CARBON CURE™ CONEWAGO MANUFACTURING, LLC

Conewago & CarbonCure: A Success Story

How CarbonCure helped Conewago Manufacturing meet its community's sustainability goals—demonstrating the potential for other small producers to follow suit.

Introduction

Small- to medium-sized ready mix producers are pillars of their communities. As responsible neighbors, they often have big goals when it comes to local sustainability issues.

Conewago Manufacturing is one such producer. As a family-owned construction and ready mix concrete company, Conewago Manufacturing's goal is to help its customers turn their visions into reality. Last year, the team at the Conewago's concrete plant took another step in their mission to serve the community by introducing sustainable, low carbon concrete.

While regional ready mix producers may believe they do not have the resources to adopt new sustainable technologies, Conewago proved that doing so is not only easy—it makes good business sense.

Within just a few months of implementation, Conewago had implemented CarbonCure in 98.87% of its concrete mix designs to deliver low carbon concrete to its customers.

About Conewago Manufacturing

Founded in 1956 in Hanover, Pennsylvania, under the name Conewago Contractors, Conewago is a family-run company that has grown and diversified over time.

Over the past few decades, the company has expanded its operations to include a ready mix plant, mobile concrete ready mix, precast concrete, steel fabrication, and steel and precast erection services. The growth of these operations led to the establishment of the manufacturing division—Conewago Manufacturing LLC—as a standalone company in 2017.

Today, Conewago's Hanover-based concrete plant delivers approximately 60,000 cubic yards (45,000 cubic meters) of concrete per year to various contractors throughout the Mid-Atlantic states.

