
CHRIS ERICKSON | CHAIRMAN AND FOUNDER, CLIMATE EARTH

CONCRETE INNOVATIONS

Automating LEED v5.0 Credit Optimization with Climate Earth Advantage Pro



July 16, 2025

WWW.CLIMATEEARTH.COM

Agenda

- Perspective LEED 5.0
- Climate Earth Overview
- Why LEED Matters---ROI
- How Climate Earth systems help win LEED projects

Approximately half of the 110 points for achieving LEED v5 certification is based on decarbonization

LEED v5.0 is a revenue generator for ready mixed concrete

- Ready Mix Concrete has more carbon reduction technology
- More software tools
- And greater expertise to reduce carbon than any other structural material
- NRMCA and Climate Earth have partnered since 2013



Image courtesy of HOK

www.hok.com/news/2024-10/an-inside-look-at-leed-v5-from-one-of-its-key-architects/



**Our business is concrete,
& only concrete**

**Our mission is to accelerate the
concrete industry's transition to a
net-zero future by meeting the
critical need for efficient carbon
measurement, reporting and
analysis**

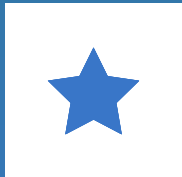


Climate Earth is the EPD Leader

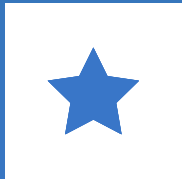
Intelligent, Automated EPD Generators™ purpose built for the Global **Concrete** Industry—empowering concrete producers with verified, reliable EPDs in minutes.



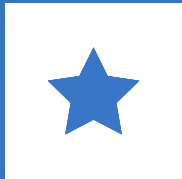
Concrete & LCA Experts On Hand



Product and Site Specific EPDs



Data Collection Made Easy



ASTM & ISO Compliant

Live in 1,400+ Plants Globally

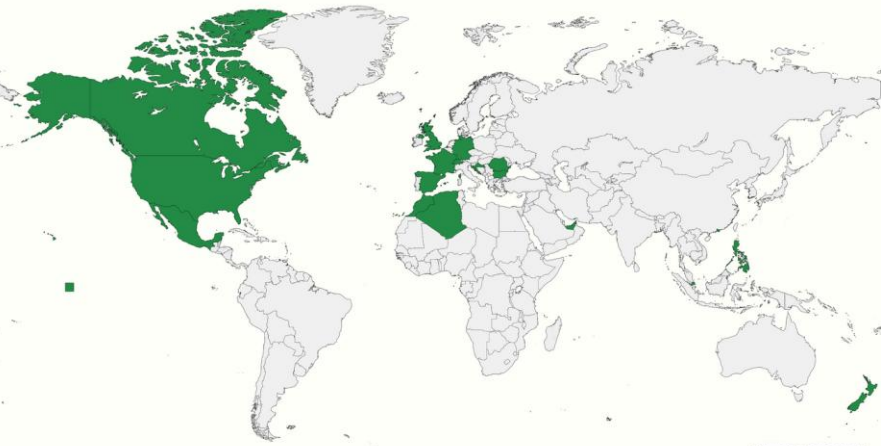


90K+ EPDs Generated

#1 Trusted Concrete EPD Generator

Countries Served

USA, Mexico, Switzerland, UK, Algeria, Bulgaria, Canada, France, Germany, New Zealand, Romania, Philippines, Singapore, Spain, etc.



