**JUNE 16, 2025**

**CONTRACT NO. 1800**

**WET WEATHER PUMP STATION**

**ADDENDUM NO. 2**

All bidders bidding **Contract No. 1800** shall read and take note of this **Addendum No. 2.** The Procurement Documents for **Contract No. 1800 WET WEATHER PUMP STATION** are hereby revised and/or clarified as stated below.

**Acknowledgement of Contract No. 1800 Addendum No. 2**

The Acknowledgement attached to **Addendum No. 2** is to be signed and returned immediately via email at contract.clerks@alcosan.org and acknowledged with Bidder's Proposal.

Kimberly Kennedy

**Kimberly Kennedy, P.E.**

Director – Engineering and Construction

# ACKNOWLEDGEMENT OF

# CONTRACT NO. 1800 G, E, H, P – WET WEATHER PUMP STATION

## ADDENDUM NUMBER 2

**FIRM NAME:** _____

**SIGNATURE:** _____

**TITLE:** _____

**DATE:** _____

# June 16, 2025

# CONTRACT NO. 1800

# WET WEATHER PUMP STATION

# ADDENDUM NO. 2

# ADDENDUM NO. 2

**ALLEGHENY COUNTY SANITARY AUTHORITY**

**PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1800**

**WET WEATHER PUMP STATION PROJECT**

**JUNE 16, 2025**

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**BID OPENING DATE**

**WEDNESDAY,**

**AUGUST 19, 2025**

**11:00 A.M.**

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This Addendum No. 2 consists of 82 pages and the following attachments:

Attachment A – Pre-Bid Meeting Minutes June 11, 2025 including Presentation (61 pages)
Attachment B – Pre-Bid Meeting Attendance Sheet – 8 ½" x 11" (6 pages)
Attachment C – Addendum No. 2 Drawings – 22" x 34" (5 pages)

## ATTENTION BIDDERS

The following additions to and modifications of the Contract Documents will be included in and become part of the Contract for the Allegheny County Sanitary Authority (ALCOSAN) Wet Weather Pump Station. Bidders are instructed to take the following into account in rendering any Bid for this work

The Bidder is responsible for verifying that he/she has received and reviewed all of the pages of the Contract Documents as well as all of the pages and attachments of all addenda. The Bidder shall verify all pages with the table of contents in the Contract Documents and the first page of all Addenda. Receipt of this Addendum No. 2 must be noted on the Bid Form. These items modify the portions of the documents specifically noted; all other provisions of the Contract Documents shall remain in effect

## **1.** PRE-BID MEETING

1.1 A Pre-Bid Meeting was held at ALCOSAN at 10:30 a.m., Prevailing Time, on June 11, 2025, in the auditorium of the O&M Building, located at 3300 Preble Avenue, Pittsburgh, PA 15233. Meeting minutes and the attendance sheet are attached (Attachments A and B) to this Addendum No. 2. A site visit to observe the project area and core shed followed the meeting.

## **2.** CHANGES TO THE SPECIFICATIONS

2.1 In Specification Section 41 22 13.13 "Radial Bridge Cranes and Hoists", **ADD** the following after Paragraph 2.07 A 1:

"2. The crane manufacturer shall provide a custom detachable spreader bar for the wet weather pump motors (PWW001-430MO, PWW002-430MO, PWW003-430MO, PWW004-430MO, PWW005-430MO, PWW006-430MO)."

2.2 In Specification Section 41 22 13.13 "Radial Bridge Cranes and Hoists", **ADD** the following after Paragraph 2.07 B 1:

"2. The crane manufacturer shall coordinate with the motor manufacturer to determine the appropriate motor pick-points, center-of-gravity, weight, removal clearance, and other design criteria as required for design of the spreader bar."

## 3. CHANGES TO THE DRAWINGS

3.1 On Sheet 000-C-23, **ADD** trees at new locations. **REPLACE** Sheet 000-C-23 with Sheet 000-C-23 Rev. 01, refer to Attachment C.

3.2 On Sheet 430-M-03, **UPDATE** orientation of motor terminal enclosures. **REPLACE** Sheet 430-M-03 with Sheet 430-M-03 Rev. 01, refer to Attachment C.

3.3 On Sheet 430-ET-03, **UPDATE** orientation of motor terminal enclosures and power connection. **REPLACE** Sheet 430-ET-03 with Sheet 430-ET-03 Rev. 01, refer to Attachment C.

3.4 On Sheet 000-ESP-04, **UPDATE** size of manhole EMH-224. **REPLACE** Sheet 000-ESP-04 with Sheet 000-ESP-04 Rev. 01, Refer to Attachment C.

3.5 On Sheet 430-ED-03, **UPDATE** Details 1 and 2. **REPLACE** Sheet 430-ED-03 with Sheet 430-ED-03 Rev. 01, refer to Attachment C.

## 4. QUESTIONS AND ANSWERS

**Q1:** Since no Manhole or Handhole sizing details have been provided on Drawing 430-ED-03 and Specification Section 33.05 13.16 can dimensional sizes for the pre-cast manholes and handholes that are required to be provided by the 1800-E Contractor be provided?

**A1:** Precast manholes are shown on drawing 000-ESP-04 as 4' and 8' square. Typical Manhole and Handhole details are shown on 430-ED-03. See specification 26 05 33 for manhole and handhole requirements.

**Q2:** Will the 1800-G Contractor be responsible for the survey and site controls for the physical location of the new duct-banks, manholes and handholes?

**A2:** Survey is the responsibility of each Contract for their respective scope of work. Coordination between Contract 1800G and 1800E is required for locating the ductbanks, manholes and handholes - refer to Section 01 11 00 1.01D and 1.02.C.7. The bidder's use of the words "site controls" is not clear. Please rephrase in a subsequent question.

**Q3:** Will the 1800-G Contractor be responsible for the ductbank trench shoring and excavation stabilization for worker access?

**A3:** Refer to Section 01 11 00 Part 1.02.B.3.

**Q4:** "Will Section 3.79 Section 3.79 Buy American and 3.80 Pennsylvania Steel Procurement Act be applicable to the following engineered products:

- 26 12 16 Dry Type Medium Voltage Transformers
- 26 13 23 Medium Voltage Metal Enclosed Switchgear
- 26 22 00 Low Voltage Transformers
- 26 24 13 Switchboards
- 26 24 16 Panelboards
- 26 24 19 Motor Control Centers
- 26 28 16.16 Enclosed Switches
- 26 29 23 Variable Frequency Motor Controllers
- 26 36 13 Automatic Transfer Switch "

**A4:** It is the Contractor's responsibility to establish and manage which engineered products may be granted a waiver or exception to regulatory requirements.

**Q5:** Drawing 430-ED-01 Detail 14001 details the requirement for a typical conduit duct bank entrance at structure. Drawing 430-ED-05 Detail 18 details the requirement for adjustable gland style sleeves for exterior building penetrations below grade. Drawing 430-ED-05 Detail 13 details a flange conduit sealing bushing below grade. Is Detail 14001 on Drawing 430-ED-01 acceptable for the duct bank entrance into Building 430?

**A5:** Contract 1800G and 1800E need to coordinate for block out for the building wall. Contract 1800E is responsible for ductbank portion, including conduit reinforcement, concrete, waterproofing, sealing of penetration and appurtenances. Contract 1800G is responsible for excavation and backfill and formwork at wall.