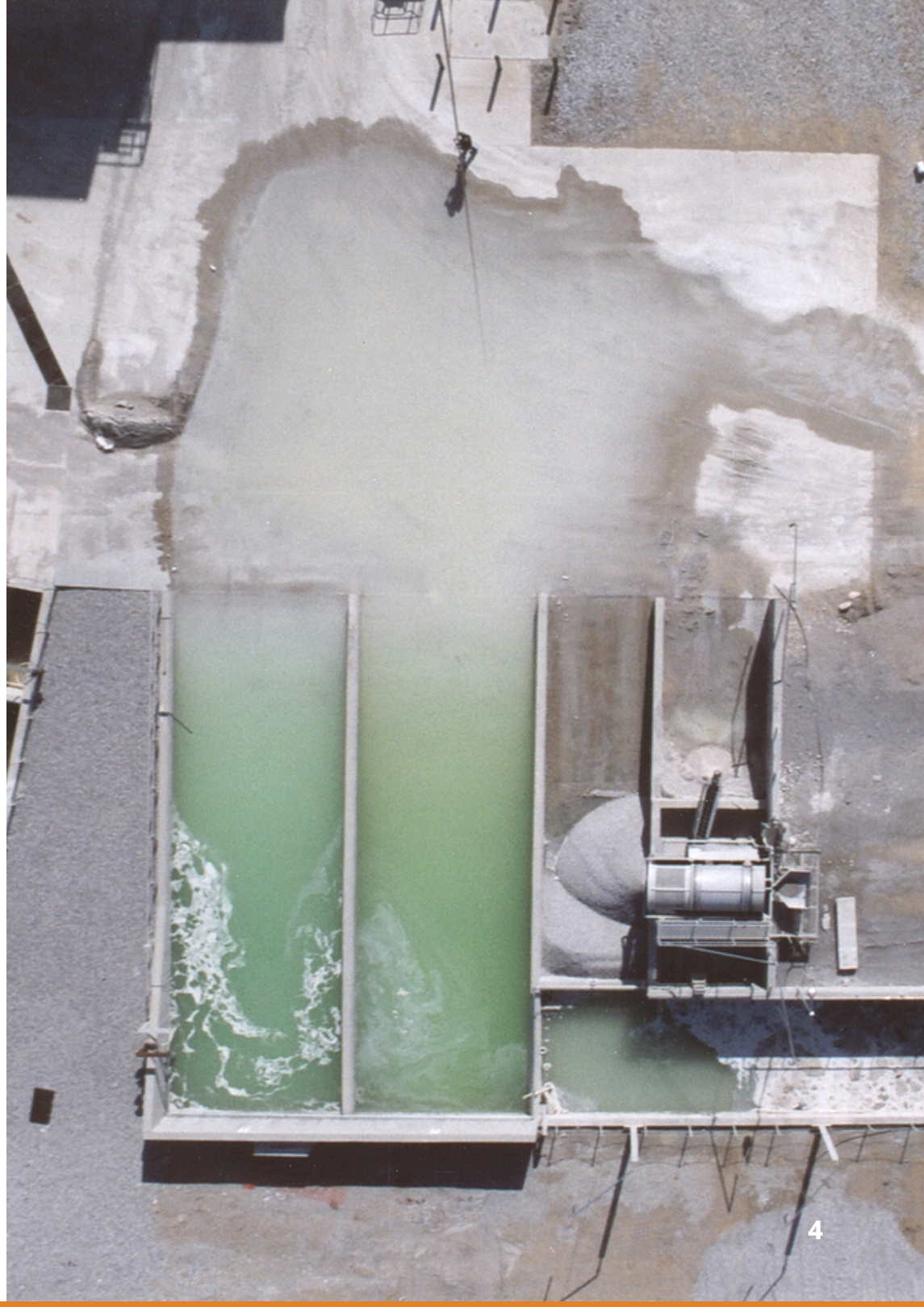
Conewago and Sustainability

Conewago is committed to delivering high-quality, sustainable products to its community. Before it decided to evaluate CarbonCure, Conewago had already implemented a range of sustainability measures, including:

- Solar-powered jobsite cameras to enable project managers to check in on projects while cutting down on vehicle travel.
- Water recycling at its concrete plant facility to reduce the overall quantity of water needed in the concrete manufacturing process.
- Reclamation devices at the concrete truck washout bays to allow the separation of sand and stone from waste concrete for reuse.

Driven by the desire to deliver greener concrete to its community, Conewago took the next logical step on its sustainability journey by evaluating CarbonCure technology in early 2020.

> *"When it comes to sustainability, we all have to think about what we're doing and the impact that it has on the environment. It's not about the dollars and cents. It's about doing the right thing. With every load of concrete that leaves our plant, we're essentially giving back to the community from a sustainability perspective."*
>
> *Jason Blase,*
> *President, Conewago Manufacturing*



Evaluating and Implementing CarbonCure

CarbonCure provides a comprehensive, cross-functional action plan to help new customers ramp up effectively. During Conewago's evaluation and implementation, the team received additional support from CarbonCure with everything from installation and testing to market development.

Installation in Under Two Days

Implementing any new technology introduces risk to a business. Working with CarbonCure mitigated that risk for Conewago throughout the process.

CarbonCure's dedicated Installation and Maintenance team not only managed the quick installation of the equipment, resulting in no downtime or disruption to plant operations, but they worked side-by-side integrating CarbonCure with Conewago's batch system, conducting commissioning trials to ensure proper system operations, and providing ongoing support in the form of training, maintenance, and telemetry troubleshooting.

> *"We held pre-install meetings to get all the information we needed up front. This meant we could complete the install within a two-day window with no interruption to our production processes. That was a really big deal."*
>
> *Collin Bender,*
> *Quality Control Manager, Conewago Manufacturing*

Thorough Mix Evaluation

The key to success for any new mix design is to ensure customers experience a high-performing and consistent quality product. To secure the highest quality concrete, CarbonCure's Technical Services and Support (TSS) team worked with Connewago's Quality Control (QC) team on commissioning trials, mix optimization, data testing and analysis, and mix design submittals.

At first, the team didn't reduce any cement content. "We wanted to make sure that 7-day and 28-day strengths were good and that the dosage was correct for the cement and aggregates in our local area," said Collin.

Once test results came back, the team was confident in the performance and began reducing carbon-intensive cement content in the mix designs for even greener concrete.

In the early days of the CarbonCure evaluation, Conewago was in the process of expanding its steel shop. The team decided to try CarbonCure concrete in its own slab to see how it performed.

