

## RELATED EXPERIENCE

### LAKETON TOWNSHIP SANITARY SEWER ASSET MANAGEMENT PLAN MANHOLE ASSESSMENTS

Johnson & Anderson, Inc. was contracted by Laketon Township to perform professional engineering and surveying services related to Sanitary Sewer Manhole Assessments.

<b>Location:</b>	Laketon Township Muskegon County, MI
<b>Construction Date:</b>	2013-present
<b>Project Cost:</b>	\$48,750
<b>Client:</b>	Laketon Township
<b>Contact:</b>	Ms. Kim Arter (231) 744-2454

The purpose of the project was to take a proactive approach in developing an Asset Management Plan to manage the community's sanitary sewer system. The goal was to identify the physical assets (i.e. manholes) and perform a condition assessment to prolong the life of infrastructure system components. The use of an asset management plan will facilitate proactive capital improvement planning and assist in reducing inflow and infiltration (I/I) in the Township Sewage Disposal System.

J&A performed manhole assessments for approximately 250 manholes. Manholes were located in a section of the Township constructed in the late 1970's. First, the project team evaluated existing as-built drawings and developed an identification numbering system. We then performed an assessment for each manhole conforming to National Association of Sewer Service Companies (NASSCO) standards to include a field inspection for condition, collection of rim and invert elevations, GIS location, condition report, and photographs. Based on the findings, we developed a Manhole Assessment report to include repair strategy and opinions of probable cost for repairing deficient manholes. J&A developed Utility Mapping for manhole location using GIS technology. The Township plans to utilize the information for inclusion into the Michigan Department of Environmental Quality (MDEQ) SAW Grant Asset Management Program.

