



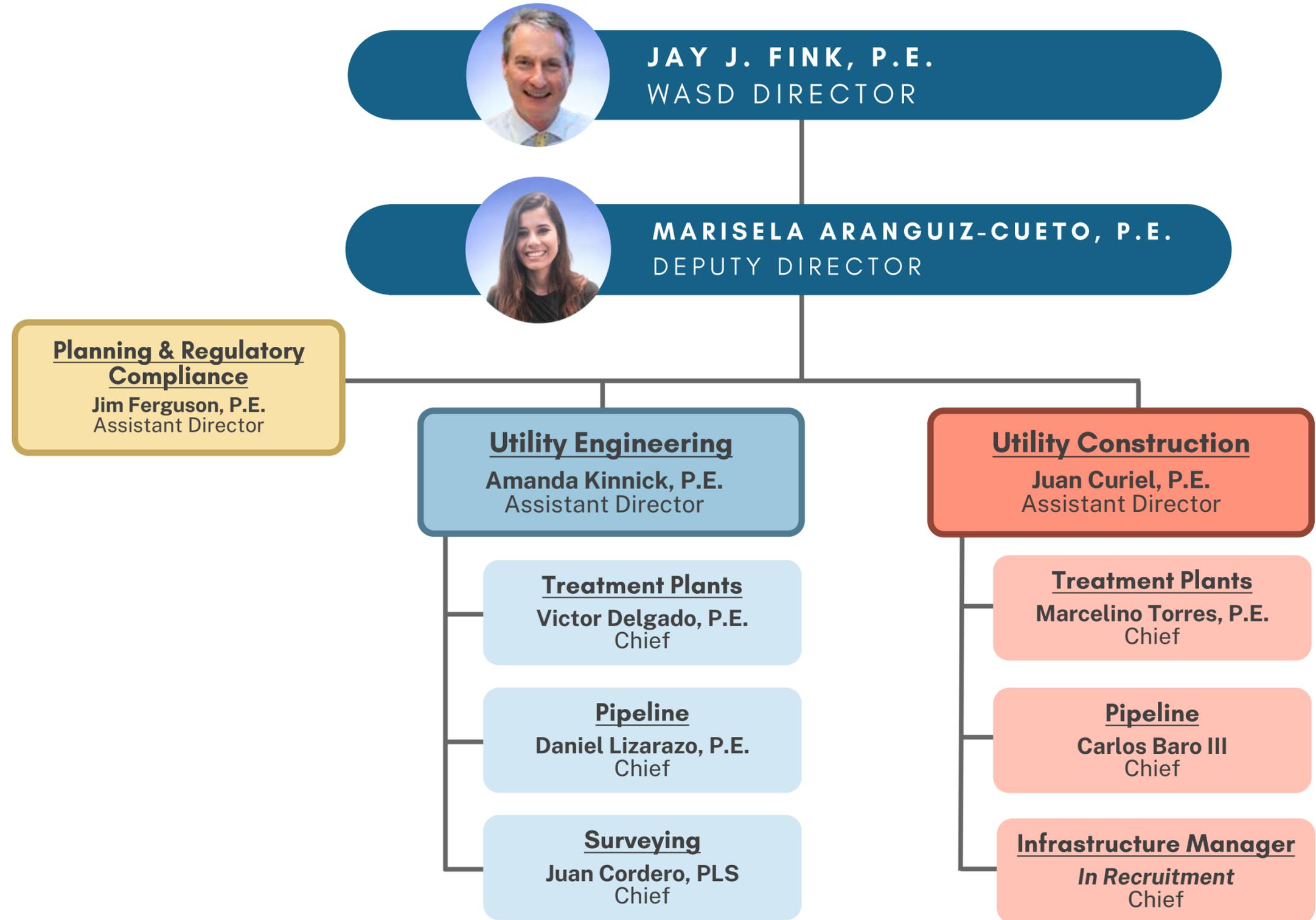
CONSTRUCTION INDUSTRY FORUM

Presented By
Miami-Dade Water and Sewer Department



Agenda

- 01 Introduction
- 02 Construction Contracts
- 03 Pipeline Projects
- 04 Pump Station Projects
- 05 Treatment Plant Projects
- 06 Closing and Q&A



Construction Contracts

There is open, competitive bidding on all construction contracts, plus five (5) pre-qualified emergency pools.

Non-Emergency Solicitations

- Under \$5 million will be MCC 7360 “P” Contract
- Over \$5 million will be “S” or “W” Contract
- May bid without being a registered vendor
- Must be registered as a vendor before award
- For 7360 must submit a completed MCC Program Registration Form

Advertisements are on Thursdays

- **Over \$5 million** advertised on web **ONLY**
- <https://www.miamidade.gov/global/navigation/legal-ad-index.page>
- Request to be added to email list & receive ads by email when issued
- **MCC** - Published on Web & in Miami Today
- <https://www.miamitodaynews.com/advertise/legal-advertising/>

Emergency Pools

- Large Transmission Mains
- Carbon Fiber
- Cured-In-Place
- Pipeline Installation and/or Repairs of Small Diameter Mains
- Digester Cover Removal and/or Misc. Demo

MCC Program managed by Miami-Dade Small Business Division

Laurie Johnson: (305) 375-3121 or laurie.johnson@miamidade.gov

WASD Small Business Initiative: WASDSMALLBUSINESS@miamidade.gov

Total Contracts Awarded – 2020 To Date

Type	Amount Awarded
MCC 7040	\$104.5M
MCC 7360	\$125M
Projects > \$5M	\$1.5B



TOTAL CONTRACTS AWARDED: \$1.7B
TOTAL AWARDED TO SMALL BUSINESS: \$280M



PIPELINE PROJECTS



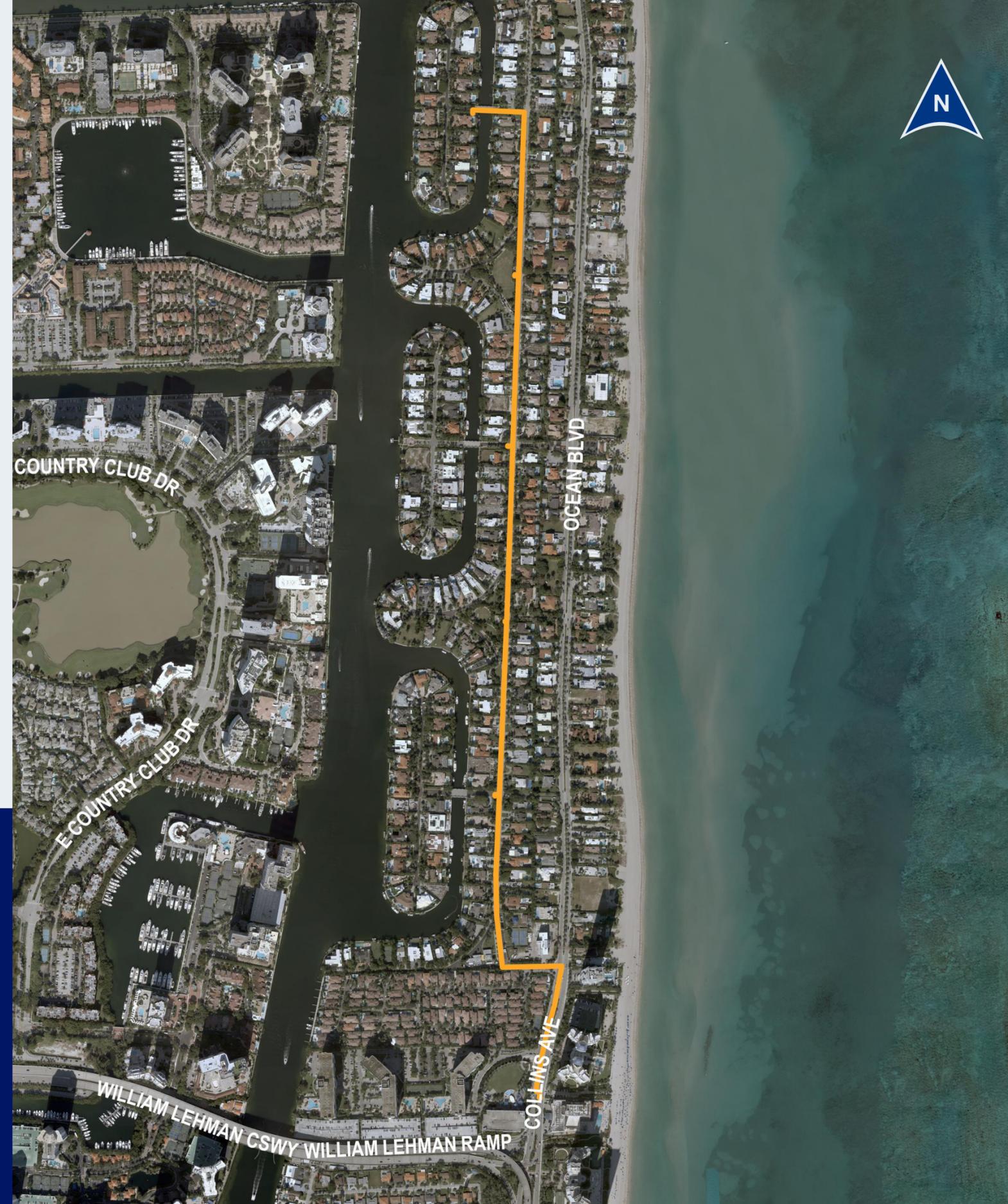


15241 – Furnish and Install 10" and 6" Force Main in Golden Beach Dr. and in Collins Ave. from PS #0493 to MH 0137

Estimated Construction Cost: \$5.9 M

Location: Golden Beach Dr and Collins Ave., Golden Beach, FL

Scope: Replace the existing 8-inch DIP with a 10" FM along Golden Beach Drive and Collins Avenue due to corrosion and previous failure.





16135 - Furnish & install approximately 24,212 LF of 8" DIP along Snapper Creek townhouses at 11200 SW 71 ST.

Estimated Construction Cost: \$14.4 M

Location: SW 70th TERR and SW 113th PL,
UNINCORPORATED MIAMI-DADE

Scope: Furnish & install approx. 24,212 LF of 8" DIP along Snapper Creek townhouses at 11200 SW 71 ST. Replace 6-inch and 8-inch aged Asbestos Cement (AC) and Cast Iron (CI) water main pipes that present a high frequency of failures, providing new water mains, services, and new fire hydrants in the area.



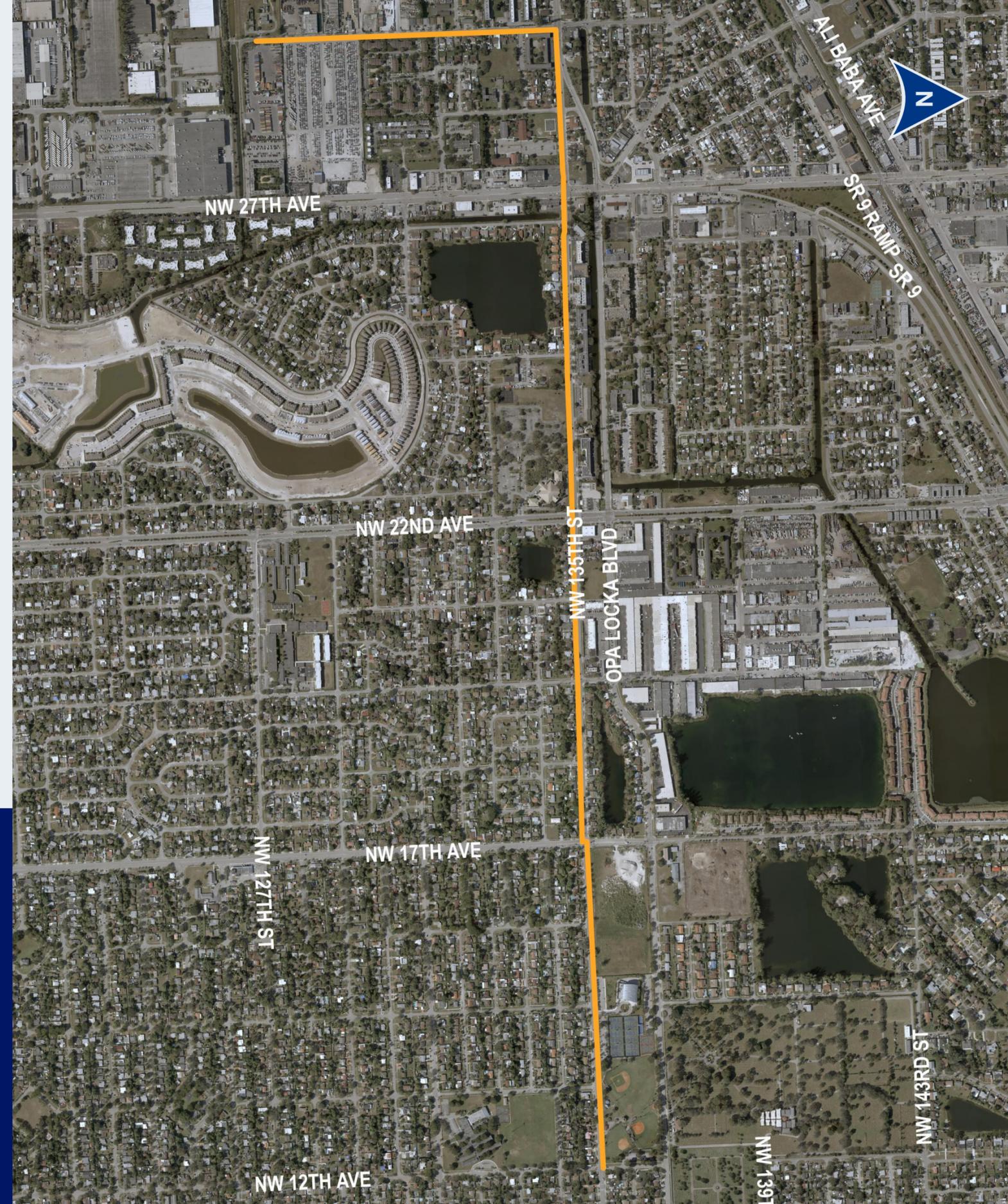


20082 - Furnish and Install 48" PCCP FM along NW 30 Ave from NW 127 St. to NW 135 St. and along NW 135 St. from NW 12 Ave.

Estimated Construction Cost: \$26 M

Location: Along NW 30 AVE from NW 127 ST. to NW 135 ST. and along NW 135 ST. from NW 12 AVE to NW 30 AVE.

Scope: Installation of 48" PCCP FM to replace the existing aged 48-in discharge line. The total Length of this new PCCP FM is 12,800 LF.



