



SOIL NAILING | PERMANENT RETAINING WALLS | SHOTCRETE

I-66 SOIL NAIL WALLS - FAIRFAX, VIRGINIA

The I-66 soil nail walls were built as part of the Transform 66 Outside the Beltway project located in Fairfax, Virginia. This project was a \$3.7 billion public-private VDOT partnership with Ferrovial-Allen Meyers (FAM), as the construction partner. The purpose of this project was to provide new travel choices and congestion relief across a 23 mile stretch of the I-66 highway. The project provides new express lanes, more park and ride spaces, improved bus services, interchange improvements, and 11 miles of new bike trails.

Schnabel was contracted by FAM Construction to build two soil nail walls, which would allow FAM to widen the eastbound side of I-66 and install new express lanes. RW-S2A-I66GE-1 was the first soil nail wall that Schnabel built for this project. This wall was approximately 13,000 SF and presented a variety of challenges. After RW-S2A-I66GE-1, Schnabel constructed the second soil nail wall, RW-S2A-I66GE-5. This wall was approximately 60,000 SF and 2,400 LF long. Schnabel started working on this wall in October of 2020 and completed the work in September of 2021.

During construction, RW-S2A-I66GE-5 presented its own challenges. Rock was encountered near the bottom of the wall which slowed down the excavation process and made it difficult to control the location of the wall face, resulting in significant shotcrete overages. The weather presented another challenge during the colder months of the year. The ambient and surface temperatures needed to fall between 50-85 degrees fahrenheit for the shotcrete to cure properly, therefore during the colder months, cold weather protection had to be used. This involved heating tents and using blankets, which lasted for about 5 months.

General Contractor: **FAM Construction, LLC**
Design/Build Specialty Contractor:
Schnabel Geotechnical Design & Construction



For more information on this or any other project, please contact Schnabel at:



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