SE 2050

EMBODIED CARBON ACTION PLAN

2022

In January 2022, Oak Point Associates (OPA) signed on to the Structural Engineering Institute (SEI) SE 2050 Commitment program.

As a signatory, OPA will work toward reducing the embodied carbon of its structural design projects to net zero by 2050. We developed this Embodied Carbon Action Plan (ECAP) to summarize how we intend to fulfill the four pillars of the program: Education, Reporting, Reduction, and Advocacy.

OAK POINT ASSOCIATES
architecture
engineering
planning

SUSTAINABILITY AT OPA

Oak Point Associates is a design studio-based practice, in which a full range of disciplines- landscape architecture, architecture, engineering, and interior design- work as a team from the very beginning of a project to ensure the greatest amount of cross-discipline collaboration.

Since the firm's inception in 1979, sustainability has been a focus of our full-service firm. It is important to us that our projects make the lightest footprint on the planet possible while achieving our clients' goals. We aim to achieve this by utilizing the most updated technologies, methods, and information in our design process.

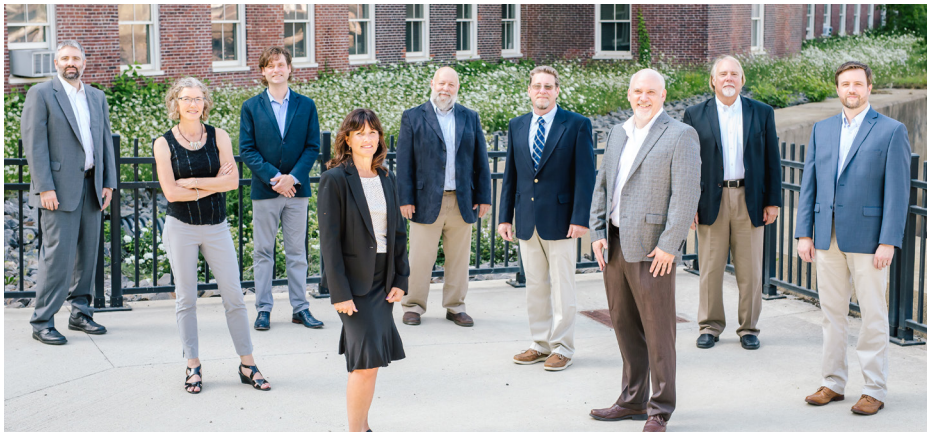
As of this year, Oak Point Associates has signed both the AIA 2030 and SE 2050 commitments to lower the impact of our projects, as well as beginning to track the GHG emissions of our two offices. We hope through these efforts and more, we can continue upholding our sustainability commitment.

Our Portsmouth, New Hampshire office was once the Granite State Fire Insurance Company and was built in 1924.

Our flagship office has been a consistent presence in historic downtown Biddeford, Maine since 1979.

Our Leadership's Commitment

Oak Point Associates is led by our president, Rob Tillotson, and a group of principals from diverse backgrounds within our design practice. Oak Point leadership believes in conducting workplace practices in a way that betters the communities and world we live in. We will continue to invest in our environmental commitments through education, resources, and actions to reduce our environmental footprint, both that of our practice and of our design projects.



Oak Point Associates Principals

"Designing and advocating for sustainability in our built environment is one of our core beliefs here at OPA. Our obligation to the climate is critical not only to our success, but to preserve our environment for future generations."

- Scott Hughes, Principal

SE 2050 Overall Goals

1. Educate our clients and within our firm on the concept and importance of embodied carbon in design through formal and informal avenues.
2. Begin reporting projects to the SE 2050 database to build a baseline on embodied carbon with our current practices.
3. Identify the largest areas of impact in our design to reduce embodied carbon and begin evaluating ways to change our design norms and specifications to address these.
4. Advocate internally and externally the importance of tracking and reducing carbon footprint in projects in the broader community through professional and community groups.

Embodied Carbon Reduction Champion

Torey Lee Brooks, EIT, LEED AP
Structural Engineer

Torey is an engineer and designer working in our Structural Engineering department. She has a passion for sustainability, which is evidenced through her professional and community involvement in advancing sustainable building practices. Torey specializes in wood construction, with a special interest in mass timber and low carbon materials. She leads the firm in multiple sustainability efforts and acts as our SE 2050 Embodied Carbon Champion.