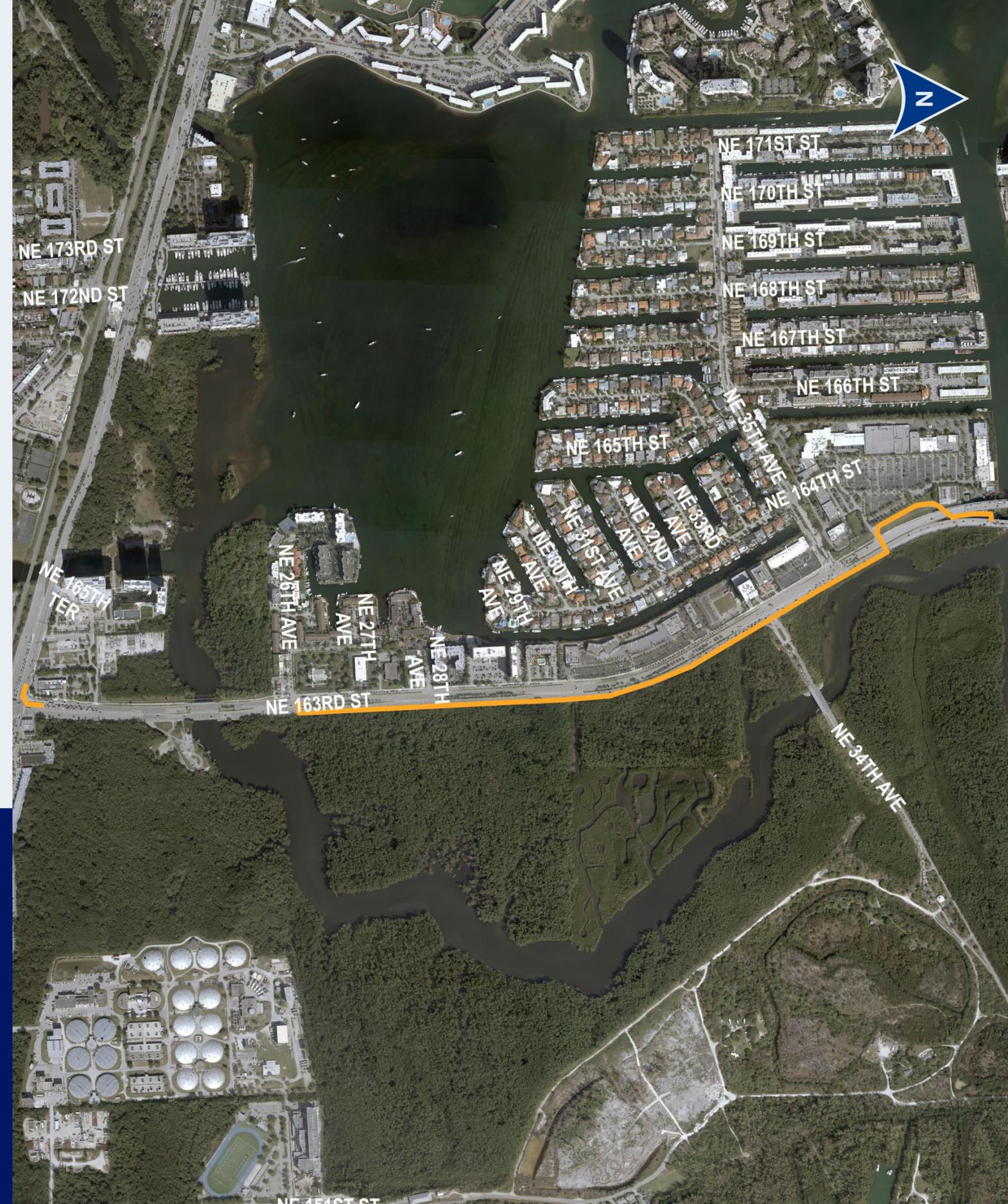


16105 - New 36" FM along NE 163 ST

Estimated Construction Cost: \$18 M

Location: Along NE 163 Street from intracoastal waterway to Biscayne Blvd

Scope: Furnish and install 36-inch force main along US-1 and NE 163rd Street within FDOT right-of-way, including pipe installation, tapping, and interconnections with existing mains. Work includes open-cut construction, testing, traffic control, restoration, and coordination with utilities and FDOT.



ADDITIONAL PIPELINE PROJECTS

- P-20380 - Countywide Contract for the rehabilitation of manholes, inflow and infiltration repair - Project consists of furnishing all labor, materials, and equipment for the rehabilitation of approximately 700 manholes within the limits of Miami-Dade County, Florida. - **\$5.3M**
- P-16148 - Furnish and install 8" DIP sewer force main from NW 170th Street to new PS 0382 on NW 171 Street - **\$1.8M**



PUMP STATION PROJECTS



Fall 2025



UPCOMING PUMP STATION PROJECTS

- P-16120 - DR-4337 155-R PS # 1
Storm Hardening Upgrade and Sea
Wall Improvement - **\$1.2M**
- P-16140 - Upgrade PS 382 with a
new submersible PS - **\$2.6M**
- P-16320 - Pump Station No. 0815 -
Relocation and Upgrade - **\$2.0M**
- P-16283 - Pump Station 0304
Upgrade - **\$1.2M**





TREATMENT PLANTS PROJECTS





13668 – John E. Preston Bulk Sodium Hypochlorite Storage Facility

Estimated Construction Cost: \$28 M

Location: 1100 W. 2nd Avenue, Hialeah, FL

Scope: Construction of a bulk sodium hypochlorite storage facility at the John E. Preston Water Treatment Plant (JEPWTP), featuring 14 prefabricated fiberglass reinforced storage tanks, each with a 12000 gallon capacity, and an automated chemical feed and transfer system to the Hialeah WTP





15365 - North District Wastewater Treatment Plant New Electrical Distribution Building

Estimated Construction Cost: \$145 M

Location: 2575 NE 151 Street, North Miami

Scope: Construction of a 48,000 sq. ft. building that will replace the existing main substation building, electrical distribution equipment and backup generators. The new facility will house the new generators and electrical infrastructure to meet the current and anticipated process load demands



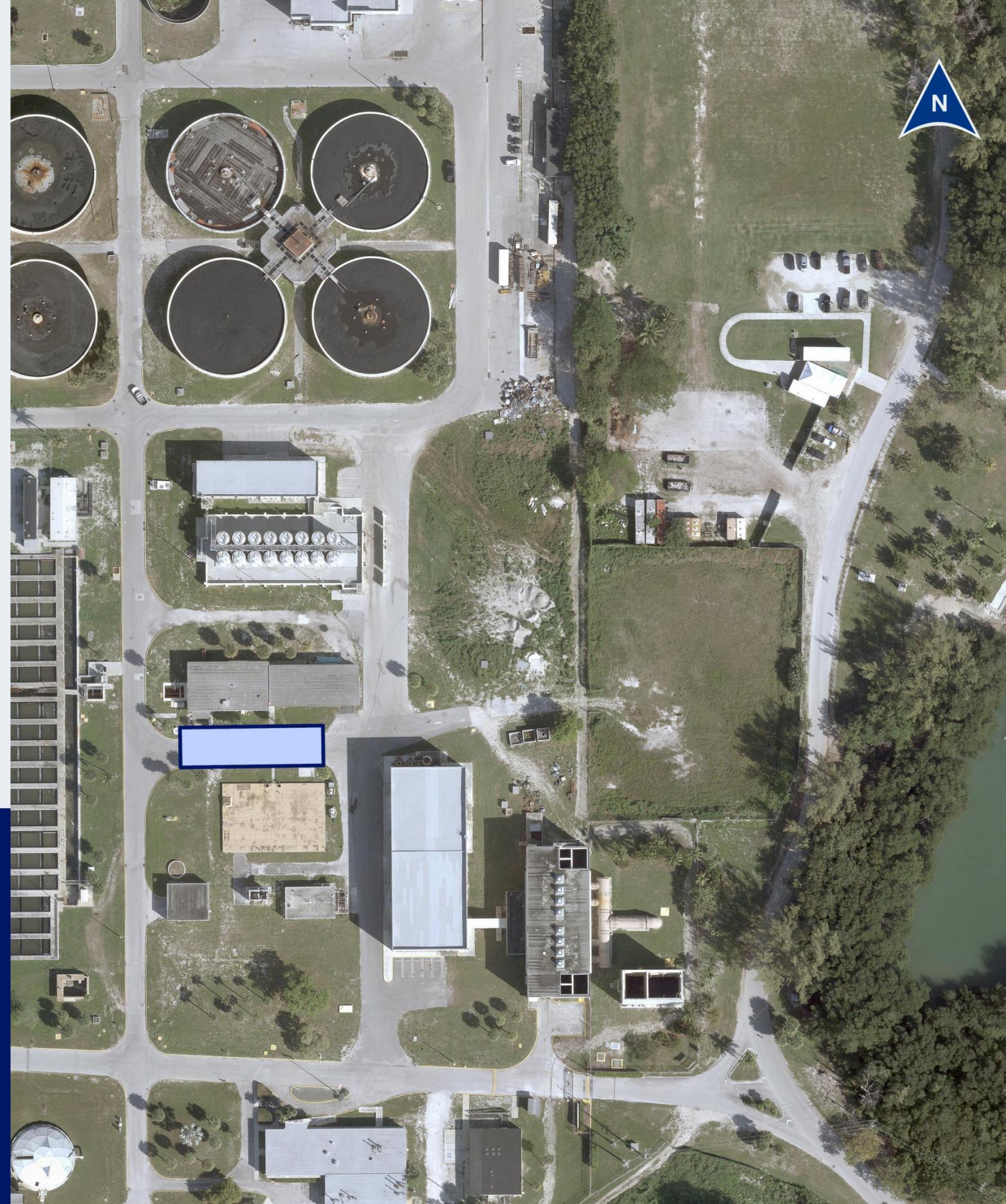


20122 - Install/construct certified truck scale and house for CDWWTP

Estimated Construction Cost: \$1.5 M

Location: 3898 Rickenbacker Cswy., Miami

Scope: Installation of a certified truck scale and operator's house with the required utilities.





20299 – SDWWTP – Sodium Hypochlorite Supplemental Storage Facility

Estimated Construction Cost: \$14.5 M

Location: 8950 SW 232nd St., Cutler Bay

Scope: The project entails constructing a supplemental sodium hypochlorite (SHC) storage and conveyance system. The work includes site preparation, utility relocation, demolition, installation of a reinforced concrete pad with containment and drainage, installation of twelve owner-furnished FRP tanks with platforms, access stairs, and a truck delivery area.



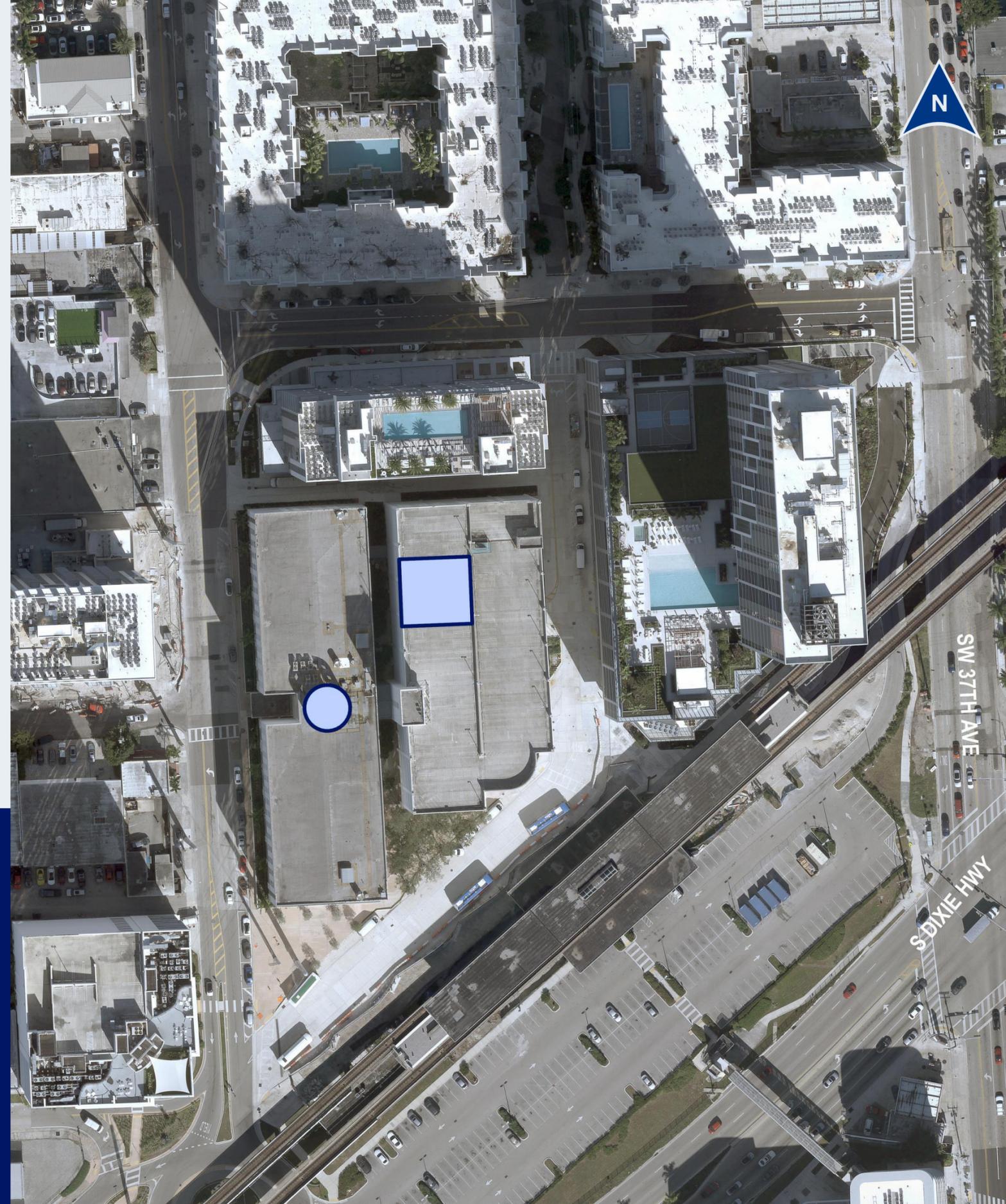


16303 - Douglas Office Building Chiller and Cooling Tower Upgrades

Estimated Construction Cost: \$5.5M

Location: 3071 SW 38 Avenue, Miami

Scope: The replacement and upgrade of two (2) existing cooling towers, approximately 275 Tons each, to two (2) 400-ton cooling towers or to the largest size feasible based on existing infrastructure, located on the roof.





20164 - North District Wastewater Treatment Plant - Drainage Improvements to Sub-Basin 1

Estimated Construction Cost: \$1.7M

Location: 2575 NE 156 St. North Miami Beach

Scope: Stormwater improvements to Sub-Basin 1, featuring new stormwater structures, piping, drainage wells, etc. to mitigate flooding and improve the drainage conditions in the area





16359-AOWTP 32 Filter Upgrade

Location: 6800 SW 87 Ave., Miami

Scope: This project entails improving and rehabilitating 32 filters, including the backwash system's automation.



Agenda

- Overview
 - Site overview
 - Contractor's use of site
 - Project overview
 - Site limitations / other ongoing projects
- Scope of Work
 - Removal
 - Filters / Filter Gallery
 - Pipe Gallery
 - Blowers
 - Electrical / Instrumentation & Controls
 - Structural Remediation
- Maintenance of Plant Operations
 - Filter activity detail
 - Major schedule drivers
 - Tie-ins and shutdowns
 - Filter start up





01 Overview

Site Overview

- 32 dual media filters
- New blower building south of Filters, west of existing Washwater Basins



Existing Filters and Filter Gallery

Current Filter Box Components:

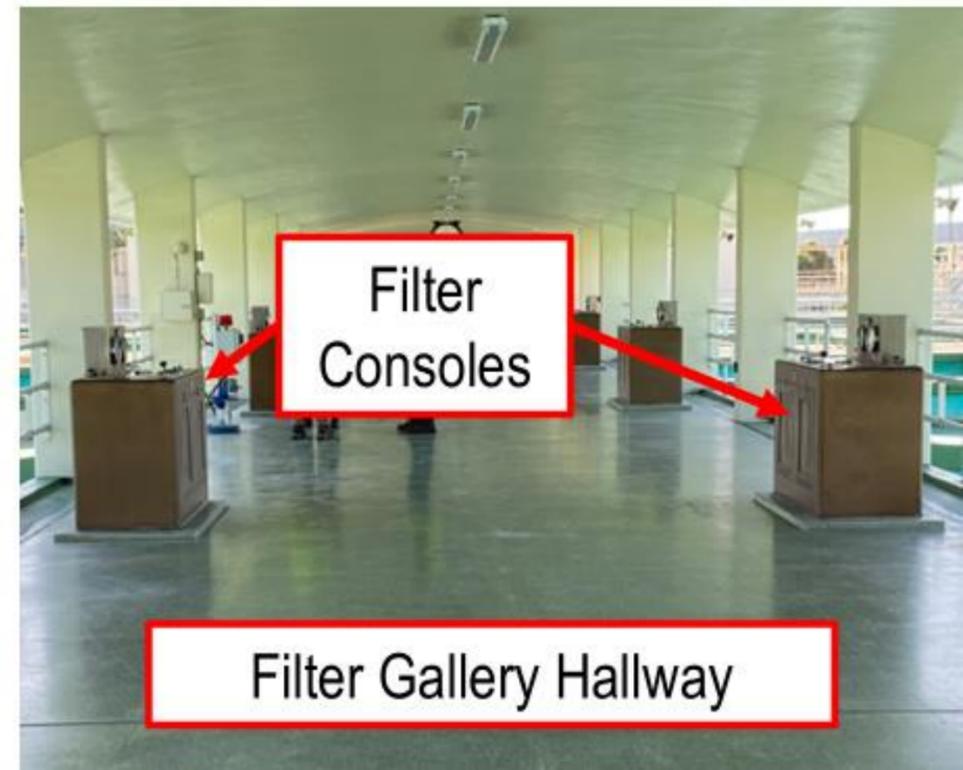
- Six concrete troughs (per filter)
- Surface sweeps
- Anthracite and sand media
- Underdrains (wheeler spheres and hydrocones)