**Q6:** Which Contract, G or E, is responsible for the interior forming and finishing of concrete at the Building 430 duct bank entrance?

**A6:** Contract 1800G is responsible for forming and finishing for the wall. Contract 1800E is responsible for the ductbanks. See response to Question 5.

END OF ADDENDUM No. 2

# ATTACHMENT – A

Pre-Bid Meeting Minutes and Presentation

# CONTRACTS 1800 G, E, H, P
# Wet Weather Pump Station
# PRE-BID MEETING Minutes

WEDNESDAY JUNE 10, 2025 @ 10:30 AM
ALCOSAN O&M BLDG. AUDITORIUM

JOSEPH TRIPODI – ALCOSAN PROJECT MANAGER
DUSTIN COPENHAVER & BETH JOYCE – ALCOSAN PROJECT ENGINEERS
BRIAN DAUGHERTY – CONSTRUCTION MANAGER

## INTRODUCTION

a. Attendees will be sent a copy of the Agenda/Minutes via email noted on the attendee list.
b. Opening comments from Construction Manager.
c. Contractors must purchase bid documents from ALCOSAN to submit bids and receive addendum information.
d. **Mandatory** goal of WBE/MBE participation. (10% to 25% of contract value).
e. Presentation of Contract Scope by Brown & Caldwell.

## BID DOCUMENTS

### 1. Legal Notice

a. Bid security 10% of bid price by certified check or bid bond.
b. All bids are to be submitted to Alcosan Engineering Department clerks (2nd floor of the O&M Building) on or before bid opening date and time. If the bid package is sent to ALCOSAN by land courier (UPS, FedEx, etc.), allow enough time for delivery to the clerks.
c. Bid opening on **Tuesday August 19, 2025,** at **11:00 AM** prevailing time
d. Anticipation of award at the, **Thursday September 25, 2025,** ALCOSAN Board meeting.
e. All questions about contract documents shall be submitted to Brian Daugherty email to Brian.Daugherty@mbakerintl.com in writing. Any questions by phone or in-person are considered informal and without legal or binding effect on the contract or to the Owner.
f. The last day for questions is Close of Business **Wednesday July 9, 2025.** Responses will be distributed as addenda, as soon as possible, as deemed applicable.

### 2. Bidding Documents [Article One]

a. 1800G Bid Form - fill in TOTAL BASE BID on page 1-5. This is the sum of Lump Sum Work (8.2) and Extended Amount for Unit Price Work (8.1) including 2 Alternatives. 1800 E,H,P Bid Form - fill in Lump Sum on page 1-2. All bids submitted with all bid forms complete and signed by authorized representative of the Company. Only the bid forms need to be submitted (Article1, pages 1-1 through 1-30 (1800G) pages 1-1 through 1-24(E,H,P) and Solicitation and Commitment Statement pages 1 of 4 through 4 of 4), not the entire book.
b. Acknowledge all Addenda received and made part of the Bid Documents page 1-2 (2.18)
c. Provide contact for your company in the space designated on page 1-8 for receipt of any communications necessary for the bid evaluation.
d. Bid Bond - Certified check or Bid Bond. (2.21)
e. MBE/WBE lower-tier subcontractor participation counts towards 10%-25% (2.27)
f. Project Labor Agreement (2.36) Primes to sign and submit Letter of Assent with bid. Subs sign before working on project.
g. Use of Model (2.37) – “facilitate sequencing of the work in preparing bid.”

3. **Information for Bidders [Article Two]**
   a. Submission of Bids (2.06); Sealed Bid to be submitted to ALCOSAN Engineering Department on or before bid opening date and late bids (anything received after 11:00 AM) will be treated as "non-responsive" and returned to the Bidder unopened.
   b. Award Contract Execution and Notice to Proceed (2.09); Intend to award Contract 1800 at September 25th, 2025, Board Meeting. Contract execution typically requires 4-6 weeks to process paperwork (including bonds and certificates of insurance). Anticipate a Notice to Proceed to be issued November 2025.
   c. Bidders to Investigate (2.15); Bidders are required to visit Core Shed and may coordinate additional site visits through the Construction Manager Resident Engineer Brian Daugherty at Brian.Daugherty@mbakerintl.com.
   d. Tax Exemptions (2.20) See Article 3.22 and Exhibit D.
   e. Bid Security / Contract Execution (2.19)
   f. Alterations of Bids and Documents (2.22)
   g. Qualifications and Experience of Bidders (2.26)
   h. MBE & WBE Participation (2.27)
   i. Project Labor Agreement and Letter of Assent (Prime and Subs) (2.36)
   j. Dispute Review Board (2.38)
   k. Escrow Bid Documents (2.39)
   l. Geotechnical Baseline Report (2.40)
   m. Geotechnical Data Report (2.41)

4. **Contract Provisions [Article Three]**
   a. Project Coordination (3.7 & 3.28)
   b. Retainage; (3.37): 10% to start. Reduced to 5% at 50% completion.
   c. Bonds (3.58); Performance Bond and Labor and Material Payment Bond to be provided prior to the execution of the Contract Agreement by Owner in the amount (100%) of the Contract Sum. Also, Maintenance Bond (100% of Contract sum) is required upon final acceptance of the completed work.
   d. Working hours (3.77); Normally for an 8-hour period between 7:00 AM to 5:00 PM, Monday through Friday. Work performed after hours, during ALCOSAN holidays and weekends shall be coordinated with the Construction manager 48 hours in advance. **(SCC)**
   e. Pennsylvania Prevailing Wage Rates (3.78); Minimum wage rates as set forth by the PA Prevailing Wage Act. (See Article 7 Volume 1 of 3)
   f. Compliance to the Buy American (3.79)
   g. Compliance to the PA Steel Products Procurement Act/Trade Practices Act (3.80/3.81)

5. **Supplemental Contract Conditions**
   a. Order Of Precedence (3.2)
   b. Additional Definition (3.3)
   c. Coordination (3.7)
   d. Insurance (3.9)
   e. Access To Work (3.24)
   f. Time Of Completion, Milestone Dates (3.29)
   g. Disputes And Claims (3.56) **For Contract 1800 G only**
   h. Warranty (3.59)
   i. Governing Law; Forum (3.70) **For Contract 1800 G only**
   j. Working Hours (3.77)
   k. Escrow Bid Documents (3.83) **For Contract 1800 G only**
   l. Replace Exhibit "A" Insurance in its entirety with the following Exhibit "A-3SC" Insurance.

m. For Contract 1800 G only, add Exhibit “E” Dispute Review Board Specification after Exhibit “D” Tax Exemption Certificate.
n. For Contract 1800 G only, add Exhibit “F” Dispute Review Board Agreement after Exhibit “E” Dispute Review Board Specification.

