

Brand New Homes Falling Down a Steep Hill

Charlotte, North Carolina
RESIDENTIAL PROJECT OF THE YEAR FINALIST

Near Charlotte, North Carolina, River Heights is a new housing development from True Homes. Tar Heel Foundation Solutions does a lot of warranty work for local builders like True Homes, but this job was unique. A 2-unit townhome, not even occupied yet, was already moving both vertically and horizontally, causing major cracks and serious concern for the builder. Tar Heel's scope of work included (17) exterior helical piers, (10) helical tiebacks, (10) interior helical piers (each installed using a handheld and requiring concrete excavation), and 57 linear feet of crack stitching using Rhino Carbon Fiber Crack Locks.



Between the sheer scope of the project, and the modernity of the building, it was a real challenge in and of itself to make sure this project was completed correctly. Throw in the fact that the entire left and back side had only 6 feet of clearance to a 45-degree slope leading to a 25-foot retaining wall, and the job's difficulty becomes apparent.

Additionally, it rained twice during installation, causing the 6 feet of clearance to the slope to be even tighter because once a mini-excavator starts sliding, there ain't no stopping it.



With some of the helical piers being installed inside, there was a lot of containment to do. Tar heel utilized a full day for just containment to ensure the interior wasn't muddy, splattered with concrete, or anything else that would sully the brand new home. During excavation, Tar Heel also found out that the footers on the home were very deep. They ranged from four to five feet, and were even six feet deep in places, particularly near the rear.

Ensuring the team had the proper group of guys to complete the job was crucial. The machine operator needed to be 100% on board or else they wouldn't be able to complete the job. The steep hill along the back side mixed with the heavy rain made for tough working conditions. The team used drive pads, ensuring they were set up correctly, so the wet mud wouldn't cake the mini-excavator's tracks causing it to slide. They also set up batter boards around the rear of the home to store all the dirt from the deep excavation to ensure mud clumps wouldn't roll down the hill to the road at the bottom of the retaining wall.



The containment of the interior piers was also critical to ensuring the client's satisfaction when the job was said and done, and it also minimized the final cleaning necessary, leaving everybody happy.