



2019 - 2023



Virginia Department of Transportation (VDOT)
The Department of Rail and Public Transportation (DRPT)

20

Total Stations

700

Prisms

PURPOSE OF WORKS

The Transform 66 outside the Beltway project will revitalize Northern Virginia's Interstate 66 into a multimodal corridor that moves more people, provides reliable trips, and offers new travel options. The project is a public-private partnership between the Virginia Department of Transportation (VDOT), the Department of Rail and Public Transportation (DRPT), and I-66 Express Mobility Partners, delivering \$3.7 billion in improvements to the corridor.

MONITORING SYSTEM

Sixense was appointed to design a monitoring system that measured the track movement, highway settlement, and movement on various other structures during drilling shaft activities, utility installations, and retaining wall construction. Sixense implemented instrumentation monitoring on twenty different sites along the project, all with distinctive challenges that required innovative ideas on installation. For example, Sixense utilized solar panels on the systems since continuous power was unavailable. Additionally, our automated monitoring system delivered measurements around the clock that were critical in identifying different movements and displacements that allowed mitigation plans to be executed quickly. Sixense utilized its reflectorless solution, Centaur, to monitor the roadway surfaces during mining operations. This was achieved without causing any disruption to traffic or jeopardizing the safety of workers.

PROJECT TAKEAWAYS

The I-66 Outside the Beltway Project offered challenges that usually come with large transit projects, such as working at night. The job required day and night shifts, with night shifts specifically for track monitoring on the WMATA property. Safety also played a big role since they had to work on the highways and metro tracks at night. Despite the obstacles, Sixense's services assisted all the stakeholders in having more control over the project, reduced geotechnical and legal risks, and provided peace of mind to all involved parties. The Express Lanes opened in November 2022.