**6. Contract Agreement [Article Four]**

a. Contract Milestones: All 1800 Primes are the same, G shown as example

| Construction Milestone | Contract Time Calendar Days | Notes |
|---|---|---|
| Substantial Completion of Contract 1800 G | 1,797 days | From Notice to Proceed |
| Final Completion of Contract 1800 G | 1,917 days | From Notice to Proceed |

b. Liquidated Damages

| Construction Milestone | Liquidated Damages / Calendar Day |
|---|---|
| Substantial Completion of Contract 1800 G | $7,000/calendar day |
| Final Completion of Contract 1800 G | $7,000/calendar day |

**7. Bonds, Certificates and Statements [Article 5]**

a. Performance Bond (At beginning of contract)
b. Labor and Material Payment Bond (At beginning of contract)
c. Contractor’s Certificate of Satisfaction (At completion of contract)
d. Maintenance Bond (At completion of contract)

**8. Project Specifications [Article 6)**

a. Summary of Work 01 11 00 – Summarized by the FDC

**9. Prevailing Minimum Wage Determination [Article 7]**

**10. Contract Drawings**

**11. Open Discussion / Questions / Site Tour Requests-submit**

- **Attendees were informed that any questions asked and responses given are to be considered informal. Attendees must submit questions for formal responses through the Addenda process.**
- **Site Tour was conducted, and the visitation of core shed was available to attendees after tour.**

♦ ♦ ♦ ♦ End of Minutes ♦ ♦ ♦ ♦ ♦

# ALCOSAN
# Wet Weather Pump Station
# Prebid Meeting

June 11, 2025

# Agenda

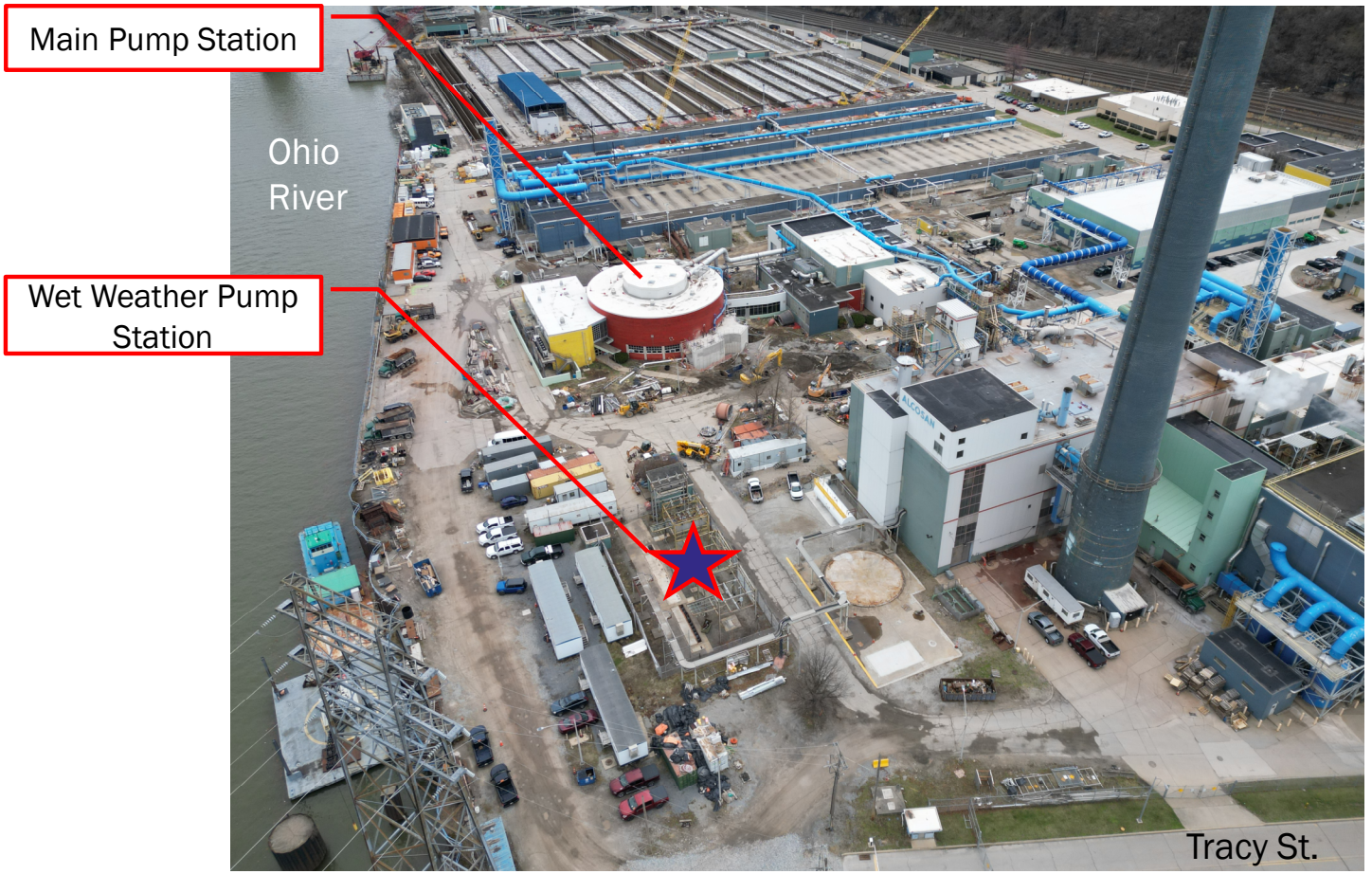
- Project Purpose
- Contract Documents and Reference Documents
- Staging and Coordination
- Constraints and Maintenance of Plant Operations
- Scope and Phasing of Work
  - *Utilities*
  - *SOE and Shaft*
  - *Pump Station Overview*
  - *Commissioning, Warranty*
- Bid Form and Schedule

# Project Purpose

## Increase treatment capacity at the Alcosan Woods Run WWTP

- Construction of a new 120 mgd pump station and connection to a dewatering tunnel (DWT) built under a separate contract

# Wet Weather Pump Station Location



# Contract Documents and Reference Information

## Four Contracts

- **1800G: General**
- **1800E: Electrical**
- **1800H: HVAC**
- **1800P: Plumbing**

# Contract Documents and Reference Info

## Bidding Documents

- Volume 1 Front End
- Volumes 2 and 3 Technical Specifications
- Volume 4 Geotechnical Data Report
- Volume 5 Geotechnical Baseline Report
- Drawings

