

SE 2050 ECAP Submission Form

Email *

allison.hampton@greshamsmith.com

Firm Name *

Gresham Smith

Education

The first step to increased engagement within your firm is through education. We all should strive to understand the impacts of our design decisions and their effects on our environment.

Distribute firm-wide announcement of your firm's pledge to join the SE 2050 Commitment. *

Completed

Not Completed

Provide a brief narrative describing how your firm is promoting a firm-wide education program for embodied carbon reduction and the firm's commitment to SE 2050. *

On September 30th, 2021 Gresham Smith joined the SE 2050 Commitment Program with a letter of intent written and signed by Randall Gibson, our Chief Strategy Officer. The items below detail how we plan to educate our current and future employees on the significance of this commitment and what it means for our future.

Gresham Smith will create a subset on our Structural Portal Page to house and share all relevant SE 2050 resources which will include, but not be limited to, the following:

1. SE 2050 Library resources
2. SE 2050 article "Top 10 Things Every Structural Engineer Should Know About Embodied Carbon"
3. Link to Carbon Leadership Forum (CLF) resources
4. Link to our existing presentation on Embodied Carbon, originally presented through our Sustainability Learning Labs in May of 2020

Gresham Smith will provide instructional demonstrations on the use of various Life Cycle Analysis tools to technical staff, including but not limited to:

1. Tally
2. The Embodied Carbon in Construction Calculator (EC3) Tool

Name of Embodied Carbon Champion (Point Person) *

Allison Hampton

Email of Embodied Carbon Champion *

allison.hampton@greshamsmith.com

Phone number of Embodied Carbon Champion *

6157708607

LinkedIn URL

<https://www.linkedin.com/in/allison-hampton-pe/>

Set a date within the first year to present the "Embodied Carbon 101" Webinar to your firm. Incorporate this information into your orientation/on-boarding programs. *

Committed / Completed

Not Committed / Not Completed

Minimum (1) additional elective to educate your firm about embodied carbon and a narrative of its significance. *

- Committed / Completed
- Not Committed / Not Completed

ELECTIVES (Min. (1) required, recommended to achieve (4) per year): *

- Have one representative of your firm (any employee) attend quarterly external education programs (e.g. webinar, workshop) provided by SE 2050, Carbon Leadership Forum (CLF), or other embodied carbon resources.
- Share the SE 2050 library of resources with technical staff.
- Share embodied carbon reduction strategies with your firm as outlined in Top 10 Carbon Reducing Actions for Structural Engineers document produced by SE 2050.
- Nominate a minimum of (1) employee per office to participate in a CLF Community Hub.
- Provide narrative outlining plans for minimum (2) firm-wide presentations per year on the topic of embodied carbon
- Present the document, "How to measure and report embodied carbon" to all technical staff.
- Attend a presentation or demo of an LCA-based tool used to calculate embodied carbon.
- Initiate an embodied carbon interest group within your firm and provide a narrative of their goals.
- Provide a narrative of how the Embodied Carbon Reduction Champion will engage embodied carbon reduction at each office. (intended for multi-office firms)
- Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Reporting

Quality data is essential to making informed decisions and setting important benchmarks and the development of appropriate embodied carbon reduction targets. The SE 2050 database is a central component to building a successful Commitment Program and reaching our collective embodied carbon reduction goals by 2050.

Submit an annual minimum of (2) projects per U.S structural office or (5) total projects for the firm to the SE 2050 Database. *

- Completed
- Committed and on track
- Need help reaching this target
- Not Completed

Number of Projects Reported Last Year (zero in first year)

0

Number of Offices Reporting Last Year (zero in first year)

0

Provide a narrative on how your firm plans to measure, track, and report embodied carbon data. *

For our first year as an SE 2050 signatory firm Gresham Smith will focus on becoming well versed in embodied carbon as it relates to structures. This effort will begin with bolstering our education program and will be followed by developing a methodology for tracking our project-specific embodied carbon data. Initial analysis will primarily look at Cradle to Site (A1-A4) life cycle stages. The items below detail how we plan to track and report our embodied carbon data.

Gresham Smith will utilize the following Life Cycle Analysis tools to determine the embodied carbon, or global warming potential (GWP), of early phase and late phase designs, as applicable to our current and future projects:

1. Embodied Carbon in Construction Calculator (EC3) tool (early phase design comparison)
2. SE 2050 Embodied Carbon Estimator (ECOM) (early phase design comparison)
3. Tally (late phase design analysis or comparison)

Within Year 1 Gresham Smith will produce a minimum of two Tally LCA models, which will be used to contribute to the SE 2050 database.

Data from our Year 1 embodied carbon observations and LCA results will be used to establish future criteria for our tracking process, including calculating our firm average benchmark.

Describe the internal training for embodied carbon measurement you provided or will provide. *

Technical staff will receive training on LCA tools and embodied carbon measurement as described in the Education portion of this ECAP.

Additionally, at the end of Year 1 a presentation will be created and given to technical staff to demonstrate lessons learned throughout the tracking and reporting process.

