



Mead&Hunt

SE 2050 March 2026



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Introduction

Every day, the work we do impacts our clients, teaming partners, coworkers, and communities. We view this as an opportunity and a responsibility to make life better for those around us. Mead & Hunt’s founder, Daniel Mead, was well known for his stance on ethical engineering. This strong moral obligation continues to be a core tenet of our values and still guides our actions today.

As a Top 100 Green Design Firm (ranked by *Engineering News-Record* (ENR)), we are aware of the effect that the built environment has on climate change. We are committed to working with clients on education, awareness, and successful projects that aim to reduce operational and embodied carbon emissions.

Throughout a project’s lifecycle, we ask ourselves critical questions. Do our day-to-day tasks serve our purpose of shaping the future by putting people first? Do we put people first in our internal business practices? Is our work focused on creating sustainable and responsible solutions? How are we incorporating broad-scale solutions that address climate change? Are we doing the right thing?

We strive to focus on environmental responsibility, with an emphasis on carbon and water use reduction, by reducing the impact of our corporate offices and through our client’s projects. We aspire to be a leader in positive, transformative change as we address challenges related to climate change.

Our efforts to meet our sustainability and environmental responsibility goals include:

- 2019** | Began sponsoring national Carbon Leadership Forum (CLF) research
- 2021** | Became an AIA 2030 Commitment signatory firm
- 2023** | Published the company’s first Responsibility and Resiliency Report
- 2024** | Became an SE 2050 Commitment signatory firm

Mead & Hunt's SE 2050 Commitment Team

We have a committed team, dedicated to several focus areas related to our SE 2050 reduction goals. Our diverse team is located in offices throughout the country, which increases the opportunity to collaborate and innovate. We have an embodied carbon interest group where each topic lead focuses on advocacy for their topic and shares updates on industry innovations and trends, providing insights on ways to further achieve reductions. As a group, we regularly use our bimonthly meetings and dedicated internal Teams channel as a forum to discuss trends, encourage accountability, exchange knowledge, and share resources.



