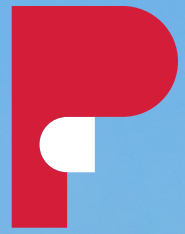


PROGRESSIVE
COMPANIES



SE 2050

Embodied Carbon Action Plan

March 2026



Transforming Spaces. Empowering People.

Progressive Companies is a multidisciplinary national design firm connecting people, places and communities through transformative spaces, structures, pathways, and environments. We believe innovation is more than leading with the best technologies and latest trends – it's a creative process beginning with curiosity and diving deep into understanding your world. As problem-solvers, our team of designers, architects, consultants, engineers, and strategists enthusiastically work alongside you to envision a bold, new future.

From modest beginnings of four original engineering partners in 1962, to over 350+ employees serving clients across the nation today, Progressive Companies has always thrived on an entrepreneurial mindset. As an employee-owned business, individuals take personal accountability for representing the firm's values of leadership, learning, trust, and diversity.

Our talented workforce brings decades of expertise in all facets of architecture, engineering, construction, and planning – with a broad and deep portfolio representing 12 markets and projects in 49 states. Strategically located in Grand Rapids, MI; Detroit, MI; Charlotte, NC; Asheville, NC; Greenville, NC; and Durham, NC our teams are poised to help you reach new heights from a strong foundation.

Expertise

- Architecture
- Civil Engineering
- Community Workshops
- Construction Management
- Controlled Environments
- Electrical Engineering
- Healthcare Planning
- Interior Design
- Landscape Architecture
- Lighting Design
- Logistics
- Master Planning
- Mechanical Engineering
- MEP System Commissioning
- Information and Communication Technology
- Program Design and Delivery
- Roads and Utilities
- Structural Engineering
- Sustainable Design
- Traffic Engineering
- Universal Design
- Workplace Strategy
- Worship

Markets

- Automotive
- Civic
- Education
- Health and Wellness
- Logistics
- Mixed Use
- Science, Industry and Technology
- Sports and Entertainment
- Transportation
- Urban Design and Planning
- Water Resources
- Workplace

Embodied Carbon Team Leaders

Our Structural Engineering group is a collection of 6 licensed engineers, 2 Engineers-in-Training (EIT), and 3 drafting technicians serving a full-service architectural engineering firm of 77 licensed architects and 37 total licensed professional engineers in Civil and Mechanical, Electrical, and Plumbing (MEP) disciplines in addition to our structural group. With broad experience designing buildings in a wide array of project types and all structural materials, our structural team brings insight and dedication to providing quality results to clients across the country.

Our commitment to the SE 2050 initiative represents our dedication to developing a skillset that brings additional value to our clients and communities—increased awareness and understanding of the role that embodied carbon plays in our built environment, and tools to help drive the industry towards net zero embodied carbon by 2050.

Team Leads



Galen Reed, PE
*Embodied Carbon Champion,
Reporting Lead*



Jacob Loew, PE
Reduction Lead



Logan Muse, PE
Education Lead



Janelle Rai, EIT
Advocate Lead

Commitment Letter



October 30, 2024

Jennifer Goupil
Managing Director
Structural Engineering Institute

Dear Jennifer Goupil:

Progressive Companies, a multi-disciplinary design firm comprised of (6) registered structural engineers and a total staff of approximately 300 architects, engineers, and support staff is hereby signing on to the SE 2050 Commitment Program. We support the vision that all structural engineers shall understand, reduce, and eventually reach net-zero embodied carbon in their projects by 2050.

Headquartered in Grand Rapids, MI, Progressive Companies is committed to advancing sustainable and regenerative design practices encompassing all facets of our work, including structural engineering. Our dedication to mitigating climate change and fostering a sustainable future is evident in our leadership across sustainability initiatives. Extending our commitment to include the Structural Engineering 2050 Commitment underscores our holistic approach to sustainability, recognizing the integral role of structural engineering in creating resilient and environmentally conscious structures. Through this commitment, we demonstrate our firm belief in shaping a built environment that prioritizes environmental stewardship, community well-being, and long-term resilience.

We therefore commit Progressive Companies to take the following steps which are part of the SE 2050 Commitment Program:

- By March of the year following this commitment letter, and annually henceforth, we commit to reporting an Embodied Carbon Action Plan (ECAP) and permit the ECAP document or form to be made public on the SE 2050 website.
- Within one year and annually henceforth, we commit to submitting data to the SE 2050 project database in a collaborative effort to understand embodied carbon in structural engineering projects and to set attainable targets for future projects.
- Complete educational planning and execution for embodied carbon topics as described in the SE 2050 program requirements.
- Endeavor to meet the 2050 net-zero embodied carbon goal.