COMPREHENSIVE CONCRETE EPD SOLUTIONS

EPD Generators

Ready Mix



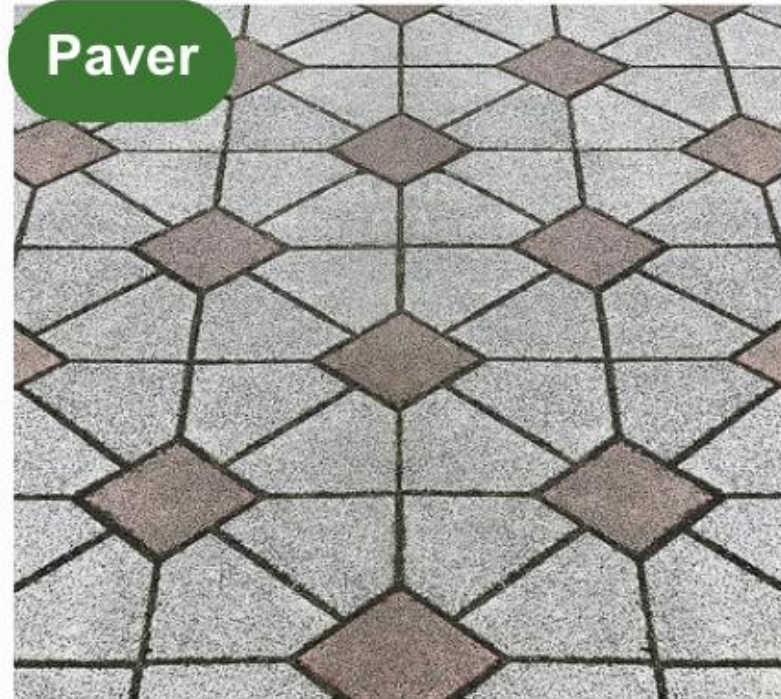
Cement



CMU



Paver



Specialized Tools & Expertise

Aggregates



Dry Mix



Precast



Asphalt



Three Ready Mix generators

Designed to meet the sustainable concrete needs of a producer's local market

All utilize an advanced database & cloud based architecture

Features	Essential	Advantage	PRO
Overview	The Original EPD Generator	QC integration and mix analysis	EPD Information Management System
Instant, On-Demand EPDs	✓	✓	✓
Bid-Ready EPDs	✓	✓	✓
EC3 Connection	✓	✓	✓
Always Current	✓	✓	✓
QC Integration		✓	✓
Single Click GSA & NRCMA Benchmarks		✓	✓
Filter, Sort, & Edit with Workbench		✓	✓
Manage 1,000s of EPDs		✓	✓
Company-Wide Dashboard			✓
Strategic Insights Across All EPDs			✓
Advance Digital Integration			✓
Dynamic Drill-Down Enable Mix Analysis			✓
ACI 323 Low Carbon Concrete Code	New Features		✓
Tarantula Curve Mix Optimization			✓



**Enterprise
System**
Client Data

Meet Emerging Market Needs

A centralized database and cloud-based system will form an enterprise information platform to effectively respond

AI

Machine
Learning

APIs

Algorithms

Database

Block

RMX

Paver

Aggregate

Cement

Asphalt

Application systems
with shared data
resources

EPDs

Sales & Bid
Submittal Assets

Dashboard

Analytics

Optimizing Tools

Internal / External IT Systems

APIs

**External
Environmental
Data (LCIs)**

AI

Machine
Learning

APIs

Algorithms

Global Access, Visibility & Integrated Supply Chain

Its all connected

- Provides QC managers with instant visibility to real-time data transforms decision-making in a changing market
- Access fosters collaboration, builds expertise
- Speeds insight to drive success

