

City of Fargo, N.D., Prioritizes Safety With Systematic Approach to Durable Pavement Markings

Winters in the Midwest can be harsh, especially on the roads. As roads age and are exposed to the elements, the striping that delineates lanes tends to fade first. Creating a systematic approach to maintaining road markings is important, but many cities overlook this and may not budget for it. In Fargo, N.D., the city has set itself apart by prioritizing an annual budget for updating pavement markings. Since 2007, the city has been working with 3M to implement its 3M™ Stamark™ All Weather Contrast Tape on concrete surfaces and epoxy markings with 3M™ Wet Reflective Elements on asphalt surfaces, on an ongoing, annual basis.

With a budget set aside, the city of Fargo is able to regularly observe the roads, assess what is required based on their standards, and contract out projects to update the striping as needed. For example, Jeremy Gorden, transportation division engineer for the city of Fargo, said that based on their most recent evaluation, 15 sites throughout the city need tape replaced. Due to the long lasting performance of the tape, this replacement rate is fairly low considering the city's 43 square mile footprint and 1,200 lane miles of roads. "The countryside up here is hot in the summer and cold in the winter with lots of snow, so it just needs to be maintained over the course of a number of years," Gorden said.

Committing to Quality Striping

Decades ago, before the annual program was implemented, Fargo city officials would go out and paint the streets twice a year with the city's striping

Project: Pavement Marking Program

Location: Fargo, N.D.

Products: Wet reflective contrast markings for concrete, wet reflective epoxy for asphalt

machine. Staffers would use a water-based paint, which Gorden said didn't last more than a month or two, meaning roads were poorly marked for months out of the year.



The city of Fargo, N.D., prioritizes in its annual budget the updating of pavement markings around the city. It regularly observes and assesses roads to update the striping as needed.

City managers recognized the need to contract out the work and invest in more durable striping. As the commitment to quality striping and the city itself grew over the years, the city's budget gradually increased from around \$10,000 to the \$500,000 now allocated.

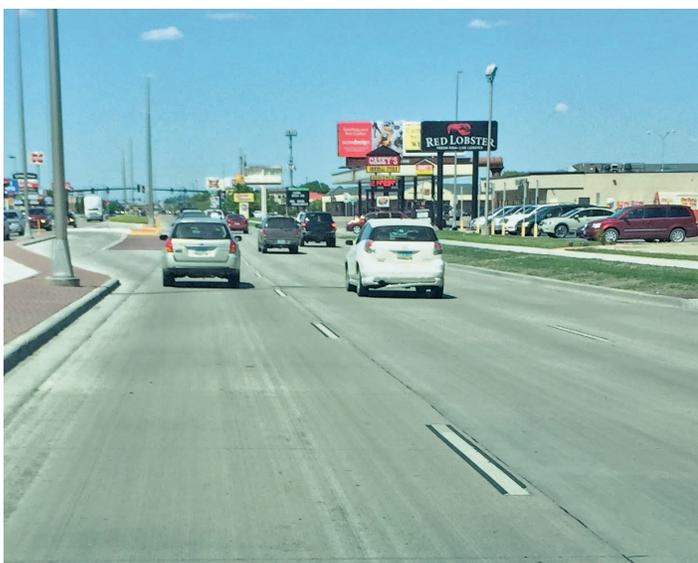
Today the wet reflective contrast markings used for concrete and the wet reflective epoxy used on asphalt, all provided by 3M, allow Fargo's roads to be clearly marked at all hours and even in most extreme

conditions for every day of the year. The contrast tape lasts 8 to 11 years, while the epoxy lasts 3 to 5 years.

The daytime contrast performance of the pavement marking tape is important as it allows for full visibility when installed on concrete. White tape against white concrete can be hard for drivers to see. The 3M tape used for skip dashes differentiating lanes have a 4-inch width of white tape, with a 1.5-inch width of black tape on each side, increasing the contrast against the concrete surface.

3M Sales Engineer Chad Weatherman said this commitment to clear delineation year-round sets Fargo apart from other cities. “They’re progressive in the fact that they want a safer line on the road, and they want it to be seen at all hours of the day and all seasons of the year,” Weatherman said. “That contrast tape marking is what helps them.”

The wet reflective performance capability of a pavement marking is also crucial, as it allows the tape to perform



Due to the extreme weather Fargo, N.D., can experience on an annual basis, its pavement markings need to be durable and long-lasting so that they can be seen by drivers even in the dead of night or during snowstorms.

under wet conditions or inclement weather. This new innovation at 3M, developed within the past few years, utilizes a high enough refractive index bead in the design of the 3M tape to reflect light from headlights through the water and back to the driver’s eyes.

In addition to all of its roadways, Fargo deploys the 3M tape when updating bike lanes in the city. With many college students living in the Fargo area, Weatherman said prioritizing the durability of bike lane striping has been critical.

Results and Benefit

Since implementing the use of 3M pavement markings, the city of Fargo is seeing a long-term investment continue to deliver positive results. “With 3M tape, you can get a decade out of it, if its correctly located and installed properly,” Gorden said. “It’s just a lot more bang for the buck and it’s really durable. You install it and you don’t have to worry about it for 8 to 10 years.”

One key benefit of Fargo’s annual program is the stability of work that contractors can count on each year. In many other cities, pavement markings are updated on an irregular basis, making it difficult for contractors to plan their staffing needs and schedules.

Ultimately, Fargo’s use of 3M tape comes down to safety. With more visible and durable markings, drivers are able to navigate the roads throughout the year even through Fargo’s extreme weather conditions.

Gorden said that at the city, they often are able to gauge if taxpayers are satisfied with public spaces based on how many people call in to complain. “Nobody ever calls me or emails me about striping,” he says. “Only when it’s missing.”

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