## Reference Information

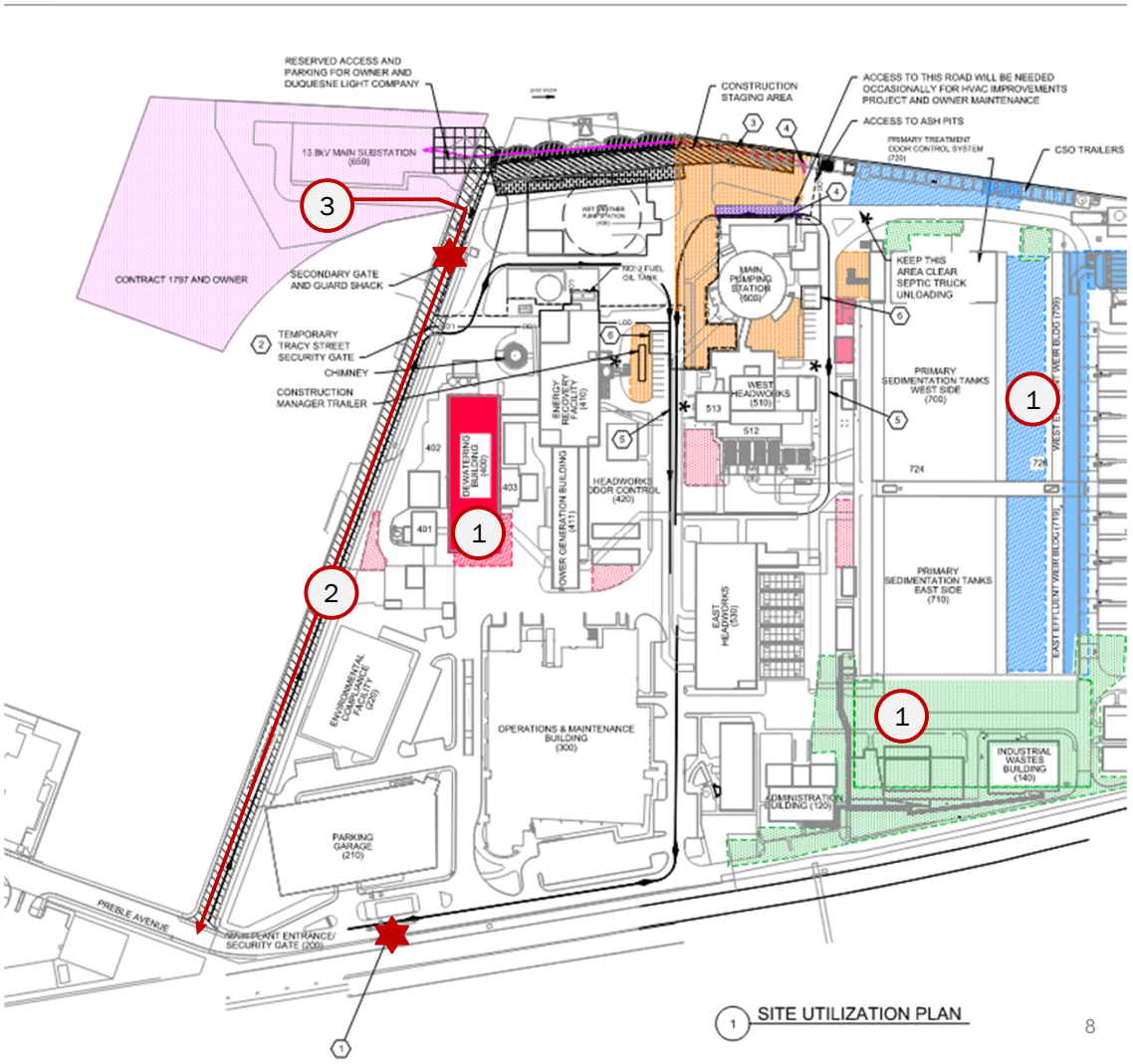
- Volume 1 of 1
- Revit Model

- Rock core storage facility

# Staging and Coordination

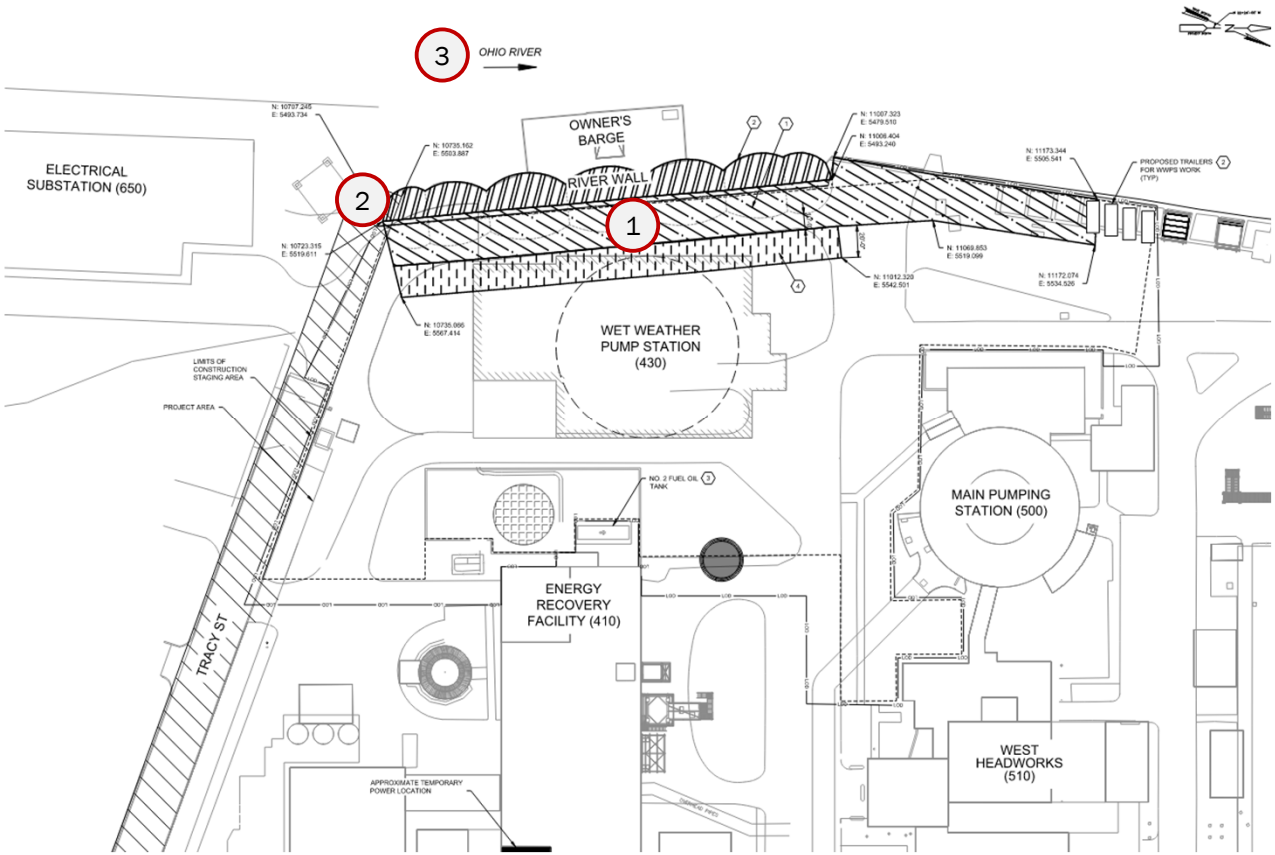
# Site Utilization

1. Multiple ongoing and future projects affect access
2. Tracy Street use is limited by phase and duration
3. There will be overlap with truck traffic on Tracy Street from Ohio River Tunnel Project west to east



# Staging Near Riverwall

1. Restricted loading in multiple zones
2. Must provide unrestricted Alcosan access to electrical substation
3. No Contractor river access permitted



# General

- Limited onsite soil/rock stockpiling
- Groundwater and construction water (unwatering) to be managed, treated, Alcosan Pretreatment requirements apply
- Management of Excavated Soil and Rock, refer to specifications
- Work hour restrictions refer to specifications
- Special limitations on blasting in vicinity of UOIT and coordination with Sherwin Williams (adjacent property owner)

# Constraints and Maintenance of Plant Operation (MOPO)

## MOPO is paramount

**SECTION 01 52 00**
MAINTENANCE OF PLANT OPERATIONS

PART 1 GENERAL

1.01 SUMMARY

A. The intent of this specification is to have the Contractor schedule and perform the work in a manner such that the Owner can keep the existing treatment plant facilities in continuous dependable operation and in compliance with all regulatory requirements. The Contractor shall adhere to the constraints listed in this section and elsewhere in the Contract Documents.