Brent Ballweg
Structural Steel
Reductions Lead



Felicia Brady
Embodied Carbon
Champion and
Deconstruction and
Circularity Lead



Ben Cashin
Concrete
Reductions Lead



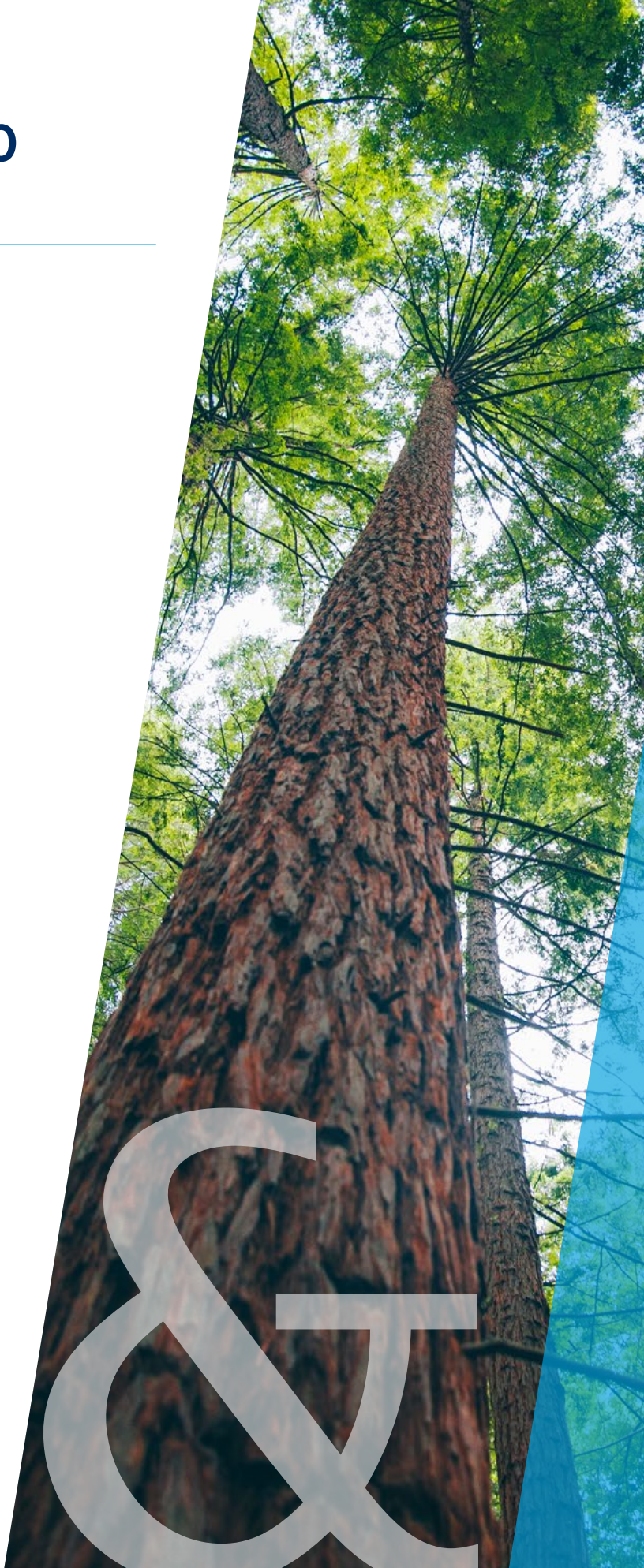
Josh Fenske
Masonry
Reductions Lead



James Hall
Mass Timber Lead



Donny Matthews
Education Lead



Education

Engaging Our Team

Mead & Hunt is a full-service architecture, engineering, planning, and construction services firm that has been serving clients for over 125 years. Since our founding, we have grown significantly in size and diversity. Today, the company serves clients in the aviation, education, transportation, energy, food and beverage, and water sectors and employs more than 1,400 engineers, architects, sustainability consultants, planners, and support staff located in over 50 offices throughout the country.

Our structural engineering team, which is focused on developing building-related structural work, is aggregated in our Architecture and Building Engineering (A&BE) group and concentrated in four different states. Since 2021, we have been engaging with our architectural and structural teams to educate them on embodied carbon reduction strategies on a project-by-project basis. Due to our firm's size, breadth of services, and unique markets, we identified this method to be more efficient than conducting a "per office" engagement process.

Additionally, our structural engineering team receives regular embodied carbon content refreshers during our weekly Team meetings, offering the opportunity to exchange ideas and discuss new technologies and project success stories along with lessons learned.

Providing Educational Opportunities

Training and education are strong pillars of Mead & Hunt's culture—something that sets us apart from competitors.

Our employees have access to the "Embodied Carbon: What Is It and Why Does It Matter?" webinar provided by internal subject matter experts via MyMHU, the firm's internal digital continuing education platform. As part of the SE 2050 commitment, this webinar is required training for all new structural engineers. The training must be completed within two months of the employee's hiring date. This is tracked through a completion report that verifies requirements have been fulfilled. In May 2024, Mead & Hunt offered three options to attend a webinar on embodied carbon policies and their relevance to our work across various regions, clients, and funding types. This webinar was also recorded and is available companywide on MyMHU.

Training and education are strong pillars of Mead & Hunt's culture.

...Education continued

In 2025, we created a case study presentation titled “Embodied Carbon: Lessons Learned from the Structural Engineer” to share the embodied carbon process and lessons learned. The presentation covered how structural material choices—concrete, steel, and mass timber—affect embodied carbon; how to incorporate Environmental Product Declarations (EPDs) into design and construction workflows; and how design decisions, specifications, coordination, and construction methods influence carbon outcomes. The training highlights practical lessons learned, including mass timber detailing and coordination, concrete rebar reduction strategies, Whole Building Life Cycle Assessment (WBLCA) reporting, and best practices for aligning sustainability goals with design efficiency and project delivery realities. Through this, we hope to spark creative thinking and empower engineers to take initiative to reduce embodied carbon. The case study is recorded and made available to all employees on MyMHU.

