

2022
SUSTAINABILITY
ACTION PLAN



JOHNSON FAIN

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OUR AIA 2030 COMMITMENT



On July 27, 2021, Johnson Fain signed on to the AIA 2030 Commitment program and its goal of carbon-neutral buildings.

During the past 28 plus years of professional experience in the United States and overseas, Johnson Fain has established itself as an architecture, planning and interior design firm known for its creative approach to the built environment. We have embraced a sustainable approach to our philosophy and design process including how we operate as a firm.

Our role and duty as architects includes advocating for sustainable solutions in our projects, as well as the building industry, to reduce greenhouse gas emissions with the intent of limiting global warming below 1.5 degrees Celsius compared to pre-industrial levels. Johnson Fain is committed to the larger sustainability mission as adopted by the 196 Parties at COP 21 in Paris on December 12, 2015 and entered into force on November 4, 2016.

OPERATIONAL **ACTIONS**



With our deep rooted belief in sustainability, we have taken numerous steps to focus our operations to be environmentally positive.

Energy Use

- Using Energy Star rated equipment and appliances
- Replacing incandescent lamps with energy efficient lighting
- Installing occupancy sensors in meeting rooms and other common areas

Supplies and Waste Reduction

- Implementing policies for purchasing environmentally friendly office supplies, kitchen supplies and cleaning supplies
- Implementing a firm-wide recycling policy
- Implementing sustainable printing policies - double sided printing and re-using discarded paper for draft prints
- Primary use of electronic documentation in lieu of printing

Transportation and Meeting

- Incentivising employees to use public transit
- Using virtual technology for meetings and presentations

Employee Well-Being

- Modifying work week, including half-day Fridays
- Reducing the firm's carbon footprint with a hybrid schedule and employees driving to work only 3 days a week
- Personalizing workstations with expanded spacing, increasing the volume of air and light available to every employee

SUSTAINABLE GOALS



Johnson Fain is committed to setting quantifiable and achievable goals for every project.

- Design all projects to meet the AIA 2030 Commitment targets
- Discuss the firm's AIA 2030 Commitment with every client
- Baseline Energy Use Intensity (BEUI) and Predicted Energy Use Intensity (PEUI) will be reported on QM checklists at milestone phases of design
- Baseline Water Use Intensity (BWUI) and Predicted Water Use Intensity (PWUI) will be reported on QM checklists at milestone phases of design
- Each project team will have a dedicated team member responsible for reporting and tracking at the multiple milestones
- At the time of projects being submitted for permitting, AIA 2030 challenge data to be input into the DDx
- Johnson Fain's Sustainability and Resilience Lab meet monthly to monitor, track and log project sustainability metrics progress

DESIGN PROCESS



Johnson Fain is a multidisciplinary firm of urban designers, interior designers and architects that are committed to an integrated, sustainable and collaborative design process. We seek to create environmentally responsible solutions for all of our projects.

- Integrate sustainable design goals into every initial team and client meeting
- Analyze each project site to identify project constraints and opportunities to guide proper building solutions
- Integrate a LEED Checklist to track goals of every project, regardless if project is pursuing certification
- Utilize Building Information Modeling (BIM) software, including a detailed 3D model that is fully coordinated with all our consultants
- Encourage our clients to incorporate the use of renewable energy on their project
- Challenge our engineers and design consultants to creatively maximize sustainable strategies
- Integrate life-cycle cost analysis into material and system selections criteria

STAFF TRAINING & OUTREACH



Johnson Fain is committed to communicating our belief in sustainable design.

- The website has a dedicated page with detailed information about the value of sustainable design along with showcasing our own projects and highlighting their sustainable achievements
- The firm's marketing material includes sustainable aspects of the firm that define our design philosophy and highlights the benefit of sustainable design
- Our firm participation in conferences, publishes articles, hosts and participates in local events promoting sustainability, etc.

Johnson Fain is committed to the professional development of its employees. We believe education is the foundation of resilient and sustainable design.

- The company has launched a LEED accreditation initiative with a target of increasing LEED accredited staff by 10% over the next 12 months
- Study materials are provided for the LEED exams
- Incentives for employees who earn accreditation in sustainable programs
- Individual and team sustainable contributions are recognized at regular office-wide meetings and intranet postings
- An intranet page with resources to help project teams incorporate sustainability into their work
- Post sustainable design case studies on the intranet

PATH TO NET ZERO

Example document created by Johnson Fain and presented to our clients to educate and advocate for sustain-able design.

