



AIA 2030 Challenge

SUSTAINABILITY ACTION PLAN

February 8, 2022

powers
brown
archit
ecture

Statement

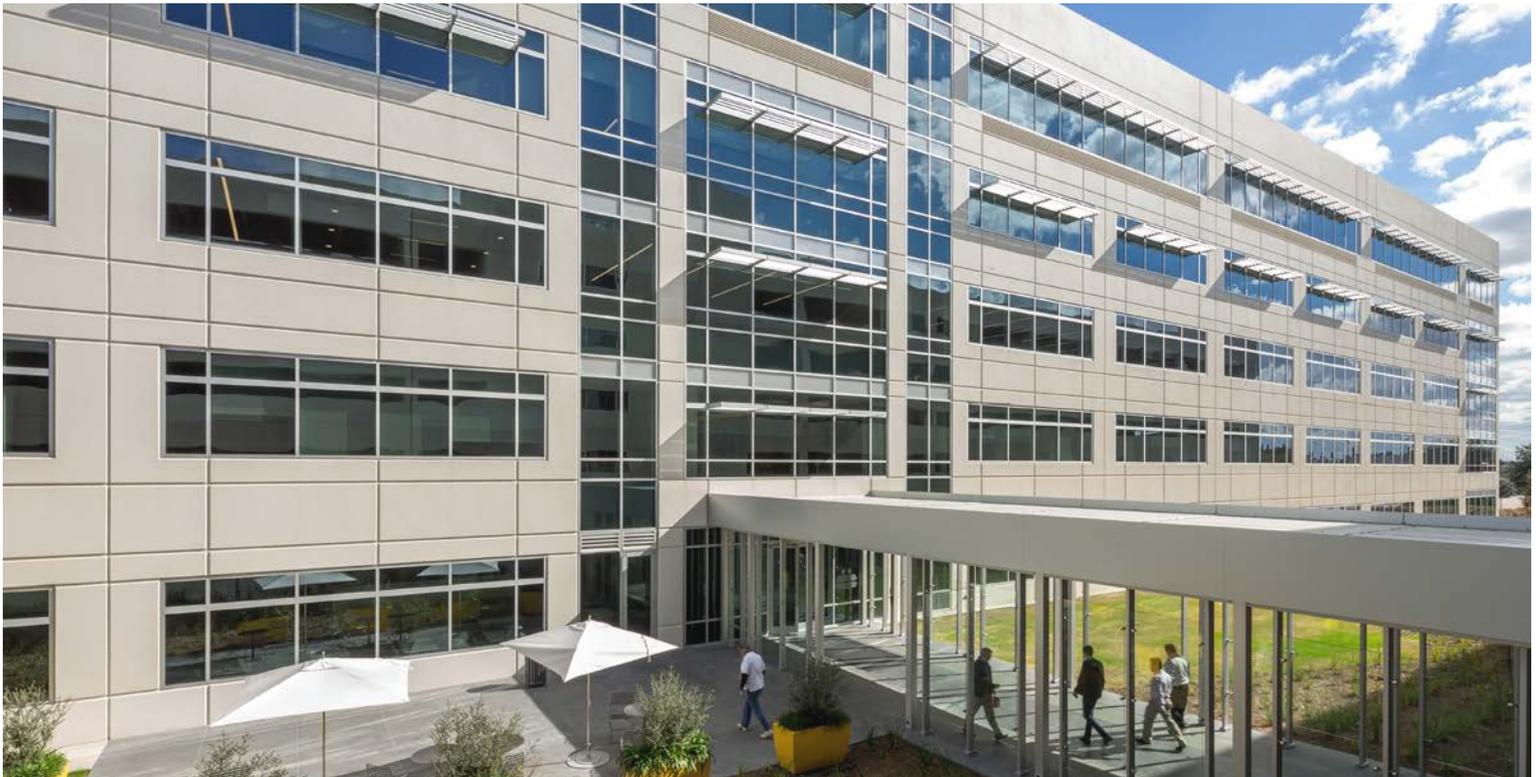
Powers Brown Architecture comes to the AIA 2030 Challenge in the middle of a journey started some 22 years ago. At our inception in 1999 on the cusp of a new millennium, we made a decision to not get too caught up the “new” sustainability game. At least it was somewhat new to Houston where we began. It was a choice. A choice to not defer or to abstain so much as it was a choice to not get caught up in a “trend”. We chose what we believed was a more foundational and time-tested commitment to Sustainability. A core value the founding partners shared to growing up with solar power when it was cutting edge. One taken in the context of economy of means, or respecting client budgets and, in a tangential way, rooted in these ideas by the late 1970’s Austin practice of one of us. So it was a do the right thing attitude regarding the environment, no “program” required.