We look forward to joining this coalition and industry effort to achieve the goals of the SE 2050 Program.

Sincerely,

Matthew VanSweden
Sustainability Lead

Co-signed,

Chris Masacek, PE
Senior Structural Engineer

Galen Reed, PE
Structural Engineer

Jacob Loew, PE
Structural Engineer

Internal Announcement

Firm Signs on to Structural Engineers 2050 Commitment Program



Matthew VanSweden
Sustainability Lead

1 min read



STRUCTURAL
ENGINEERING
INSTITUTE



We are pleased to share that Progressive Companies has signed on to SE 2050, a comprehensive program designed to ensure substantive embodied carbon reductions in the design and construction of structural systems by the collective structural engineering profession. The SE 2050 Commitment Program states:

The goal of the Program is to provide an accessible sustainability program, for individual structural engineers and structural engineering firms, with an accountable commitment strategy of active engagement on projects and sharing of information all in the name of achieving zero net carbon structures by 2050.

This commitment supports our firm's multidisciplinary goal to reduce carbon within the built environment. Through this commitment, we demonstrate our firm belief in shaping a built environment that prioritizes environmental stewardship, community wellbeing, and long-term resilience.

We've signed a letter of commitment. Now what?

- We will be working to develop an Embodied Carbon Action Plan which will be made public on the SE 2050 website
- We will submit data to the SE 2050 project database in a collaborative effort to understand embodied carbon in our projects and set attainable targets for future projects
- We will plan educational sessions to help inform the firm on topics and best practices around reducing embodied carbon

Stay tuned for future updates around the firm's sustainability commitments on Kate.

Education Plan

In 2025, Progressive Companies established the Regenerative Collective (ReCo), an internal initiative designed to formalize a long-standing sustainable design practice across our disciplines, offices, and teams at Progressive Companies. Driven by advocates throughout the firm, the collective leads interdisciplinary collaboration and shared leadership, transforming passive sustainability alignment into active, firm-wide participation.



Working in tandem with ReCo, our Structural Engineers established an embodied carbon forum and resource library on our Intranet. The forum encourages firm-wide discussion and knowledge sharing. The resource library contains introductory educational materials and concept references that will grow as our practice evolves.

To build a shared technical foundation, discipline-specific training has been organized for the structural team. A Carbon Leadership Forum webinar introducing key embodied carbon concepts, including the climate impact of structural materials and reduction strategies, serves as both a team-wide training and an onboarding resource for incoming staff. Additionally, a self-guided training program has been developed to build proficiency in the skills required to measure, reduce, and report embodied carbon.

The Embodied Carbon Champion will coordinate quarterly technical meetings for all structural staff to deepen their knowledge and advance discipline-specific standards for carbon reduction. Further, the embodied carbon team leads will ensure learning opportunities are available for all employees, including educational resources and guides for accessing regional sustainable design organizations and advocacy groups to develop methods of further reduction strategies.



Knowledge Sharing Narrative

While much of our effort in this first year of commitment to SE 2050 has focused on internal processes and preparation, a few experiences provided early insight into our local market in Michigan. Through project-specific conversations with material suppliers, we found that while experience with Environmental Product Declarations (EPDs) and embodied carbon calculations remain limited, there is opportunity in working with concrete suppliers to incorporate supplementary cementitious materials (SCMs) as a practical reduction strategy.

Our involvement in an initial effort to form a sustainability committee within the Structural Engineers Association of Michigan further revealed genuine interest in SE 2050 across the state, though only a handful of firms have formally committed to the program. As we continue to develop our expertise in embodied carbon accounting and reduction, we see an opportunity to share that knowledge and help expand the program's reach across Michigan.

To support external communication, we developed a one-page resource that outlines the impact embodied carbon accounting and reduction experience can have on projects. We plan to use this tool during client engagements, as well as external marketing efforts as we aim to inform and educate all of our audiences.



Reduction Strategy

1 Short Term Goals

Establish a structural embodied carbon baseline for Progressive Companies and incorporate an integrated embodied carbon assessment into our design process.

Track embodied carbon for key projects in 2025, increase projects representing 40% of structural group billed work in 2026, and 60% in 2027.

