

Spruce Street (T-459) Culvert Replacement

Client: McCalmont Township Supervisors

Jefferson Co., PA

Year: 2018 Cost: \$150,000



Gwin, Dobson & Foreman served as the design engineer for the replacement of a deteriorating concrete and stone arch bridge on Spruce Street (T-459), which spans an unnamed tributary to Elk Run. GD&F designed a cost-effective solution using an aluminum structural plate pipe-arch structure with aluminum wing walls.

The new structure maintains the roadway alignment and provides for improved stream hydraulics and additional culvert capacity. An exposed 4-inch gas main was relocated to accommodate the culvert. GD&F performed all preliminary and final design engineering work.

The project design was performed according to PennDOT standards. The bridge replacement was completed and open to traffic within three weeks from the start of construction.