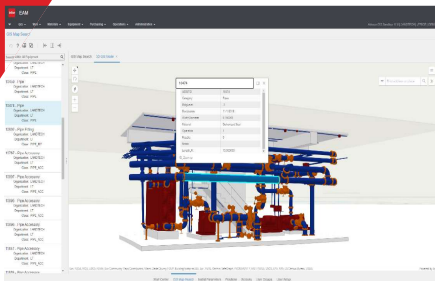
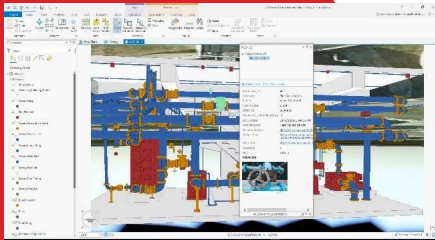
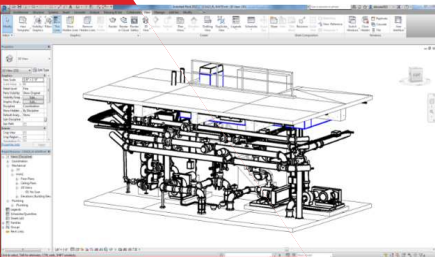
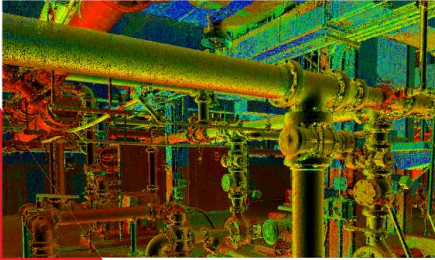


## CASE STUDY

# Miami-Dade Water and Sewer Digital Twins Pilot

Location: Miami, FL | Services: Laser Scanning, BIM, GIS/Asset Management/Digital Twin Integration



## DOCUMENT

The Miami-Dade Water and Sewer Department (WASD) committed to making more than \$1.6 billion of improvements to the wastewater collection and treatment systems serving the county by 2028. As part of their efforts to improve productivity, design, and construction programs, they contacted LandTech Consultants to conduct a pilot program utilizing laser scanning, drone, and digital twin technologies. LandTech demonstrated the potential of these technologies by creating accurate horizontal and vertical 3D models of facilities, as well as digital twin models for operations and asset management.

## IMPLEMENTATION

Using UAV and laser scanning technologies, LandTech produced survey grade reality capture point clouds of various assets within the South District Wastewater Treatment Plant. A digital twin was developed of a pump station within the plant to a highly accurate LOD 500. This model was populated with Infor asset management data, as well as existing GIS data, to provide an intelligent digital twin that could be utilized for asset management. By incorporating additional AR/VR technology, LandTech showed the further applications of utilizing the digital twin for facility management, operations, security, remote sensing and training.

## RESULTS

Upon completion of the pilot, LandTech provided multiple demonstrations of the potential utilization of the digital twin for various applications. WASD is currently preparing to expand the program to provide accurate and fully functional digital twins for use by the various agencies, entities and departments that can benefit from the creation of a digital database with a visual interface.