

21 Mile and Fairchild Road Water Meter and PRV – Phase 2 Macomb Township, Michigan



A new Water Master Meter and Pressure Reducing Valve was constructed along Fairchild Road, north of 21 Mile Road.

Spalding DeDecker Associates, Inc. (SDA) has been Macomb Township's Engineering consultant since 1967 and has acted as the Township's Engineering Department in all capacities since that

time. SDA provided survey, design, and construction contract administration services for the project.

The work consisted of hot tapping the existing Detroit Water and Sewer Department (DWSD) 42" water transmission main with a proposed 16" water main, installing a packaged Master Meter Station and a packaged Pressure Reducing Valve (PRV) Station, and connecting the outgoing 16" water main to the existing Macomb Township water distribution system.

SDA performed a water modeling system based on WATERCAD to determine the design parameters of the proposed stations. The PRV's were carefully chosen to handle large variances in pressure expected from the DWSD water main. The Water Master Meter and Controls were designed to meet DWSD's Contract 805 criteria and specifications. The station was designed with a 16" ABB Mag Meter. External access to the internal gate valves was provided to allow for above surface operation of valves. An external valve was designed to by-pass the Water Master Meter Station, should the Meter Station need to be taken off-line for repair.



The Pressure Reducing Station and Controls were designed to meet Macomb Township Standards. The PRV contains one 16" PRV with one 16" redundant PRV. External access to the internal gate valves was provided to allow for above surface operation of valves. All water main from the transmission main to the PRV Station was encased in concrete per DWSD requirements.

OWNER / CLIENT

Township of Macomb

PROJECT START - END

September 2001 – February 2007

SDA PROJECT NO.

MA01-024