B. Some elements of the phases described in this Section may be achieved in parallel, however Contractor shall adhere to the General and Specific Constraints in the section.

C. Due to the nature of deep shaft WWPS construction, a significant portion of the permanent HVAC and Plumbing work is anticipated to occur later in the project after major portions of the shaft and substructure have been built.

D. References to Drawings and drawing keynotes in this section are provided for convenience and are not intended to be comprehensive of all work required as part of a particular Phase.

# Long-Lead and Critical Submittals

Refer to Section 01 33 00 Submittals

E. Long-Lead and Critical Submittals
   1. Submit within 30 days of Notice to Proceed, critical-path related submittals which may include, but not limited to the following:
      a. Electrical utilities and piping systems related to utility relocation
      b. Concrete for ductbanks
      c. Geotechnical monitoring
      d. Pre-excavation drilling and grouting, vertical rock reinforcement, slurry walls, rock excavation, shaft construction and temporary support of excavation related submittals.
   2. Submit within 90 days of Notice to Proceed, long-lead procurement submittals which are expected to include, but not limited to the following:
      a. Medium voltage switchgear, variable frequency drives and transformers
      b. Wet Weather Pumps
   3. Refer to individual technical specifications for identification of other anticipated long lead or potentially critical submittals.

# Section 01 52 00 Excerpt

Some Phases overlap

Contracts 1800H and 1800P
Work later in project

Keynotes describe some of the phasing

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# Specific Constraints

Constraints Related to Utility Relocation Prior to SOE, Shaft

Early Action – Electrical Infrastructure Report

Refer to Section 01 52 00 Maintenance of Plan Operations

N. Specific Constraint No. 1: The Main Pump Station must remain in service at all times.

O. Specific Constraint No. 2: Existing utilities shall be relocated prior to beginning slurry wall and related support of excavation work.

P. Specific Constraint No. 3: Demolition of existing 13.8kV and 5kv medium voltage ductbanks may not occur until the new ductbanks are constructed, cabling is terminated, tested and commissioned.

Q. Specific Constraint No. 4: A maximum of three days is permitted for shutdown and replacement of each 13.8kV circuit. This includes testing, terminating and commissioning of new 13.8kV circuit and demolition of the existing 13.8kV circuit. Provide temporary power at no cost to the Owner if the Contractor elects to de-energize the existing circuit(s) to accomplish the work in the switchgear or manholes. After completion of Electrical Infrastructure Report described in Part 1.05, in the opinion of the Owner if existing conditions are determined to prevent parallel installation of the new cabling such as a lack of available spare conduits or existing ductbanks and new manhole configurations are found to prevent the installation, temporary power shall be provided for under Specific Allowance #13 Unforeseen Utility Removal and Relocation.

R. Specific Constraint No. 5: Demolition of existing control and fiber ductbanks may not occur until the new ductbanks are constructed, cabling is terminated, tested and commissioned.

S. Specific Constraint No. 6. Where redundant electrical cabling such as power from switchgear A side and B side or redundant control cabling is replaced or rerouted, the Construction Manager will establish the minimum number of days required between completion of first outage and start of the next. For the purposes of bidding, assume not less than seven continuous calendar days are required after the completion of the first outage and before the second outage may begin.

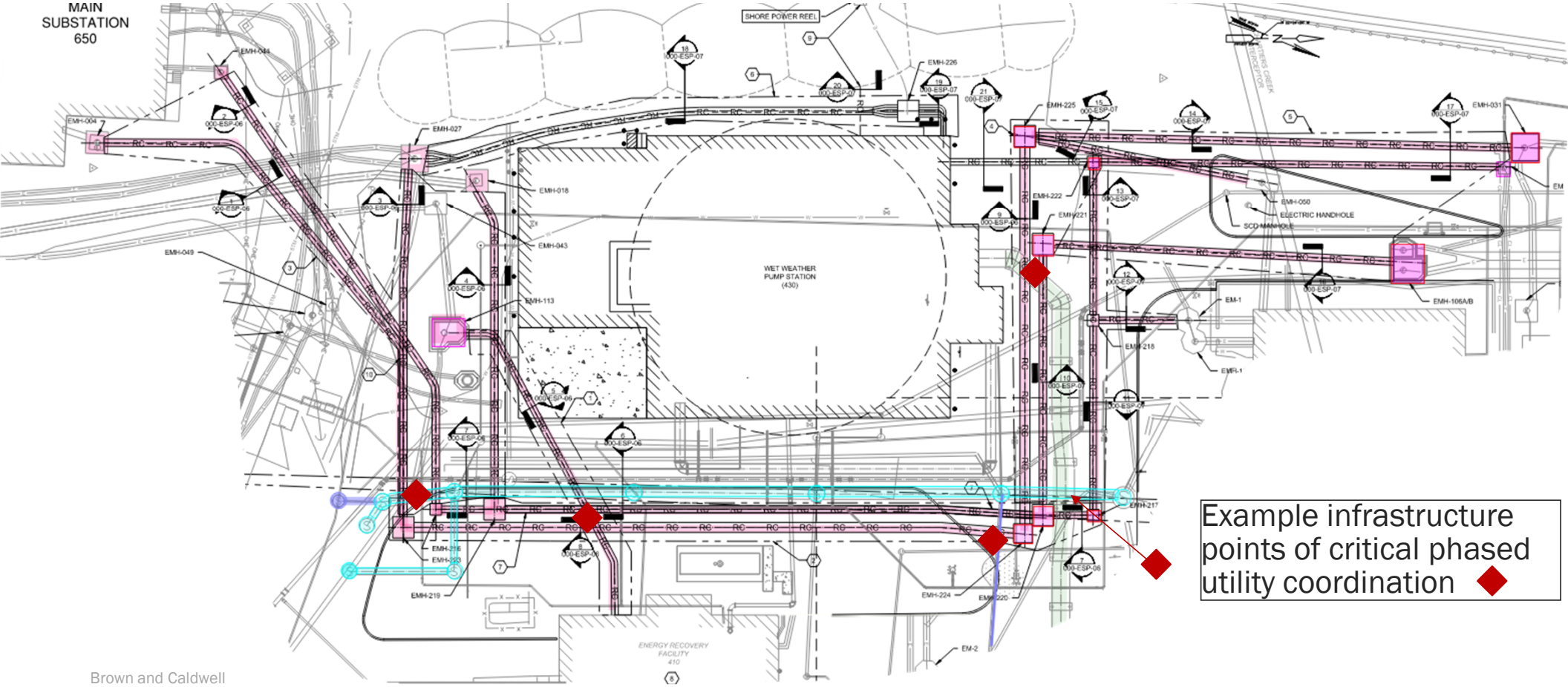
T. Specific Constraint No. 7: Natural gas piping tie-ins shall be performed during the non-heating season in August during the Owners planned 1-week incinerator outage.

U. Specific Constraint No. 8: The East Headworks Influent Conduit shall remain in service at all times except for the outage described below to connect the new WWPS Effluent Conduit.

V. Within 30 days from Notice to Proceed, develop and submit an Electrical Infrastructure Report as described in Part 1.05.B.

