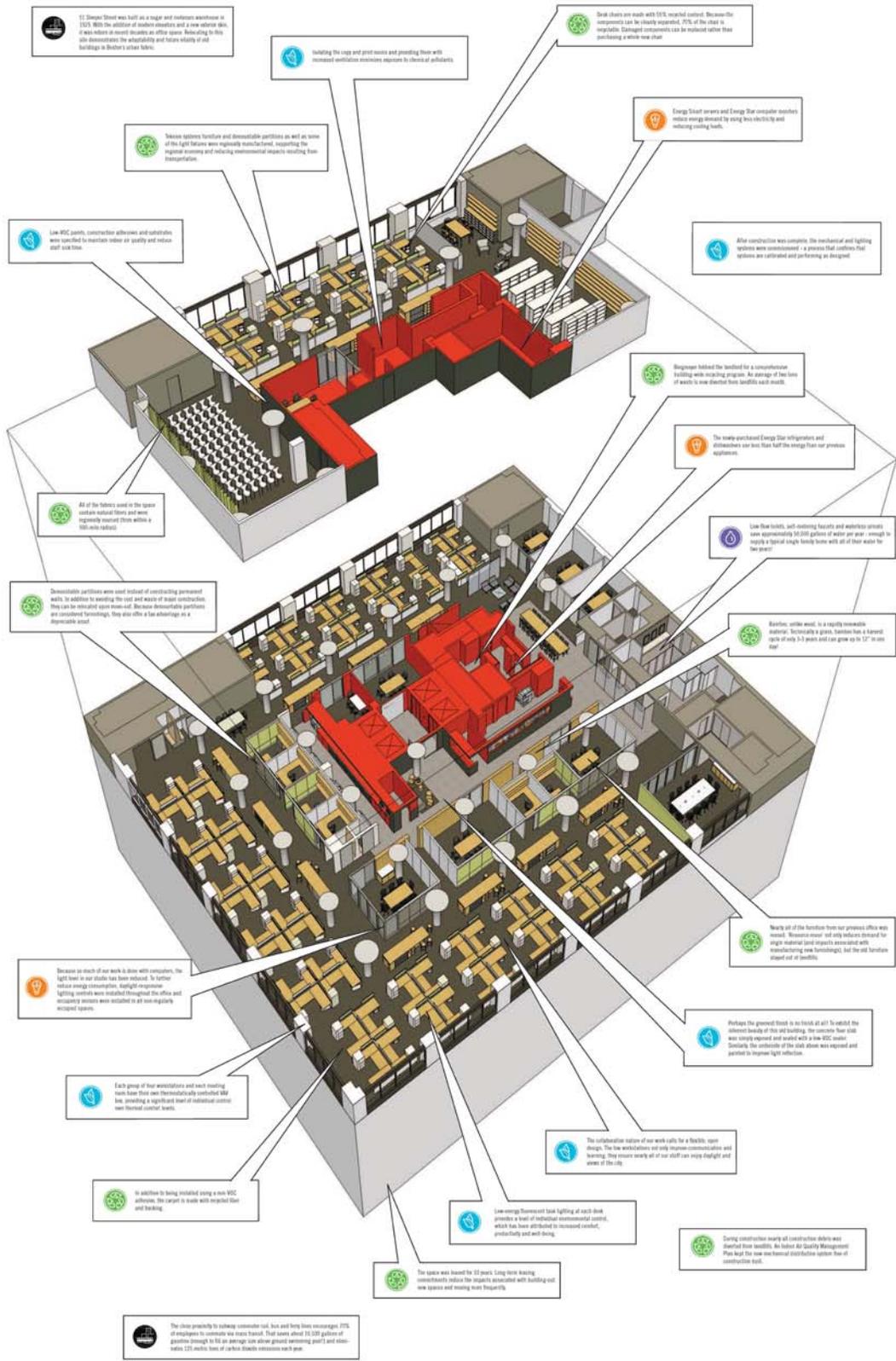
**B. Do business with suppliers who are actively engaged in sustainability initiatives.** Purchase supplies with recycled content or sourced from sustainably managed forests, office equipment that is ENERGY STAR rated, and use caterers who appreciate and work within our sustainable catering guidelines.