Current Filter Control Components:

- Consoles (1 per filter) – currently not automated



Filter Box – Troughs, Surface Sweep Piping, Underdrains



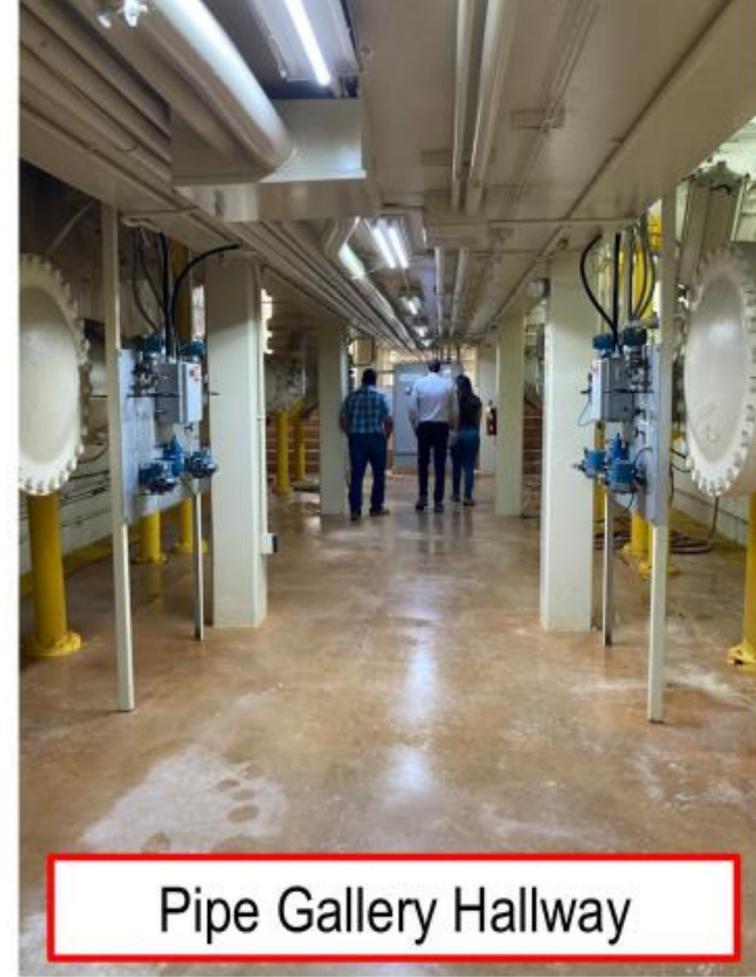
Filter Consoles

Filter Gallery Hallway

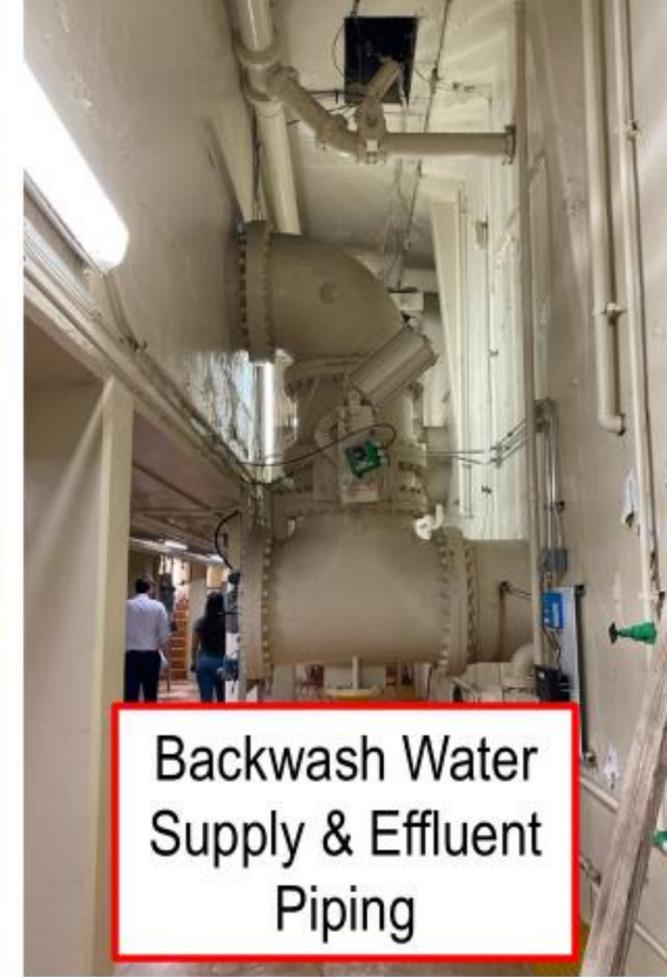
Existing Pipe Gallery

Current Pipe Gallery Components:

- Piping and valves (influent, effluent, backwash supply, washwater)
- Venturi meter
- Filter panel



Pipe Gallery Hallway



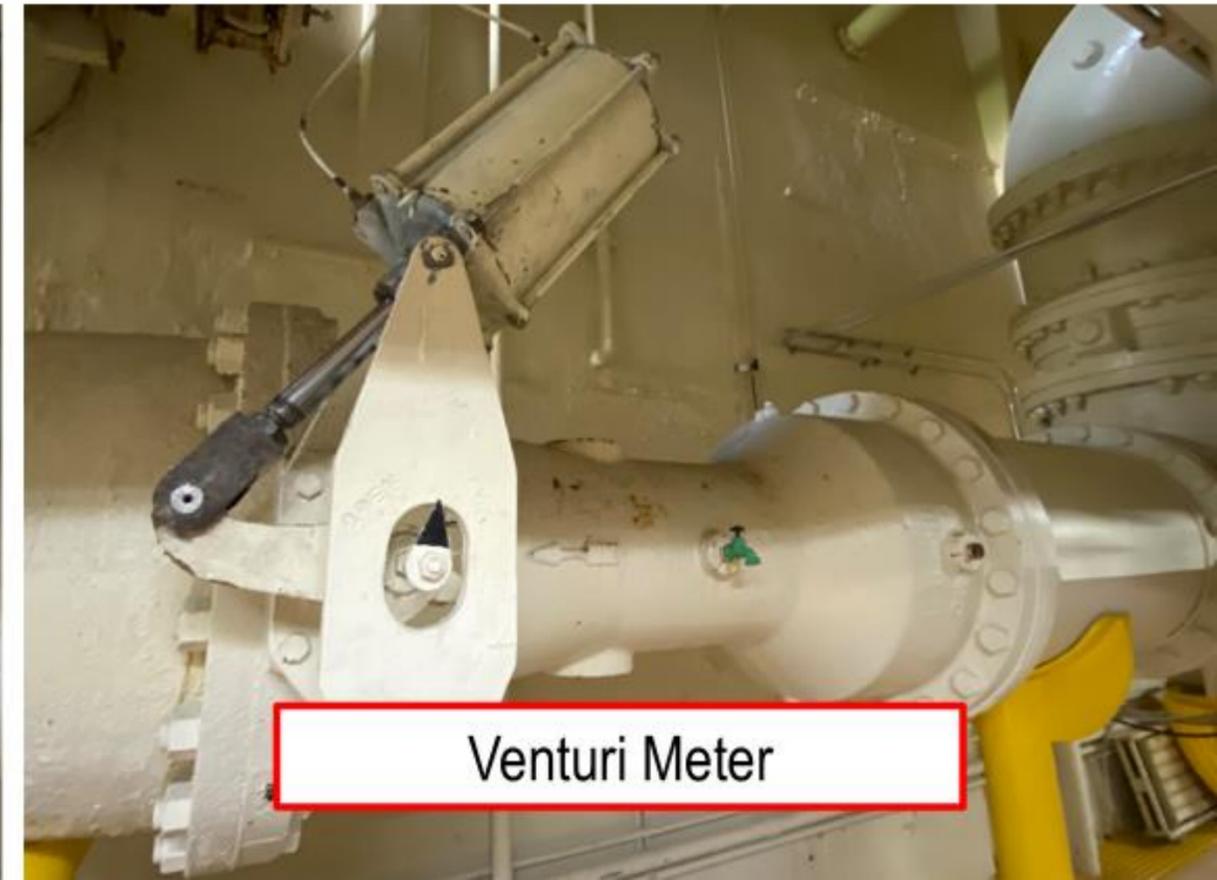
Backwash Water Supply & Effluent Piping



Filter Panel



Backwash Water Supply and Effluent Piping



Venturi Meter

Project Constraints and Limitations

- Maximum of three filters can be offline at a time
- Standard WASD procedures for site access for security (badge, front gate access)
- Filter Structural Inspections are part of project. Plan for Coordination of inspection with WASD and Engineer.
- Contractor may need more staging
- Other potential simultaneous projects
 - West HSP
 - Operations Center
 - Generator Building
 - Washwater Basin Upgrades

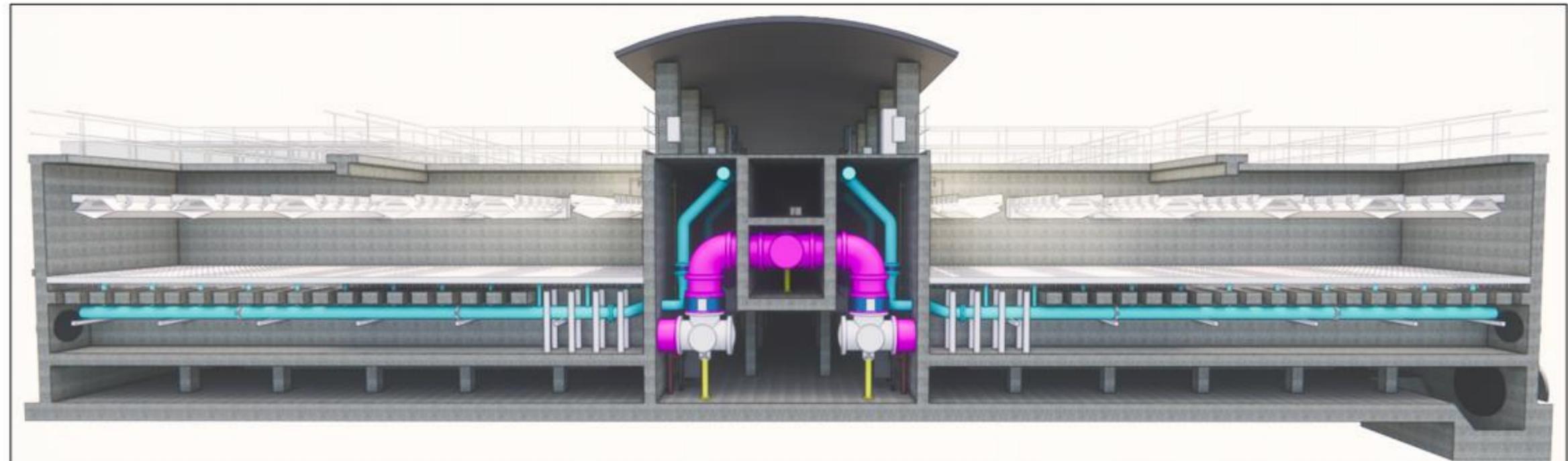




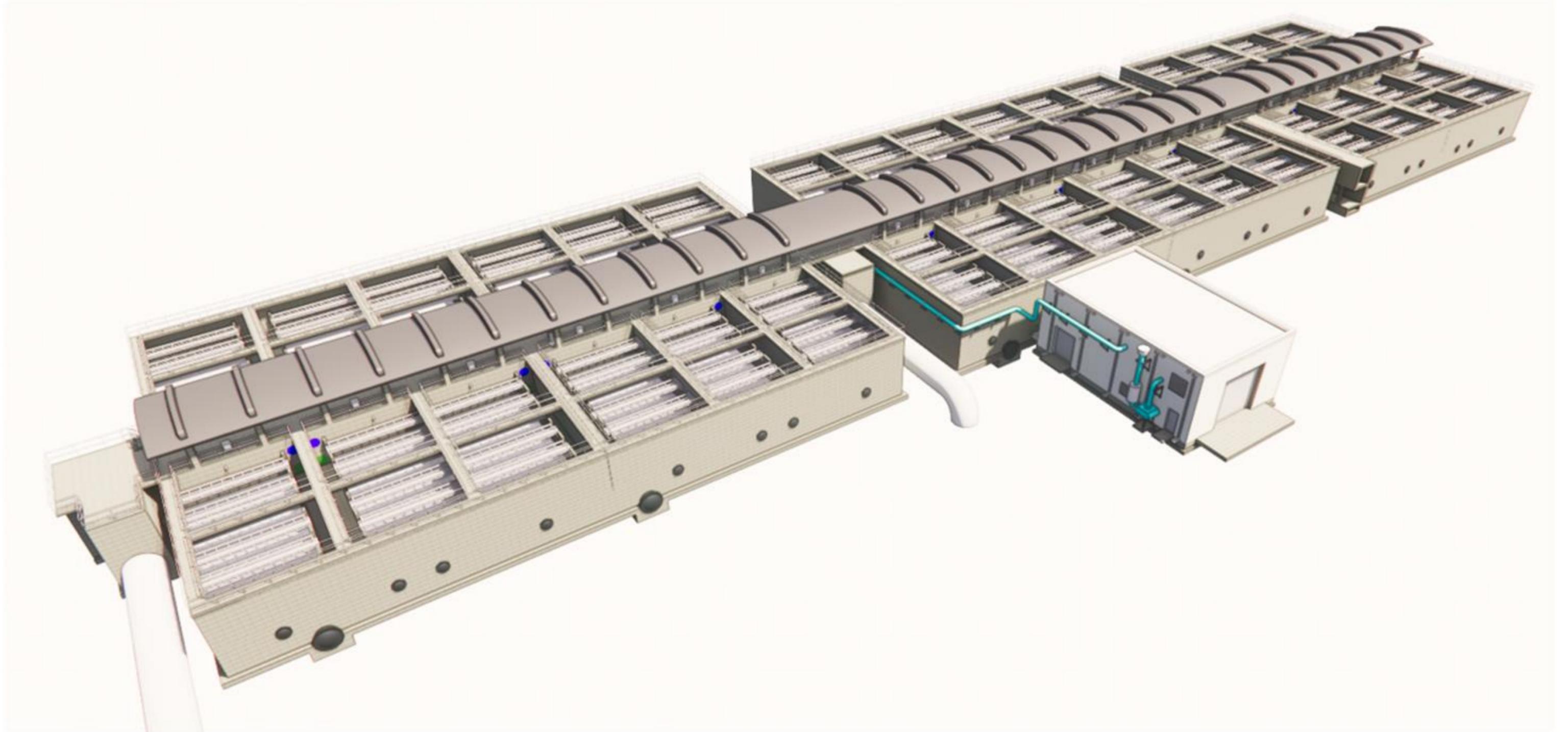
02 Scope of Work

Scope of Work Overview – Major Elements

- Existing equipment removal
- Filter Box and Filter Gallery
 - Troughs
 - Media
 - Underdrains
 - Air Scour Piping
- Pipe Gallery
 - Air Scour Piping
 - Valves / Actuators
 - Venturis
 - Filter Panels
- Blower Building
 - Blowers
 - Piping / Valves
- Electrical / Instrumentation & Controls
- Structural Remediation Work



