

NRMCA's EPA Grant

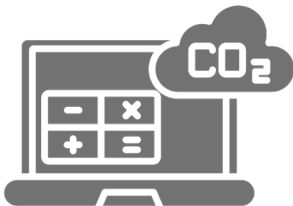
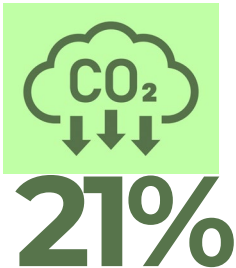
WACA Winter Workshop
January 30, 2025

Lionel Lemay
EVP, Structures and Sustainability

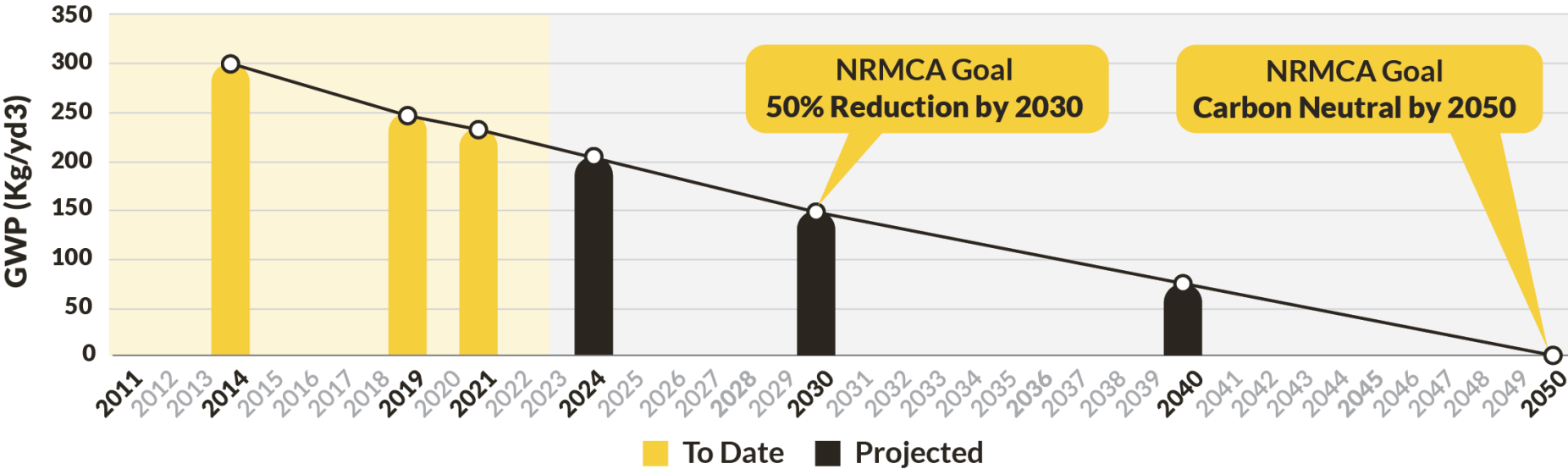


**BUILD WITH
STRENGTH**

Our Journey to Carbon Neutrality



Carbon Footprint of Concrete



Inflation Reduction Act (IRA) of 2022

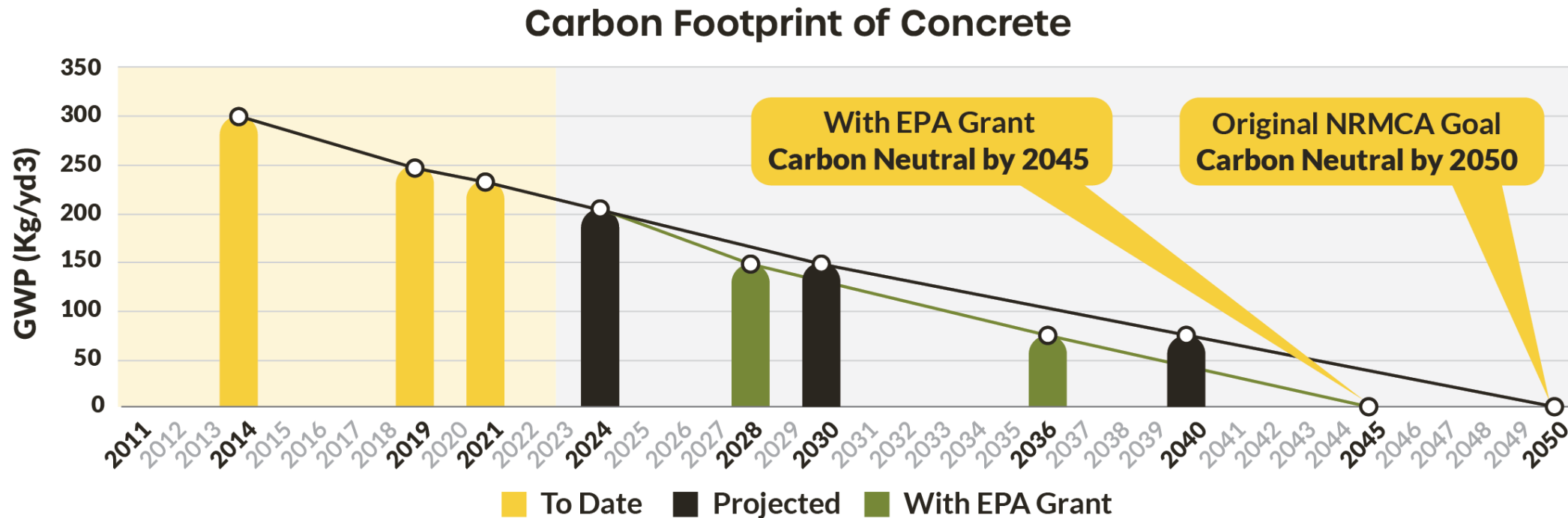
| | |
|---------------------------------------|--|
| Procure Low-Carbon Materials | \$2.15 billion to GSA \$2 billion to the FHWA |
| Develop EPDs | \$250 million to EPA |
| Label Materials with Lower GWP | \$100 million to EPA, FHWA, and GSA |