# Utilities

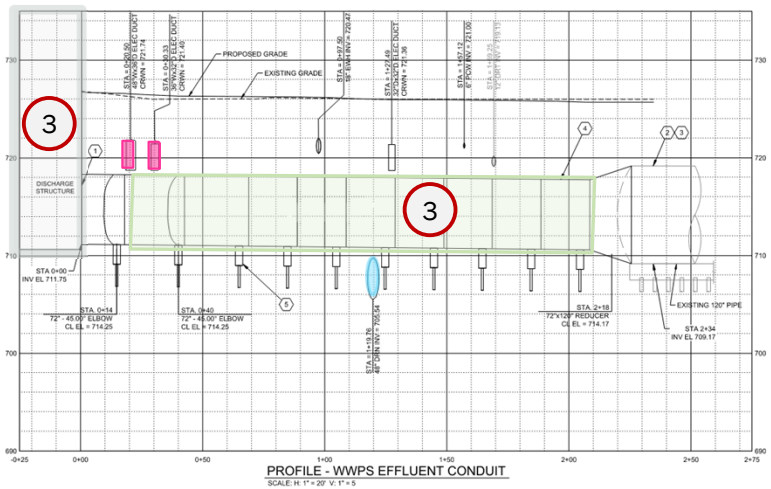
# Phasing Utilities and Temporary Support

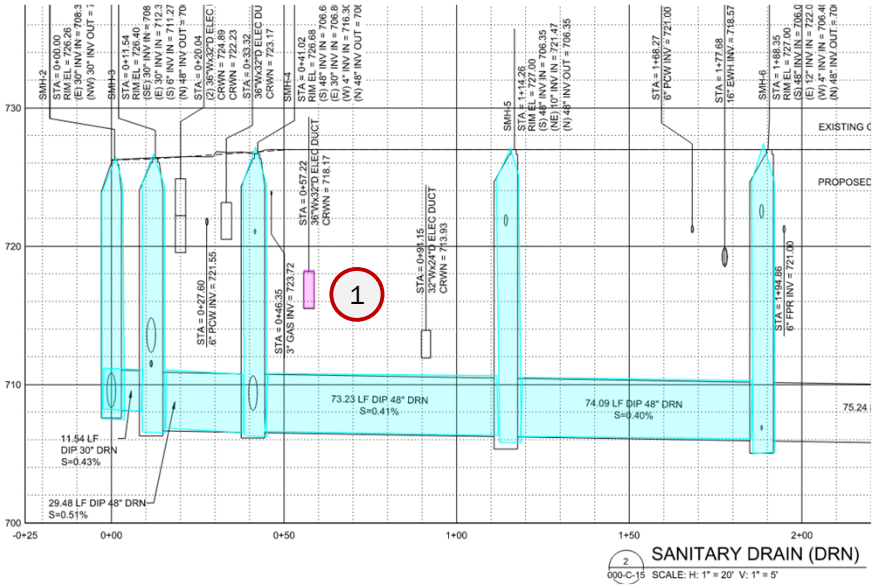


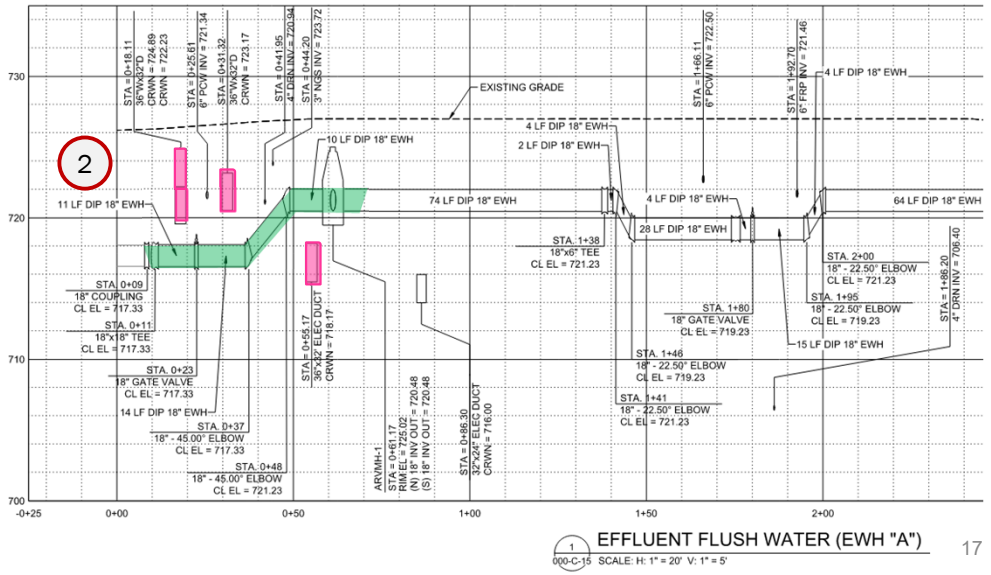

Example infrastructure points of critical phased utility coordination ◆

# Examples

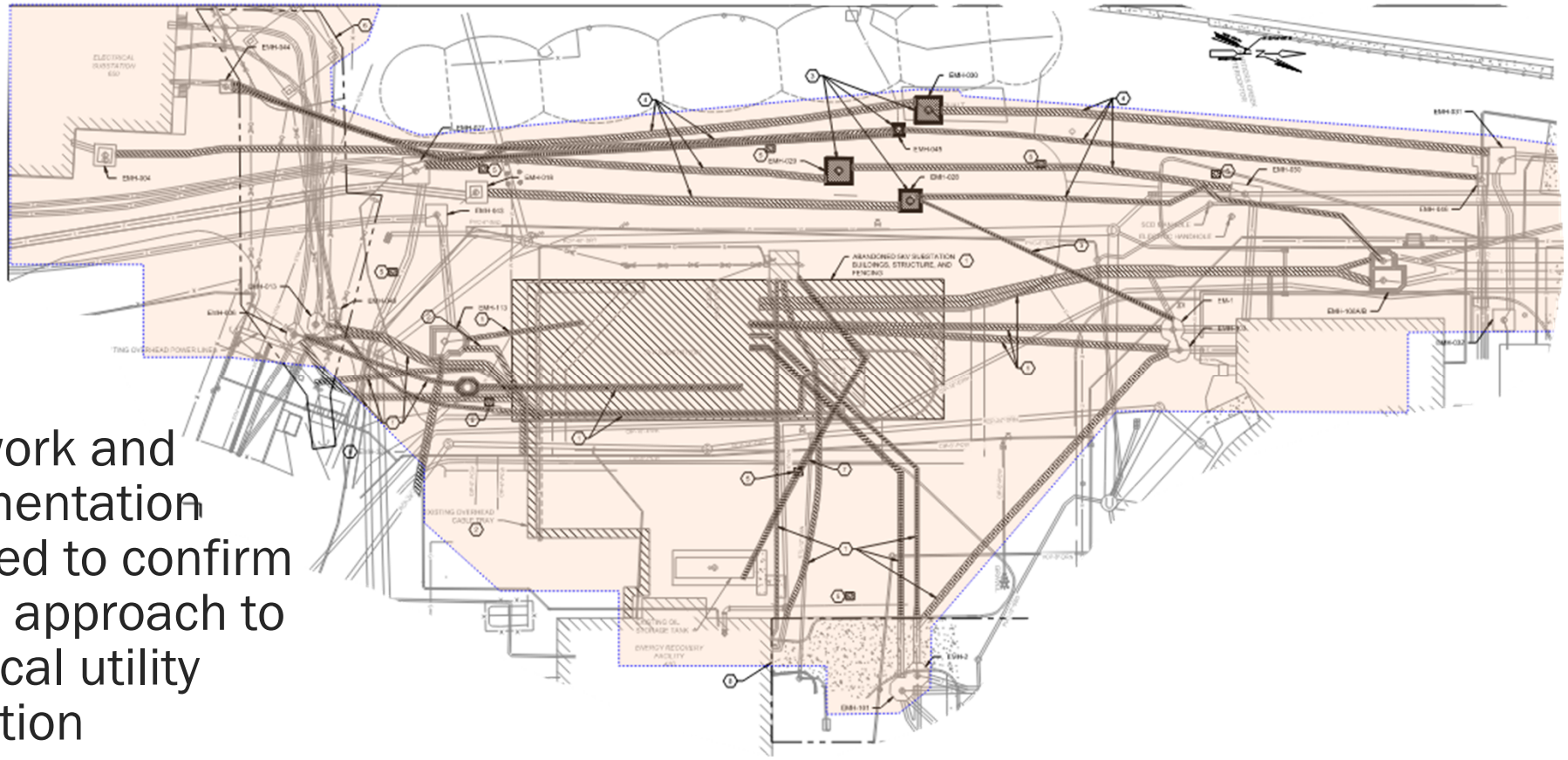
1. Temporary support of ductbanks to 410 Building during drain construction
2. Effluent water high pressure above and below ductbanks
3. WWPS Effluent Conduit, piles and large plant drain below with later tie into WWPS and East Headworks