Filter and Blower Building



Removal

- Filters / Filter Gallery

- Concrete Troughs
- Surface Sweeps / Piping
- Media
- Underdrains
- Consoles

- Pipe Gallery

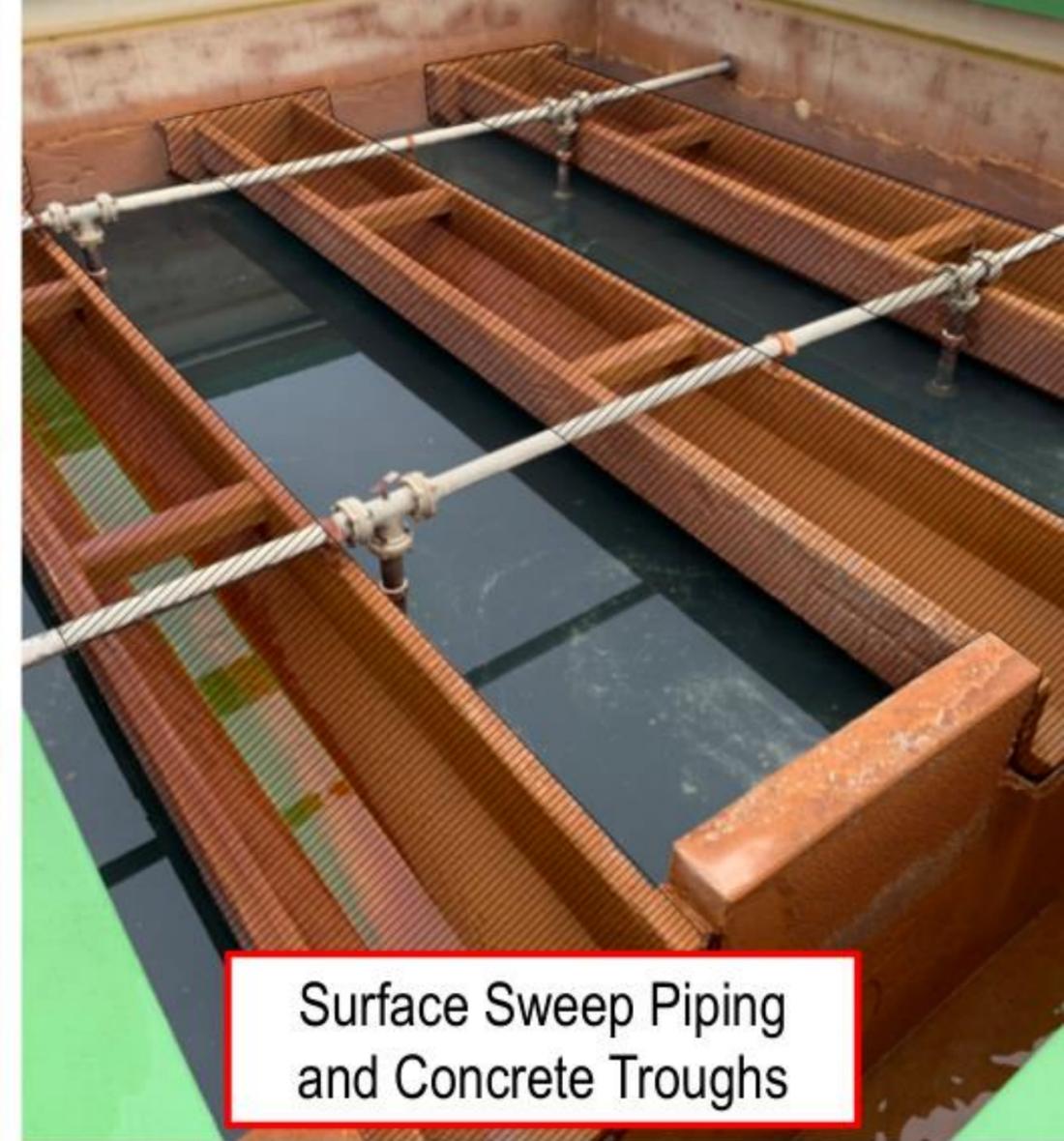
- Filter Piping Venturi / Valves / Actuators
- Surface Wash Supply Piping
- Turbidity / Flow Meter Panels



Wheeler Underdrains



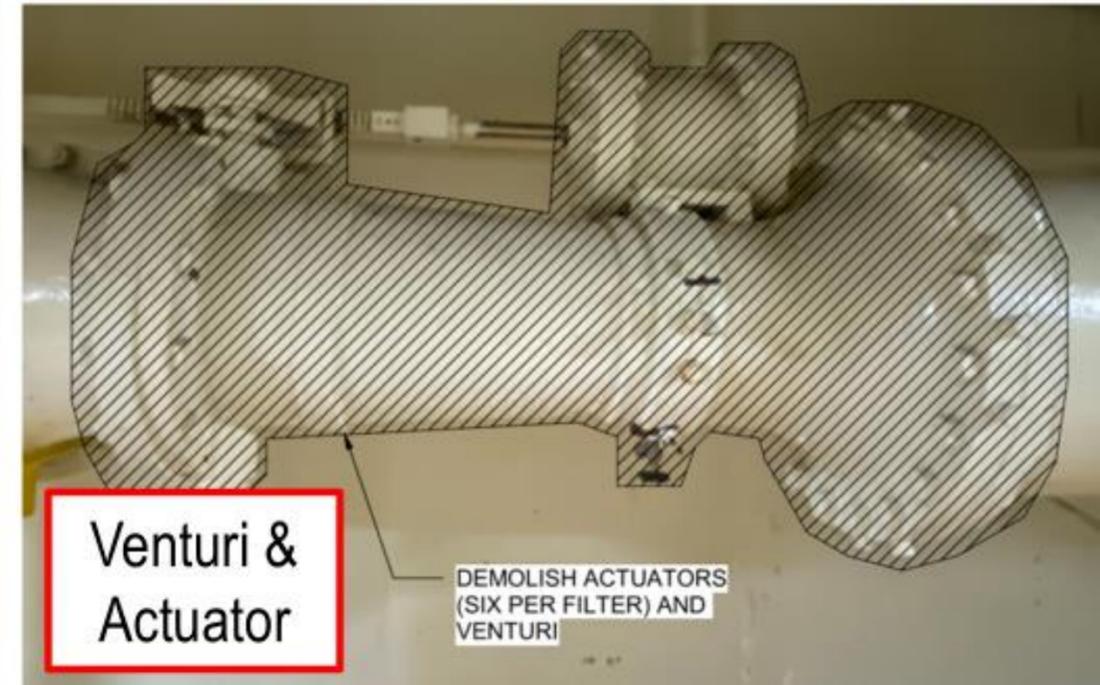
Hydrocone Underdrains



Surface Sweep Piping and Concrete Troughs



Surface Wash Piping / Valves

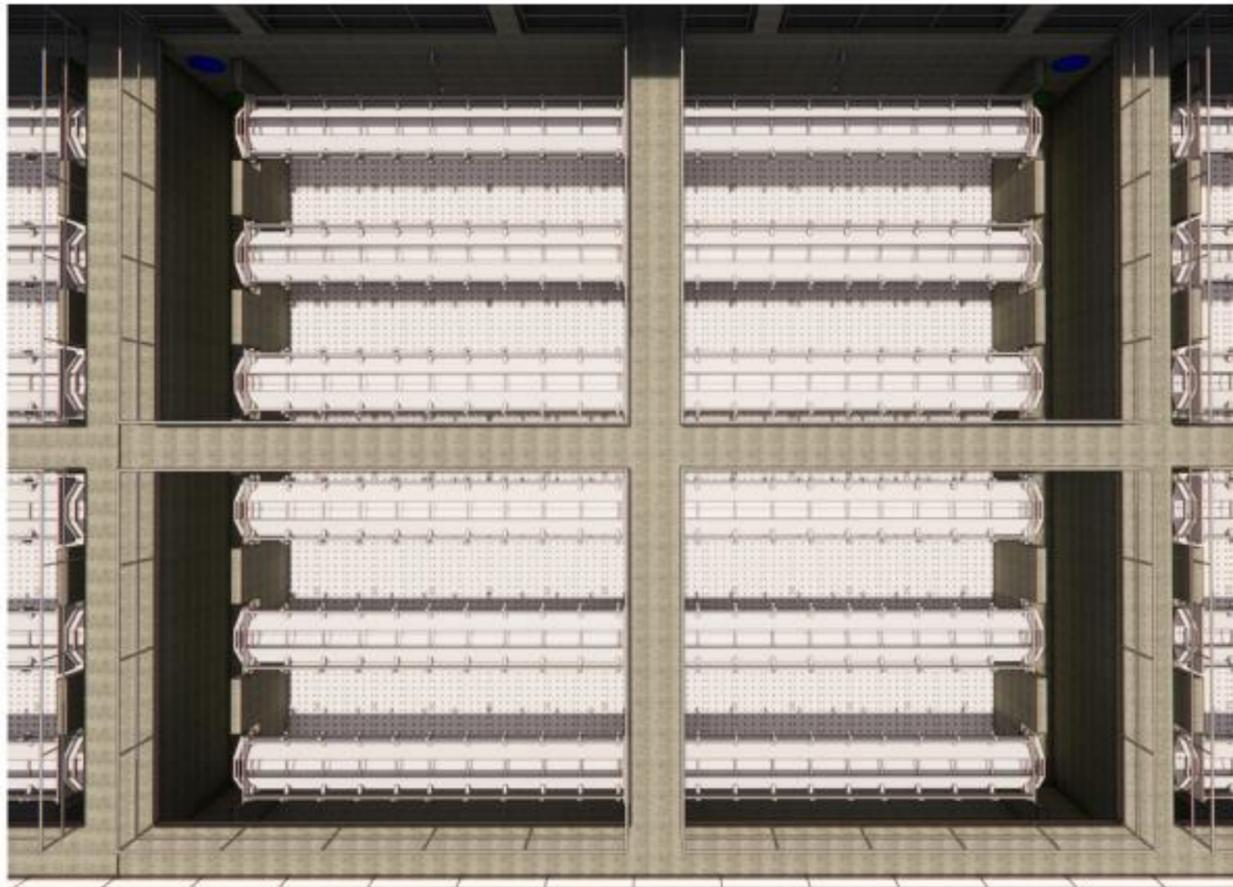
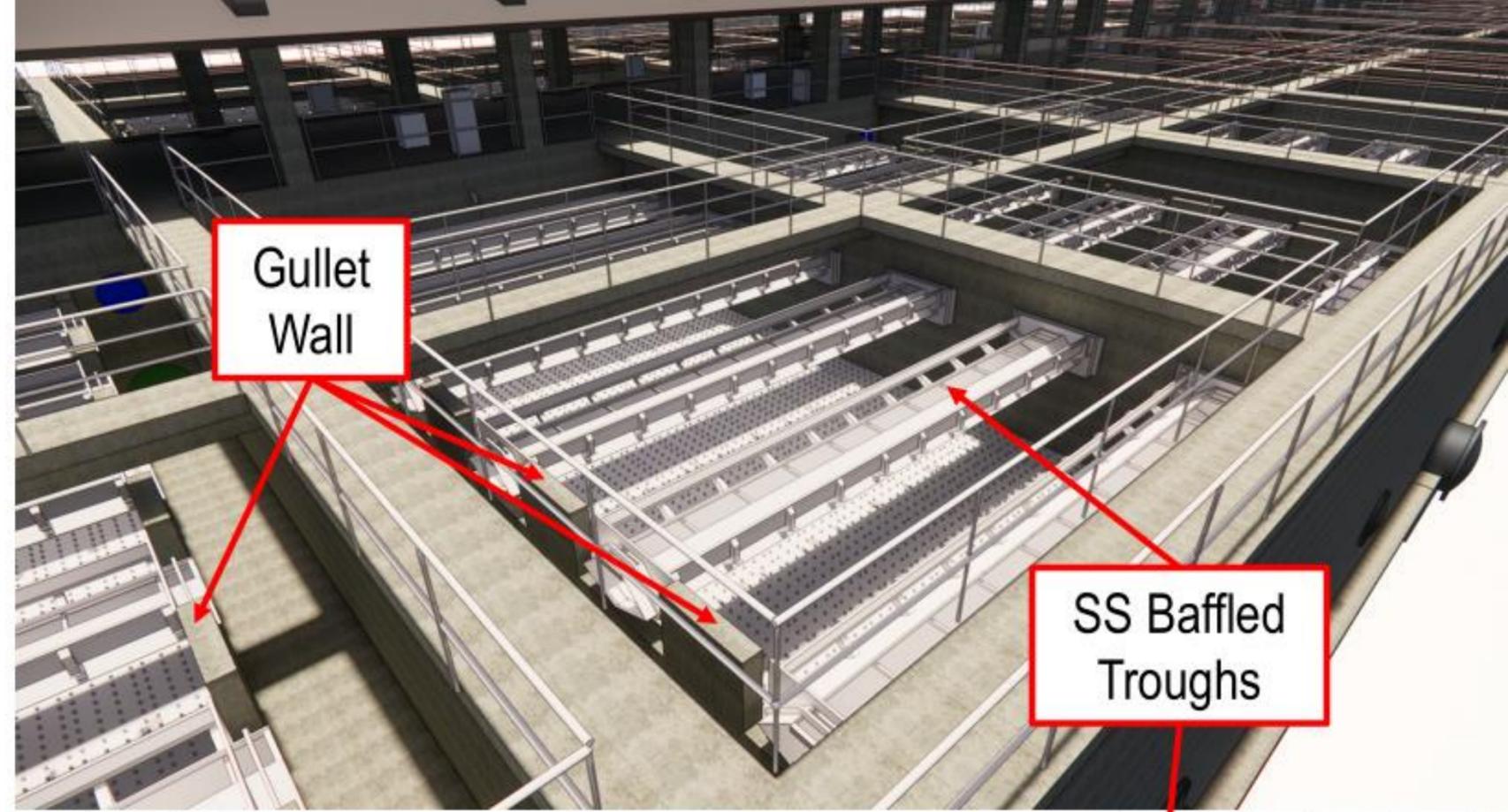


