PROJECT SHEET

Siler City Wastewater Treatment Plant Improvements

2025

ABOUT THIS PROJECT:

Market Segment:
WastewaterTreatment Plant

Engineer:
McGill Associates

Products Used:
Xypex Admix C-500 NF

Concrete Producer:
Chandler Concrete

Owner:
Town of Siler City

General Contractor:
Shook Construction

Location:
Siler City, North Carolina, USA

The Town of Siler City undertook major improvements to the Siler City Wastewater Treatment Plant to support regional growth and expand treatment capacity for multiple surrounding municipalities.

The project included construction of numerous new wastewater process structures designed for long-term operation under continuous exposure to moisture and aggressive wastewater environments.

The original project specification called for an alternate surface-applied system across multiple structures, including the headworks building, influent pump station, process basins, clarifiers, pump stations, filtration systems, and solids handling facilities.

Given that the project consisted entirely of new concrete construction, the project team evaluated alternative approaches to improve constructability and long-term durability.

In collaboration with a general contractor and ready-mixed concrete supplier, the integral crystalline waterproofing delivers the results more efficiently.

The integral approach allowed waterproofing protection to be incorporated into the concrete at batching, eliminating the need for extensive surface coating installation and supporting the overall construction schedule.

Xypex Admix C-500 NF was incorporated into nearly 6,000 cubic yards of concrete placed throughout the facility. Crystalline admixture reacts with moisture within the concrete to form insoluble crystals that reduce concrete porosity and promote self-healing of microcracks. During construction, crack healing performance was observed in several structures

The use of Xypex Admix C-500 NF provided durable, through section waterproofing protection while helping the project remain on schedule and aligned with long-term performance expectations for critical wastewater infrastructure.