# Early Phases – Deep Piping and Electrical Ductbanks



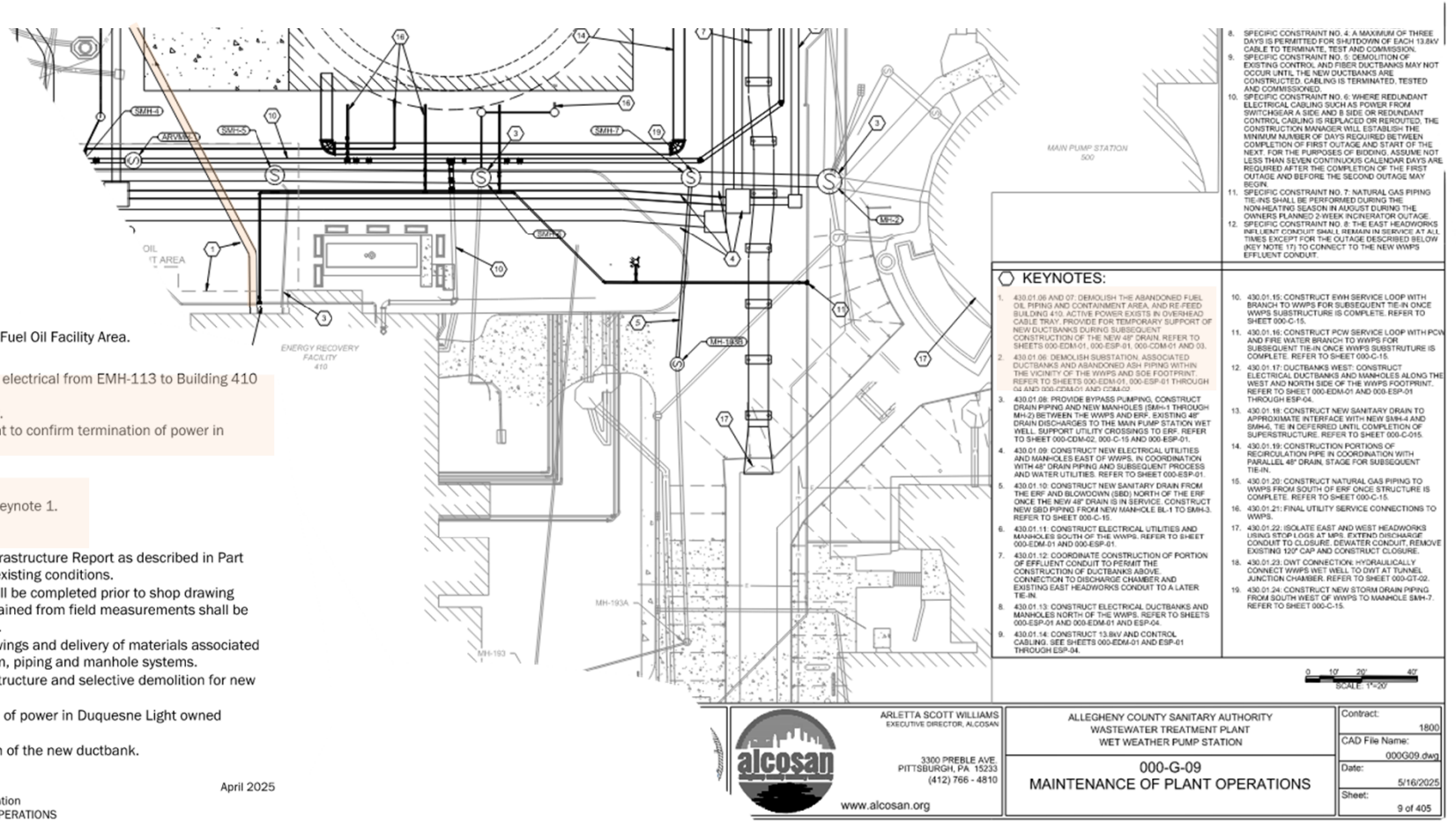
- Fieldwork and documentation required to confirm MOPO approach to electrical utility relocation

# Section 01 52 00 Example – Refeed Building 410

1.06 Phases 1 and 2 - Work Area 410 Bldg Refeed and Fuel Oil Facility Area.

A. General Description
   1. Demolition of infrastructure and refeed of electrical from EMH-113 to Building 410 in advance of WWPS construction.
   2. Active power exists in overhead cable tray.
   3. Coordination required with Duquesne Light to confirm termination of power in Duquesne Light owned manhole.

B. Reference Drawings
   1. 000-G-09 Keynotes 1 and 2.
   2. 000-EDM-01 Keynote 1 and 000-ESP-04 Keynote 1.
   3. 000-CDM-01 and 03.
   4. Work to be completed before shutdown
      a. Develop and submit an Electrical Infrastructure Report as described in Part 1.05.B of this section to document existing conditions.
      b. Field measurement verifications shall be completed prior to shop drawing preparation and the information obtained from field measurements shall be incorporated into the shop drawings.
      c. Submittal and approval of shop drawings and delivery of materials associated with the electrical distribution system, piping and manhole systems.
      d. Temporary support of existing infrastructure and selective demolition for new ductbank.
      e. Confirm Duquesne Light termination of power in Duquesne Light owned manhole
      f. Site and utility demolition in the path of the new ductbank.