Venturi & Actuator

DEMOLISH ACTUATORS (SIX PER FILTER) AND VENTURI

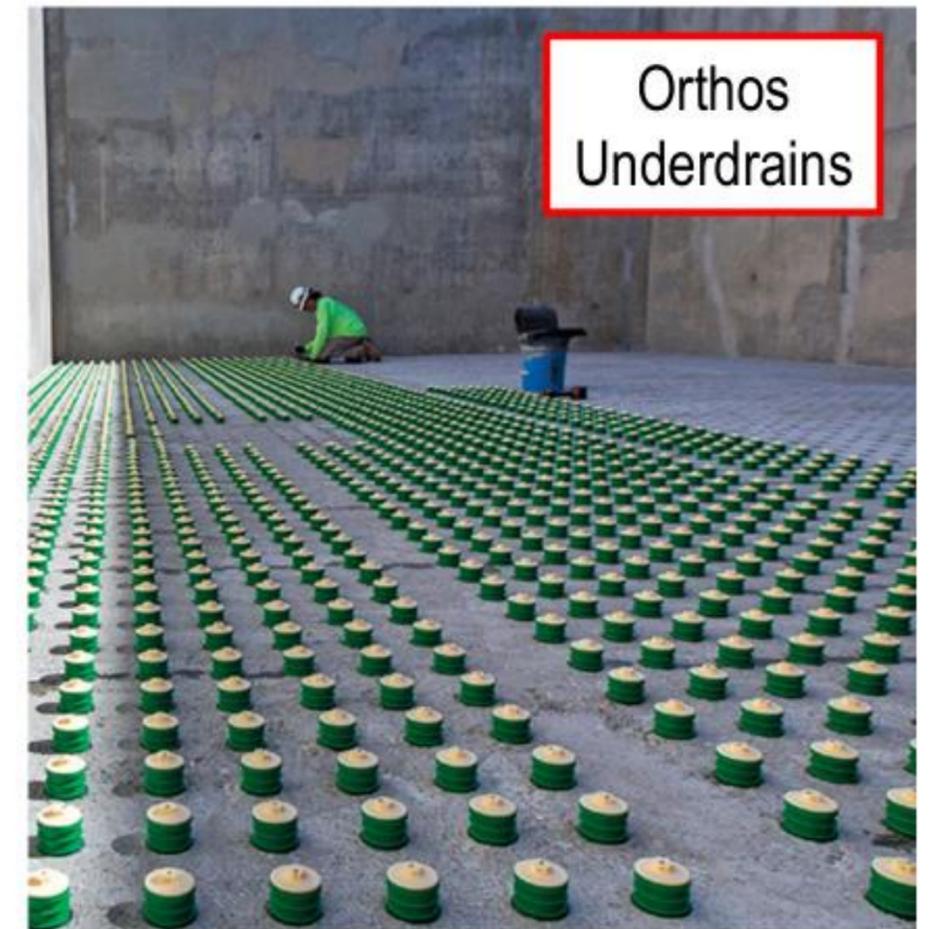
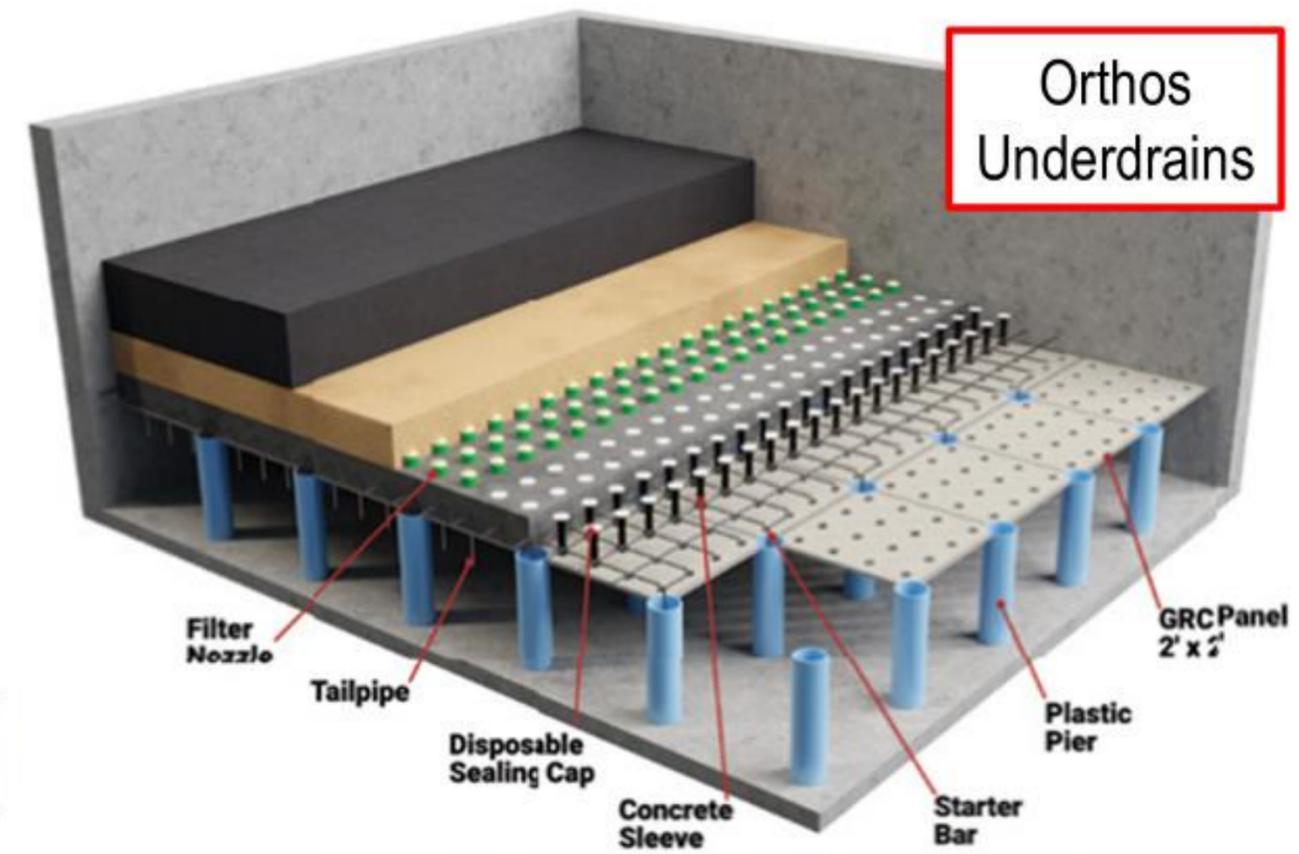
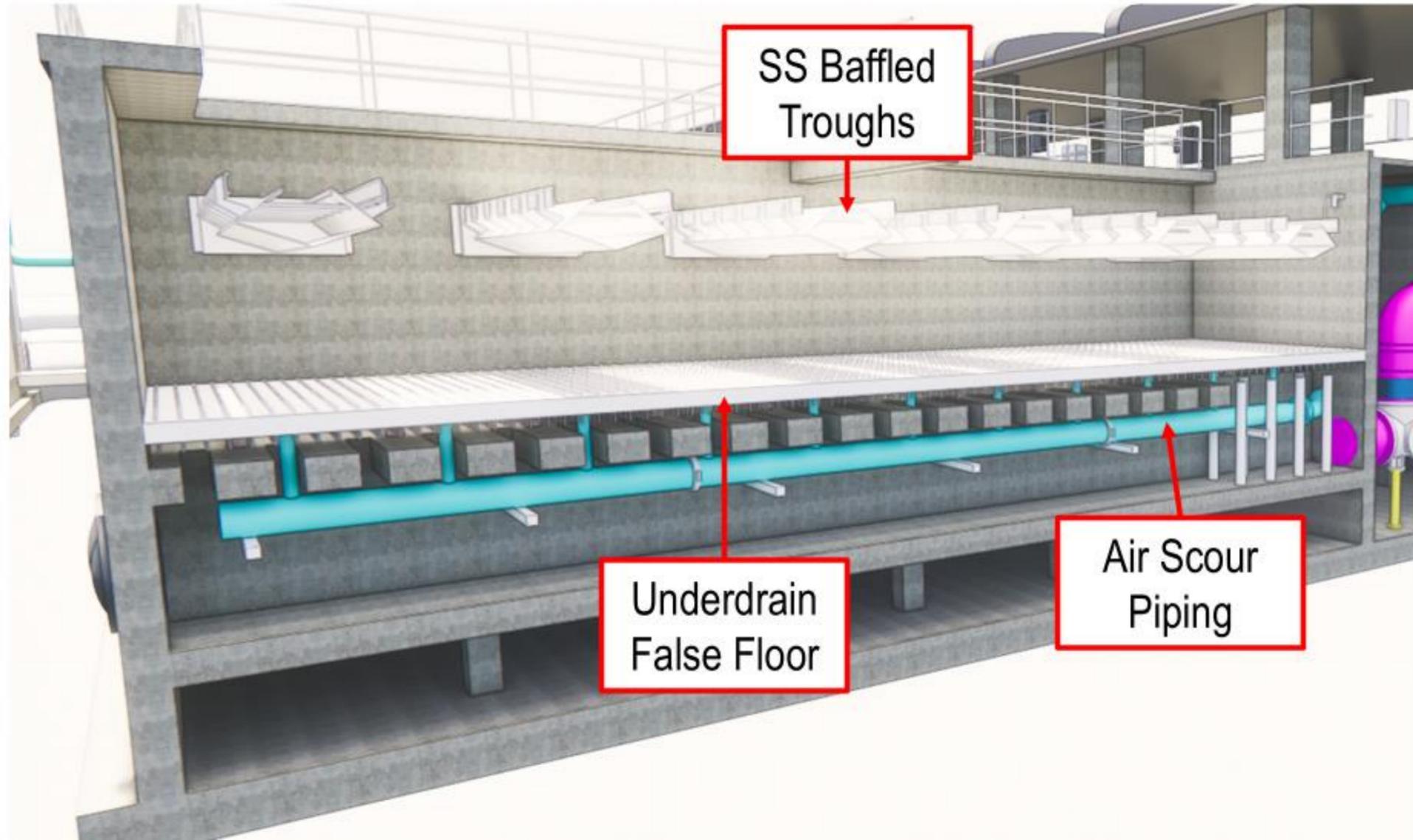
Filter Box

- Increase Gullet Wall (1-ft)
- SS Baffled Troughs (shown)
- Sand and Anthracite Media
- Underdrains (shown)
- Air Scour Piping



Underdrains

- Nozzle underdrains
- Basis of Design: Orthos Liquid Systems



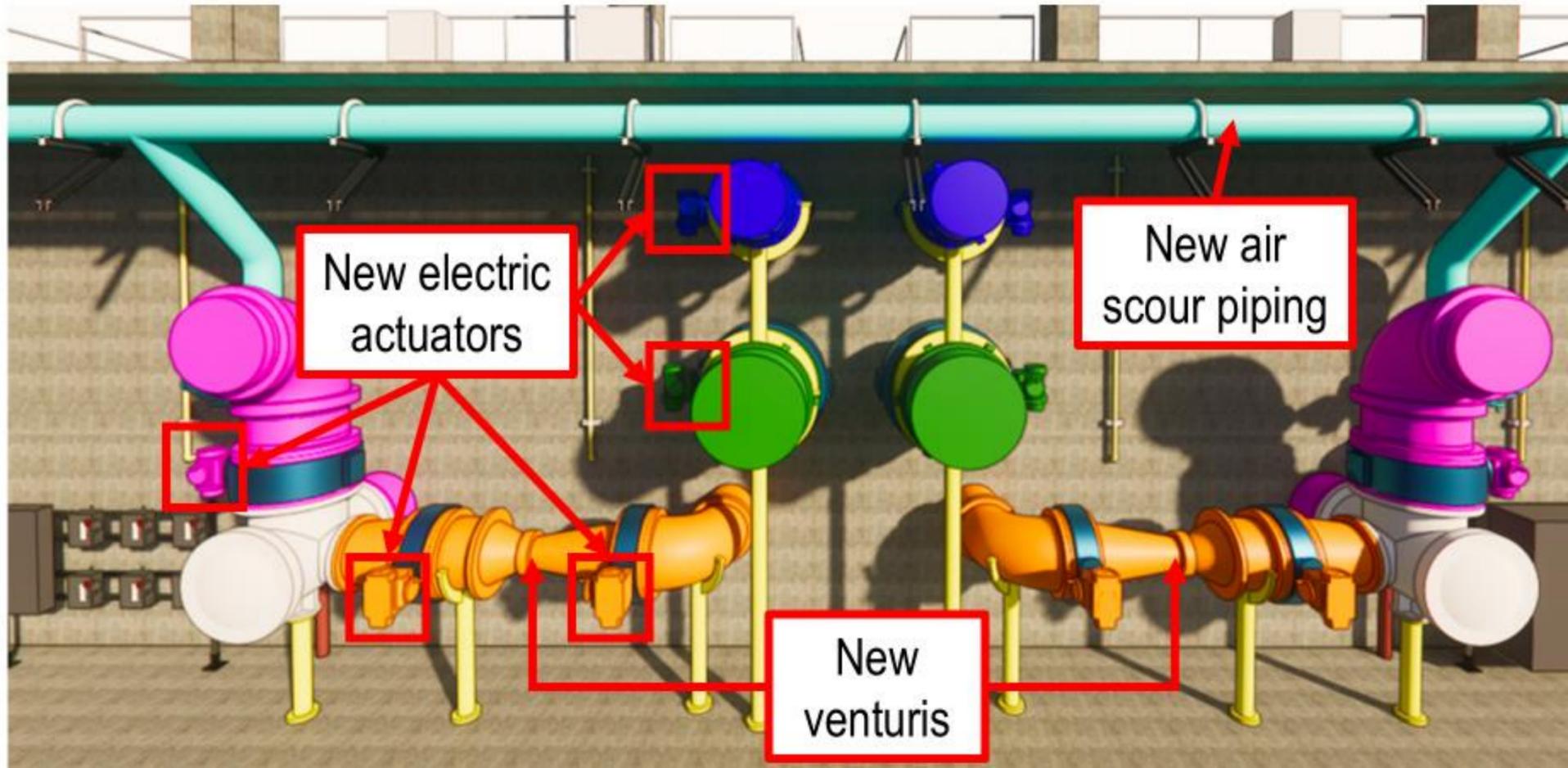
Control Consoles and Filter Automation

- One touchscreen HMI at each filter (QTY = 32)
- Contractor responsible for:
 - RTU Panel
 - RIO Panels
 - Filter Operator Control Stations
 - All SCADA/HMI Integration
 - Ethernet Switch
 - Proposed Fiber Optic Cable

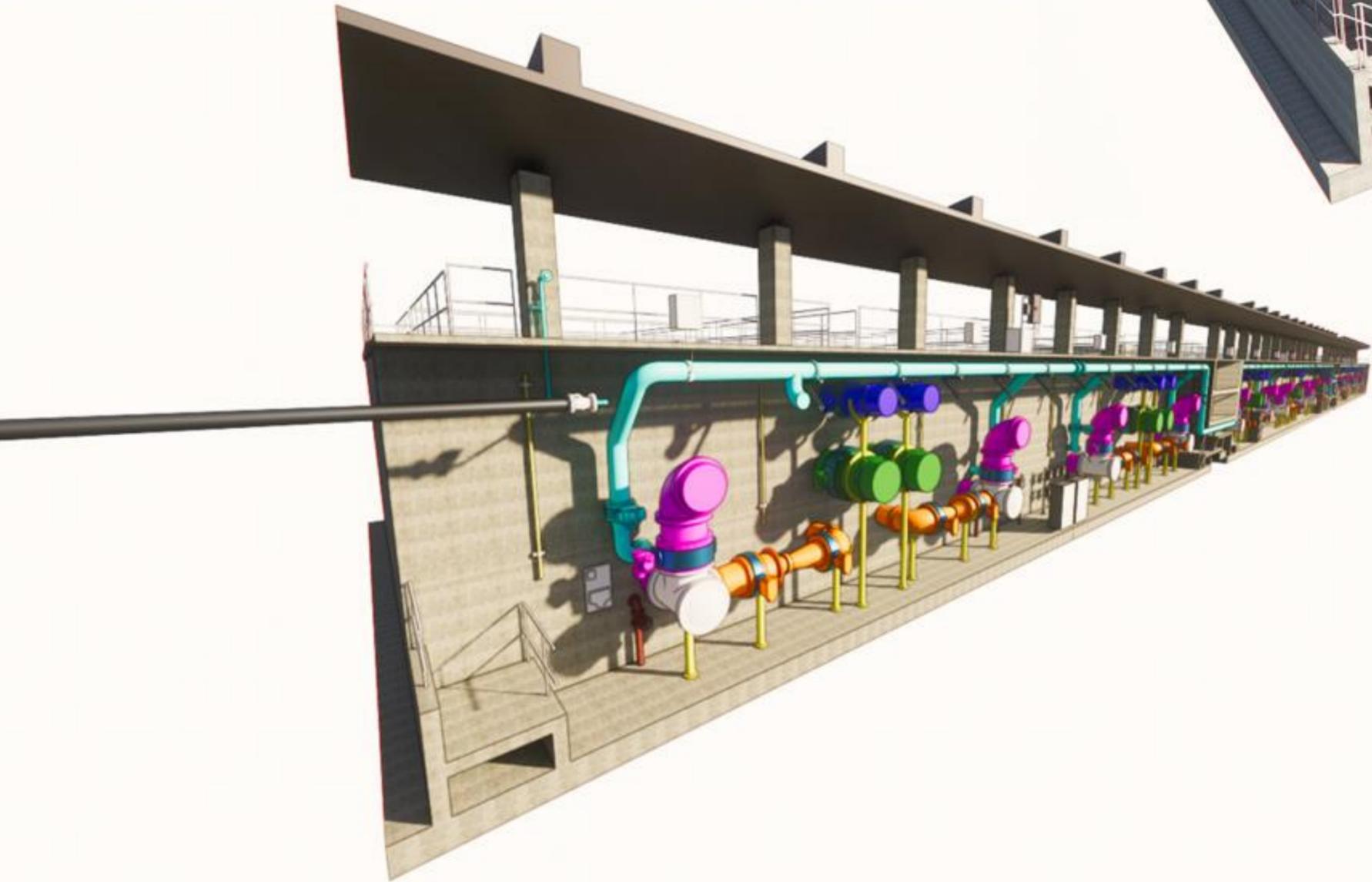
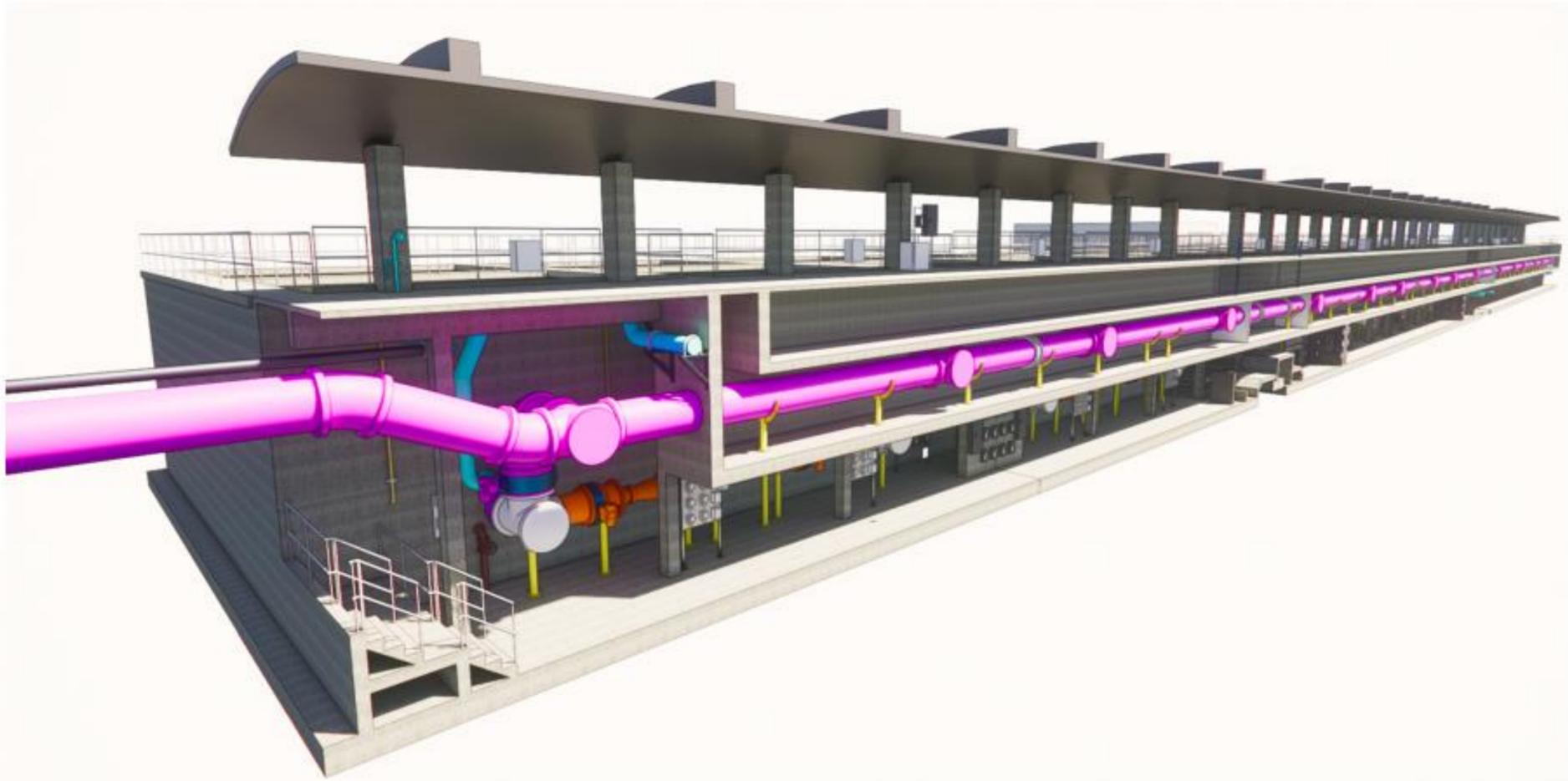