And of course, we kept this to ourselves...
Over time we evolved through the LEED

program becoming a “trend-amental”, then a fundamental. Given our developer client base, there was an emphasis on the fund in fundamental. The Houston based developer market saw absolutely no value-added in LEED, but the banks did. They saw it as future proofing their capital investment. So, our clients reluctantly began to move towards the integration of sustainable materials, systems, and commitments, albeit reluctantly. We concomitantly upped our commitment by supporting the USGBC as members, setting up an in-house constancy after using outside consultants for a while and an overall *sotto voce* effort at researching better and innovative ways and systems.

We began following clients down a path they didn’t really want to be on.

Now, nearly a quarter century into this aspect of our practice, there is a need and public pressure to have a more responsible approach towards limited resource use and its effect on our climate. Thankfully, we have a track record in which we take solace.



In addition to 14 ongoing LEED projects as of this writing, we have:

17 LEED Gold Certified projects

This includes the Daikin Texas Technology Park, office/manufacturing/distribution building, in Waller, Texas. This was the largest building constructed in the United States in 2016 and currently the largest Tilt Wall building in the world at 4.2 million square feet under one roof. Also, in this category is the Annapolis Junction – Bldg. 7 office building, in Annapolis Junction, Maryland. This is the first Building to meet the Department of Defense Medium level of protection for Blast and Progressive collapse criteria using the same construction methodology.

20 LEED Silver Certified projects

This includes the FBI Regional office in Atlanta, Georgia, and a 300,000 square foot manufacturing and lab facility for Advanced Polybag in Sugar Land, Texas.

7 LEED Certified projects

This includes Fort Totten Self-Storage in Washington, DC, and the Bay Area Business Park, office/warehouse in Harris County, Texas.

We mention these last two because they describe the second half of the unique position, we find ourselves in the post-2020 COVID-19 world view. The first half is illustrated in our mastery of the LEED

program over numerous building types and across all of our offices which now include Washington, DC, Denver, Atlanta, Philadelphia, Toronto and St. John's, Newfoundland. Perhaps mastery is misleading in that in a sense we have achieved all we can under the program beyond simply volume. It is what the clients are either interested in at this point, or what they are willing to tolerate. The second half hinted at above has to do with an accidental expertise in warehouses which was exaggerated beyond imagination in 2020. Expertise which makes us one of the largest national architectural service providers to a booming building type. The rise of E-Commerce (read Amazon), Manufacturing (read supply chain) and the warehouse building type has facilitated a huge growth curve in our practice at a time and age where we are ready to transform.

We had actually achieved a sustainable approach to warehouses in the past, including a net carbon zero warehouse. As we are transforming the firm to a new level, we thought why not transform our sustainability commitment at the same symbolic time. We have committed in 2021 to a 2030 deadline. We have just under 10 years to take the last step.

We now are leading the clients to where they need to go.



Contents

04 Company Commitment

06 Design & Approach

09 Goal Setting Evaluation

10 Governance and Reporting

11 Internal Training and Education

13 Outreach and Advocacy



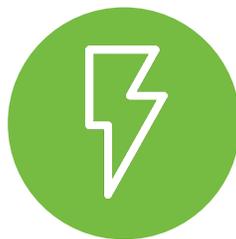


COMPANY COMMITMENT

Our motivation for joining the AIA 2030 Challenge, beyond the description in our statement, is an intersection of numerous forces at work internally and externally. As we, like so many other practices at every level, became part of the historic reestablishment of inertia in social equity and justice and began to look at our own business culture, we realized that sustainability is in fact very much a part of any initiative in this space. We also began to notice a movement

towards more “invasive” efforts in sustainable practices by a small but significant number of our clients. We suspect that indeed they were also observing the need to have a more integrated approach to their own work cultures and products (buildings) in order to be in congress with their own client base. Finally, over the last 20 years plus, many of us have raised families and indeed some of these children have given us grandchildren. Nothing throws the need to be good and capable stewards of the only planet we have into sharp relief, than the notion that it will not be for them as it was for us.

