



The Customer
Birkdale Commons

Location
Huntersville,
North Carolina

Type
Retail/Commercial

**Date of Project
Completion**
Spring 2021

Interesting Fact
Although our work was done below the soil, the customer was able to see the results in the form of a straightened column location and architectural awning.

CASE STUDY: The General Contractor contacted UMA after it noticed settlement of approximately nine columns at its recently constructed Birkdale Commons project. In conjunction with the owners of a geotechnical firm, UMA provided a Design-Build solution for the owner and its design team.

HIGH-DENSITY POLYURETHANE RESIN (HDPR) INJECTION

THE PROJECT

Birkdale Commons is a retail and office complex that the General Contractor developed across from Birkdale Village. The company had recently built this facility and was in the process of outfitting the retail spaces when its team discovered the settlement issue. A geotechnical report revealed that the settlement was caused by previously placed fill material below the column locations. UMA's High-Density Polyurethane Resin (HDPR) Injection was the ideal non-invasive solution to get this project back on track.

THE CHALLENGE

UMA's overall goal was to recover the settlement and stabilize the columns. From site investigation to the actual geotechnical work, we had to overcome many challenges related to inconsistent fill materials.



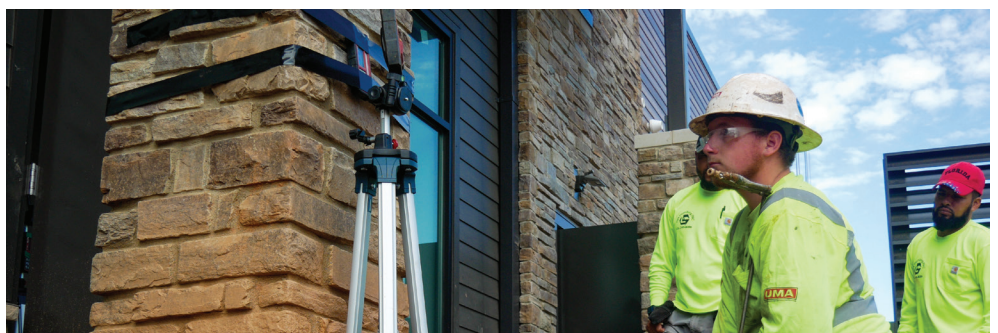
CASE STUDY

THE SOLUTION

UMA's treatment plan was placed below the most distressed column as the footing of the column had settled 4 inches from its original location. We were able to lift the settled column into the correct position with HDPR deep injection. UMA created an HDPR/soil matrix to mitigate further settlement within the top nine feet of the soil.

THE RESULTS

Birkdale Commons was a prime example of a geotechnical issue that manifested in problems with an above-ground structure despite the owner having done its due diligence. The General Contractor was pleased with UMA's work especially since they could visually see the improvements that the deep injections provided for the architectural awning that had previously showed signs of distress. Birkdale Commons was eagerly anticipated in this growing community. UMA's work was critical in getting this project delivered to the Huntersville community.



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