Pipe Gallery

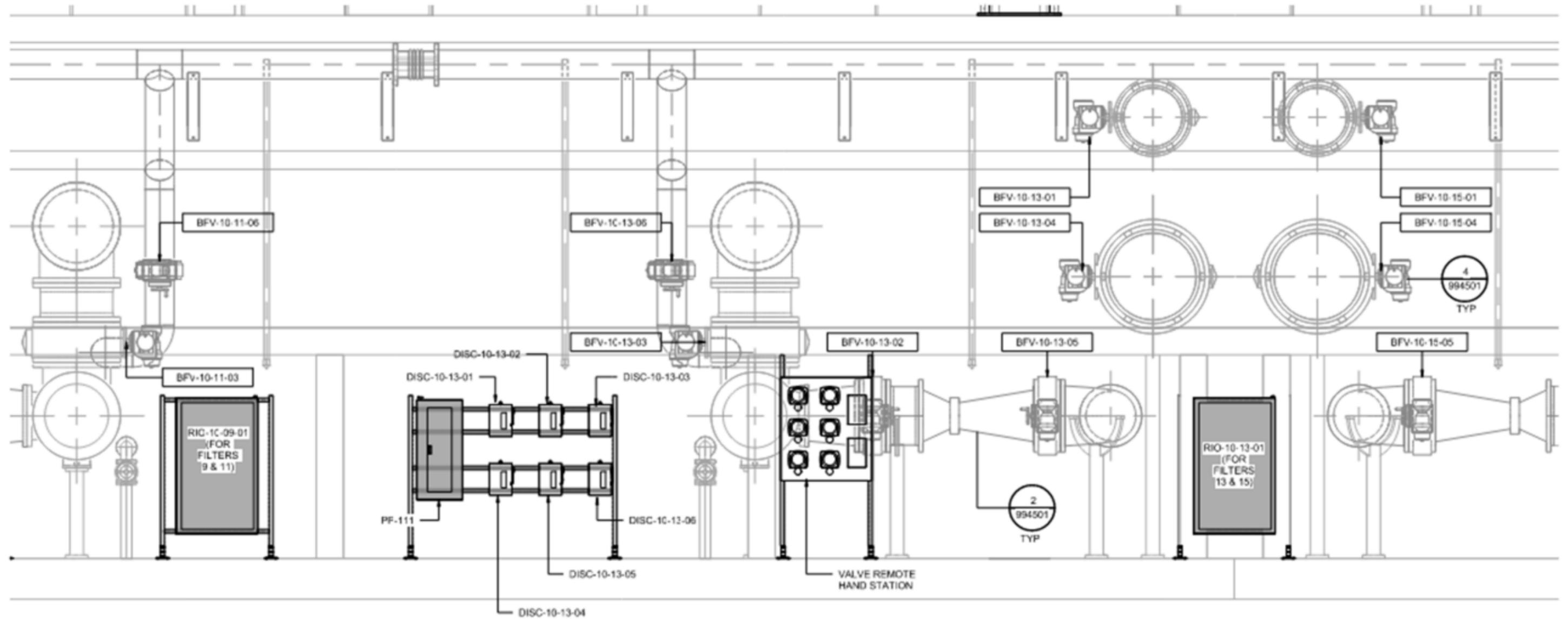
- Replace venturis for each filter
- Remove and replace actuators (6 per filter)
- New air scour piping
- Remove and replace modulating valves on either side of venturis



Pipe Gallery



Pipe Gallery Typical Panels & Disconnects Layout



FILTER NO. 11

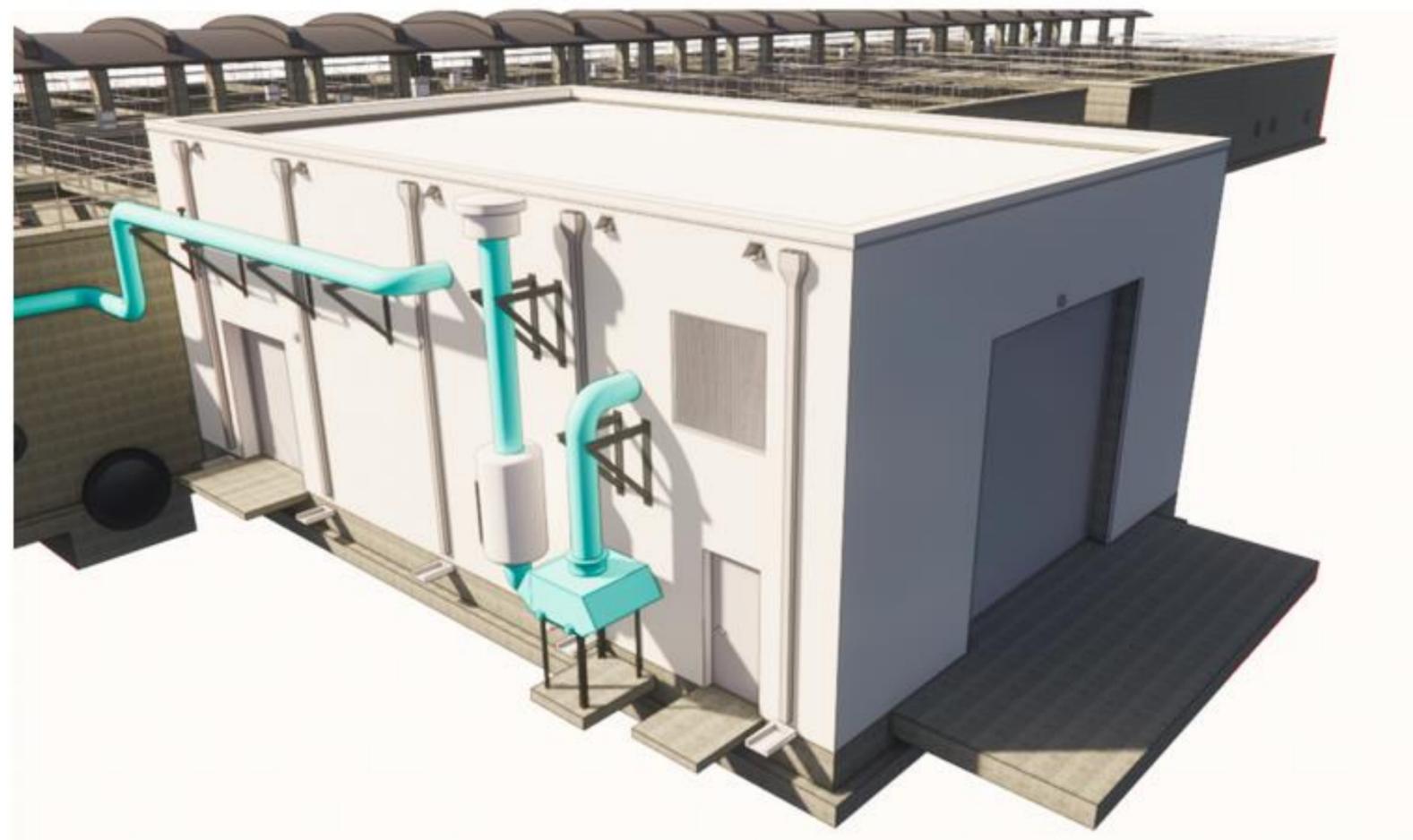
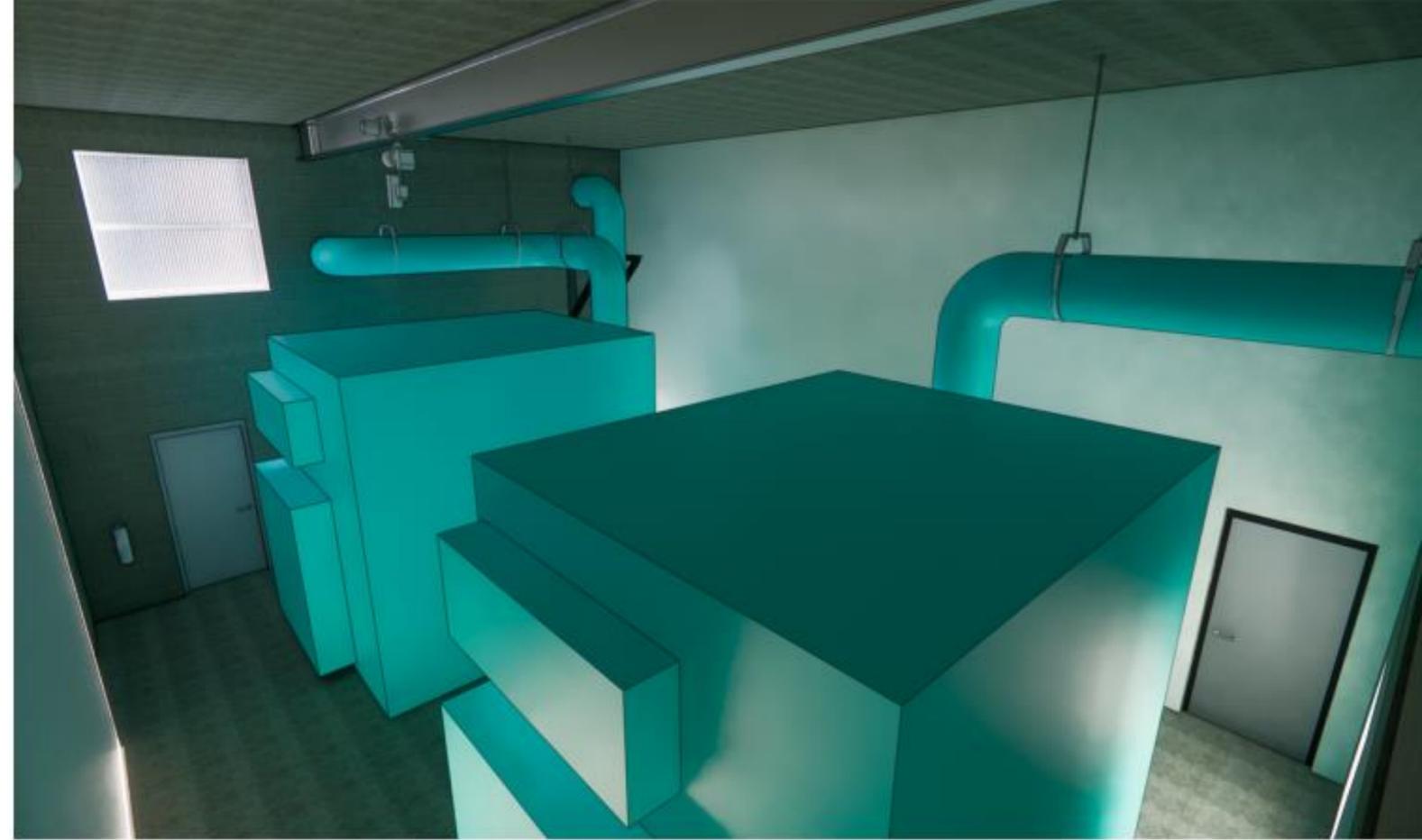
FILTER NO. 13

FILTER NO. 15

TYPICAL EQUIPMENT ELEVATION LAYOUT
3/8" = 1'-0"

Blower Building

- Two packaged blowers
- One silencer
- Two air intake filters
- Piping / valves
- Instruments



Structural Remediation Work

- Structural remediation work within filters is expected, but a structural evaluation within each filter has not been performed.
- At least one filter box has extensive loss of concrete to expose rebar.
- Current approach – unit price for crack repair and surface concrete damage repair.



REPAIR DAMAGED CONCRETE WITH EXPOSED REBAR PER DETAIL 3/995504

1 PHOTO 1
NOT TO SCALE



REPAIR DAMAGED CONCRETE WITH EXPOSED REBAR PER DETAIL 3/995504

2 PHOTO 2
NOT TO SCALE



REPAIR DAMAGED CONCRETE WITH EXPOSED REBAR PER DETAIL 3/995504

3 PHOTO 3
NOT TO SCALE

Structural Remediation Work – Cracks and Spalling



REPAIR LEAKING
CRACKS ON EXTERIOR
FACE OF BASIN WALLS
PER REPAIR TYPE 4.
LOCATIONS TO BE
IDENTIFIED BY OWNER/
ENGINEER. SEE SHEET
999504.

