



# The Finishing Touch

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## Featured Project The Gallery at Warren and Conner

Redevelopment of a retail site on Detroit's East side revealed poor soil conditions at the footprint of the proposed addition to an existing shopping mall at the corner of Warren and Conner. During demolition operations of the existing building, the geotechnical engineers noticed very poor ground conditions beneath the footings of the demolished portion of the building. Soil borings were taken and sub-grade soils were found to be extremely soft and contaminated to depths of 15 to 18 feet below grade. A high ground water table and the adjacent 2 story structure that was to remain made excavation and removal of the unstable soils cost prohibitive, if not impossible.

The geo-technical / environmental engineering firm, *ATC and Associates*, evaluated the situation and started looking for alternate solutions to **allow construction to continue**. The clock was ticking. Renovations and the addition to the mall needed to be completed by March 15, 2006, allowing 25 calendar days to construct the building from foundation to roof.

ATC and Associates contacted Kent Concrete Lifting to investigate the use of New Construction Helical Piers to support the proposed addition. (ATC was familiar with Kent Companies and had good things to say about the concrete division's excellent work at Gordon Foods in Green Oak Township). It was determined that helical piers were an excellent solution to the problem. Installation is vibration free and no spoils are created during installation, thus preventing the need to dispose of the contaminated soils at an environmental landfill. Installation equipment is small, allowing other trades to continue their respective work at the same time.

A total of 79 Chance-Atlas New Construction Piers were installed to depths of 30 feet in 5 working days. The total time from recognition of the problem to completed installation of the piers (to address and correct the problem) was less than 2 weeks. This included soils investigation, engineering review and design, fabrication of the specially designed helical starters, delivery and completed installation. The foundation contractor was installing pile caps and grade beams **immediately** behind the Kent Concrete Lifting crew.



*Demolition and removal of existing foundations and buried debris up to 15 feet deep. Extremely soft soils made removal of foundations treacherous since machines would sink while lifting heavy pieces of concrete and debris*



*Excavator installing a helical pier starter adjacent to an existing building.*



*Keith Morse in a manbasket hooking up a 21' extension.*