**C. Reduce our office waste stream.**

Continue to develop our in-house recycling program in order to further reduce our waste stream. Explore commercial composting programs in order to reduce the amount of food waste we produce by 90% (identified as the largest percentage of waste in our most recent waste audit). Conduct annual waste audits in order to gauge our progress and refine our targets.

**D. Encourage our employees to move beyond their personal comfort zones to reduce consumption.** Many small steps create a large impact over time.

We encourage employees to consume less by thinking about what they print, ask them to sort their recycling, reuse kitchen dishware, and take mass transit or bike to work. Our office is strategically located within walking distance of a number of mass transit stops, including subway, commuter rail, bus and water



Bergmeyer Office, Sustainable Features Diagram  
 Next Page: Hostelling International, Boston, MA. Photograph: Richard Mandelkorn



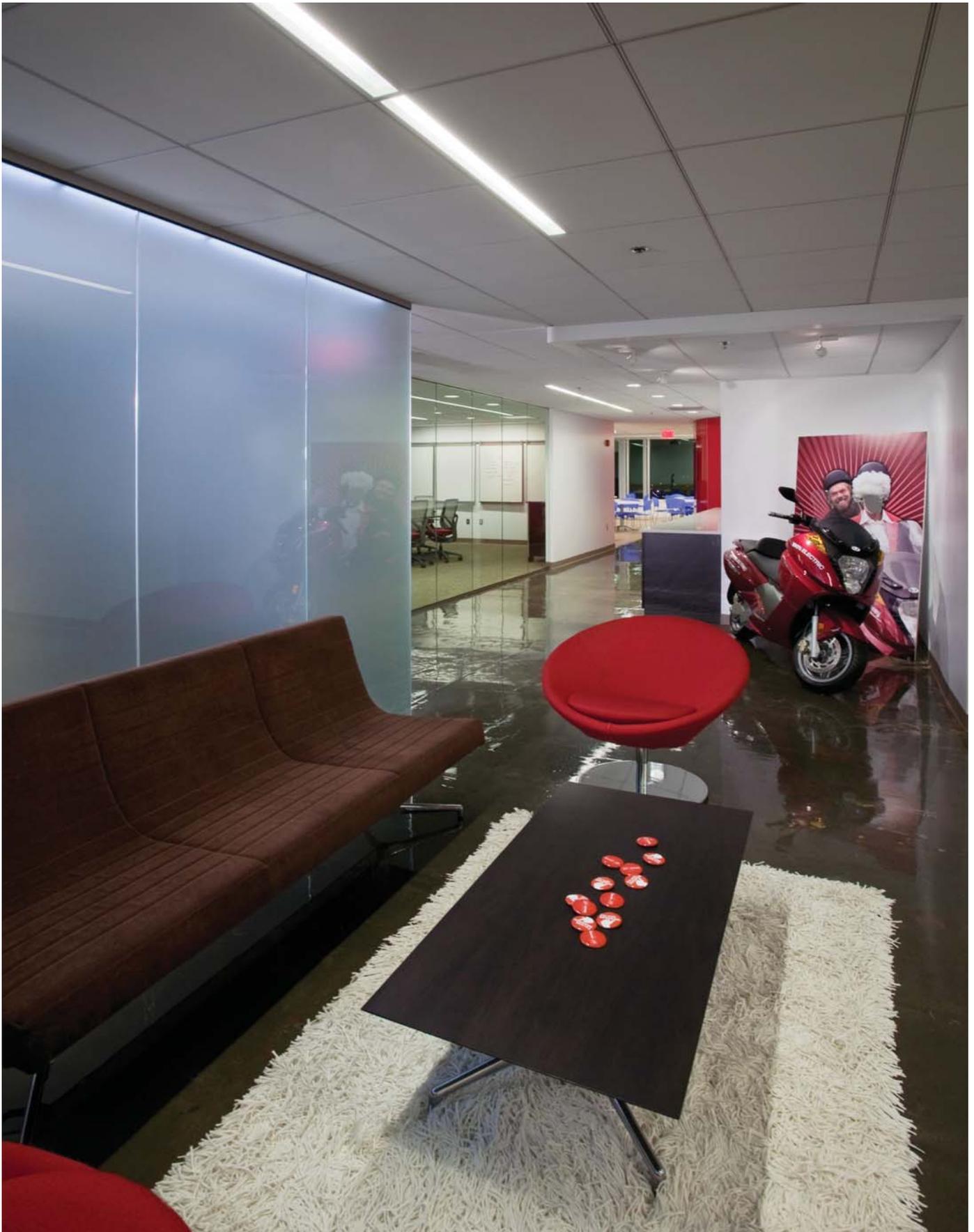
taxi. We offer our employees pre-tax plans to incentivize them to take mass transit.