ELECTIVES (Not required, recommended to achieve (1) per year):

- Submit all projects to the SE 2050 Database
- Meet your target average embodied carbon reduction from the previous year.
- Report a greater percentage of projects than the preceding year.
- For a project submitted to the database, ask the Architect or Owner if the project has a carbon budget or if there are established project sustainability goals at the project kickoff meeting.
- Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Embodied Carbon Reduction Strategies

Embodied carbon reduction of structural materials is the ultimate goal of the SE 2050 program. As a starting point, you will have access to the SE 2050 project database and Program resources to identify and set strategies. This section also serves to share lessons learned and incite innovation. Demonstrate leadership by not only applying, but developing best practices and actively collaborating with the design community. This is our profession's opportunity to take action and make an impact.

Set an EC reduction goal for the coming year and an implementation narrative (Qualitative goals focused on education are appropriate for the first year) *

Year 1 embodied carbon reduction strategies will be exploratory in nature. We will use the reporting data and embodied carbon tracking from our LCA efforts to establish a project baseline for embodied carbon. This baseline will be used to set near and long term goals.

For second year's ECAP and beyond, provide a narrative about what you have learned about embodied carbon reduction in the past year. Describe successes and misses to help the program improve.

Minimum (1) additional elective to educate your firm about embodied carbon and a narrative of its significance. *

- Committed / Completed
- Not Committed / Not Completed

ELECTIVES (Min. (1) required, recommended to achieve (4) per year): *

- Incorporate data visualization into your ECAP. How are you looking at data to make informed design decisions and communicate design options to your clients?
- Provide a project case study in your ECAP that captures a reduction of embodied carbon or some lessons learned.
- Create a project-specific embodied carbon reduction plan.
- Complete a system embodied carbon design comparison study during the project concept phase.
- Participate in a project LEED design charrette and speak to potential design considerations impacting embodied carbon.
- Calculate your firm average benchmark for embodied carbon.
- Update your specifications and incorporate embodied carbon performance. Include embodied carbon in your submittal review requirements.
- Collaborate with your concrete supplier to reduce embodied carbon in a mix design.
- Work with a contractor during material procurement to meet an embodied carbon performance criteria on at least (1) project.
- Have an Environmental Product Declaration (EPD) created as a result of a project.
- Incorporate biogenic materials on at least one project annually.
- Provide a narrative of how circular economy has been used on your projects. Incorporate re-use or design for deconstruction into at least one project.
- Quantify construction waste reduction on a project and the impact to embodied carbon.
- Integrate embodied carbon mitigation strategies in your General Notes.
- Other actions you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Advocacy

True change can only come with industry-wide adoption. This section recognizes that our impact reaches beyond any one firm. Plan opportunities to share your experience and knowledge within your firm, with your design community, and beyond. Host a webinar or lunch 'n learn, attend a conference, connect with the SEI Sustainability Committee, or reach out to manufacturers and policy-makers.

Provide a narrative about how you plan to share knowledge and data to accelerate adoption of embodied carbon reduction. *

Gresham Smith is devoted to genuine ingenuity and innovation. We are taking a technology-driven approach to invest in new tools and services that reinvent the way we deliver high-quality solutions for our clients. For Year 1 our advocacy goals will predominantly focus on our architectural design clients and making them aware of how the architectural design decisions impact the structure and embodied carbon. The lessons learned within Year 1 will be used to develop a marketing and advocacy strategy for implementation with construction management teams and project owners.

1. Gresham Smith will adjust our proposal language within our Building Engineering Structural group to reflect our commitment to SE 2050 and reducing embodied carbon within our designs
 2. Our SE 2050 commitment will be added to the sustainability talking points generated within our Sustainability and Resiliency Center for firmwide proposals focusing on sustainability and resiliency
-

Describe the value of SE 2050 to clients. How can we collaborate to drive adoption? At your option, attach any associated marketing materials. *

Since every constructed project emits greenhouse gases, educating the client on how the selected structural system contributes to embodied carbon emissions and their options to reduce those emissions will be presented for applicable projects.

Optional: Upload any documents you would like to exhibit.

Declare your firm as a member of the SE 2050 commitment on boilerplate proposal language. *

- Committed / Completed
- Not Committed / Not Completed

ELECTIVES (Not required, recommended to achieve (2) per year):

- Share your commitment to SE 2050 on your company website
- Give an external presentation on embodied carbon that demonstrates a project success or lessons learned (Tip: Get connected at a CLF local hub near you!)
- Discuss with the Owner / Client the option of requiring that some of the structural materials come with facility-specific or product-specific EPDs
- Share education opportunities with clients
- Provide a narrative of how you have encouraged industry and policy change incentivizing availability of low-carbon and carbon sequestration materials
- Start an embodied carbon community of practice or mentorship program in your office
- Mentor a firm new to the embodied carbon space
- Other action you feel appropriate and a narrative for why.

Elective Narrative (Optional):

Program Feedback

Please add any comments that you wish to share publicly. The Program Leadership Group is committed to transparently improving SE 2050.

Comments:

This content is neither created nor endorsed by Google.

Google Forms