Accelerating Concrete's Drive To Carbon Neutrality

\$9.63 Million EPA Grant

GOAL: Reduce the carbon footprint of concrete by 50% by 2028 and achieve carbon neutrality by 2045.



www.nrmca.org/EPAGrant

Funding and Timeline

- NRMCA was notified of selection – June 18, 2024
- Public announcement of grant selection – July 16, 2024
- Grant may start funding in Q2 2025
- NRMCA will begin administering pass-through grants – Q4 2025
- Funding is for 5 years



Objective 1: Increase Number of Ready Mixed Concrete EPDs

Goal: Increase plants with EPDs from 1500 to 4500

| Plant | Amount |
|---|-------------------------|
| Companies that did not have EPDs ¹ | \$5,000 for first plant |
| Companies that already have EPDs ² | \$2,000 per plant |

- 1. Companies who have never published an EPD at any plant.
- 2. For second plant and beyond
 - a. Publish EPDs at a plant that did not have EPDs (up to 20 plants)
 - b. Publish new EPDs using 2025 PCR with GWP lower than NRMCA Benchmarks at a plant with EPDs (up to 50 plants)

Plants that did not have EPDs before

1. Publish EPDs
2. 5 different mixes
3. EPDs published on ADA compliant website (NRMCA will do that).
4. Apply for rebate at www.nrmca.org/epagrant
5. Contact details
6. EPD details (Plant name, location, program operator, etc.)
7. Payment details (ACH, Check, etc.)
8. Attestations (first plant, not receiving funding for more than cost, etc.)



Plants that did have EPDs before

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2. 5 different mixes
3. EPDs published on ADA compliant website (NRMCA will do that).
4. Apply for rebate at www.nrmca.org/epagrant
5. Contact details
6. EPD details (Plant name, location, program operator, comparison to NRMCA benchmarks)
7. Payment details (ACH, Check, etc.)
8. Attestations (not receiving funding for more than cost, etc.)



ADA
compliant,
searchable
website



List of plants that meet requirements

| | |
|--------------|-----------------------------------|
| PROJECT NAME | Avalon Residential |
| LOCATION | 1111 Main Street, Springfield, IL |

| PRODUCER | TOP 20 th | TOP 40 th | ABOVE AVERAGE | DISTANCE |
|---------------------|----------------------|----------------------|----------------------|-------------|
| Hard Rock Ready Mix | 5 products | 4 products | 16 products | 5.63 miles |
| AAA Concrete | 0 products | 3 products | 4 products | 7.56 miles |
| Boulder Materials | 5 products | 2 products | 10 products | 12.62 miles |
| MIX ID | COMP STRENGTH | GWP | PERFORMANCE | |
| 1134000-1 | 4000 psi | 219 kgCO2e | TOP 20 th | |
| 1134000-2 | 4000 psi | 215 kgCO2e | TOP 20 th | |
| 1135000-1 | 5000 psi | 245 kgCO2e | TOP 20 th | |
| 1135000-2 | 5000 psi | 267 kgCO2e | ABOVE AVE | |
| 1135000-3 | 5000 psi | 298 kgCO2e | BELOW AVE | |