**E. Find creative ways to repurpose architectural samples including donating to universities, children’s organizations, non-profits and others who appreciate building materials they can repurpose.** Since such a large percent of Bergmeyer’s work is interior architecture, we have an enormous amount of finish samples in our library. We will continue to encourage our vendors to more actively participate in recycling their samples and provide better options for the disposal of samples. We participate in Save A Sample, a grassroots organization made

up of design and architectural firms charged with collecting and distributing samples to schools and non-profits who can give these items a second life.

**F. Ensure that our physical plant is operating in an energy-efficient manner.** Bergmeyer worked with the owner of our building to develop a successful building-wide recycling program, and we continue to work closely with them to report and reduce waste. The Bergmeyer office is designed and operated to meet LEED Gold standards and features low-flow toilets, pint urinals, and economizer sinks; minimally finished flooring; low-VOC products including adhesives, paint, and furniture; locally sourced carpet; bamboo

wall panels; demountable partitions for flexibility and reusability; locally sourced furniture systems; occupancy sensors; access to daylight and views; individual lighting controls; and materials with recycled content. Office energy usage as well as waste generation is tracked.



Virgin Money Office. Waltham, MA. Photograph: Lucy Chen  
Next Page: Bergmeyer Office, Boston, MA. Photograph: Richard Mandelkorn

# 4. Business Strategy & Reporting

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Communicate the firm's commitment to sustainable design and contribute to industry-wide achievement of the AIA 2030 goals by building the business case for adopting energy conservation and material resource management measures.

**A. Develop resources to support the value of our sustainable design services.** Harvest information from existing projects on project costs, operating costs, and occupant satisfaction and productivity to communicate the value of sustainable design to both our current and potential clients. This information will also be used to refine our processes and those of our consultants.

**B. Track energy use data to establish metrics to use so that we can increase the performance of our clients' future projects.** Since 2011, Bergmeyer has tracked the predicted energy use intensity of all of the firm's projects. In 2012, we began tracking actual building performance data with information from our repeat clients. By tracking utility bills to monitor energy usage, we can develop a database of past and current projects that includes the sustainable practices (e.g., super insulation, PVs,

closed-loop recycling, etc.), predicted energy savings, actual energy savings, initial cost, operating cost savings, and payback period, further allowing us to up-sell sustainable practices for future projects.

**C. Conduct post occupancy evaluations leveraging long term relationships and clients with multiple projects.** As a part of our basic services, include a post occupancy evaluation phase whereby we can begin to collect data from occupants as to the positive and negative aspects of each space that we design, with an emphasis on requesting feedback relative to the sustainable elements incorporated within a project.



Patagonia, Boston, MA  
Next Page: Cathedral Family Development, Boston, MA.



**D. Evaluate business partners to ensure that the consultants and collaborators with whom we share our policy for environmental stewardship.**

Ensure that we are doing business with consultants who have the knowledge and ability to back up their sustainability claims and the motivation to think creatively and go the extra mile.

**E. Add sustainability as a filter for go/no-go discussions.** Market to clients who share our passion for environmental stewardship and use tools developed to convert existing clients who believe in building conventionally to sustainably-minded clients.

**F. Identify Mechanical or Electrical Engineer candidates to be considered for a full time role on staff.** This

potential staff member would be responsible for evaluating our current engineering consultants, providing energy modeling capabilities, and spearheading our efforts to build the business case for our sustainable projects. Evaluate how our competitors approach and understand other models in similar practices.

**G. Publish the business case information in a way that will be useful to our staff, consultants, and clients.**

This information will be available in-house on our Intranet, available to our clients for their use in understanding projected energy consumption in their new projects, and presented at an annual meeting so that staff can see the results of their endeavors to meet the firm's 2030 Commitment goals.

