



OutPerforming. *Everyday.*

Case Study Civil Megaproject Pontiac, IL

Our customer is the largest electric utility provider in Illinois. This turnkey solutions project in Pontiac, Illinois installed new concrete encased duct and manholes, in which cable and joints had to be installed, as well as tying into an existing duct system located within Pontiac. INTREN met all schedule deadlines, budget targets and safety goals, despite being presented with many unforeseen challenges, such as extremely wet ground conditions and defective material.

THE CHALLENGES

This 8-month project was to be completed in two phases – each with their own tight deadline schedules. The INTREN team faced three main challenges.

1. Tight Schedules:

The intense schedule was one of the most demanding aspects of this project. A team that worked efficiently and made little to no mistakes was needed.

2. Environmental Conditions:

Due to the time of year, the fields were extremely wet, and had both sand and water running through them. When the crew tried excavating for the manholes 12' 8" into the ground, they were hitting water at 4'.

3. Defective Material:

Toward the end of the project, when the crew was getting ready to liven the cables, testing had shown manufacturing defects in both cables and the joints.

THE SOLUTIONS

INTREN called in a highly-qualified team to lead this project to combat all the challenges that were presented. This team avoided communication errors and overcame the demanding schedule by placing the utmost importance on interdepartmental communication through meetings, e-mails and phone calls and through sheer dedication.

The environmental conditions posed the greatest challenge. To solve the multiple drain tiles and fluid soil conditions, the INTREN Civil department and general foremen creatively solved the problem by sinking/submerging them. With the water table at approximately 4' below existing grade, it was challenging to excavate to the required depth of 12'8" for precast manhole installations. Simply pumping water from an open manhole excavation was not feasible due to the sheer volume of water rushing in. The crews resorted to submerging them under water to set them into place and then backfilling the excavations around the manhole structures. After all manholes were installed and connected together with conduit, multiple pumps at multiple manholes were used to dewater it as a complete system. Once emptied the manhole interiors were cleaned and ropes were installed through conduits in preparation for cable installation.

Near the end of this project, the INTREN crew discovered that both the cable and joints were defective. As a result, the customer authorized a scope change and the INTREN team replaced the joints and cables in the manholes.

THE RESULTS

- The crew installed two new feeders between two sub stations and 22 new manholes, along with the installation of splice boxes, conduit, joints and cable.
- There were NO incidents for the entire length of the project and all work was completed error-free
- The project was completed on schedule and within budget

The Civil Megaproject was an extensive endeavor that exemplified turnkey solutions through creative and innovative solutions and an INTREN team that rose to the challenge.



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