

Moraine, Ohio

Culvert Reline with Weholite



The City of Moraine in Montgomery County, Ohio had a 1900' culvert problem that could potentially disrupt the community for 8 months. The 1900 feet of 84" Corrugated Metal Pipe span was running adjacent to and under South Dixie Highway and State Route 741 and was estimated to cost over \$4,000,000 to dig and replace. After reviewing many products and options, Montgomery County chose to slip line with Weholite profile wall HDPE pipe for its cost effectiveness, durability, ease of installation and long service life.

The Weholite option was bid at \$1,500,000. One of the key features for success on this project was that Weholite could navigate a 4 degree bend without the need for elbows. There were also 5 larger bends in areas that did not allow for open access. Weholite's versatility and ease of fabrication allowed the installer to use short miters to push through the host pipe and weld the joints from inside the pipe. Montgomery County engineers also liked the fact that once grouting was completed between the host pipe and liner pipe, the Weholite solution solved any structural issues associated with deteriorating metal culverts.

Another challenge was to ensure the hydraulic capacity was not compromised. This was accomplished by using 72" Weholite for the first 65' and then utilizing a 72" x 66" reducer to transition to the remaining 1835' of 66". 16 laterals were also reconnected using Weholite profile wall HDPE pipe and Sclairpipe solid wall HDPE pipe.

When all was said and done, Montgomery County had a rehabilitated culvert that will last 100 years, completed in 1/2 the time and more than 50% savings compared to dig and replace construction.



Sliplining 66" Weholite in pre-existing 84" CMP

Project:
 City of Moraine, OH Culvert Rehab

Owner:
 Montgomery County, OH

Application:
 Slipline 1900' of 84" CMP with 66" Weholite, reconnect 16 laterals and navigate 5 bends

Contractor:
 Mainline Road & Bridge Construction, Dayton, OH

Sub:
 D.A. Van Dam & Associates, Hubbard, OH