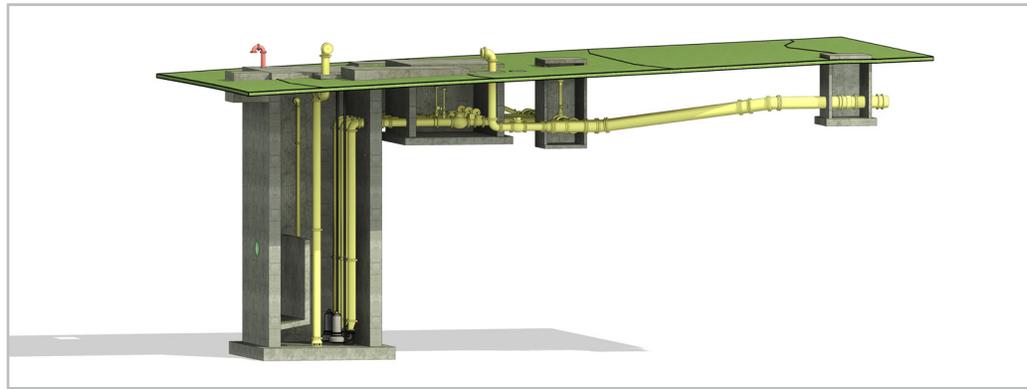
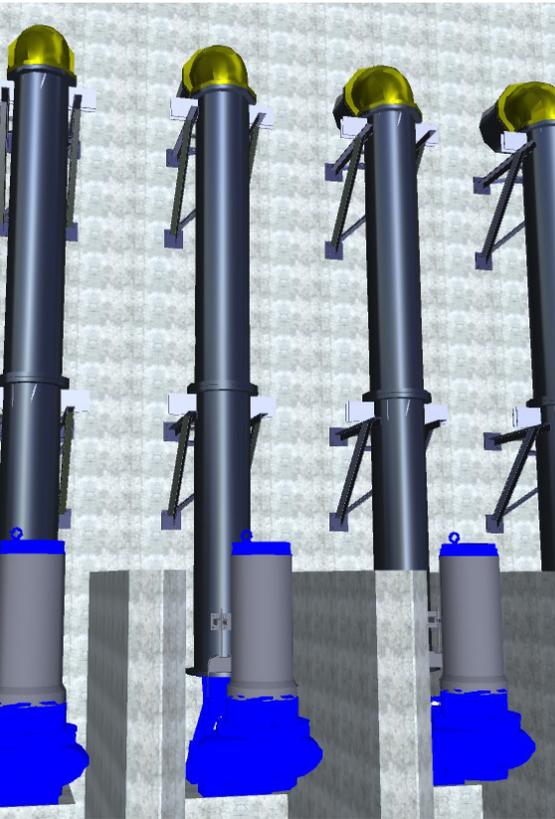


# TRIANGLE INNOVATION POINT WATER AND SEWER IMPROVEMENTS



## PROJECT OVERVIEW

### PROJECT / CUSTOMER:

Triangle Innovation Point /Haskell,  
Garney Construction and Crowder  
Constructors

### LOCATION:

Sanford, NC

### PRODUCT / SOLUTIONS:

Virtual Design & Construction  
(VDC) Services

### CHALLENGE:

Challenging site conditions, including limited access and proximity to existing utilities; unforeseen subsurface conditions; and system integration with existing infrastructure to avoid service disruption.

### SOLUTION:

Advanced reality-capture and design services ensured accurate positioning and integration of complex infrastructure elements, streamlining the construction process and mitigating potential challenges.

### OUR ADVANTAGES:

- Advanced reality-capture services
- Dedicated VDC experts
- Streamlined BOM creation, material procurement, and delivery
- Enhanced project management

## **BACKGROUND**

Sanford, North Carolina, is making waves with the expansion of its water and sewer infrastructure at Triangle Innovation Point (TIP). The program is a \$368 million investment designed to more than double the city's water treatment capacity from 12 to 30 million gallons per day (MGD), improve treatment through advanced technologies such as activated carbon filtration and provide utility services to new industrial areas.

Backed by regional collaboration and significant public funding, this initiative positions TIP as a premier industrial mega site, ready to deliver reliable infrastructure, regional resilience, and thousands of new jobs.

## **PROJECT SCOPE:**

This project consisted of one new lift station and three lift station renovations, all designed to handle up to 3 MGD and nearly 30 miles of water and sewer pipeline ranging from 6" to 36".

Water and sewer infrastructure projects often face complexities, especially those incorporating lift stations. These include navigating challenging site conditions, such as limited access and proximity to existing utilities, which can complicate construction and coordination efforts.

Unforeseen subsurface conditions can lead to unexpected delays and cost overruns. Integrating new systems with existing networks requires meticulous planning to ensure compatibility and prevent service disruptions.

These challenges are often compounded by budget constraints, inflationary pressures on materials, and the necessity for precise sequencing to maintain project timelines.

## **METHOD:**

Ferguson was strategically brought into the water and sewer infrastructure expansion project to serve as an innovative Waterworks Virtual Design and Construction (VDC) partner, seamlessly integrating into the project team's workflow.

The Ferguson Waterworks VDC team addressed the project's challenges by creating a comprehensive digital model of the lift stations, incorporating real-world data through advanced reality-capture technologies. This approach enabled precise visualization of site conditions, facilitating accurate clash detection and coordination among various systems. By simulating potential scenarios and construction alternatives, the VDC team was able to identify and resolve a range of issues before they manifested on-site.

We were also able to create an accurate Bill of Materials (BOM) and a Ferguson estimate directly from this model, which streamlined the process from procurement to mobilization.

Integrating the Ferguson Waterworks VDC team fostered enhanced stakeholder collaboration, ensuring project goals and timelines were aligned. This collaborative environment led to more efficient resource utilization and better risk management.

## **THE SOLUTION: FERGUSON**

This client chose Ferguson for their water and sewer infrastructure projects because of our comprehensive capabilities, industry expertise, and commitment to innovation. Our team brings decades of experience, providing valuable insights and solutions to complex challenges.

Our collaboration with the project team represents a partnership focused on transforming traditional construction practices through innovation. We prioritized communication and collaboration, ensuring every stakeholder was informed and engaged throughout the project lifecycle.

We were and continue to be committed to delivering value at every stage of the process by harnessing cutting-edge VDC technologies and industry best practices.

Our VDC capabilities played a pivotal role in identifying and resolving potential design conflicts early, reducing rework, and optimizing resource allocation. This proactive approach contributed to the model's successful delivery, setting a new benchmark for improving the region's water and sewer infrastructure.

By partnering with Ferguson, clients gain a trusted collaborator who delivers high-quality, efficient, and innovative solutions for their water and sewer infrastructure projects.