

## **University of Cincinnati**

During construction of a new power generating plant for the University of Cincinnati old abandoned fuel tanks were found buried in sand. During the excavation of the tanks it was discovered that the surrounding sand fill covered a larger area than expected.

Sand began to sift dangerously close to a roadway that ran next to the University. As the sand continued to sift into the excavation it was discovered that a fiber optic line was buried next to roadway and was in jeopardy of being broken as the sand supporting it sifted into the excavation. To make matters worse, the fiber optic line had a mass of concrete poured around it that was estimated to weigh approximately 20-tons. The mass of concrete was beginning to settle and creating stress on the fiber optic line.

In the event that the fiber optic line should become damaged, it would shutdown all communications to the entire University and a hospital located across the street along with countless local businesses. Support Restoration Technologies was contacted to review the critical situation and offer a solution.

After reviewing the situation, it was decided to place an expanding chemical grout directly under the concrete mass surrounding the fiber optic conduit. The expanding chemical grout created support columns and compacted the sands in-between each grout column. Once grouting was completed, excavation continued without any additional settlement of the fiber optic conduit.