[REDACTED]

THE PATH TO NET ZERO

When determining the Net Zero opportunities at [REDACTED] the team shall review and align the project's budget and energy use scope. It is advised that the project pursue **LEED Zero Energy and LEED Zero Carbon** according to the **US Green Building Council (USGBC)** certification standards. This requires the project to be registered as **LEED for Building Design and New Construction (BD+C)**. The building will **offset** the project's **site & source energy, operational energy, and occupant transportation** with **on-site energy, off-site energy, or carbon offsets**. In addition to the USGBC certification the project will build a narrative around embodied carbon by benchmarking the existing building against a new building of similar scale to convey the **carbon savings** due to the recycling of the existing structure.

Components of LEED Zero Energy

- Develop policies and active strategies for load reduction
- Utilize passive strategies to reduce needs
- Optimize HVAC systems
- Optimize Lighting systems
- Use energy recovery techniques
- Use On-Site renewable
- Partner with Off-site energy renewables
- Continuously return and reassess occupant performance
- Optimize building operations maintenance

Components of LEED Zero Carbon

- Evaluate and benchmark the buildings carbon foot print early in the design phase
- Maximize the efficiency of the Heating, Ventilation, Air-Conditioning systems
- Design an envelope with continuous insulation
- Use state-of-the-art lighting and daylighting
- Specify recycled content materials
- Economize the buildings water consumption
- Provide renewable energy
- Design a facade that responds to specific solar orientation
- Design for an all-electric building

Additional certifications to build resiliency and increase the validity of the building in the marketplace

- WELL building standard
- International Passive House Association standard (energy only)
- Fitwel certification
- US Resiliency Council

CONTEXT

The California Energy Efficiency Strategic Plan established a target of 100% of new commercial buildings and 50% of existing commercial building to be Zero Net Energy by 2030. The California Energy Commission, who develops standards for new construction every three years, will require all new buildings to be electric-ready under the 2023 code. Positioning buildings to be less dependent on fossil fuels with high efficiencies is critical for a successful Net Zero design. Designing sustainable strategies into [REDACTED] as a Net Zero building produces a resilient design that transcends modifications in the energy codes, withstands elevating environmental demands, and retains validity in the marketplace while delivering a project that is adaptable to a changing future.

[REDACTED] [REDACTED] [REDACTED] JOHNSON FAIN

Please Note: Due to security and privacy concerns we have redacted sensitive client information.

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THE PATH TO NET ZERO

Define the High-Level Sustainability Goal for the project

- o Why Net Zero?
- o Build/ Define the larger sustainability commitment/ narrative
- o Align with global corporate Social responsibility goals
- o Set standard for other offices / projects
- o Positive impacts on employees and occupants
- o Being a part of positive climate impact

LEED Certified under BD+C rating system

- > LEED Work Plan – Achieving LEED as the Precondition to LEED ZERO
- o Pre to Early Schematic Design - Initiate Discovery Phase
 - Establish project LEED goals – Develop Scorecard
 - Define LEED project scope for Team and Consultants
 - Identify Operations and Maintenance, HR Policies that may play a role
- o Design Development – firm up strategies
 - Early Calculations / Modeling / Research (confirm alignment with LEED Zero)
 - Narrow Achievable Goal / Adjust Design to meet goals
 - Firm up Design, Equipment, Materials, and Sustainability Strategies
 - Confirm Operations and Maintenance, HR policies meet strategies pursued
 - All goals confirmed and included in documents for Bid Set
- o Construction Documents -
 - Design, Equipment, Materials and Sustainability Strategies set in stone to achieve goals.
 - Develop consistent documentation for submittal to LEED Online / GBCI
 - Perform quality assurance review and submit Design / respond to comments and complete Design Phase.
- o Construction Phase – Construction LEED Documents (during construction to completion) -
 - Assess and Manage LEED Construction Phase Document Process
 - Develop consistent documentation for submittal to LEED Online / GBCI
 - Re-confirm alignment with LEED Zero set expected dates for monitoring period

Register LEED Zero (Design Development)

- o Confirm Dates for Monitoring period and Certification being pursued (Energy & Carbon)
- o LEED Carbon workflow
 - Calculate Carbon Emitted
 - Calculate Carbon Avoided
 - Calculate Carbon Balance
- o LEED Energy workflow
 - Calculate Energy Delivered
 - Calculated Non-Renewable Energy Displaced
 - Calculate Source Energy Balance
- o Post Occupancy
 - Share Performance Data and Provide Documentation (12-months)
 - Certification Review
 - Review Responses
 - Final Certification
- o LEED Zero = re-certify every three years to maintain their certification

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