

UMA to Break NCDOT Record for Largest Square Footage of Soil Nail Wall

By Brian DeSpain, President, UMA Geotechnical Construction



UMA Geotechnical Construction's work on the NCDOT I-26 Exit 40 to I-40 Interstate Expansion Project is on track to become the largest square footage of soil nail walls done under a single contract in NCDOT history.

Colfax, N.C., February 9, 2021: UMA Geotechnical Construction, a North Carolina-based geotechnical contractor serving the Mid-Atlantic Region, is working on a project that will become the largest square footage of soil nail walls done under a single contract in North Carolina Department of Transportation (NCDOT) history. The contractor is on track to construct roughly 115,610 ft² (10,740 m²) of wall along Interstate 26 by April of 2022.

UMA is working as a geotechnical subcontractor to a Fluor-led joint venture (JV) with United Infrastructure Group,

Inc. The project, formally known as NCDOT I-26 Exit 40 to I-40 Interstate Expansion Project, will help to alleviate traffic congestion and improve the safety and operational efficiency of this vital stretch of interstate in the Asheville area.

UMA commenced work in September 2020, and will ultimately construct 15 soil nail walls of varying heights, ranging in square footage from less than 1,000 to more than 25,000 (300 to 7600 m²). All are permanent walls consisting of epoxy-coated soil nails, bearing plates, and a decorative cast-in-place concrete finish.



The magnitude of the project required UMA to rely on several local material suppliers. The I-26 project was subject to the Federal Highway Administration's (FHWA) Buy America policy, so UMA secured nearly 500,000 lbs (230,000 kg) of domestic structural steel for the epoxy-coated soil nail bars from Skyline Steel. Reinforcing steel is being sourced from Guaranteed Supply Company. Roanoke Cement is supplying nearly 2,000,000 lbs (910,000 kg) of portland cement required to bond the reinforcing tendons to the surrounding soil and rock, and enough shotcrete to cover a football field with an 8 in. (200 mm) layer.

The widening project also required a wider, taller, and more aesthetically pleasing Blue Ridge Parkway Bridge over I-26. UMA was tapped to install 35 rock anchors for the new three-span precast segmental bridge.



“UMA is proud to play an integral part on the Fluor-United JV for the I-26 project,” says President Brian DeSpain. “Our combined efforts will help to improve traffic flow in the area while also retaining the natural beauty of Asheville.”

An industry leader in the development and refinement of innovative polymer grouting techniques, UMA Geotechnical Construction, Inc. creates specialized solutions to assist clients with ground engineering needs that save money and minimize downtime. As one of the first to use lightweight structural polymers to improve subsurface soils at depths greater than 40 feet, UMA is uniquely equipped to deliver safe, predictable, and effective results. The team includes industry experts in structural support, earth retention, and soil stabilization with decades of experience, and is dedicated to ongoing advancement in the field.

“UMA IS PROUD TO PLAY AN INTEGRAL PART ON THE FLUOR-UNITED JV FOR THE I-26 PROJECT,” SAYS PRESIDENT BRIAN DESPAIN. “OUR COMBINED EFFORTS WILL HELP TO IMPROVE TRAFFIC FLOW IN THE AREA WHILE ALSO RETAINING THE NATURAL BEAUTY OF ASHEVILLE.”



Brian DeSpain is the president of UMA Geotechnical Construction and has been part of the geotechnical construction community since 2003. With a background in construction management, geotechnical engineering management, and strategic planning, he brings wide-ranging experience in the sales, field operations, and management of deep foundation and geotechnical grouting operations. Brian also has extensive experience with grouting equipment, hydraulic equipment, hydraulic equipment design, drilling equipment, polyurethanes, deep soil stabilization and foundation stabilizations of large commercial buildings, tunnels, and highways.