

SE 2050 ECAP Submission Form

Email *

JLittlefield@slamcoll.com

Firm Name *

SLAM Collaborative

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. *

Our firm has a GREEN team (the green team has about 40 firm members including architects, interior designers, and engineers that are committed to sustainability. This team is comprised of members that research different areas of sustainability including embodied carbon. I (Jamie Littlefield) am in the structural engineering studio at SLAM, and I am in charge of embodied carbon research related to structural engineering. Any new information I acquire, I share with both the GREEN team and the structural studio. We also have multiple webinar presentations throughout the year to all of SLAM about different sustainable topics including embodied carbon. Throughout the last 1 1/2 years the structural engineering studio at SLAM has continuously been working to update our specifications to be more embodied carbon friendly, and has also been working on implementing an embodied carbon tracking tool to measure total embodied carbon numbers on projects.

Name of Embodied Carbon Champion (Point Person) *

Jamie Littlefield

Email of Embodied Carbon Champion *

JLittlefield@slamcoll.com

Phone number of Embodied Carbon Champion *

8603682348

LinkedIn URL

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):

The structural studio at SLAM Collaborative started using the embodied carbon measurement tool new feature in TSD (Tekla Structural Designer) after watching a webinar from TSD about this new tool and its features.

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. *

The structural studio at the SLAM Collaborative plans on using Tekla Structural Designer (TSD) to measure and track our embodied carbon data. This data will also link to Revit as well, so embodied carbon reports/schedules from both TSD and Revit will be available. This data will then be utilized in the SE 2050 database.

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

There are webinars that TSD provides explaining how to create an embodied carbon report and assign embodied carbon numbers to different materials. We also have a SLAM TSD manual that provides tutorials on how to integrate Revit with TSD, which will link the embodied carbon information to Revit automatically, and provide this info in a Revit schedule as well.

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):

The structural studio is working to make it easier to calculate the total embodied carbon in a project by using TSD and Revit to provide embodied carbon reports. By doing this we hope to start reporting more than 2 projects per year in the future. The GREEN Team has also been working to provide sustainability checklists for projects, which includes an upfront kickoff meeting with the owner about project sustainability goals.

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) *

The structural studio at SLAM is pretty knowledgeable about embodied carbon and its impacts on a project. The GREEN team has continuously been working to get the word out about embodied carbon to all the architects at SLAM. The architects are normally the first ones to talk to the clients, so it is important that they are aware that SLAM can do embodied carbon measurement and reduction strategies. So one goal for this year is to make everyone at SLAM aware of the embodied carbon knowledge that we have and can implement on a project. Another goal for this year is to come up with some more reduction strategies other than material specification changes. We can utilize the SE 2050 strategies website page to help us come up with other ways we can reduce embodied carbon in our projects.

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.

This is the first ECAP, so there have not been any lessons learned yet.

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):

We have updated our cast in place concrete and structural steel specifications to include reduced embodied carbon options for concrete and steel manufacturers. We have also started requesting EPD's in these specifications, and have received them on 2 projects so far. We have also taken a site visit to a local concrete plant and collaborated with them to come up with more embodied carbon reduction strategies to include in our concrete specs.

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. *

The GREEN Team presents webinars throughout the year to all of SLAM about sustainable topics, including embodied carbon. Outside of SLAM, I am part of the national NCSEA sustainability committee, and have been in the process of trying to implement a sustainability committee for SEAConn (CT chapter of NCSEA). This committee will hopefully spread the word to other engineering firms about embodied carbon and the benefits of joining SE 2050.

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

We are in the process of coming up with a document to show clients about SLAM's sustainability commitments. We plan to include SE 2050 to this list of commitments.

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):

I have provided a blog post to the marketing department about SE 2050 and why SLAM has joined, the marketing department is working on editing it currently. They will then post it to the official SLAM website.

Program Feedback

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

Comments:

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