PRODUCER
AAA Concrete



PROJECT
Avalon Residential



PRODUCER
Hard Rock Ready Mix



PRODUCER
Boulder Materials

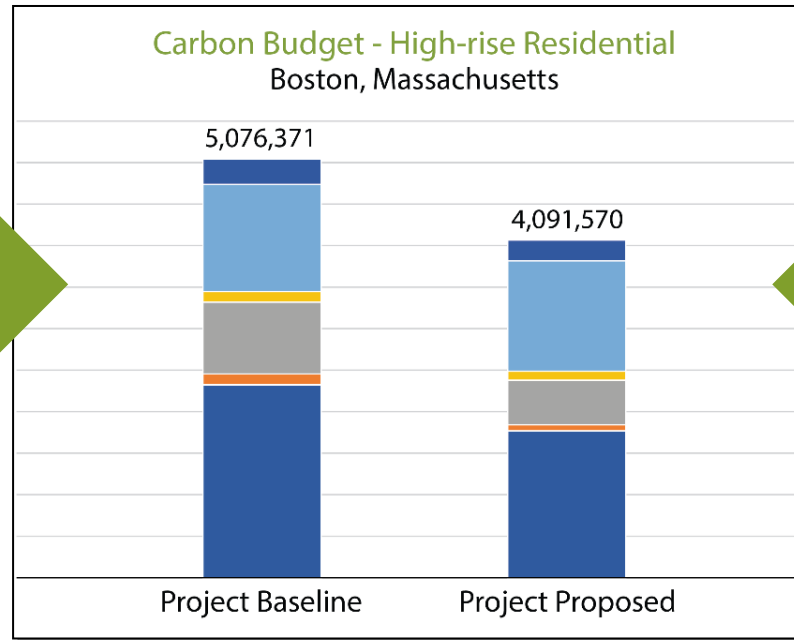
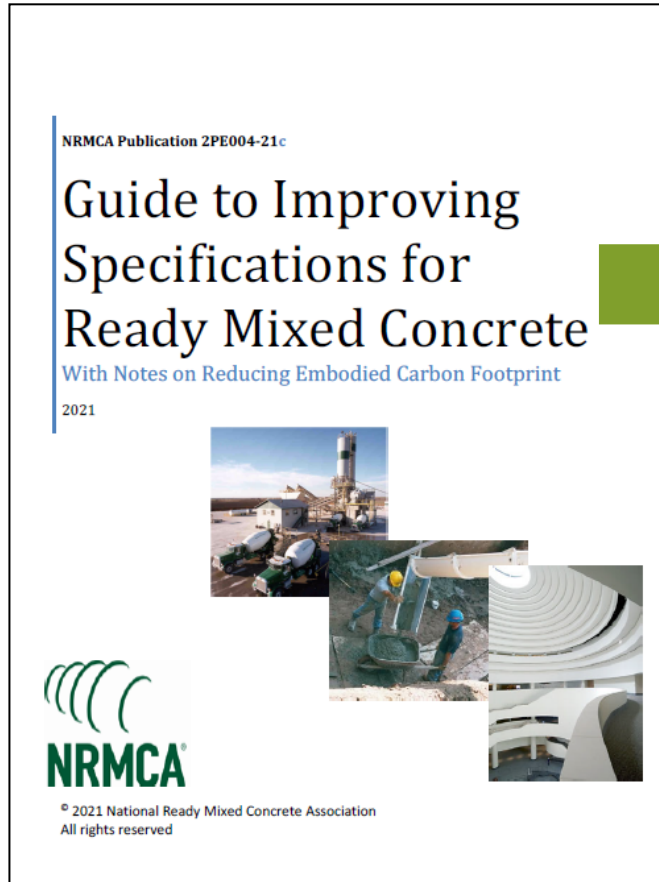
Objective 2: Ensure Technical Proficiency of Concrete Industry Personnel