In 2026, we will provide additional training to engineers through established resources such as the embodied carbon training series created by the Boston Society for Architecture. There will be a 5-question quiz required at the end of each webinar to ensure learning objectives are met. We plan to continue our bimonthly presentations focused on reduction and innovation. We will also make our Embodied Carbon Action Plan (ECAP) available on our intranet site for all employees to review.

Fostering Embodied Carbon Reduction Expertise

We have been actively engaged with the Carbon Leadership Forum (CLF) since 2019, and we are committed to expanding our relationship with the organization. We have collaborated with the CLF in the past, providing several of our projects’ WBLCA for their Benchmarking Study v2.

Felicia Brady is a member of the San Francisco CLF Hub, and Donny Mathews is in the process of joining the Southeast CLF Hub as soon as it becomes operational. Ben Cashin recently joined the Madison CLF Hub and plans to attend networking events when they are available.

The structural team aims to enhance its resources and expertise this year. Our objective is to provide engineers



with the tools they need to engage in detailed discussions about embodied carbon with our clients and have a comprehensive understanding of how to measure, reduce, and report embodied carbon for our projects. We plan to train engineers on tools such as the National Ready Mixed Concrete Association (NRMCA) Concrete Carbon Calculator and the Embodied Carbon Order of Magnitude (ECOM) tool. The tools will be used during schematic design to determine “hot spots” in design where efforts should be focused to make impactful reductions. In 2026, we will work to create an organized central location for all of our internal and external embodied carbon resources.

Lastly, our structural team aims to adopt a more proactive approach to our designs, shifting away from the traditionally reactive nature of the structural-architectural design process. We are promoting early design and programming discussions that set embodied carbon reduction goals and outline strategies to achieve them. The types of discussions our structural engineers have with architects early in design include considerations for building geometry, repetitive structure, proper bay sizing, and so forth.

Reporting

Mead & Hunt is committed to reporting a minimum of five projects per year. This year, we are submitting five projects, including all structural material quantities to the SE 2050 database. Our goal is to increase the number of reported projects by 25% each year.

We utilize One Click LCA to calculate embodied carbon reductions at any stage in the design process. We have several ways of calculating the embodied carbon of structural materials:

1. We use Carbon Designer (by One Click LCA) for early stage/concept design conversations. These calculations and results are very broad and include numerous assumptions that provide a “big picture” assessment of the major structural embodied carbon contributors. During this stage, we also compare different material design options and provide recommendations.
2. For early schematic design, when a Building Information Modeling (BIM) model has not yet been developed, our structural engineer provides quantities that are added manually to One Click LCA. Industrywide Environmental Product Declarations (EPDs) are then selected to determine the total project Global Warming Potential (GWP).
3. When there is a model, quantities are extracted from the model and verified with drawings during different stages in design. Our structural team also provides information on which elements were not modeled and need to be accounted for moving forward.
4. For the final as-built quantities, we rely on the general contractor to provide a completed “Environmental Impact Calculator” (part of the specifications submittal requirements) that includes quantities as well as EPDs from the installed materials.

Depending on the purpose of the embodied carbon analysis, our system boundary is either cradle-to-grave, per LEED guidance, or cradle-to-grave plus A5 life cycle stage. One Click LCA allows us to run calculations for both scopes simultaneously.

Mead & Hunt plans to report our findings for multiple projects across our firm in next year’s ECAP. In 2025, we started an internal database of projects with reported embodied carbon quantities. In 2026, we plan to build out our internal project database to better analyze trends and pinpoint areas with the highest carbon impact, giving us the insight needed to prioritize and achieve meaningful reductions. The database will include the following building types:

- Hangars
- Airports (including landside and airside building types)
- Fire Stations
- Higher Education
- Food & Beverage Facilities
- Offices
- Laboratories
- Libraries
- Police Stations



Reduction

Last year, we set our baseline at 350 kgCO₂e/m² to match the SE 2050 reported 80th percentile with a short-term goal of 5% reductions over the baseline. We met our goal on four of our five reported projects. Moving forward, we will set our baseline at 325 kgCO₂e/m² to more closely match the majority of our results.