Determine appropriate industry benchmarks to compare against and establish internal benchmarking as we track Embodied Carbon on projects going forward.

Develop and implement updated concrete and steel specifications with carbon reduction language and EPD requirements.

Create integrated design workflows that incorporate embodied carbon estimates during the design process alongside cost and schedule.

Train all structural engineers, designers and drafters on embodied carbon fundamentals and calculation methodology.

2 Long Term Goals

Achieve 40% reduction in average structural embodied carbon intensity across our structural engineering portfolio while advancing integrated, low-carbon design solutions firm-wide.

Establish structural embodied carbon performance as a standard design criterion alongside structural performance, constructability, and cost.

Lead cross-disciplinary embodied carbon reduction initiatives, leveraging our full-service platform to optimize whole-building carbon performance.

Develop office-specific and typology-specific reduction strategies that reflect regional material availability and construction practices.

Position our structural group as thought leaders in embodied carbon reduction through published case studies and industry engagement.

Drive adoption of EPD documentation and usage in the states we have offices in.

Reporting Plan

Our first year of data collection has coincided with the release SE 2050's updated database and data submission spreadsheet. We have utilized these tools alongside our calculated Structural Material Quantities to calculate embodied carbon on our projects, leveraging the embedded connection to the Embodied Carbon Order of Magnitude (ECOM) tool. Our accounting is currently limited to the A1-A3 stages of the lifecycle analysis.

We have met with industry representatives from the National Ready Mix Concrete Association (NRMCA) and American Institute of Steel Construction (AISC) and are working on modifying our material specifications to include requirements to provide EPDs, starting with concrete and steel. Producers in our headquarters region of Michigan typically do not produce plant-specific EPDs. Therefore, our team will largely rely on regional data from NRMCA initially, with a long-term goal to encourage local producers to acquire the certification and ability to produce plant-specific EPDs.

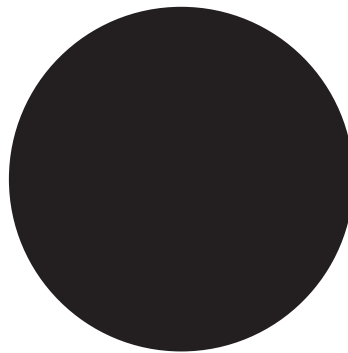
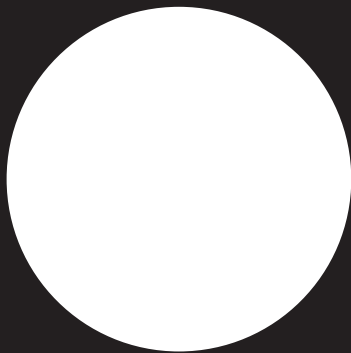
During this program year, we have prepared the submission of 5 projects to the database, each at varying degrees of project completion from design development to completed construction. Our goal is to increase our reporting rate to include an increasing overall percentage of the structural portfolio projects in the coming years, using Revit takeoffs for material quantity collection during the design process and supplier-provided quantities during and after the construction process.



Appendix

ELECTIVE DOCUMENTATION

- ▶ Education
- ▶ Reporting
- ▶ Reduction
- ▶ Advocacy



Elective Documentation

Education

ELECTIVES	IMPLEMENTATION
Provide a narrative of how the Embodied Carbon Reduction Champion will engage embodied carbon reduction at each office.	The Embodied Carbon Reduction Champion will ensure that all staff are provided with access to internal embodied carbon educational resources. The Champion will provide guidance for accessing regional sustainable design organizations and advocacy groups. Each office will be encouraged to utilize existing reduction strategies and develop methods for further advancement of embodied carbon reduction.
Present at least (1) webinar focused on embodied carbon and make a recording available to employees. This could be created internally, pulled from an external source (with permission), or pulled from a publicly available source such as the Boston Society for Architecture. Include this resource in your orientation and on-boarding program.	A webinar from the Carbon Leadership Forum was presented to the structural discipline team to establish a baseline of understanding related to embodied carbon concepts. This webinar illustrates the climate impacts of structural materials on the built environment and provides strategies for reduction and reporting of embodied carbon. This training was incorporated as an onboarding resource for all new structural team members.
Train all of your firm's structural engineers on the core concepts and skills required to measure, reduce, and report embodied carbon. (Ref. SE 2050 Resources)	The structural discipline team was trained in the skills required to measure, reduce, and report embodied carbon. A training program was established for structural team members to provide a basis of understanding for the key concepts related to embodied carbon. Quarterly lunch-and-learns were organized to further develop the knowledge base and discipline-specific standards for carbon reduction.
Create an Embodied Carbon digital resource wiki and/or forum on your firm's internal website for staff to create, share, and discuss Embodied Carbon educational resources.	An embodied carbon forum and library was created to encourage firm-wide discussion and sharing of educational resources. The forum link was added to our company's internal website accessible by all roles and disciplines. This resource has been incorporated with our firm's Regenerative Collective initiative, providing structured means of regenerative thinking into our daily practice.