**H. Streamline firm communications to ensure that they are saturated with the details of the firm's commitment to designing, building, and operating sustainably.** Emphasize our commitment to sustainable design in all of our marketing materials.



Federal Public Defender Office, Boston, MA. Photograph: Richard Mandelkorn  
Next Page: Mike Davis, FAIA, LEED AP: Vice President of Bergmeyer and President of the Boston Society of Architects

# 5. Advocacy & Public Policy

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Contribute to industry-wide achievement of AIA 2030 goals by advocating for the adoption of equitable and effective public policy, building regulation, and incentives.

**A. Maximize speaking opportunities.**

Encourage, support, and incentivize Bergmeyer’s staff to take on personal involvement in professional business networks and affiliated organizations so the firm can help educate the building, development, and real estate communities, and the public about the importance of sustainable design and how – through better design – architecture can lessen the impact of the built environment.

**B. Promote personal civic**

**engagement.** Encourage, support, and incentivize staff members to become involved in groups and organizations where they can play a role in advocating sustainable design and be active participants in the policy-making process at the local, state, and national levels.

**C. Maintain effective corporate “messaging” to grow our reputation as thought-leaders in sustainable design.**

Bergmeyer strives to take full advantage of social media and Internet-based publication sites to create, promote, and distribute original content on sustainable design topics. Social media, including Twitter, Facebook, LinkedIn, and blog posts are used regularly to provide news about developments in the field of sustainable design. In addition to sharing information publicly via social media, staff is encouraged to attend meetings and events for local and national green building and sustainable design organizations, to both learn and share knowledge.



LL Bean, Dedham, MA. Photograph: Richard Mandelkorn  
Next Page: Mike Davis, FAIA, LEED AP working with AIA's SDAT (Sustainable Design Assessment Team)



**D. Maintain corporate membership in affiliated organizations that share our commitment to sustainable design** such as the American Institute of Architects, the Boston Society of Architects, the U.S. Green Building Council (USGBC), and the Massachusetts Chapter of the USGBC, taking every practical opportunity to align our advocacy activities with those of their collective memberships.

**E. Become effective advocates of progressive building energy codes including the International Energy Conservation Code, the Massachusetts “Stretch Code”, and the International Green Construction Code.** Drive market perception of

Bergmeyer as a firm that understands and can design to progressive building energy codes.

**F. Become effective advocates of public incentives for green building.** Leverage prior experience advocating for a Green Building Tax Credit in Massachusetts to work (with AIA National and the Boston Society of Architects) on behalf of increasing the value and effectiveness of the Federal Chapter 179D tax deduction. Providing resources to our clients with regard to energy rebates and incentives, which can be used as a way to partially fund sustainable efforts for a project. By tracking existing projects that are able to capitalize on state and federal

incentive and rebate programs and utilizing reporting data, new clients are encouraged to pursue more sustainable strategies, particularly in the sectors of lighting and mechanical systems, than the standard baseline case.



Brown University Bookstore, Providence, RI. Photograph: Warren Jagger  
Next Page: Bergmeyer Office, Boston, MA. Photograph: Richard Mandelkorn

## 6. Accountability

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Hold ourselves accountable to the goals outlined in this plan both internally and externally, and demonstrate to our clients that we use the knowledge learned from past projects to inform current and future projects.

**A. Reassess past designs.** Develop a model for reviewing and evaluating previous project designs to inform new projects within the early phases of the design process. Past designs will be evaluated based on multiple criteria, including whether the design is working for the client, the users, and the community; whether it was an economically and environmentally intelligent choice at the time; and whether there have been any unintended consequences as a result of the design.

**B. Conduct post occupancy evaluations leveraging long term relationships and clients with multiple projects.** As a part of our basic services, include a post occupancy evaluation phase whereby we can begin to collect data from occupants as to the positive and negative aspects of each space that we design, with an emphasis on requesting feedback relative to the sustainable elements incorporated within a project.

**C. Conduct regular assessments of our progress meeting the goals outlined in this plan.** Bergmeyer's AIA 2030 Commitment Committee will continue to meet monthly to gauge our progress towards meeting our 2030 goals.

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