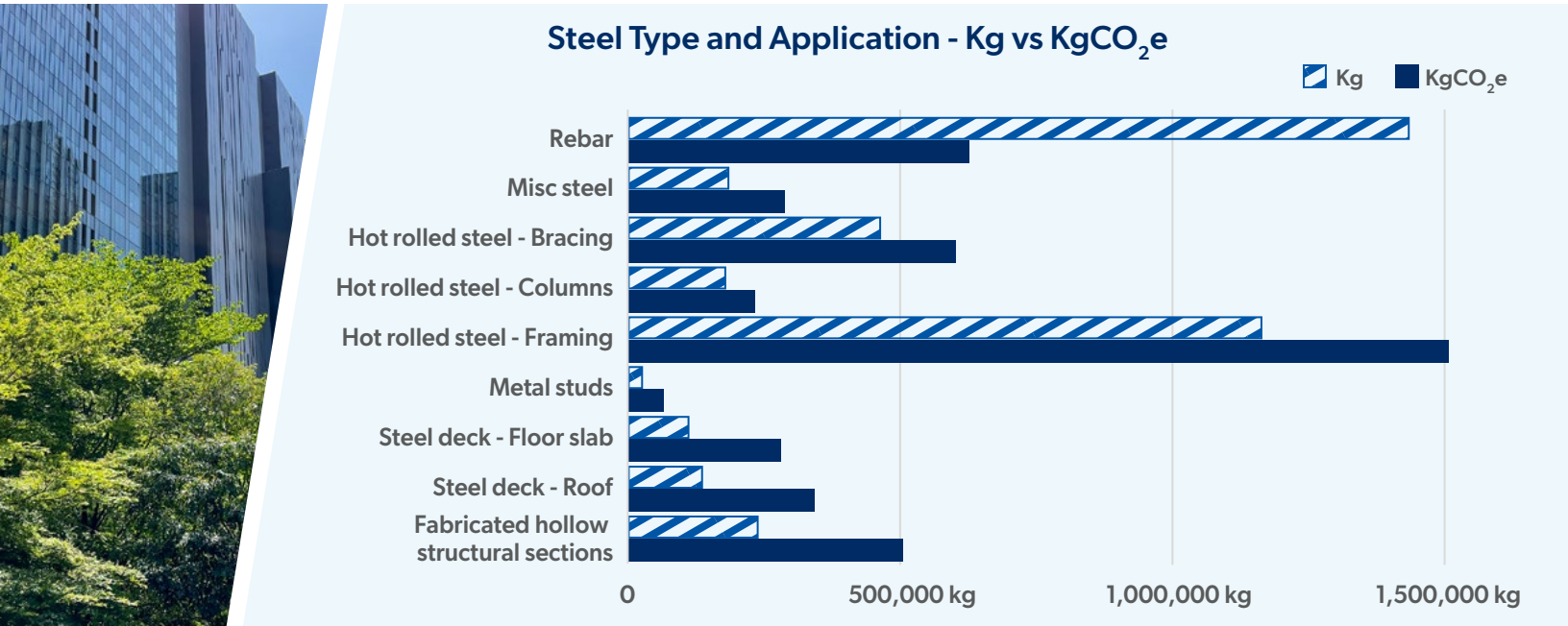
Our long-term reduction target over the next five years is set at 30% over the baseline. The long-term reduction strategy will also be influenced by industry innovations and advancements, as well as material reuse and circularity. We will continue to reassess our baseline each year based on the reported projects’ carbon intensity results.

