## CASE STUDY MICHIGAN DEPARTMENT OF TRANSPORTATION



Stahlin Non-Metallic Enclosures and other local Michigan companies help the city of Belding achieve an improved lighting system.

## THE SITUATION

In 2009, the Michigan Department of Transportation (MDOT) awarded the City of Belding with a \$650,000 enhancement grant for sidewalks, pathway, decorative lights, and trees to improve M-44 within the City of Belding.

The City of Belding was committed to support as many area companies and individuals as possible.

## THE CHALLENGE

It was necessary that the enclosures be large enough to house the controls upon which the lighting system functioned. They also required an enclosure manufacturer that could offer the capabilities to effectively produce a customized enclosure to meet their individualized performance needs.

On top of all of this, they needed an enclosure that would, over the long-term, protect the enclosed system from corrosion and environmental forces that might otherwise damage or jeopardize the city's investment. Due to the large size requirements (48"x36"x16") of the enclosure, they knew that a steel enclosure would be very heavy to handle during installation and would cost more than their budget would allow.

## THE SOLUTION

Fortunately, the engineers on the project knew that Stahlin composite fiberglass materials offer significant advantages over metallic alternatives. Specifically, composites provide superior flexural strength, allowing them to withstand impacts without pemanent deformation or denting.

Additionally, composite fiberglass has an effective continuous service temperature range of -76°F to +274°F, making it capable of withstanding even the harshest operating environments. In many cases, fiberglass composites can outperform metals, including stainless steel, by reducing the high costs associated with corrosion damage.

Finally, fiberglass is lighter than metal, making installation easier and more cost-effective. As a result, the decision was made to use non-metallic enclosures for the project.



The N Series Freestanding is designed for use in larger industrial control systems and machine tool control panels. Their industrial look and ruggedness offer the most practical solutions to many applications and are well-suited for both indoor and outdoor environments. These larger size enclosures are designed to provide the mazimum available space for electrical, hydraulic, or mechanical control circuits.