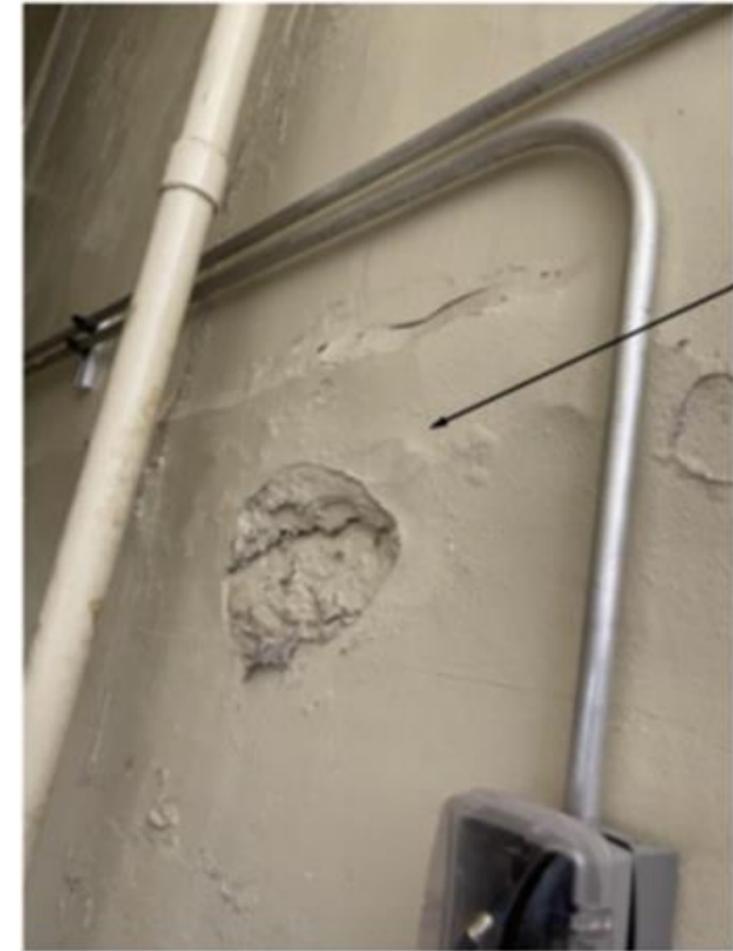
PRESSURE WASH ALL
WALL SURFACES TO
REMOVE BUILD-UP AND
LOOSE MATERIAL.
REPAIR CRACKS AND
SPALLS GREATER THAN
OR EQUAL 0.016 INCHES
PER DETAIL 4-999504

4 PHOTO 4
NOT TO SCALE



EXISTING PRECAST
CONCRETE TROUGH
TO BE REMOVED

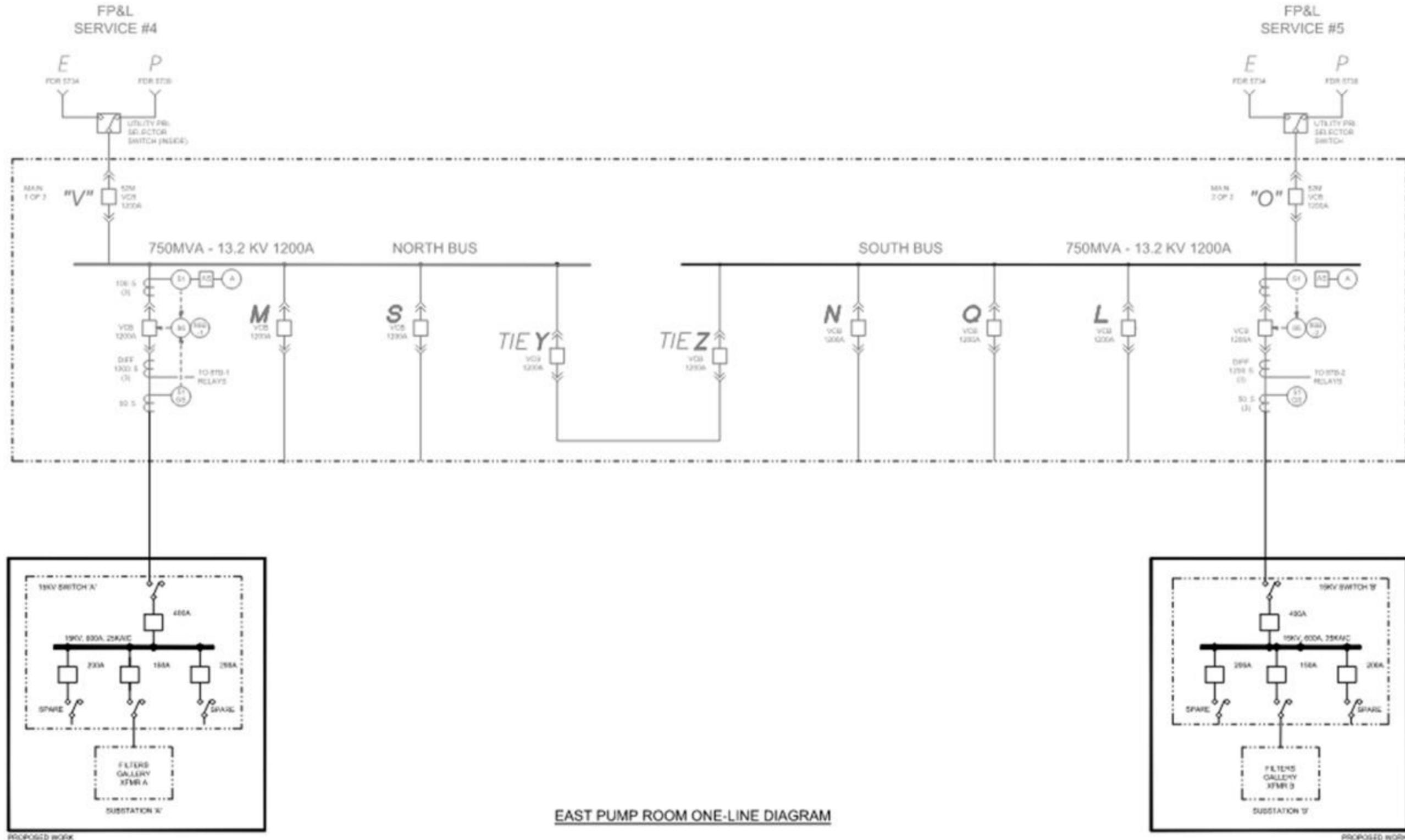
5 PHOTO 5
NOT TO SCALE



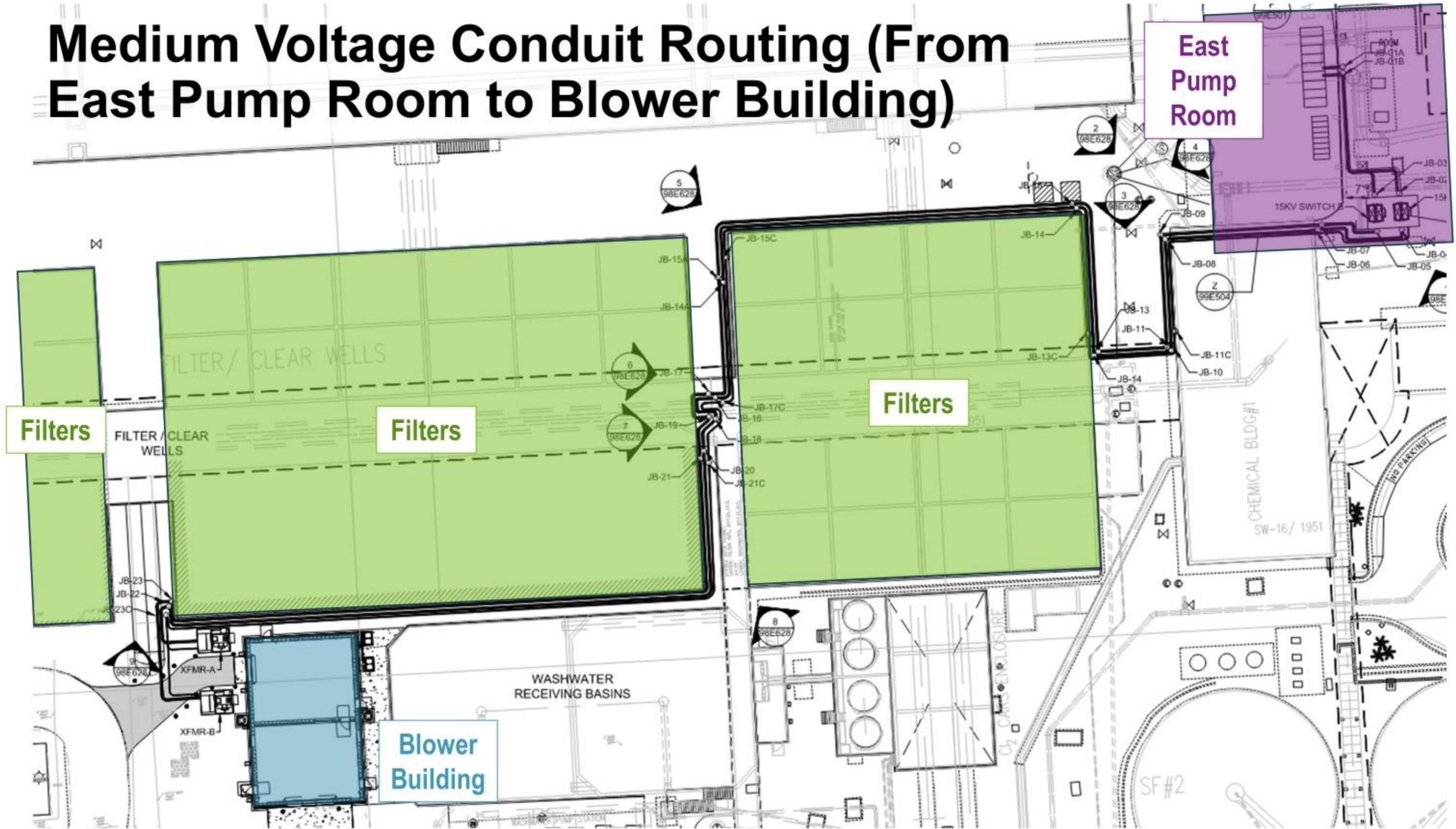
REPAIR DAMAGED
CONCRETE WITH
EXPOSED REBAR PER
DETAIL 1-399504

6 PHOTO 6
NOT TO SCALE

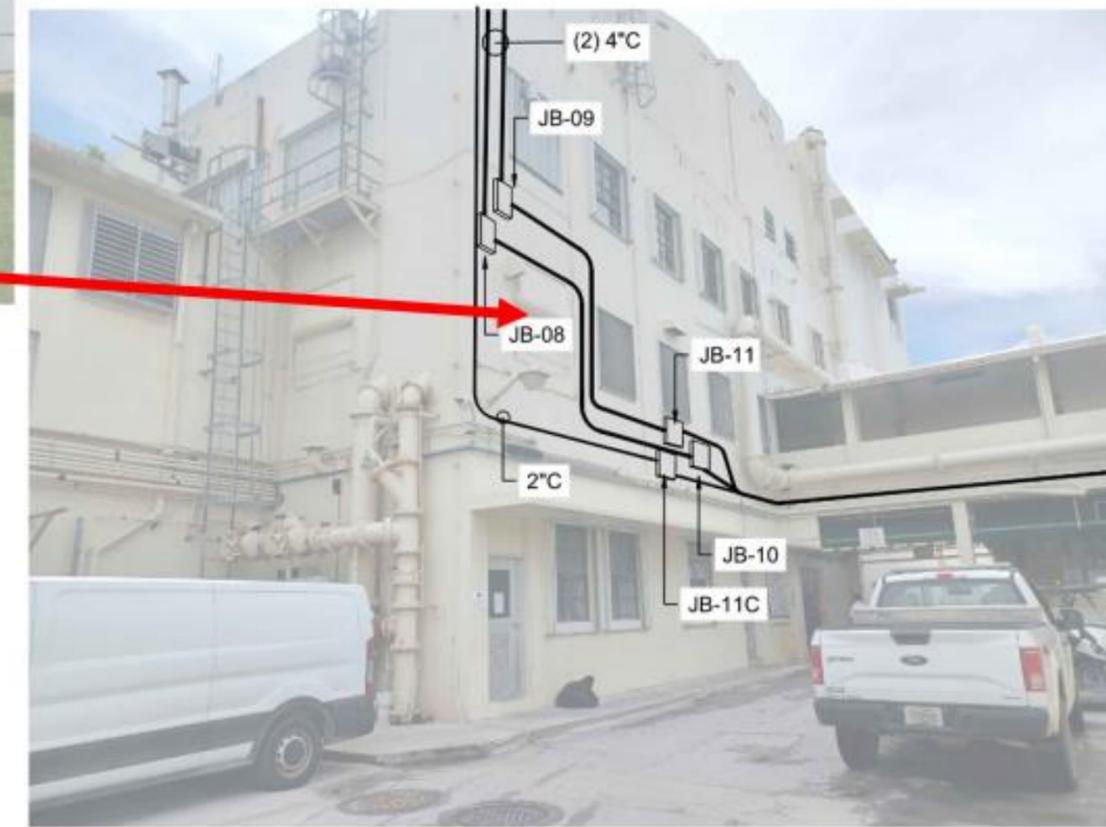
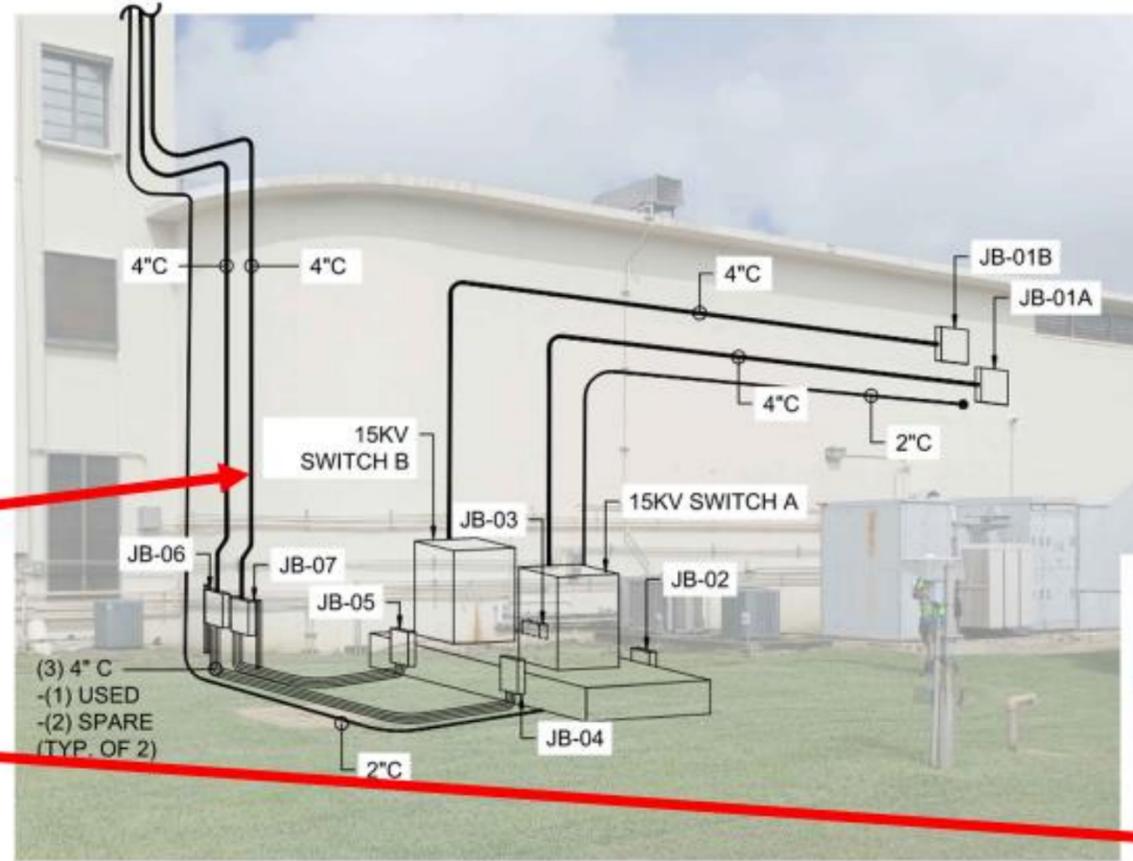
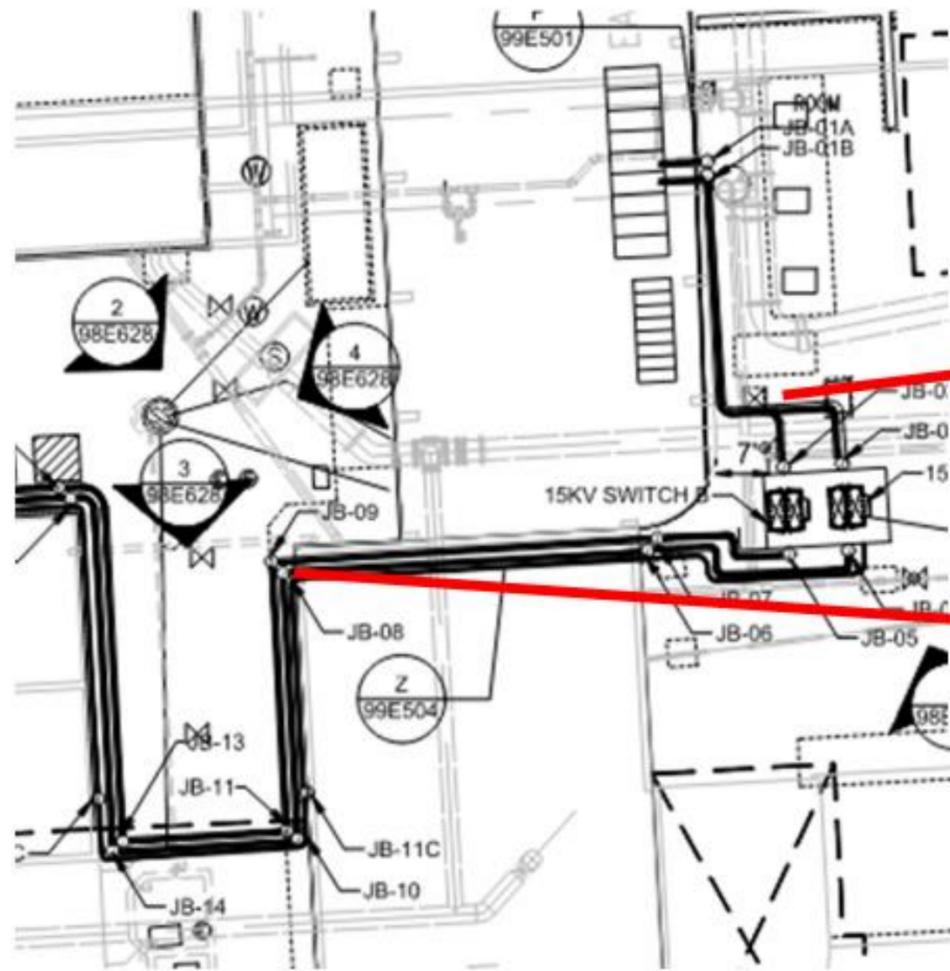
East Pump Building Electrical One-Line Diagram