We now have a more receptive market audience to pitch sustainability as a value-add to our clients. While thanks should go to many pioneering architecture firms, we saw no shame in committing to a more aggressive position. As we are now all acculturated to the Millennial generation, we are hiring Generation Z. They are outspoken. They consider many more fine-grained qualities of a practice prior to joining. If that is not enough motivation to adjust the companies’ values and systems to the new talent pool, there are far less folks looking for jobs. The AIA 2030 Challenge has already helped in recruitment.



In turn, we now agree to be better communicators on the subject of resource stewardship. We are aligned with a more resilient framework for our projects and have decided to do more “push” communication. Rather than accepting the client’s list of what they are willing to do, we are going to educate them on going just beyond their standards. We need to more aggressively and proactively let our clients know what better options exist and to self-fund energy models and/or alternate pricing, when appropriate, to aide in getting better results for the client. We already have a practice of producing white papers and thought pieces on our accumulated expertise in certain zones of our work and will extend that effort to the AIA 2030 Challenge. We will also help our team and leadership by integrating this knowledge across the X & Y axes of our service-partners down to interns and our QA/QC groups to our specifications team. Lastly, as we develop and document the 2030 movement in our practice, we will add modules to our Powers Brown Architecture University in-house training.

Our success will come from our approach to “achieving” itself. We have always been a bit leery of goals or goal setting. We have an approach that works more around the formulation of purpose. What is your goal as an architect? What is your purpose as an architect? Small difference sponsoring two distinct frameworks of success. Purpose in design decisions, purpose in business strategies, purpose in internal programs like training, and purpose in why are we practicing architecture. Goals have deadlines. You meet a metric and the goal has to be reset. You are never sure you ever get there. Purpose attaches metrics to some form of greater intent. Goals are happy to have means meet the ends. Purpose requires systems to work.

Our success in the AIA 2030 Challenge will be the creation of new and integration of old systems that guide our efforts.



1

Diagnosis

2

Rehabilitation

3

Optimization

With 9 years left before 2030, we thought it appropriate to break up our effort into three distinct time periods, now dubbed Epochs. The first is one of sizing up the nature of the challenge. We must first measure, in a deliberate manner, where our portfolio lies on the proverbial playing field. Thus this Epoch is deemed “Diagnosis”. Second, after assessing the nature of the challenge, we will deliberately attempt to improve our internal processes, educate our clients, and create structures that begin to bend the needle to a better-than-average performance level. This next Epoch is appropriately named “Rehabilitation”. This is a process of introspective advancement and outbound testing of these improvements with our consultants, clients and the market writ large; a choice to “Opt In”. Third, we must draw lines in the sand. The final Epoch is “Optimization” whereby the default standard will be time-tested improvements we design and specify in alignment with AIA 2030 or better. This will require an “Opt Out” to change those standards or perhaps not engage in the project at all.

DESIGN
APPROACH

Diagnosis:

It is our intent to first benchmark the operational energy use intensity (EUI) of all newly constructed buildings for which our firm is responsible. The most accurate way to assess the energy use of a building is actual utility use data; however, detailed energy models are a good proxy. Historically, a small percentage of our projects have had energy model performance data; this is typically a LEED project, or “high performance” project as it were. However, that tide is changing, both internally for us as a firm and with our clients and consultants. Numerous clients and consultants are running detailed energy models as a standard practice. We will collect the data of all known models for our projects moving forward.

Action Items:

Create a hybrid internal reporting structure where regional offices report data to a central person to clean and review.

Document every constructed project’s EUI with actual utility data (best), energy model results (better), or as a code-built baseline (good) based on availability of resources and client buy-in.

Analyze the state of our design portfolio by product type and region. Identify opportunities for improvement.

