

## CASE STUDY



### PROJECT DETAILS

**Project Name:**

WIS 27 Culvert Replacement

**Location:**

WIS 27, Chippewa County

**Project Owner**

Wisconsin DOT

**Product Manufacturer:**

County Materials Corporation

**Date:**

June 2020

**Key Products:**

Two 84-Inch Diameter Round Concrete Pipe

## County Materials Responds to Emergency Culvert Replacement

**Solutions:** Reinforced Concrete Pipe delivered for emergency replacement just hours after washout.

In early June, heavy rain from Tropical Storm Cristobal moved through the Chippewa Valley. The storm's persistent rainfall proved too much for twin corrugated metal culverts on WIS 27 and they washed away in the middle of the night as water oversaturated the ground around them. While the asphalt above remained largely intact, the hollow area below posed a potentially fatal hazard for oncoming traffic. The Wisconsin Department of Transportation (WisDOT) raced to the site to barricade the road and initiate emergency repairs.

Shortly after, County Materials' Rib Falls operation was called upon to deliver two readily available 84-inch diameter reinforced concrete pipes (RCPs). The heightened urgency of the project necessitated same-day delivery, which was scheduled to leave directly after the call ended. County Materials was prepared for the challenge, as its dispatch and driver teams worked in tandem with WisDOT to coordinate a successful expedited delivery within hours of the washout.

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Prior to the washout, WisDOT slated culvert replacement for later in the summer, recognizing the aging metal pipes' diminishing structural integrity and inadequate flow capacity. RCPs were chosen to replace the corroded corrugated metal pipes for their reinforced strength and reduced life cycle costs. The original 72-inch diameter metal pipes were replaced with 84-inch diameter RCPs manufactured by County Materials. The inherent strength of the precast pipe is enhanced with wire reinforcements, proven to surpass the strength of alternative products. RCPs are also capable of providing a long-term solution with minimal maintenance for the entirety of the product's service life. Upsizing to 84-inch diameter pipe ensures additional security and will further prevent the area from washouts and flooding after major rain events. Replacing the culverts with RCP ensures safety of those traveling WIS 27, while protecting the area's landscape.



With the help of County Materials' readily available products and expedited delivery, WisDOT crews were able to reopen WIS 27 the following week.



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