"One of our local finishers worked the concrete and noticed no difference in the finishing. Overall, he was really positive about it all. This gave us the confidence to roll it out to more mixes," recalled Jason Blase, President of Conewago Manufacturing.

Today, CarbonCure is included in 98.87% of Conewago's mix designs.

Market Development and Submittal Support

Once Conewago was up and running, the CarbonCure Market Development team provided Conewago with sales and marketing training and lead sharing to maximize new business opportunities.

In addition, to help market and sell their CarbonCure-based mixes, Conewago quickly took advantage of CarbonCure's resource-rich customer portal, myCarbonCure. These resources helped the team effectively market their sustainability offerings and open the door to new projects in their region.

> *"The datasheets on myCarbonCure are excellent. We've had no rejections or questions from the mix submittals we've provided on our residential and commercial projects."*
>
> *Collin Bender,*
> *Quality Control Manager, Conewago Manufacturing*

The QC team also leveraged the resources on myCarbonCure to help with mix submittals for projects of all sizes. To date, there has been absolutely no pushback on submittal packages—even for complex projects like warehouses.

The Results

For Conewago, the decision to implement CarbonCure was all about doing the right thing for its community and the environment.

Today, Conewago's concrete maintains the same performance it is known for—with a reduced carbon footprint. There have been no adverse effects on fresh or hardened concrete properties and no noticeable changes in pumping, placing, and finishing.

Across all four seasons, Conewago's CarbonCure mix designs have performed exceedingly well.

> *"CarbonCure just became our standard mix design. Today, it's in 98.87% of our mixes. The only exceptions are some prescriptive specifications for the Department of Transportation, but we're working with the CarbonCure team to change that."*
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> *Eric Smith,*
> *Sales Director, Conewago Manufacturing*

Return on Investment

Conewago is fortunate to be geographically located to excellent aggregate, so their concrete mixes don't require as much cement content as other regions.

> *"We didn't embark on our CarbonCure journey for profitability reasons. However, we noted a 7.5% return on investment on our original target of just 1%."*
>
> *Jason Blase,*
> *President, Conewago Manufacturing*

Turning Visions into Reality

Conewago is renowned in its community for helping its customers turn their visions into reality—and CarbonCure is proud to be part of their mission to make low carbon concrete a part of that reality.

The Conewago team intends to pursue new opportunities for its low-carbon concrete mixes in residential and commercial projects. The CarbonCure team is also working with Conewago to make a case for performance-based specifications in public sector projects with the Pennsylvania Department of Transportation.

For now, the company is proud of its achievements—in just nine months, it saved 343 tonnes of CO_2—that's the equivalent of 448 acres (181 hectares) of U.S. forest absorbing CO_2 for one year.

Other forward-thinking regional producers are in a similar position to capitalize on the growing demand for low carbon concrete in their communities—and to make a real difference by lowering their carbon footprint. The Conewago team encourages other producers to adopt CarbonCure and is even open to hosting producers at their plant to demonstrate how CarbonCure is working for them.

For more information, visit carboncure.com or contact a CarbonCure representative at **info@carboncure.com** or call +1 (844) 407-0032 (toll-free).

"Any small to medium producer can do what we've done. Do not let your size stop you. CarbonCure has an outstanding onboarding process, robust testing and evaluation, an easy-to-execute installation process, and a team of technical and marketing partners assigned to your business to help you pursue new projects."

Jason Blase,
President, Conewago Manufacturing

CARBON CURE

Build for the Future.
Build with CarbonCure.

Architects, structural engineers, owners, and developers are seeking proven ways to reduce the embodied carbon of their building projects. Recognizing concrete as a solution, **CarbonCure Technologies**, a fast-growing, clean tech company, has developed an easy-to-adopt carbon removal technology that enables concrete producers to use captured carbon dioxide to produce reliable, low-carbon concrete mixes and achieve market differentiation. Available from hundreds of concrete plants, CarbonCure-based mixes are transforming the built environment and have permanently removed more than 100,000 metric tonnes of carbon emissions from the atmosphere. CarbonCure's investors include Amazon, Breakthrough Energy Ventures, Microsoft, Shopify, Mitsubishi Corporation, and Carbon Direct.