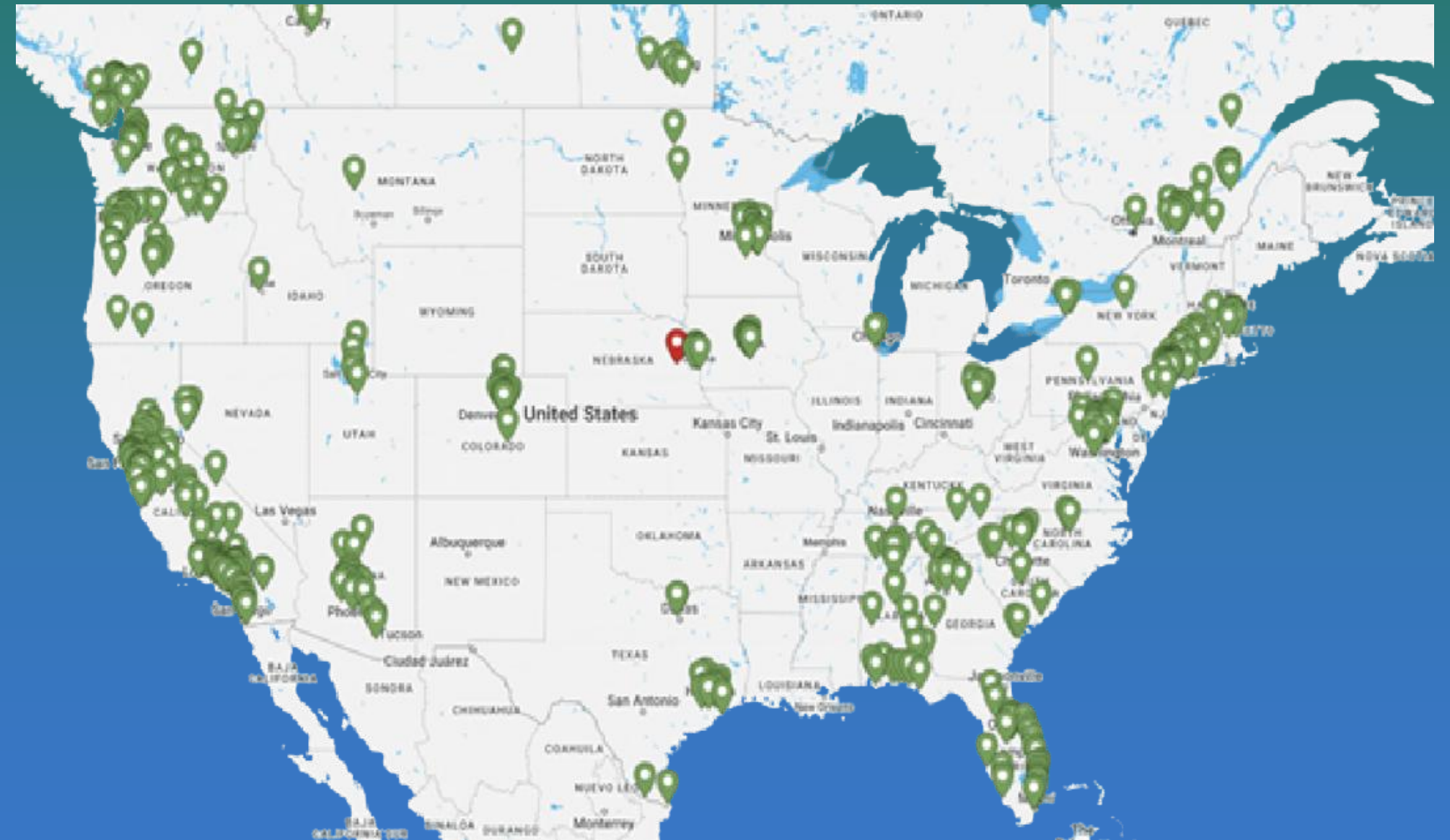
Regional Producers



Local Producers



National & Global Producers



Continuous Innovation Since 2012 to Better Serve the Concrete Industry



Global Access & Visibility



Automated Data Collection & Logistics Analysis



Digital Dashboards



Sales & Bid Submittal Assets for Large-Scale Projects



QC Analytics Workbench



Intelligent Mix Design Optimization



Flexible Integration



Dynamic Tools and Visualizations

LEED 2024 Projects: Valued at \$400 billion- 6% National Growth in 2025

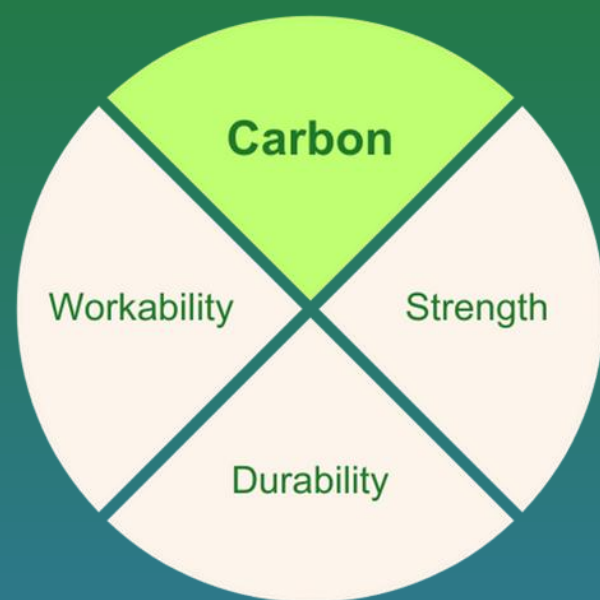


State	Projects	Gross Area (Square Feet)
California	437	101,894,046
Texas	205	75,052,176
New York	170	69,443,440
Illinois	102	51,471,672
Massachusetts	132	34,821,100
Washington	90	23,310,977
District of Columbia	111	22,996,048
Maryland	100	17,143,360
Colorado	64	13,884,040
Nevada	29	7,677,908
Total	1,440	417,694,766
The Other 40 States	1,500	435,200,000

Greater ROI Drives Growth in LEED

1. 21.4% higher average market price per square foot over non-LEED buildings
 2. Average 11% higher rent rates
 3. Attract more favorable and stable financing options
 4. Lower operating costs - Reduce water, energy and waste by more than 20%
 5. Result in healthier and more productive employees and occupants
-

COMPETING IN THE NEW EMERGING LOW CARBON MARKET



**A New
Purchase Metric**

EPD emerge as a competitive need.
GWP value matters.



**Industry
Disruption**

Carbon measurement with EPDs
are a business imperative.



**Decarbonization
and EPDs**

EPDs become core to LEED v5.0

2022

2024

2025

Advantage Pro Helps Win LEED Projects

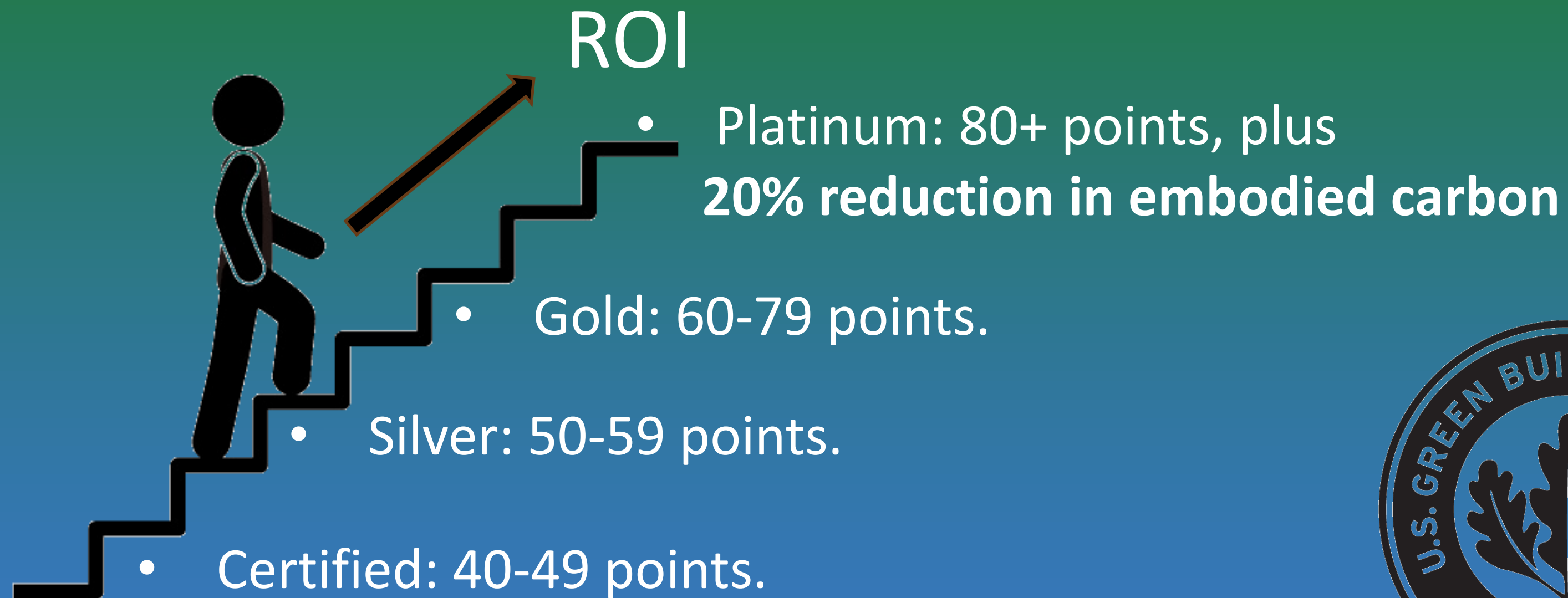
- Streamlines LEED v5.0 winning bids
 - Automates mix-specific EPDs and whole-project reporting
 - Improves embodied carbon performance with Intelligent tools
 - Sells low carbon projects with visual reporting
 - Simplifies compliance for maximum points—
 - Turns LEED sustainability from a burden into a revenue opportunity
-

