

Embodied Carbon Action Plan

SE 2050 COMMITMENT



STRUCTURAL
ENGINEERING
INSTITUTE





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SERVING TEXAS SINCE 1956

Our goal is to be the leading independent multi-discipline design firm in Texas— known as trusted client advisors committed to improving lives in the communities we serve.

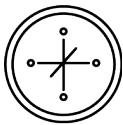


Dunaway provides depth of resources for each project, while maintaining a high level of client service, accessibility, and responsiveness. Our goal is to provide our clients the best possible expertise and service, to commit the resources necessary to facilitate the success of each project, and to maintain excellent professional relationships.

CORE SERVICE LINES



Civil
Engineering



Survey



Planning +
Landscape
Architecture



Structural
Engineering



Construction
Inspection



Subsurface
Utility
Engineering



Right of Way

12.02

AVERAGE YEARS OF EXPERIENCE

70

YEAR TENURE

88%

EMPLOYEE RETENTION

370+

EMPLOYEES

30

STATES LICENSED IN

80%

REPEAT CLIENTS

CORE VALUES

Our core values are a unifying force and are at the heart of our culture, the way we treat each other, the manner in which we work with clients, and the standards we set for each other.



ATTITUDE
OF SERVICE



INTEGRITY



HONESTY



RESPECT



RESPONSIVENESS



SENSE OF
URGENCY



TECHNICAL
EXCELLENCE



INNOVATIVE DESIGN

Dunaway offers a talented team of structural engineers with expertise in the design and delivery of complex building structures, building envelopes, and fast-track construction projects. Our team deeply embraces collaborative working environments with Owners, Architects and Contractors. We track value through measurable outcomes from industry best practices, proven research and continuous process improvement. Dunaway's process-oriented approach delivers value and promises innovative solutions to each and every project. Our development of Building Information Modeling (BIM) systems and implementation of target value design is integral in our project approach. We establish early target costs within the constraints of a project budget and drive to deliver the best value by focusing on efficient structures that meet the architectural vision.

SERVICES

- Building Structures
- Design and Analysis of New Buildings
- Renovation and Rehabilitation to Existing Buildings
- Historic Preservation
- Parking Structures
- Hurricane, Seismic and Progressive Collapse Design
- Post-Tension Concrete
- Building Performance
- Building Assessments and Evaluation
- Feasibility Studies and Cost Consulting
- Forensic Engineering
- Peer Review
- Vibration Analysis
- Specialty Engineering
- Soil Retention Systems and Soil Stabilization
- Façade Engineering
- Fire Investigation and Repair
- Property Loss Consulting
- Project Delivery
- Design-Build
- Lean Construction
- Integrated Project Delivery (IPD)
- Fast-Track Construction

SUSTAINABILITY COMMITTEE

Dunaway is proud to be committed to the SE 2050 movement with the goal of reducing and eliminating embodied carbon from our projects by 2050.

These are the current leaders of the Sustainability Committee for our Structural Engineering Department. Our group meets monthly to research, develop, and implement sustainable practices within the department.



Francisco Cuevas, PE | **Senior Project Manager, Associate Principal**

Francisco is a Senior Project Manager in Dunaway's Structural Engineering Department with extensive experience in engineering design, project coordination, and construction administration. He brings strong expertise in structural design, with a particular focus on high-rise structures and large-scale developments. Francisco also has significant experience in the planning and design of structural systems for office, mixed-use, residential, and retail facilities.

He has contributed to numerous projects incorporating sustainability principles and rating systems such as LEED, Austin Energy Green Building (AEGB), and WELL. As a member of the Sustainability Committee, Francisco helps provide direction and oversight for integrating sustainable design strategies into the department's projects, as well as guiding further research and long-term vision for the committee.



Daniella Toledo, PE | **Project Engineer, Embodied Carbon Champion**

Daniella is a Project Engineer in Dunaway's Structural Engineering Department with experience in commercial, industrial, and educational structures. She currently serves as the department's Embodied Carbon Champion, leading efforts in researching, tracking, and developing sustainability initiatives across the structural engineering practice. She is also responsible for reporting to the SE 2050 database and supporting sustainability knowledge-sharing within the department.

Daniella is passionate about reducing embodied carbon and continuously seeks opportunities to incorporate sustainable strategies into project design. She is knowledgeable of Austin Energy Green Building (AEGB) Code and LEED. She actively participates in sustainability-focused seminars, workshops, and lunch-and-learn sessions through organizations such as the Carbon Leadership Forum (CLF), SE 2050, and the U.S. Green Building Council (USGBC).



As a committee, we are committed not only to educating ourselves and expanding our sustainability knowledge internally but also to communicating and sharing this information with the broader Structural Engineering Department. At the start of 2026 we distributed a firm-wide announcement of our commitment to SE 2050. To promote awareness and knowledge throughout our department we will implement the following actions:

1. Continue to strengthen our Sustainability Committee

Established in 2024, the Sustainability Committee will continue to grow and evolve as we lead ongoing efforts in research, reporting, innovation, and firmwide initiatives aimed at reducing embodied carbon across our projects. Our group will focus on educating staff within the department on how to incorporate sustainability strategies into their designs and effectively track embodied carbon.