As part of the commitment to track and report embodied carbon for AIA 2030, Mead & Hunt provides WBLCA for all of our internal projects where we are the architect of record and the building is over 10,000 sq ft. If we are the structural engineer of record on these projects, we also track and report embodied carbon to SE 2050. Additionally, we track and report embodied carbon to SE 2050 for projects with external architects if we are the structural engineer of record and the building is over 10,000 sq ft. For these types of projects, structural engineers and the embodied carbon champion participate in early design charrettes and discuss potential design considerations that will impact embodied carbon and reductions.

Furthermore, to increase our internal embodied carbon database, we are committing to completing structural LCAs at the end of the design phase for all new construction projects that are over \$40 million in construction cost.

In 2026, we are continuing to refine a workflow document that focuses on ways to make early design decisions that reduce embodied carbon. The engineers have this document for reference. This will also be shared with architects during pre-material programming when we can make the most significant impact on carbon reductions.

For the past three years, we have been including embodied carbon requirements in our specifications and requesting action submittals for EPDs and an Environmental Impact Calculator, which includes as-built material quantities and GWP thresholds. We have collaborated with concrete suppliers and the NRMCA to assist with EPD development when suppliers do not have EPDs. Concrete mix design EPDs are in development for some projects if suppliers did not have EPDs available for their mixes. In 2026, we are going to review each material specification section and add language requiring product-specific EPDs. Where product-specific EPDs are not available, we will require the contractor to work with the manufacturer to get a product-specific EPD created. We hope this will further push the industry toward measuring embodied carbon and making reductions.



...Reduction continued

Circularity

Mead & Hunt is currently working on various projects that incorporate reuse, often in the form of building reuse. On one of our projects, we are currently working with the design team, estimator, and client to determine the cost of deconstruction versus demolition. We are continuously investigating ways to promote a circular economy by researching available structural steel and wood from reuse or surplus.

Although many of our airport projects have the potential for circularity with deconstruction and on-site material reuse, the design requirements impose significant limitations on reuse. There is also a need to further educate the construction industry, including monetary incentives for circularity, to realize its potential growth and application in every project.

We are continuing to push for circularity in projects by thinking outside of the box. For a recent project, the client requested to demolish an existing hangar with heavy timber trusses. The structural engineer suggested deconstructing the building rather than demolishing it to promote circularity. The trusses cannot be used as structural members, but they have been proposed to be reused as interior finishes for conference rooms. Additionally, the existing concrete foundations can be crushed on site and reused as base course for the slab. These options are being investigated by the project team to determine if these are viable from a cost perspective.

We are continuing to push for circularity in projects by thinking outside of the box.



Advocacy

Mead & Hunt announced our status as an SE 2050 signatory in late December 2023 through our website and social media accounts, including LinkedIn. We have included the SE 2050 Signatory logo on our marketing materials, including presentations to our clients and prospective clients where we discuss our commitment.

<https://meadhunt.com/se-2050/>

We are analyzing the cost impacts of our embodied carbon reduction strategies to better communicate the value of the SE 2050 commitment to clients. We aim to create informative educational materials to advocate embodied carbon reductions to our clients.

In 2026, we will work with our graphic design team to make our commitment to SE 2050 more prominent on our website. We recognize that our commitment to sustainability sets us apart, and we want to make that expertise apparent to potential clients and new hires.

We aim to create informative educational materials to advocate embodied carbon reductions to our clients.

Collaborating with Design Teams on Embodied Carbon Reduction Strategies

In the early design stages of our projects, we conduct an embodied carbon kickoff meeting. During this meeting, we educate the team on what it means to reduce carbon emissions from the materials we use in our projects and discuss architectural and structural elements with the highest embodied carbon along with potential reduction strategies.

During the programming phase, we encourage the architectural team to reduce finishes, incorporate simple, repetitive structures, and plan for future expansions.

For Mead & Hunt projects where structural engineering services are provided by other firms, we educate our structural engineering partner on the SE 2050 Commitment and share our knowledge in overall embodied carbon reductions strategies, specifications, and other relevant areas.