LEED Rating

- Certified: 40-49 points.
- Silver: 50-59 points.
- Gold: 60-79 points.
- Platinum: 80+ points, plus
20% reduction in embodied carbon



LEED Rating

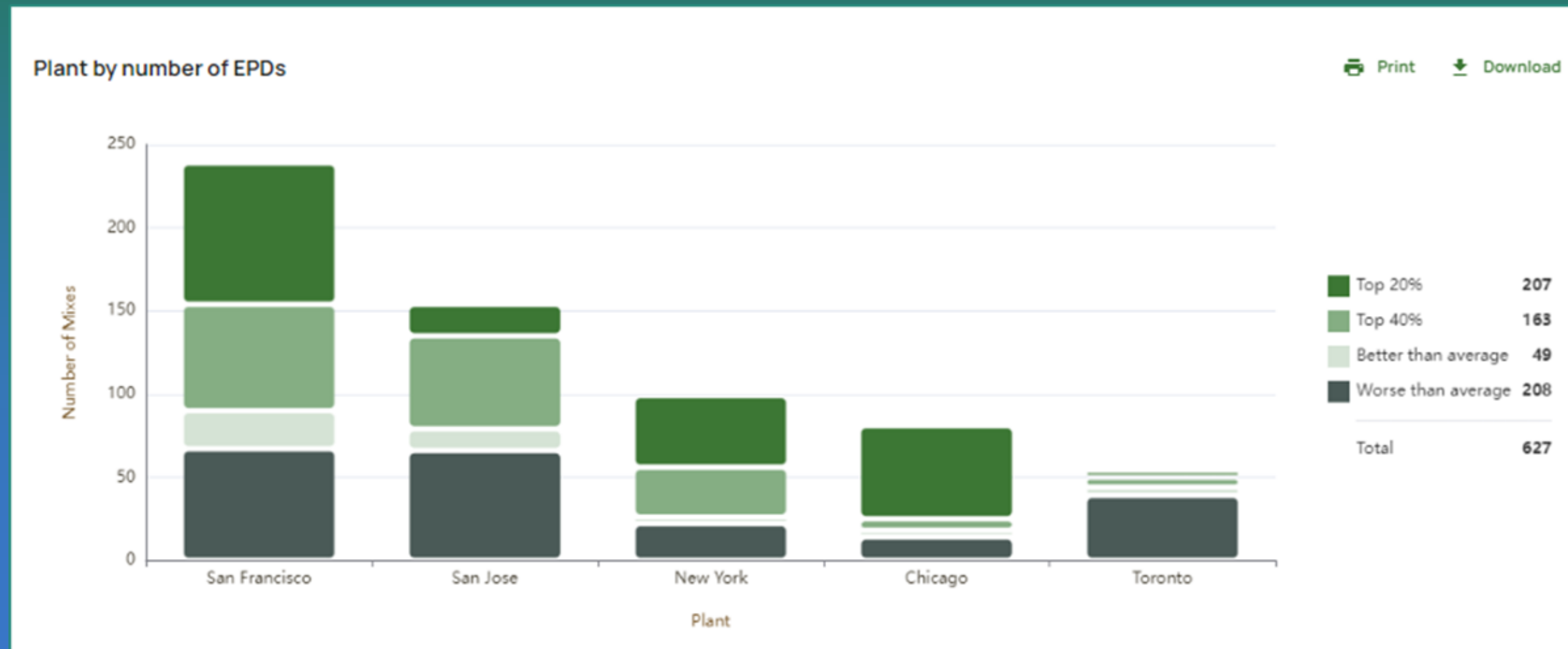


Concrete Advantages: Focusing in on LEED 5.0 Materials and Resources

Materials and Resources (MR)		18
MRp1	Planning for Zero Waste Operations	Required
MRp2	Quantify and Assess Embodied Carbon	Required
MRc1	Building and Materials Reuse	3
MRc2	Reduce Embodied Carbon	6
MRc3	Low-Emitting Materials	2
MRc4	Building Product Selection and Procurement	5
MRc5	Construction and Demolition Waste Diversion	2

Getting Started with LEED

Advantage Pro Dashboard How Do My Plants Perform?