1

Diagnosis

2

Rehabilitation

3

Optimization

Rehabilitation:

We know well where the largest design challenge lies for us in the mid-term with respects to the AIA 2030 Challenge. Industrial architecture a booming sector of the economy and represents a large majority of our current work. It is in this period of time where we will be actively engaging, educating and selectively pushing our clients to think about their projects in new ways. Our challenge to them will be to consider the externalities of these projects, not just their typical utilitarian purpose. We must find ways where performance improvements actually help the bottom line, differentiate competitors in the marketplace and dare we say, do the right thing. Most of our clients will need this education and encouragement, but we think we have a special opportunity to “bring up the bottom” when it comes to the silent majority of low performing buildings. Addressing the operational energy use and embodied carbon footprint of industrial buildings has to be addressed if the AIA 2030 Challenge is to be a true success.

DESIGN
APPROACH

Action Items:

Develop improved design and specification standards, by project type and climate zone, in which owners can opt in.

Improve our feedback mechanisms by drastically increasing the number of our projects that have energy models. This will be accomplished in-house or seeking out consultants who perform them as a standard no fee practice.

Expand our metrics for embodied carbon. Perform Life Cycle Analysis on increasing numbers of projects, report findings to clients, and lessen the negative impacts by changing types and quantities of materials we use.



1

Diagnosis

2

Rehabilitation

3

Optimization

Optimization:

The previous Epoch will undoubtedly provide a lot of feedback for us as a firm. There will be learning pains and pushback from individual clients, perhaps even the whole market. We have to get outside our comfort zone to see where opportunity lies. It will be during the Rehabilitation Epoch where we will find the early adopters, and those who follow. Approaching the year 2030, there will no longer be room for us as a firm to let our clients do things “the old way”. We will optimize our projects to the best of our ability meet or exceed the current 2030 target of any given year.

Action Items:

Create a set of design and specification standards by project type and climate zone that achieve the current AIA 2030 target; utilize energy and cost modeling feedback to achieve this in the most economical way possible.

Standardize the acceptable amount embodied carbon allowed for all projects and do not exceed that number.

Utilize the above as our “standard of care”. Deviations from this will be on a case-by-case basis

DESIGN
APPROACH





GOAL EVALUATION

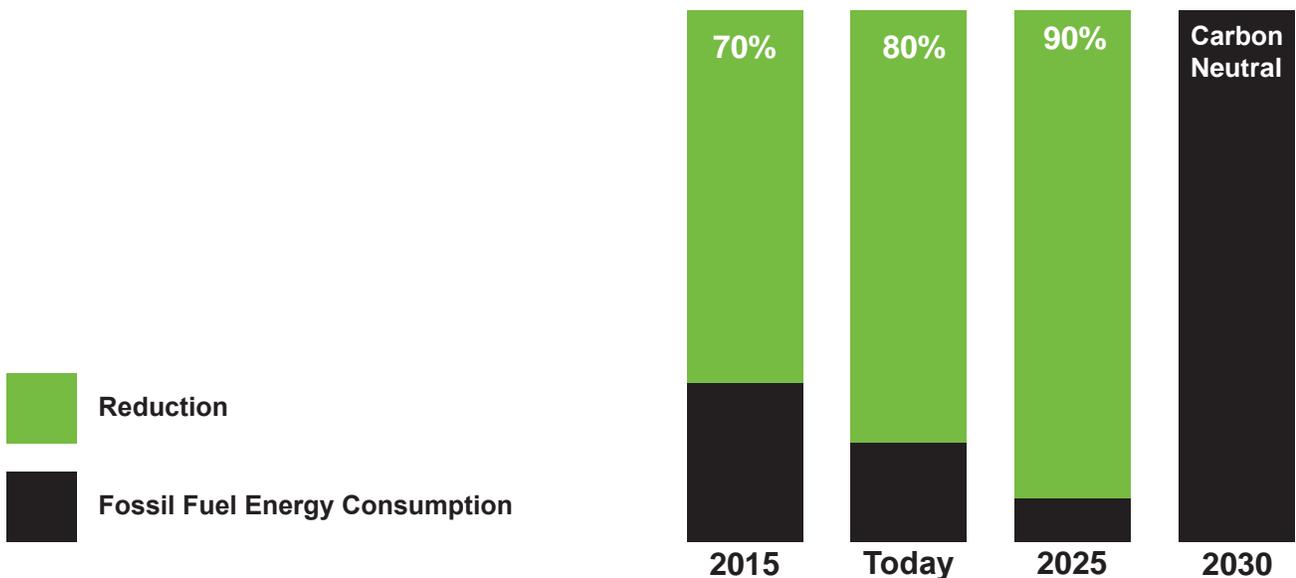
Powers Brown Architecture is committed to continually set and reassess goals as we progress through our three phases of AIA 2030 implementation.

