



National Corrugated Steel Pipe Association
2012 PROJECT OF THE YEAR
Application

Project Name: I-94 Mitchell Interchange Reline

Submitted By: Mike Mihelick

Fabricator: Contech Engineered Solutions

Category: DOT/Rehabilitation

Location: Milwaukee, WI

Size & Profile: HEL-COR® pipe in 54-in. diameter aluminized steel type 2 (ALT2) 5-in. x 1-in. corrug.

Substrate: Galvanized ___ Aluminized X Polymer _____

Special merits of Project: See attached profile.

Photos: (Attach as separate files)

Mitchell Interchange — I-94

Milwaukee County, WI

Reline, Stormwater Management

Project Team Members:

Owner:

Wisconsin Department of Transportation

Engineer:

Wisconsin Department of Transportation

Contractor:

Michels Corporation

Product Used:

- HEL-COR® pipe in 54-in. diameter aluminized steel type 2 (ALT2) 5-in. x 1-in. corrugation

Installation Date:

November 2012



Only a year after installing a triple 60-inch-diameter reinforced concrete equalizer pipe under 30-feet of cover at Mitchell Interchange on I-94, just south of Milwaukee, the Wisconsin Department of Transportation found that the pipe already needed to be relined due to structural cracks.

After considering their options, the Wisconsin DOT chose HEL-COR pipe by Contech Engineered Solutions. This product was significantly more economical than that of two alternative products considered. HEL-COR offers a wide range of wall thicknesses, corrugations, diameters and pipe section lengths to meet any specific job requirement. Durability requirements are addressed by a variety of materials.

For this project, the Wisconsin DOT specified 54-inch diameter, Aluminized Steel Type 2 (ALT2), 5-inch x 1-inch galvanized HEL-COR pipe instead of solid-wall HDPE.

Benefits of HEL-COR® pipe include a proven service life that can exceed 100 years with proper specification, sustainability from recycled material, strength, flexibility, versatility and lightweight material. By using homogenous material, HEL-COR eliminates failures due to stress cracks, shrinkage cracks and air voids.

In this project, 10 c internal expanding bands were used with flat gaskets. During install, the pipe was stage grouted in three lifts, and had two grout plugs in each piece of 20-foot pipe length.

The Wisconsin DOT also chose to further protect the pipe by adding zinc chromate paint to the pipe exterior (the yellow coating on the pipe in the top photo). The purpose of this extra protection was to protect the aluminized coating from the flowable fill during the curing process.

The Contractor was able to perform this reline project in just seven days without disruption to traffic.