Medium Voltage Conduit Routing (From East Pump Room to Blower Building)



Medium Voltage Conduit Routing



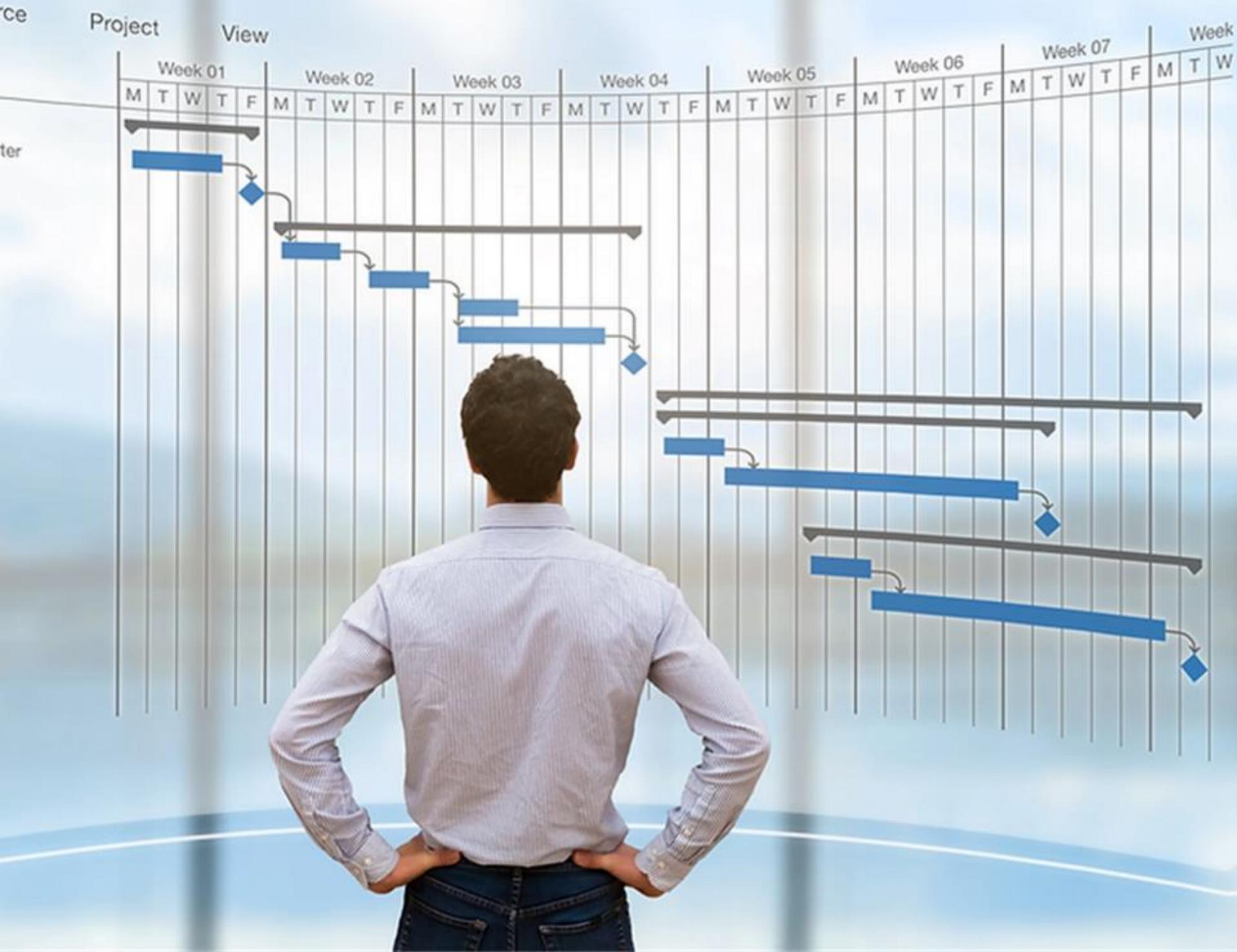
East Pump Room Exterior



03 Maintenance of Plant Operations

Major Schedule Drivers

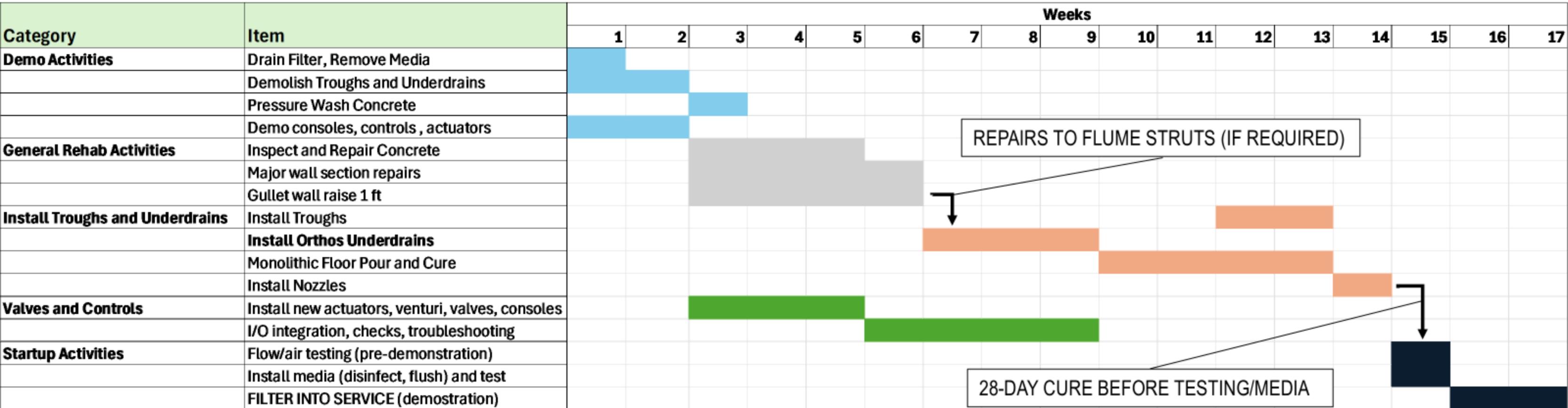
- Long lead time electrical equipment
- Long lead time blowers and underdrains
- MOPO requirements
 - No more than 3 filters offline by Contractor at a time



Tie-Ins & Shutdowns

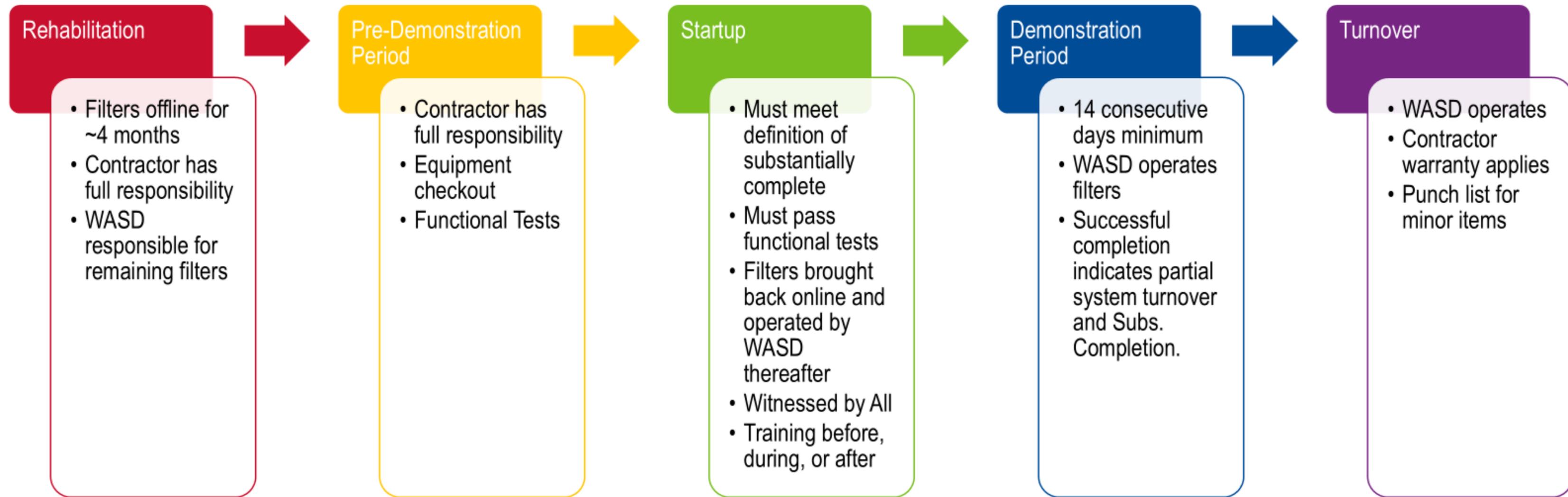
Tie-ins	Shutdowns
Surface sweep supply (6") for temporary service to online filters.	8 hours max, 3 filters at a time, overnight only.
Washwater supply (36")	8 hours max, 3 filters at a time
East HSP Room MV Switchgear (one bus at a time) North Bus South Bus	4 hours max per bus, only one bus offline at one time.
Each filter: Filter effluent line for venturi replacement Filter effluent flume for air scour header	No more than 4.5 months offline for any individual filter. No more than 3 filters offline at any time by Contractor.

Filter Activity Detail



16 to 17 weeks per filter batch (each batch = 3 filters)

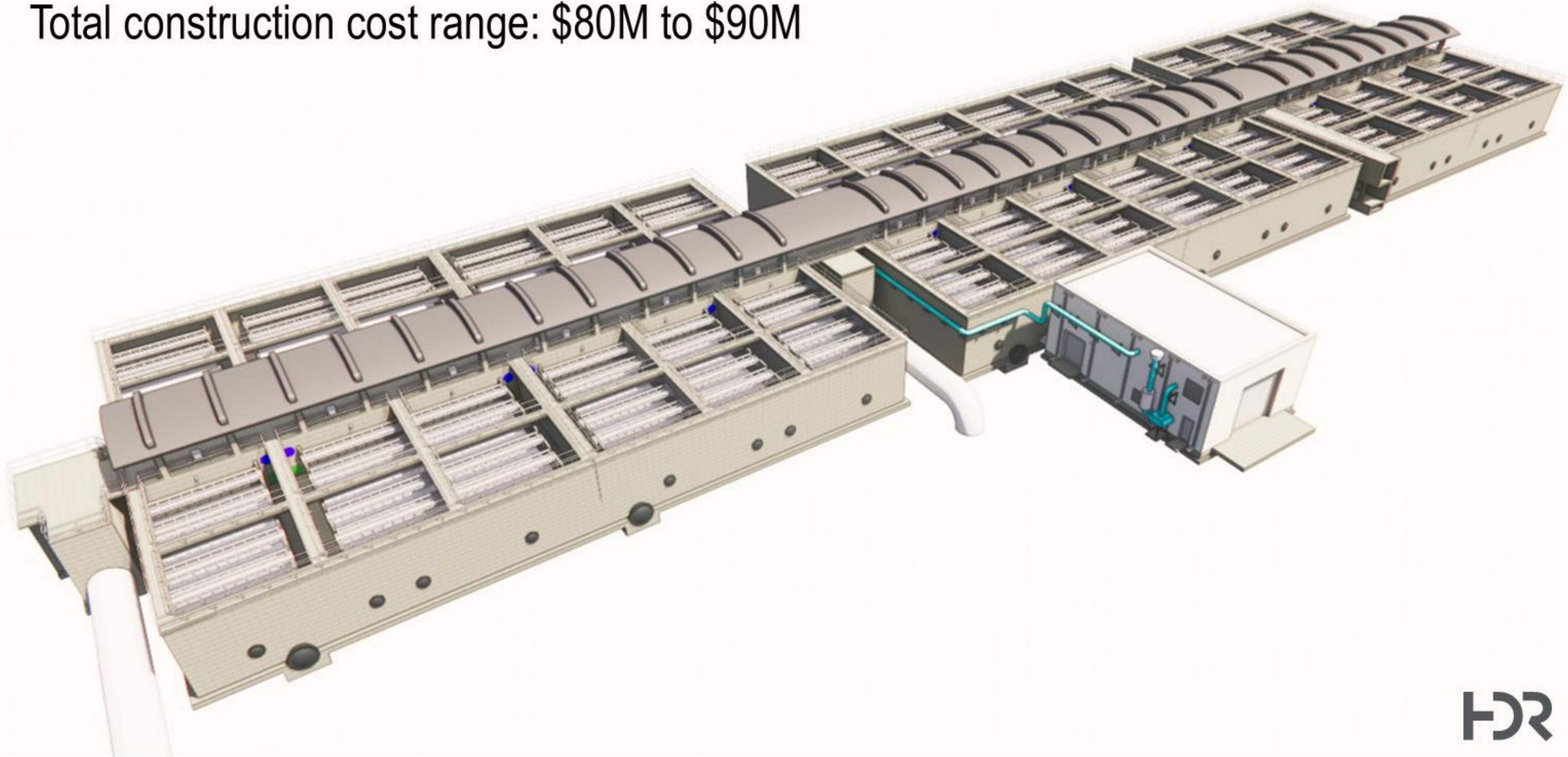
Filter Start-Up for Each Batch of Filters



WASD to operate filters during 2-week demonstration period.

90% Opinion of Probable Construction Cost

Total construction cost range: \$80M to \$90M



Summary

- Rehabilitation and Upgrades of 32 Dual-Media Filters
 - Major Equipment / Products
 - Current: Wheeler spheres / hydrocones, sand, anthracite, six concrete troughs
 - Future: Nozzle underdrains, sand, anthracite, six stainless steel baffled troughs, two blowers
 - Structural Work
 - Expected, but exact scope is unknown until media can be removed from filters.
- Major Limitations
 - Only three filters offline at a time
 - Other projects located near the filter building will be ongoing during filter rehabilitation

Questions?



ONE-ON-ONE MEETINGS

INTERESTED IN LEARNING MORE ABOUT WASD'S PROJECTS?



Contact Paul Adams to setup 1-on-1 meetings and have a focused discussion on any complex project



Meetings must be held prior to the Cone of Silence taking effect



Project plans can be shared and an open format Q&A session can be facilitated with the Project Manager



Meetings can be held in a group or individual project basis

(786) 268-5126 or Paul.Adams@miamidade.gov



Miami-Dade County Office of the Inspector General

***Prevent Fraud,
Waste and Abuse***

Allegations we investigate:

- Inferior materials substitution
- Contractor overbilling and payroll fraud Conspiracies and bid rigging
- Kickbacks and bid steering
- Undisclosed conflicts of interest
- Bribery and unlawful compensation
- Theft of materials Unlicensed contractors Cone of Silence
- Violations Small Business Program
- Integrity Violations, such as
- "fronting" Contractor non-performance Unjustified change orders Responsible Wage and Living Wage Violations
- Unreasonable Bid Specification

Mission of the OIG



To detect, investigate and prevent fraud, waste, mismanagement, misconduct, and abuse of power through independent oversight of County affairs, and seek appropriate remedies to recover public monies.

The Miami-Dade County Office of the Inspector General (OIG) provides oversight on county programs, procurement processes, construction projects, contracts and transactions to determine whether they are financially reasonable, sound, necessary, or operationally deficient. We may also conduct audits, inspections and reviews involving fraud, waste and abuse of government funds.



Let's Chat!

Main Office Address: 601 NW 1st Court, South Tower, 22nd Floor, Miami, FL 33136
Phone: 305-375-1946 Fraud Hotline: 305-579-2593 Website: www.MiamiDadeIG.org
Water and Sewer Department Address: 3071 SW 38th Avenue, Room 512 Miami, FL 33146

To obtain this information in accessible format, please call 305-375-1946 or www.miamidade.gov/OIG-ADA-request



THANK YOU FOR YOUR ATTENTION

Questions?



Website

miamidade.gov