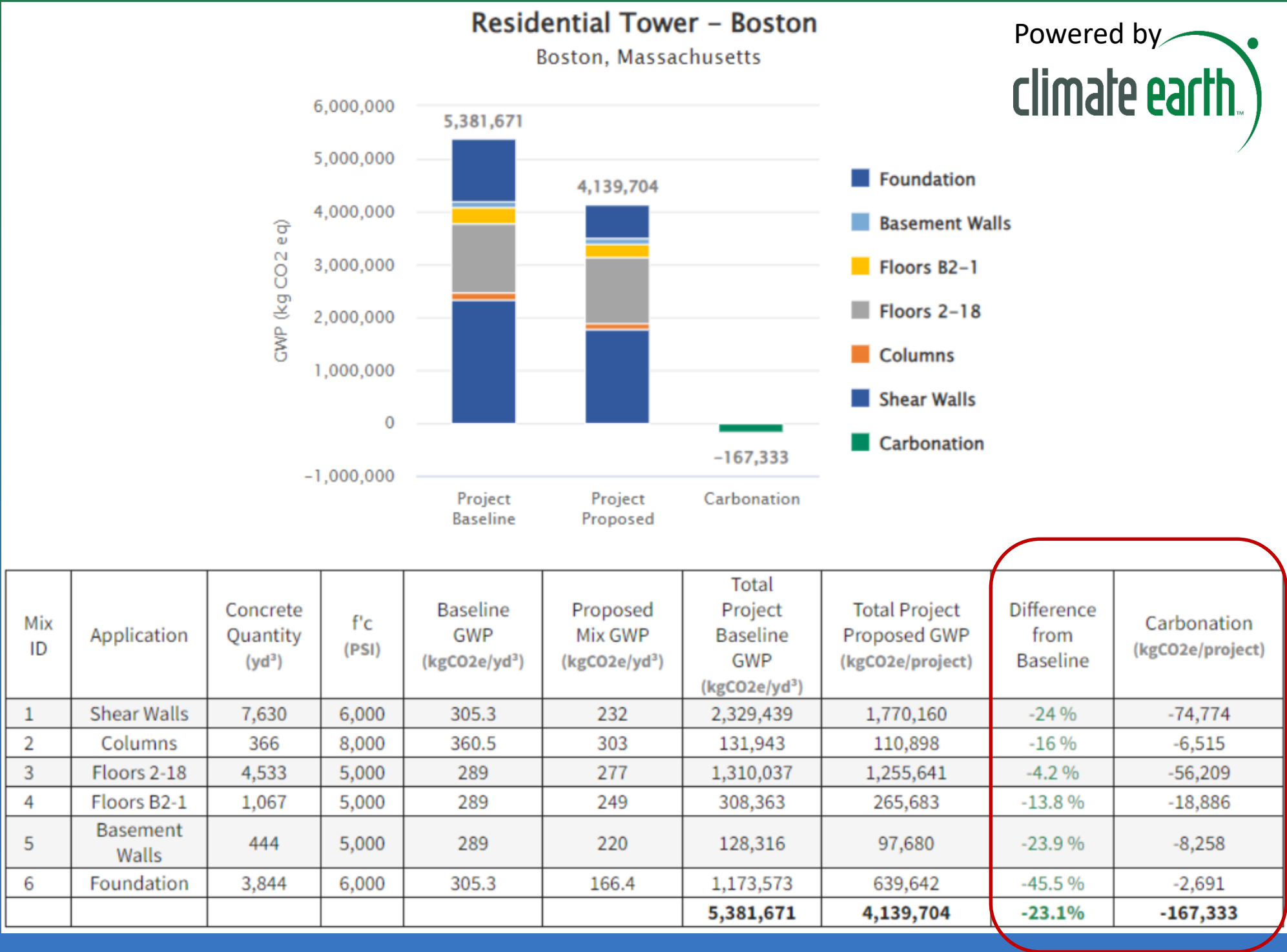


Don't Yet Have EPDs? Get a Quality Project Estimate- Free



NRMCA Concrete Carbon Calculator

Access here:
nrmca.climateearth.com



1 For LEED: Generate an EPD in a Minute


climate earth
EPDs made easy

1. Enter Mix Design
2. Review
3. Accept the EPD or edit

BRIDGE VIEW CONCRETE

ENVIRONMENTAL PRODUCT DECLARATION

Mix 03142025 • San Francisco Plant



This Environmental Product Declaration (EPD) reports the impacts for 1 m³ of ready mixed concrete mix, for use in business-to-business (B2B) communication meeting the following specifications:

- ASTM C94: Ready-Mixed Concrete
- UNSPSC Code 30111505: Ready Mix Concrete
- CSA A23.1/A23.2: Concrete Materials and Methods of Concrete Construction
- CSI Division 03-30-00: Cast-in-Place Concrete

COMPANY

Bridge View Concrete

2150 Allston Way, #280

Berkeley, CA 94704

PLANT

San Francisco Plant

910 Lee Ave

San Francisco, CA 95110

EPD PROGRAM OPERATOR

Climate Earth


2150 Allston Way, #280

Berkeley, CA 94704

DATE OF ISSUE

03/14/2025 (valid for 5 years until 03/14/2030)

(Portable plant validity is limited to location specified)



ENVIRONMENTAL IMPACTS

Declared Product:

Mix 03142025 • San Francisco Plant

Description: Interior slab

Compressive strength: 5000 PSI at 28 days

Declared Unit: 1 m³ of concrete (1 cyd)

Global Warming Potential (kg CO ₂ -eq)	344 (263)
Ozone Depletion Potential (kg CFC-11-eq)	8.58E-6 (6.56E-6)
Acidification Potential (kg SO ₂ -eq)	0.91 (0.70)
Eutrophication Potential (kg N-eq)	0.48 (0.37)
Photochemical Ozone Creation Potential (kg O ₃ -eq)	19.4 (14.8)
Abiotic Depletion, non-fossil (kg Sb eq)	5.73E-5 (4.38E-5)
Abiotic Depletion, fossil (MJ)	1,909 (1,460)
Total Waste Disposed (kg)	17.6 (13.5)
Consumption of Freshwater (m ³)	3.53 (2.70)

