



Piscataway Train 1 & 2 Blowers Replacement

Engineering & Construction Department/ Facility Design & Construction Division

Austin Freeman, Project Manager

May 29, 2025



Agenda

- 1. Team Introductions
- 2. Project Objectives
- 3. Project Overview
- 4. Keys to Success

5. Project Compliance
6. Questions

Strategic Plan for

Our Smart One Water Future

Vision

In every home, in every business, we make everything possible by ensuring access to dependable and safe water for everyday life.

Smart One Water Mission

WSSC Water ensures all communities thrive by ethically delivering safe, reliable and sustainable water and wastewater services.

Promise

Continue the legacy of treasuring our water, customers and employees through dedicated service for current and future generations.

Values

Just. Accountable. Caring.

Community-Focused. Excellent. Trustworthy.



34 Objectives to Navigate Team H_2O to Our Smart One Water Future



Team Introductions



Team Introductions

Facility Design and Construction Division

- Theon Grojean, Division Manager
- Austin Freeman, Section Manager
- Facility Construction Managers



Project Objectives



Project Objectives

The Contractor shall provide the following:

- Demolition of existing six centrifugal blowers and associated piping in Train 1.
- Demolition of existing four centrifugal blowers and associated piping in Train 2.
- Installation of three high speed turbo blowers and associated piping in Train 1.
- Installation of three high speed turbo blowers and associated piping in Train 2.
- Power supply and controls for new turbo blowers in each Train (Trains 1 and 2).
- Aeration control system upgrades in each Train (Trains 1 and 2).
- DPCS integration in each Train (Trains 1 and 2).
- Replacement of motor actuated butterfly type air flow control valves and air flow meters and associated piping modifications in existing Train 1 and 2 ENR Basins.



Project Overview



Project Overview

The Piscataway WRRF has two (2) Enhanced Nutrient Removal (ENR) process wastewater treatment trains to remove carbonaceous biochemical oxygen demand (BOD) and nutrients.

The step-feed process utilizes anoxic, swing and aerobic zones for BOD, and nitrogen removal and implements chemical phosphorus removal. Process air is provided to the aerobic zones for BOD removal and nitrification.

There are two treatment trains:

- **Train 1**, in place since 1970, has six multi-stage, centrifugal blowers manufactured by Hoffman.
- Train 2 has four multi-stage, centrifugal blowers installed in 1977.

Both trains will receive three (3) high-speed turbo blowers for a total of 6 blowers in addition to auxiliary work in the basins.



Keys to Success



Keys to Success

- Work completed as required in the contract schedule
- Maintain minority percentages throughout the contract.
- Contract cost is within budget.
- Minimum or no scope changes on the contract.
- Quality Control: Quality of work meets the contract requirements.
- Open communications with WSSC Water's managing and inspection staff.
- Provide the proper resources for the contract.
- Address problems within a reasonable time.
- Document all project activities.



Contract Compliance



Contract Compliance

- Submit monthly invoices
- Address project items in a reasonable time as stated in contract.
- Meet minority participation goal on the contract
- Perform scope of work
- Assure contract is completed within the specified time.
- Assure approved materials are installed on the project
- Assure quality standards are met on all activities



Aerial of the Piscataway Water Resource Recovery Facility (WRRF)



High Speed Turbo Blower





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Additional Images

















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