McRae™ Enterprises

Innovative™ Piering

The Extra 10 Miles

Previous repairs to the existing foundation failed to stabilize this steel reinforcement-deficient foundation. Instead, the previous repair attempts by other contractors damaged the foundation, making future repair attempts impossible. The only solution: Start Over.

Project: #10676
Architect: BTM Engineering, Inc. – Structural Engineers
Patriot Engineering – Geotechnical Engineers
Rite Way Shoring & Scaffolding – Shoring Plans
Location: New Albany, Indiana

Immediately after evaluating the condition of this home, it was discovered that simple underpinning or repairs wouldn't be a viable option. There were at least three contributing issues. 1) An 8' tall exterior wall was bowed and leaning away from the house with no steel reinforcement in it. 2) All of the previous underpinning attempts broke the undersized and rebar-less footer. 3) Geotechnical reports revealed poor bearing soils to a depth of about 15-17'.

McRae Enterprises consulted with Patriot Engineering and BTM Engineering to help compile a solution. Structural scaffolding and steel beams were brought in to lift the rear of the house off the existing foundation. Once the house was shored off the foundation, demolition began. The soil had to be excavated from around the damaged 8' deep foundation. The wall was removed as well as the broken footer. The failed steel push piles/piers, previously used for repairs, were recycled for scrap steel.

Once the existing foundation was removed and the excavation was completed, new helical piers were installed. The wall was constructed with 12" concrete block. After the new wall/footer had time to cure, the existing house was seated on the new foundation.

The next phase was to underpin the interior load bearing walls which could be accessed from the garage. This required the removal of the garage floor slab and excavation approx. 7' deep. The interior walls were stabilized to prevent any future settlement.

The final phase required accessing 2 interior load bearing walls only accessible only from the crawl space. Using hand held drive equipment, 8 helical piers needed to be installed. Once installed, they were fitted with underpinning brackets and the interior walls were stabilized to prevent any future settlement.

The homeowner's cost for this project was sizeable and took place over several weeks. However, there was no other way to have guaranteed a successful repair other than the method employed. The customer can now repair all the damages caused by the previously flawed foundation and be confident in their home investment.