Product Components:

crushed aggregate (ASTM C33), natural aggregate (ASTM C33), type 1L cement (ASTM C595), batch water (ASTM C1602)

Additional detail and impacts are reported on page three of this EPD


ISO 21930:2017 Sustainability in Building Construction — Environmental Declaration of Building Products: serves as the core PCR

NSF/ASTM 1112-19 with 2024 deviation, PCR for Concrete, V2.3 – 2025 extension, serves as the sub-category PCR

Sub-category PCR review was conducted by Thomas P. Gloria • Industrial Ecology Consultants

Independent verification of the declaration, according to ISO 14025:2006: ☐ internal ☒ external

Third party verifier Chris Erikson (Chris@climateearth.com) • Climate Earth



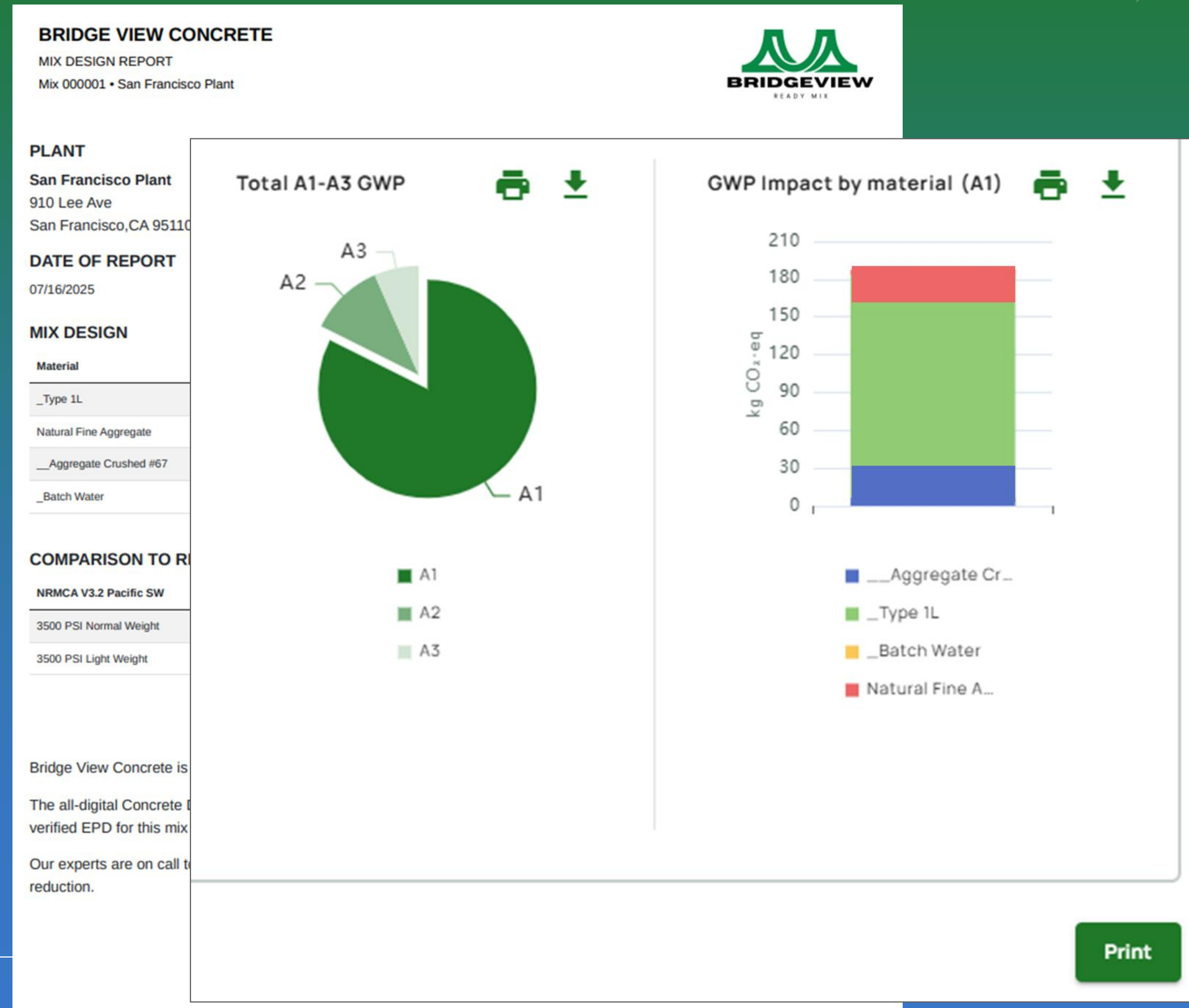
For additional explanatory material

Manufacture Representative: t t (tt@t.com)

Software Tool: [CarbonCLARITY Suite](#), [EPD Generator](#) • [Verification](#)

Creating a New Mix?

