

PAVEMENT OVERLAY BRINGS LESS SEEPAGE TO DENVER-AREA EXIT RAMP.

The State of Colorado Department of Transportation wanted to protect their bridge decks, exit ramps and overpasses from corrosion. The seepage that can occur from applying deicing and anti-icing chlorides can also cause contamination and corrosion, and the DOT wanted to be proactive. Rather than splurge on the cost of a new bridge, the DOT started looking at more cost-effective options.

"My superintendent asked me to research thin-bonded overlays," said Steve Pineiro, project engineer with the Colorado DOT. "At the same time, I was also on a committee researching faster deicing for bridge structures, so I spent a lot of time online researching different solutions."

After making a few inquiries to various companies, Pineiro was contacted by a company that produced a pavement overlay that offered both corrosion protection and anti-icing.

"Our main goal was protecting the bridge, but the deicing feature was an added benefit, so we decided to check it out," he said.

The product is called SafeLane[®] surface overlay and is produced by Cargill Deicing Technology. The overlay is comprised of epoxy and aggregate to help ensure infrastructure protection from damaging corrosion, increase surface traction and prevent ice formation.

Pineiro and his team decided to install the overlay on an exit ramp near the suburb of Aurora because of the high traffic count and minimal sun exposure.

"This bridge was the perfect location because it's hard for us to hit it with a plow because of the high traffic count," he said. "Plus, it faces the north side, so it gets a lot of snow and ice buildup."

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surface overlay

After installing the overlay more than three winters ago, Pineiro and his team are pleased with their decision. During that time, the Colorado DOT also installed the pavement overlay in three additional locations throughout the state.

"It's definitely working," Pineiro said. "We commission studies with University of Colorado Boulder and the research shows that the bridge is at the same level it was when we installed the overlay, so it hasn't had any permeation from deicing products."

While the main goal for the Colorado DOT was infrastructure protection, Pineiro and his team are enjoying additional benefits of the product as well, such as better traction and greater residual effects from granular deicing materials applied to the surface.

"The aggregate actually traps our granular deicer and holds it on the road. It doesn't track or wash off onto the shoulder, so it lasts longer," he said. "All in all, we've stopped the chlorides from getting into the deck, accidents are down, and we don't have to hit the exit ramp as often when we treat roads after a storm. Our primary goal was protecting the bridge and we got deicing as an added benefit. It wasn't part of the plan, but we'll take it."



Cargill Deicing Technology
24950 Country Club Blvd. Suite 450
North Olmsted, OH 44070

866-900-SALT (7258) • www.cargilldeicing.com

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