EDUCATION

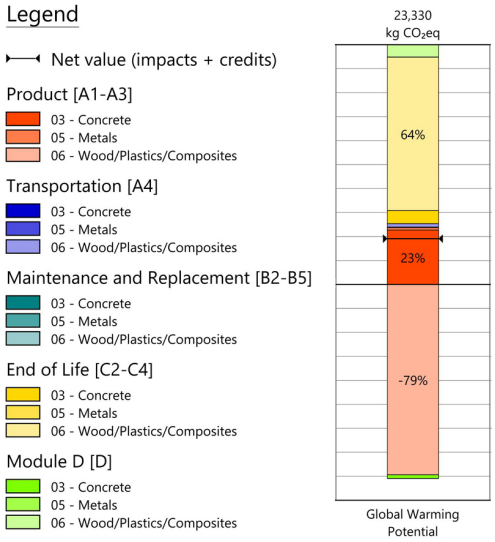
Continuing to educate employees at Oak Point Associates is an important step to reaching our sustainability goals. Oak Point has a history of supporting sustainability-based learning opportunities, as proven by our 25 LEED Accredited Professionals. Through the following additional educational strategies, we intend to further empower each member of our firm to act towards our SE 2050 commitment by learning more about embodied carbon within our projects.

Oak Point Associates founder Rob Tillotson

COMMITMENTS:

- Distribute a firm-wide announcement of our pledge to join SE 2050
- Hold an Embodied Carbon 101 Webinar
- Attend a presentation or demo of at least one LCA-based tool
- Participate in CLF Community Hub
- Certify one employee through UNH Carbon Footprinting Certification

Falmouth Elementary School; Falmouth, Maine



REPORTING

Measuring, tracking, and reporting embodied carbon data is an important step in understanding and analyzing the impact of our projects. This process will require the use of new tools and technologies to provide accurate and transparent data to the SE 2050 database. Though the long-term goal would be to track embodied carbon on all of our projects*, the strategies and goals below are a starting point for us in the first year.

* Oak Point Associates works on high security projects that do not allow us to provide data or information to the SE 2050 platform. Sustainable practices from our SE 2050 efforts will still be applied where applicable to these projects despite our reporting restrictions.

MEARNG Armed Forces Reserve Center; Brunswick, Maine

COMMITMENTS:

- Submit four projects to the SE 2050 database
- Create an internal database of current EPD's for our most commonly used building materials
- Purchase an LCA software for embodied carbon calculations
- Determine a firm-wide LCA methodology for SE 2050 reporting
- Establish Project Sustainability Goals and/or a Carbon Budget with clients on at least four projects

REDUCTION STRATEGIES

Our firm recognizes that the overall purpose of the SE 2050 commitment is to lower the footprint of our projects. We intend to set the following specific and measurable goals to assess our firm's progress in reducing embodied carbon on project work using our reported data and scientifically backed information.

Vegetated Roofs at Falmouth Elementary School

COMMITMENTS:

- Set an embodied carbon reduction goal for 2023 with an implementation narrative
- Define two of the largest areas of opportunity for embodied carbon reduction within projects
- Update at least two specifications to incorporate embodied carbon performance
- Incorporate biogenic materials as an alternative to typical construction on at least one project

Eastern Massachusetts National Wildlife Refuge Visitor Center; Sudbury, Massachusetts

ADVOCACY

Though our firm believes in a "practice first" methodology for making an impact, communication and knowledge sharing are important steps in gaining traction for sustainable practices throughout our industry. If we want to make the biggest impact possible, we cannot go it alone. Through the following communication strategies, we intend to act as leaders in embodied carbon reduction among our clients, the design community, and the public.

Cottages at Great Pond; Hancock County, Maine

COMMITMENTS:

- Create marketing materials on sustainability practices including SE 2050 for prospective clients
- Declare the firm's SE 2050 commitment on our website
- Give an external presentation on embodied carbon on a project or lessons learned
- Encourage industry adoption of low-carbon materials through conversation with suppliers and manufacturers
- Participate in a sustainability committee of an NCSEA or ASCE SEI local chapter