



CASE STUDY:

SPRAYWALL IN MEDORA, ND

CLIENT

Medora CMP

PROBLEM

A 90" corrugated steel plate culvert (commonly referenced as CMP) that runs for 700 linear feet directly under Interstate 94 near Medora was badly decomposed.

SOLUTION

The solution design called for a 500-mil application, and it was decided to spray only the first 130 feet, starting from the point of entry at the inlet end.

Located 130 miles west of Bismarck along I-94, Medora is a famous little Badlands town with a significant tourism population. Medora offers convenient access as the gateway to the south unit of the Theodore Roosevelt National Park, serving as a basecamp to the park with multiple history, education, and entertainment venues to enhance the tourism experience and become a destination location. Medora also serves as a famous stopping point for tourists on their way to Yellowstone National Park. Medora is one of the most popular tourist attractions in the state of North Dakota.

The asset owner discovered that a 90" corrugated steel plate culvert (commonly referenced as CMP) that runs for 700 linear feet directly under Interstate 94 near Medora was badly decomposed. Further complicating matters, of the total 700 feet in length, the CMP culvert pipe also has two 45-degree bends and is in a fill section over 50 feet deep. Due to the significant deterioration of the CMP, the design group moved forward with a traditional open cut replacement method to replace the first 130 feet, but due to the complications, this would require a contractor to drive sheet piling to open cut this portion of a larger project. The overall project included highway improvements, bridge decking and grading. The CMP culvert replacement by traditional open cut methods would take significant budget resources away from direct public benefit above ground structure, while also adding significant construction time and risk.

SOLUTION

Even though the asset owner was days away from putting the I 94 project out to bid, they were open to a trenchless technology, a spray applied polyurethane liner, Spraywall by Sprayroq. They called upon Sprayroq's Director of Technical Services for both a presentation and for an engineered proposal solution. The solution design called for a 500-mil application, and it was decided to spray only the first 130 feet, starting from the point of entry at the inlet end.

RESULTS

The Sprayroq Certified Partner (SCP) overcame challenging equipment access, imminent September weather challenges, and successfully installed Spraywall without disruption to the Medora tourist traffic and while minimizing construction capital costs but also maximizing on Spraywall's long term return on investment (ROI).



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