Elective Documentation

Reporting

ELECTIVES	IMPLEMENTATION
Submit a minimum of (2) projects per U.S. office with structural engineering services to the SE 2050 database.	(5) projects will be submitted to the SE 2050 database in this data collection year: • Amway Soccer Stadium • Amway Corporate Headquarters (B55 Addition) • Kent County Parks Office • University of Michigan Health-Sparrow Ambulatory Surgery Center • Kalamazoo College New Residence Hall
Include all structural material quantities in your submissions to the SE 2050 database.	All SMQs are included for each project in the submission spreadsheet. SMQ data reported in this cycle is largely reported based on Revit quantity takeoffs and hand calculations, with a goal to collect as much of this data as possible directly from contractors during construction administration for future projects.
Propose other actions that promote the reporting of embodied carbon data and describe their value.	SMQ takeoff tables included in Revit template: We have created a set of takeoff tables that can be loaded into any project which tally materials based on type and use. By making the data more easily and readily accessible, the efforts required to collect the data are lowered, therefore increasing the amount of data available in the future. Specify SMQ data as required submittals from material suppliers: We are modifying our master specification sections to include requirements for suppliers of structural materials (concrete, steel, wood, masonry) to provide material quantity data in projects moving forward. Collecting SMQ data will give us a more accurate view of the final quantities of materials used in projects. It will also allow us to improve the quality of embodied carbon calculations for completed projects and more precisely calibrate the factors applied to Revit takeoffs to account for non-modeled items such as miscellaneous steel, rebar, and waste.

Elective Documentation

Reduction

ELECTIVES	IMPLEMENTATION
Set clearly stated, firm-wide reduction targets in the short term (<1 year) and long term (>5 years).	Progressive Companies will build an embodied carbon tracking program in the short term to establish a relevant industry baseline. The short term reduction goal is to meet that baseline on our structural work portfolio while targeting a 40% long-term reduction in structural embodied carbon intensity and becoming regional leaders in low-carbon structural design.
Update specifications to incorporate embodied carbon performance. Include embodied carbon in your submittal review requirements.	Met with representatives from NRMCA and AISC to begin the process of updating our specifications to incorporate embodied carbon performance. Included EPD and structural material quantity reporting requirements in specifications for a current project with sustainability goals.
Collaborate with your concrete supplier [on options] to reduce embodied carbon in a mix design below an acceptable baseline. Discuss what you found and what it means in your market.	On a large project that was in construction administration as we were ramping up our involvement in SE 2050, we collaborated with the contractor's sustainability team to review concrete mix designs with the ready mix supplier and determine what changes could be made to reduce embodied carbon and meet the finishing, strength, and durability requirements. The conversation indicated that the local market is new to the concept of producing EPDs, but willing to work to add supplemental cementitious materials and modify mix set times where appropriate to achieve carbon reduction goals. We also found that, despite some resistance to switching to Type IL cement, suppliers can still provide meaningful quantities of SCMs when using Type I cement, helping to reduce embodied carbon.

Elective Documentation

Advocacy

ELECTIVES	IMPLEMENTATION
Describe the value of SE 2050 to clients. How can your design teams collaborate to reduce embodied carbon? Please attach any associated marketing materials.	We created a one-pager for our clients and communities that explains the value of our initiatives related to SE 2050.
Publicly declare your firm as a member of the SE 2050 Commitment however you see fit (e.g. on your website, LinkedIn, or other social media).	We shared an external announcement on our social media platforms: LinkedIn , Facebook, and Instagram.



National Office Locations

Detroit, Michigan

313.818.4444

Grand Rapids, Michigan

616.361.2664

Asheville, North Carolina

828.251.5550

Charlotte, North Carolina

704.731.8080

Durham, North Carolina

919.682.2870

Greenville, North Carolina

252.329.0119



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