



Apple Ridge Apts.
 Kalamazoo, MI

Project: Apple Ridge Apartments
Location: Kalamazoo, MI
Contract Type: Firm Fixed Price
Contact: Will Forden, Kent Companies

Background

Apple Ridge Apartments is a new multiple unit single level apartment complex built and completed in late fall of 2004.

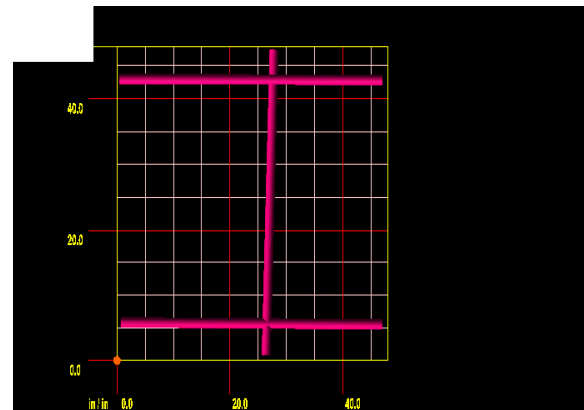
Scope

Kent Companies, a local concrete contractor, was called upon to install drains in the bathrooms of two different apartment units (building 13 and building 23) inside the Apple Ridge complex. These buildings were engineered with slab on grade and reinforced with post tensioned cables. Because of the risk associated with damaging a cable it was important for the contractor to locate them before modifying the concrete.

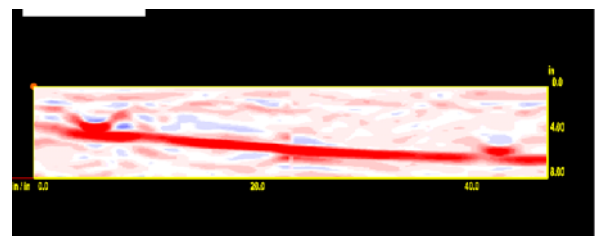
Kent Companies called upon Diamond, Inc. to provide a radar survey and verify the location and depth of the post tension cables before chipping any concrete. By determining the depth of the cables in advance of chipping the concrete, it became possible to determine if whether a drain could be installed successfully without the risk of trial and error which would result in wasted time and money.

Technology and Manpower

Ground Penetrating radar was performed by Diamond, Inc. using technology engineered and manufactured by Geophysical Survey Systems Inc. The SIR 20 system with onsite 3D capabilities with Radan software technology was used by the Diamond, Inc. technician. The 1500 mHz antenna along with the patented 3D Smart Pad technology was used to scan both bathrooms in question. A 4' by 4' 3D scan was performed in each bathroom and the report requested by Kent Companies was delivered the next business day.



Above: Top view of 48" x 48" 3D scan with lines added for clarity in building 13.



Above: Horizontal cross-cut of one of the post tension cables in building 13 with depth scale listed to the right.