External Presentations

We have developed a presentation on embodied carbon and LEED v5 to demonstrate to our clients the value of WBLCAs for their projects. This presentation includes a project case study where we share lessons learned.

Additionally, the Mead & Hunt team has presented on the CALGreen embodied carbon requirements for our clients in California.

Our team also presented at the Getting to Zero Forum's Embodied Carbon Summit and shared a case study of a building reuse project in Madison, WI.

Mead & Hunt will continue to advocate for sustainability and embodied carbon reduction in the broader conversation to advance the development of tools, language, and actionable skills for designers, suppliers, and contractors to use that facilitate increased collaboration.

We will focus on increasing external communications by sharing blog posts related to case studies, lessons learned, and embodied carbon initiatives.

Educating the Next Generation

Our structural engineering team is actively involved in shaping future design professionals through ongoing engagement with local colleges. Two team members currently teach architecture-related coursework and provide guest lectures on structural engineering principles. In 2026, we will expand this outreach by delivering a dedicated guest lecture introducing embodied carbon concepts to architecture students. This session will emphasize the importance of reducing carbon impacts in the built environment and highlight our firm's commitment to the goals of SE 2050.

Commitments and Collaborations



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Forum
since 2019

Lessons Learned

Over the past year, our team has continued to refine our embodied carbon workflows, expand internal education, and strengthen the systems that support our SE 2050 commitment. The following lessons highlight where we grew, what we learned, and how these insights are shaping our strategies for the upcoming year, consistent with SE 2050's expectation that signatory firms assess and document their progress annually.

Building a Larger Internal Database Strengthens Early Design Decisions

As we reported more projects and increased the number of structural systems analyzed through LCAs, we saw significant value in growing our internal embodied carbon database. A more robust dataset allows our engineering teams to:

- Compare carbon intensities across similar project types and structural systems
- Identify consistent hotspots and effective reduction strategies
- Establish internal baselines that reflect our actual work, not only industry-wide values

SE 2050 emphasizes the importance of measuring and reporting embodied carbon and using those results to guide reduction strategies. Our expanding dataset directly supports this goal by enabling evidence based decision-making early in design when the opportunity for meaningful impact is greatest. In the coming year, we plan to centralize project results in an internal dashboard so engineers can quickly reference carbon performance from past projects and make better-informed system selections during concept and schematic design.

Making Embodied Carbon Processes Accessible Encourages Firmwide Adoption

A key lesson this year was recognizing that embodied carbon must be approachable and easy for all engineers to integrate into everyday design decisions. While our team is engaged and motivated, the process can feel complex without clear guidance.

We found that the most effective improvements came from:

- Standardizing Revit quantity workflows and creating simple QA/QC checklists
- Providing short, accessible training modules and recorded refreshers
- Integrating embodied carbon topics into regular engineering meetings to normalize the discussion.

SE 2050 encourages firms to educate staff and provide the tools needed to measure, reduce, and report embodied carbon consistently. Our experience confirmed that when workflows are simplified and expectations are clear, engineers are more confident and more likely to incorporate embodied carbon considerations into every project. This next year, we will continue streamlining our internal guidance and expanding our resource library to make the embodied carbon process even more intuitive.



Clear and Directive Specifications Are Necessary to Achieve Intended Outcomes

This past year underscored the importance of specification clarity. When embodied carbon requirements are optional or not clearly defined, contractors may not provide adequate EPDs or timely material quantities, limiting our ability to verify reductions or meet SE 2050 reporting expectations.

To achieve our goals, specifications must explicitly:

- Require, rather than request, EPDs for major structural materials
- Define the type of EPD required (preferably product-specific)
- Establish the stage of construction when quantities and EPDs must be submitted
- Set clear performance expectations when appropriate.

Our team learned that precise language leads to better contractor engagement, earlier access to documentation, and more reliable reporting outcomes. Moving forward, we will continue refining Division 01 project specifications (administrative, procedural, and temporary facility guidelines) and our structural material specifications to support consistent embodied carbon performance across all projects.