1. Enter Mix Design
2. Review
3. Save Draft Report
4. Send to Lab for testing
5. Send draft EPD and graphic report to LEED team



Going a Bit Further with Intelligent Mix Design Optimization

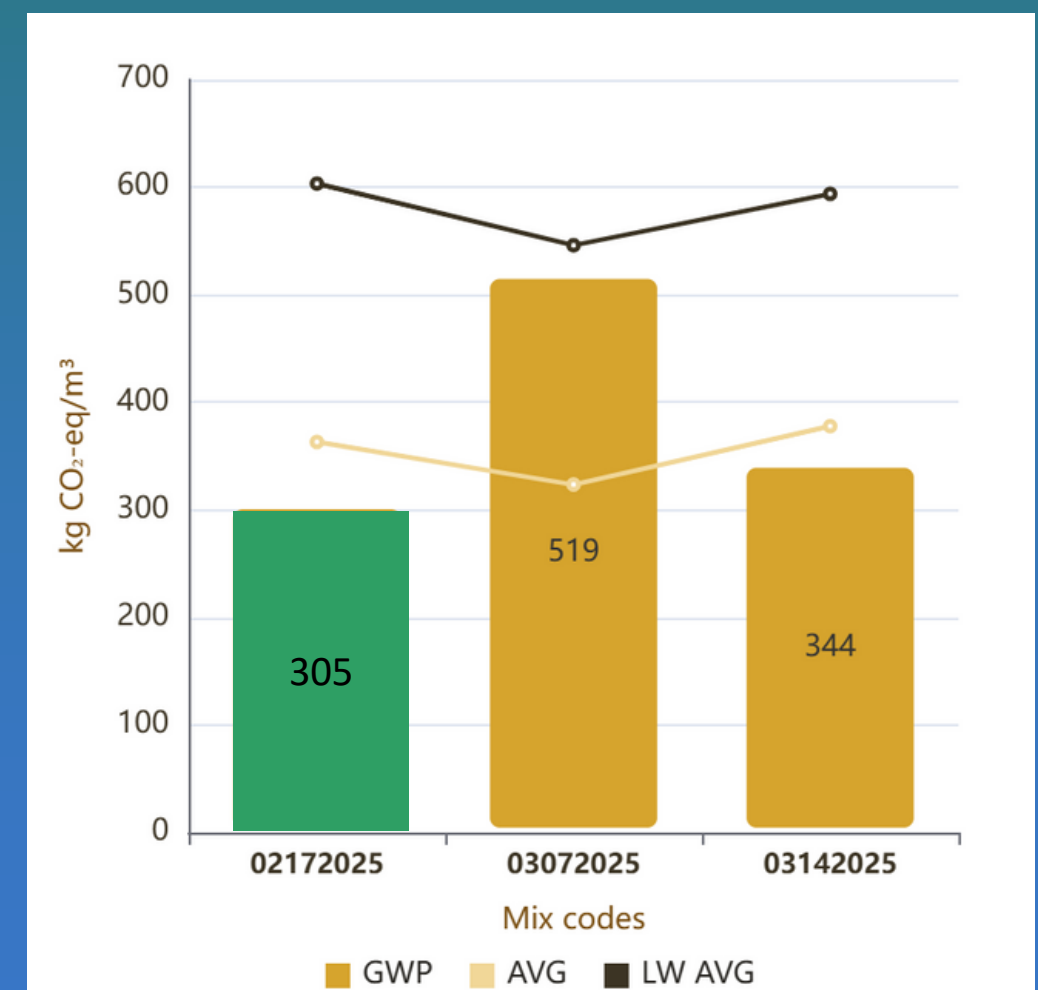
Helps the experts design better mixes faster and comparative analysis demonstrates success to the buyer

Typical paste reduction 15-20%

Single Click Tarantula Mix optimization



Comparative Mix Analysis



Intelligent Logistics Analysis- *The final mile for mix design optimization and winning LEED projects*

Intelligent logistics optimization will be critical for leadership in low carbon concrete

Instant transport mode and distance optimization with mapping

- Ship
- Rail
- Truck
- All combinations in a single click

1. Plant Materials 2. Supplier Distances 3. Material / Suppliers Mapping 4. Process Areas 5. Mix Design 6. Parameters

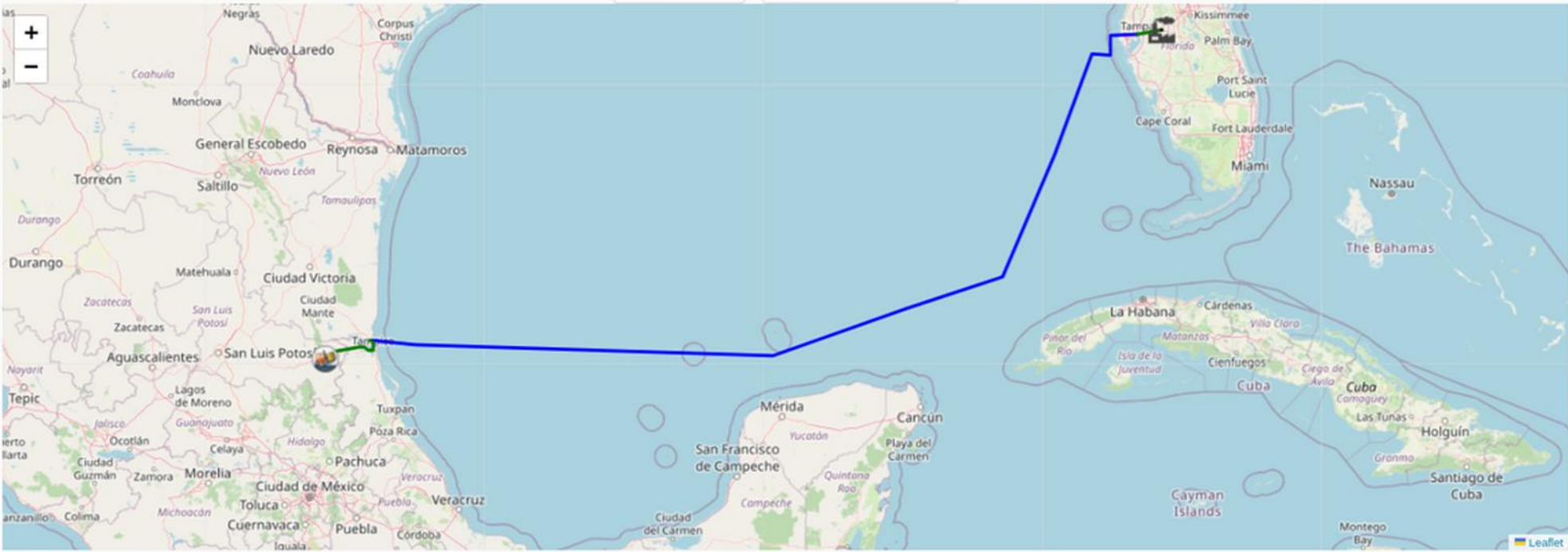
Shipping distance and mode (truck, rail, ocean) used for each supplier and each supplier location (if applicable). Be sure to save your changes by clicking "Save" at the bottom of this page.

