



Photos courtesy of Michigan DOT

BARRIER SOLUTION FOR BATTLE CREEK BRIDGE

Alkali-silica reaction (ASR), commonly known as "concrete cancer", is a chemical reaction that can wreak havoc on concrete structures and accelerate deterioration. This corrosive force is quite prevalent in concrete bridge rails and can cause a number of issues, such as negatively affecting the barrier's crashworthiness. In extreme cases, the crumbling concrete must be protected by a temporary barrier solution. In Battle Creek, Michigan, the concrete parapets on M-66 over Interstate 94 had suffered from severe ASR deterioration, and in 2017 it was decided that the placement of a temporary barrier was necessary until the bridge was repaired.

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Jamie Lemke
Give 'Em A Brake Safety

Initially, temporary concrete barrier was going to be used. However, after discovering Zoneguard® and learning about its weight, portability and durability advantages, steel barrier was specified and Zoneguard® was selected for the project. Hill & Smith Inc. partnered with Grandville, Michigan based Give 'Em A Brake Safety to offer a barrier and attenuator package and both companies were present during the installation in Battle Creek. Jamie Lemke, President of Give 'Em A Brake Safety, was in attendance, primarily to witness the installation of Zoneguard®.

Impressed with what he saw, Lemke shared, "This was our first experience with temporary steel barrier and Zoneguard®. The significant trucking advantage was immediately evident. Further, it was the ease and quickness of the barrier's installation, including anchoring for limited deflection, that convinced us that Zoneguard® is the premier barrier product and perfect for the Michigan market. We're excited to partner with Hill & Smith to offer Michigan a MASH-tested barrier with many time and cost saving benefits." The barrier will be in place over the winter, protecting Michigan travelers from insufficient and dangerous concrete bridge rails.

Zoneguard® is one of the most extensively crash tested temporary barriers on the market today, having undergone testing to both NCHRP-350 (National Cooperative Highway Research Program Report 350) and MASH (Manual for Assessing Safety Hardware) standards. Zoneguard's rigid cross-section and low center of gravity result in industry-leading crash performance and a proven level of life-saving protection.