Goal: Certify 500 Individuals

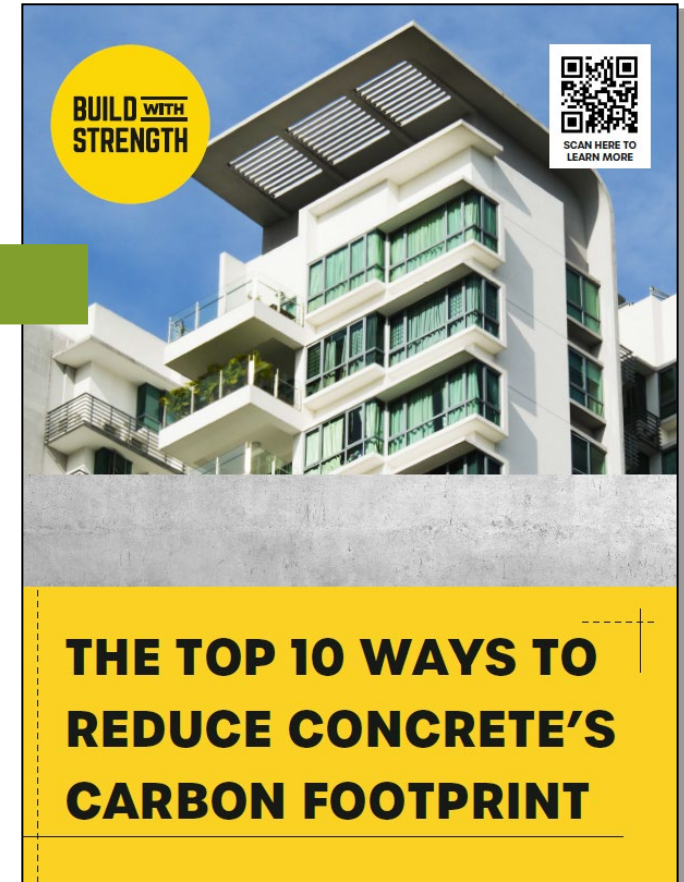
- Enhance Concrete Design Center to consult on EPDs
- Develop and maintain education and certification program for producers
- Improve the accuracy and efficiency of verifying EPDs
- 5 Low-Carbon Workshops per year



Objective 3: Enhance Low-Carbon Concrete Design Tools

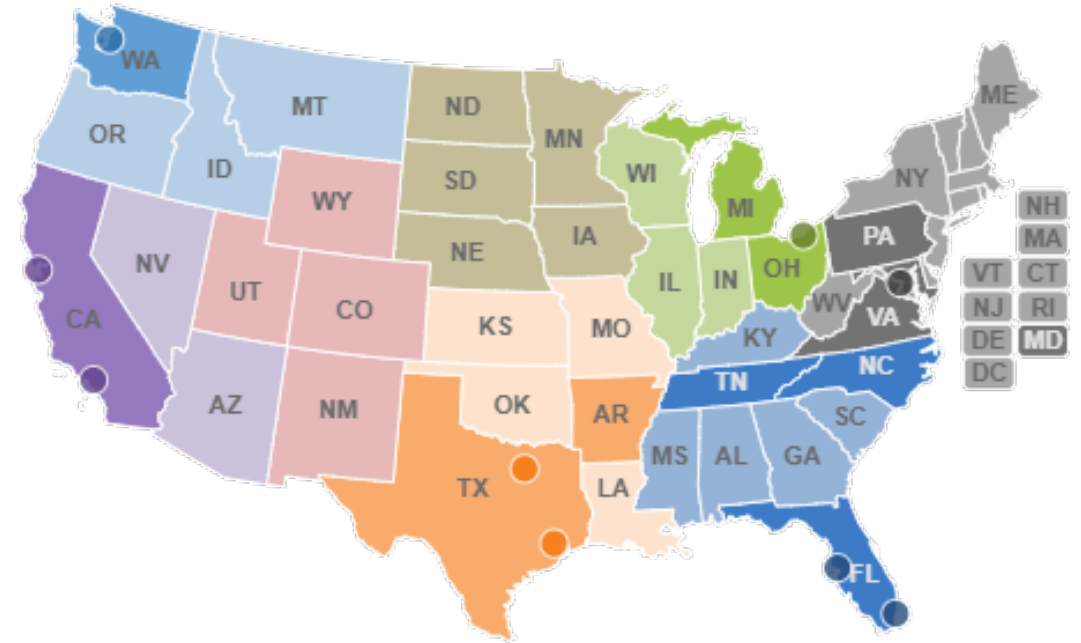


- Enhance Carbon Calculator
 - Specification guidance
 - Low-carbon concrete strategies
 - AI specification review tool



Objective 4: Improve Benchmarks for Concrete

- Publish **benchmarks in 30 regions** in 2025
- Publish **benchmarks in 50 regions** in 2029



Objective 5: Improve PCRs and EPDs for Concrete and Constituent Materials

- Develop PCR, benchmarks and EPDs for **admixtures**
- Update PCR and develop benchmarks and EPDs for **lightweight aggregates**
- Develop benchmarks for **RCC pavements**



Other Grants

- DOE Grant: Collaborative Alignment for Critical Technology Industries
 - NRMCA was part of a team headed by PNNL
 - Total award was \$6.5M
 - **NRMCA awarded \$584k** to support:
 - EPDs for innovative technologies
 - Industry advisory group
 - AI Spec Review Tool, Guide Spec, and Carbon Calculator
- NRMCA is proposing on other grants with potential of over \$1.5M of funding to support NRMCA EPD, PCR, education and tools.

Other Resources

www.nrmca.org/EPAgrant

www.nrmca.org/EPD

www.nrmca.org/sustainability

www.concreteinnovations.com

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