Our firm is first committed to documenting the energy use of every new built project from the year it begins construction. This coincides with the “Diagnosis” phase of our plan. We will build an ongoing database for this effort. At first

this will include the prerequisite energy consumption statistics of our projects. However, in time, we will expand this to include life cycle analysis outputs such as global warming potential and primary energy demand.

This database will then serve our sustainability team in approaching our “Rehabilitation” strategies whereby we approach clients with our anonymized datasets. This data will be project type and scope specific to serve as a tool to analyze strategies that have worked in the past or that can be improved upon. We see this database as a continual feedback loop with clients and consultants alike.

Invariably, there will be tools and processes that rise to the top in their usefulness. When we find the solutions that make the most progress towards resource stewardship we will “Optimize”, and simply make them part of what we do.





Powers Brown Architecture is committed to a hybrid model of data collection.

This will entail centralized data aggregation, analysis and strategy made possible from the collection efforts of our distributed 2030 office champions. We have a dedicated team of sustainability professionals in our Houston office; however, this structure allows us to empower leaders from our regional offices to become stewards of our AIA 2030 goals and beyond.

As a large firm with more than 130 employees and six office locations, Powers Brown Architecture will employ bulk data collection and aggregation methodologies. This creates an apples to apples comparison for us across the company. The standardized data input templates we have created will provide clean interpretable data and save the company time as we grow. One additional large task for all team members involved will be to proactively collect energy model data from consultants and clients on projects where we did not actively manage that process.

Data collection will happen on an annualized basis and will include only new construction projects that began construction in the given reporting year. We see this is the actual meaningful and measurable footprint of our design studio.



Powers Brown Architecture has long been invested in the personal development of our staff. It is integral to level of service and growth we value.

INTERNAL TRAINING

Top-down support of the AIA 2030 Challenge has allowed our firm a new vehicle in which staff can interact with the topic of sustainability. Our Sustainability Coordinators have long been an internal resource for specific project questions from staff and project teams alike. However, there is now an opportunity for a more two-way dialogue with the 2030 Challenge as the feedback mechanism. In fact, upon announcing our commitment to the program we had many employees asking to be involved. Powers Brown Architecture also invests in the formal education of staff; and sustainability accreditations are no exception. Testing fees are paid by the company as well as all costs associated with annual conferences for accredited/licensed individuals. Accolades of staff include multiple staff with **LEED AP**, **WELL AP**, as well as two **Certified Passive House Consultants**. We find these designations to be complimentary to the goals of the 2030 Challenge and to our firm's competence in a market driving towards sustainability like no time before.







OUTREACH AND ADVOCACY

Hand-in-hand with our epochal approach (see: Diagnosis, Rehabilitation, Optimization) is the continual evolution of how we communicate our sustainability aspirations and efforts to our clients and the market writ large.

We will at first size up internally, how we can advocate for sustainability. This journey has already begun amongst our dedicated sustainability professionals. However, we must also survey the individual success of partners and staff across our offices when we are identifying what sustainable design objectives to promote. Powers Brown Architecture also encourages staff to be involved in local industry organizations and councils to make contributions to the design community.

Rehabilitation of our outreach and advocacy will include creating partnerships with aligned clients and organizations at a regional and national level. We will develop common goals on issues of sustainability and magnify our messaging. This will create a feedback loop for project leaders to educate internally and externally the progress being made and lessons learned.

From those partnerships we, as an organization, will be better suited to prioritize the issues with the greatest impact. We will have a framework from which to inform our clients what our prerogatives are and how we arrived to them; a process requiring them to “opt-out” instead of “opt-in”.





powers
brown
archit
ecture