ceme

! Cemex - Tamuín

Supplier		Distance	UoM	LCI Version	Data Source Type	Comments
Cemex - Tamuín	Ship	1119.82	mi	LCI 78; Ship transport; V3	Estimated	Comments
	Rail	81.24	mi	LCI 77; Rail transport; V3	Estimated	Comments
	Rail	30.17	mi	LCI 77; Rail transport; V3	Estimated	Comments
	Truck Combined	3.39	mi	LCI 164; Single Unit Truck short-haul;...	Estimated	Comments
	Truck Combined	0.85	mi	LCI 164; Single Unit Truck short-haul;...	Estimated	Comments

View Map Estimate Distances



The map displays a shipping route starting from a location in Mexico (near Toluca) and traveling across the Gulf of Mexico to Florida. The route is marked with a blue line. Key locations shown include Mexico City, Toluca, Tampico, and various ports in Florida like Tampa, Fort Lauderdale, and Miami. The map also shows the Caribbean Sea and parts of Central America.

Whole Building Analysis with Path 2 EPD Analysis



“the product *GWP/unit* times the amount of material used”

Benchmark

Applications

Application Information				Project Calculations		
Actions	Name	Mix info	Mix type	Total volume cyd	GWP _{project i} kg CO ₂ -eq/cyd	Total GWP _{project} kg CO ₂ -eq
	column	Code: 07172024 Strength: 6000 PSI Plant: San Francisco	Regular	600	249	149,400
	slab	Code: 07112026 Strength: 4000 PSI Plant: San Francisco	Regular	2000	212	424,000
	Walls	Code: 09092025 Strength: 4000 PSI Plant: San Francisco	Regular	950	212	201,400
				Total cyd	Total kg CO ₂ -eq	774,800

LOS ANGELES# 007

137 Park Place, Suite 204
San Francisco, CA 94801

PROJECT-CARBON REPORT

EMBODIED CARBON BASELINE: 912,250 kg CO₂-eq

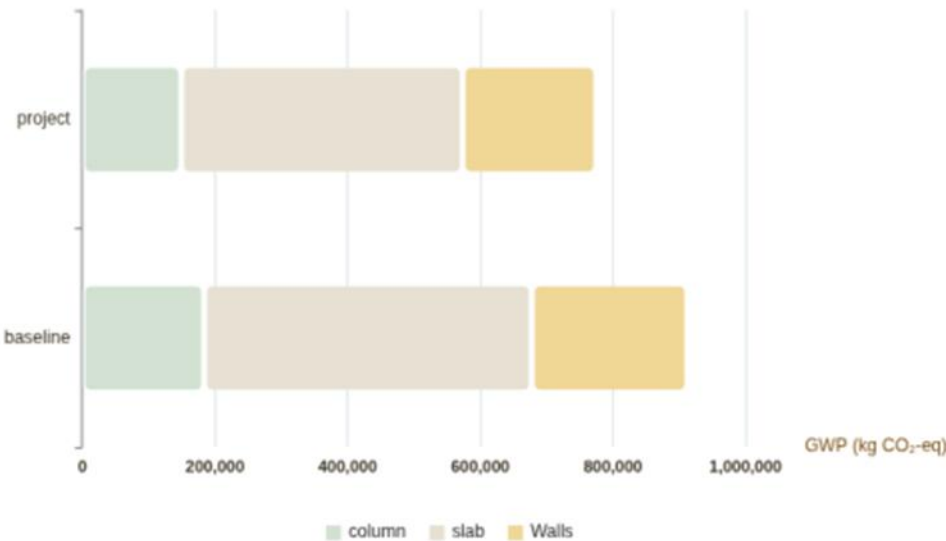
SUBMITTED BY [BRIDGE VIEW CONCRETE](#)
Berkeley, CA



Embodied Carbon Baseline vs. Project Embodied Carbon



Embodied Carbon Comparison by Application



Single click to submit all EPDs with report

The results of this analysis indicate that the proposed concrete embodies 84.9% of the baseline emissions based on the NRMCA V3.2 Pacific SW baseline.

This Project-Carbon Report is based on 3rd party Type III verified EPDs generated by the Climate Earth Advantage Pro EPD Generator.



Thank You! Questions?

Email

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Web

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Social Media

www.linkedin.com/company/climate-earth