2. Within our first year develop and deliver an internal “Sustainability 101” presentation on sustainability practices related to structural engineering

The first company-wide recorded session will be September 2026 and will be uploaded to our internal training platform, Dunaway University, for continued access and reference. This will include training structural engineers on how to measure, reduce, and report embodied carbon in alignment with industry standards and project goals.

3. Ensure the firm’s Embodied Carbon Champion participates in quarterly external education opportunities

These may include webinars, workshops, or training sessions offered by SE 2050, CLF Texas, U.S. Green Building Council (USGBC), and other reputable sustainability organizations.



In order to measure, track, and report embodied carbon data our firm will implement the following actions:

1. Report a minimum of five (5) structural engineering projects at the 100% Construction Documents (CD) stage to the SE 2050 Database

Embodied carbon will be calculated using an internally developed spreadsheet that extracts material quantities from Revit and incorporates emission factors from the SE 2050 ECOM tool. Our spreadsheet compares projects against CLF baselines for similar building types and sizes. Reported values will reflect environmental impacts for LCA stages A1–A3 (cradle-to-gate).

2. Refine and expand our life-cycle assessment capabilities over time

a) We will continue to improve our internal tools, workflows, and training to enhance the accuracy of project LCAs.

b) Future reporting iterations will incorporate the use of the LCA software Tally for full LCAs beyond stages A1-A3. We will also incorporate tools such as Athena Impact Estimator and Build Carbon Neutral for early design decisions.

REDUCTION

In order to measure, track, and report embodied carbon data our firm will implement the following actions:

SHORT-TERM GOALS (< 1 YEAR)

1. Educate Structural Engineering Staff on Embodied Carbon

Conduct an internal webinar introducing embodied carbon fundamentals, our current tracking workflow, and material-specific reduction strategies. This training will help all structural staff understand how embodied carbon is measured, how we collect data, and how design choices influence emissions.

2. Establish a Firmwide Embodied Carbon Benchmark

Use our internal embodied carbon spreadsheet to compare reported project emissions against CLF Baselines for similar building types and sizes. Begin developing a dashboard to track emission trends by project category. This information will help identify reduction opportunities, reduction goals, and guide future design decisions.

LONG TERM GOALS (2+ YEARS)

1. Enhance LCA Workflows and Evaluate Additional Tools

Continuously refine our material takeoff and LCA processes, improving accuracy and efficiency. Explore alternative LCA tools, emerging methodologies, and automation opportunities to strengthen our embodied carbon assessments.

2. Collaborate with Concrete Suppliers to Implement Low-Carbon Mixes

Engage local and regional concrete suppliers to better understand low-carbon concrete technologies and incorporate appropriate mix designs into project specifications to receive a minimum of a 10% reduction in embodied carbon for concrete.

3. Integrate Early-Phase Structural System Evaluations

Incorporate material comparisons and structural system alternatives during the Design Development phase to influence embodied carbon reductions early in the design process, when the impact is greatest.

4. Develop Carbon Reduction Strategies for Steel Structures

Investigate pathways to reduce embodied carbon in steel-framed buildings through incorporating higher strength grade steel and optimizing tonnage. Our firm goal will be to target 5% reduction in tonnage in our steel structures.





In order to advertise the benefit our commitment to SE 2050 can provide to our clients, our firm will implement the following actions:

1. Publicly Announce Our SE 2050 Commitment

Publish an external announcement highlighting our firm's participation in the SE 2050 Program. This communication will be shared through our website, LinkedIn, and other company-wide digital channels to demonstrate our commitment to reducing embodied carbon and advancing sustainable structural design.

2. Integrate SE 2050 Participation into Client Proposals and Project Communications

Clearly state in our structural engineering proposals that we are an SE 2050 signatory firm. We will collaborate with clients to identify embodied carbon reduction opportunities tailored to each project and communicate how our methodology supports their sustainability goals.





DUNAWAY ASSOCIATES, LLC

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LETTER OF COMMITMENT TO THE SE 2050 PROGRAM

DATE: January 16, 2026

TO: Jennifer Goupil, Managing Director, Structural Engineering Institute

FROM: Dunaway Associates LLC

SUBJECT: Letter of Commitment to the SE 2050 Program

Dear Jennifer Goupil:

Dunaway Associates LLC, a multi-discipline 385-person firm located with structural offices in Austin, Fort Worth, San Antonio, and Houston, Texas is hereby signing on to the SE 2050 Commitment Program. We support the vision that all structural engineers shall understand, reduce, and ultimately eliminate embodied carbon in their projects by 2050.

Our structural team commits to this initiative because we understand the impact our profession has on carbon emissions and subsequently the environment. We are excited to be apart of a larger group of structural engineers researching and leading the way in sustainability.

We therefore commit Dunaway Associates LLC to take the following steps which are part of the SE 2050 Commitment Program:

- Within six months 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.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Luke Esser".

Luke Esser, P.E.
Senior Vice President



AUSTIN
DALLAS
HOUSTON
FARMERSVILLE
FORT WORTH
MIDLAND
SAN ANTONIO

dunaway.com