ALCOSAN Contract No. 1800 | ALCOSAN Wet Weather Pump Station MAINTENANCE OF PLANT OPERATIONS 01 52 00 - 7 | April 2025

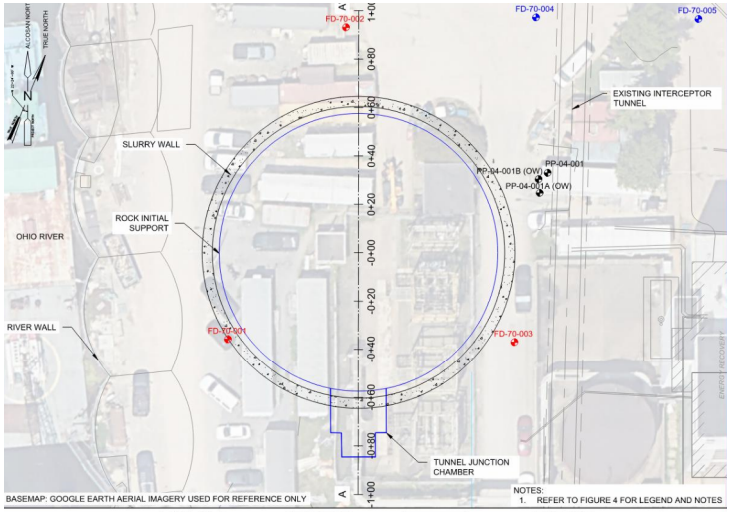
# Geologic Conditions, UOIT, SOE, Groundwater Cutoff, and Protection of Structures

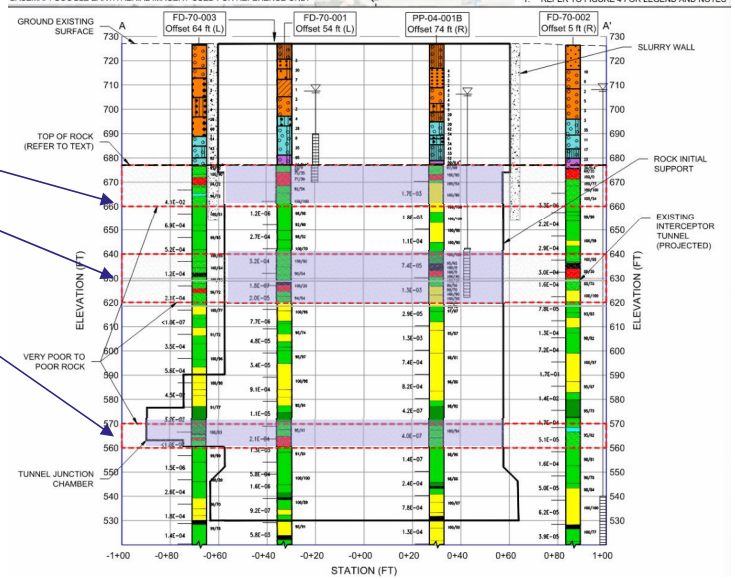
# Geologic Conditions

- Soil:
  - Fill: Sand and gravel, clay, silt, cobbles, boulders, and man-made debris such as ash, slag, cinders, bricks, metal, wood, etc.
  - Alluvium: Interbedded sand, gravel, clay, silt. Cobbles and boulders possible.
  - Residuum: Directly over bedrock. Dense to very dense, highly to completely weathered siltstone or sandstone.
- Rock:
  - Interbedded sedimentary rock, with near horizontal bedding: sandstone, shale, claystone, coal, and limestone
  - Majority: Very Good, Good, or Fair Rock.
  - Approximate areas of Poor or Very Poor Rock
- Groundwater:
  - Baseline condition in GBR.
  - Overburden and rock are highly permeable.
- Gas Conditions:
  - Potentially gassy.

**Table 7-1: Baseline Ground Conditions**

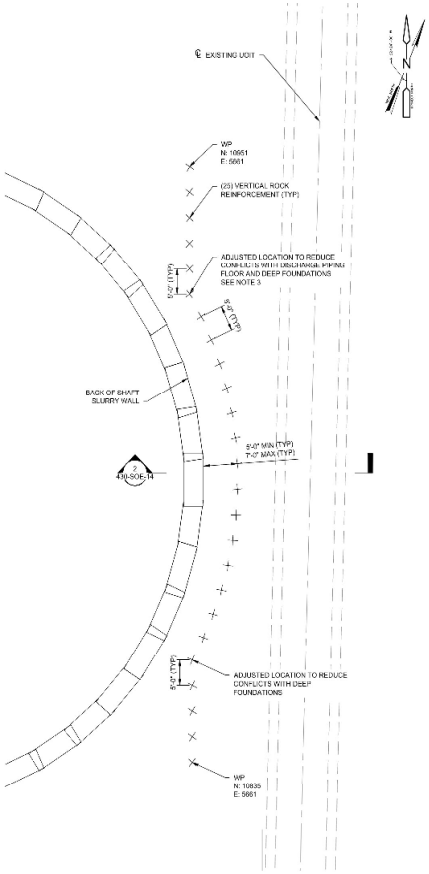
| Stratum | Top of Stratum Elevation (ft) |
|---|---|
| Fill | 727 +/- 2 |
| Alluvium | 690 +/- 5 |
| Residuum | 680 +/- 2 |
| Bedrock | 677 +/- 3 |

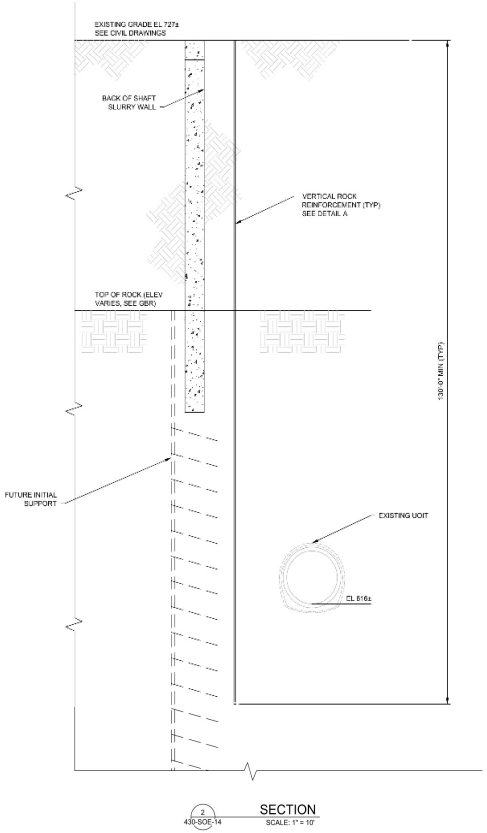


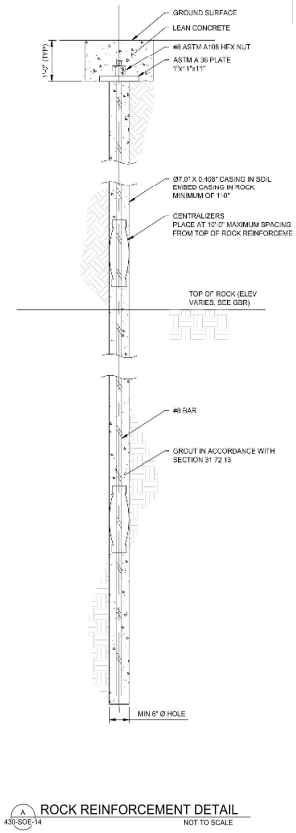



# UOIT

- Existing UOIT invert shown approximate
- Vertical rock reinforcement as a shield to protect UOIT
- Restrictions in proximity to UOIT:
  - Drill in 1-foot increments and observe cuttings
  - Downhole survey of hole verticality
- Has to be installed prior to excavation of shaft in rock
- Geotechnical instrumentation and monitoring (later slides)

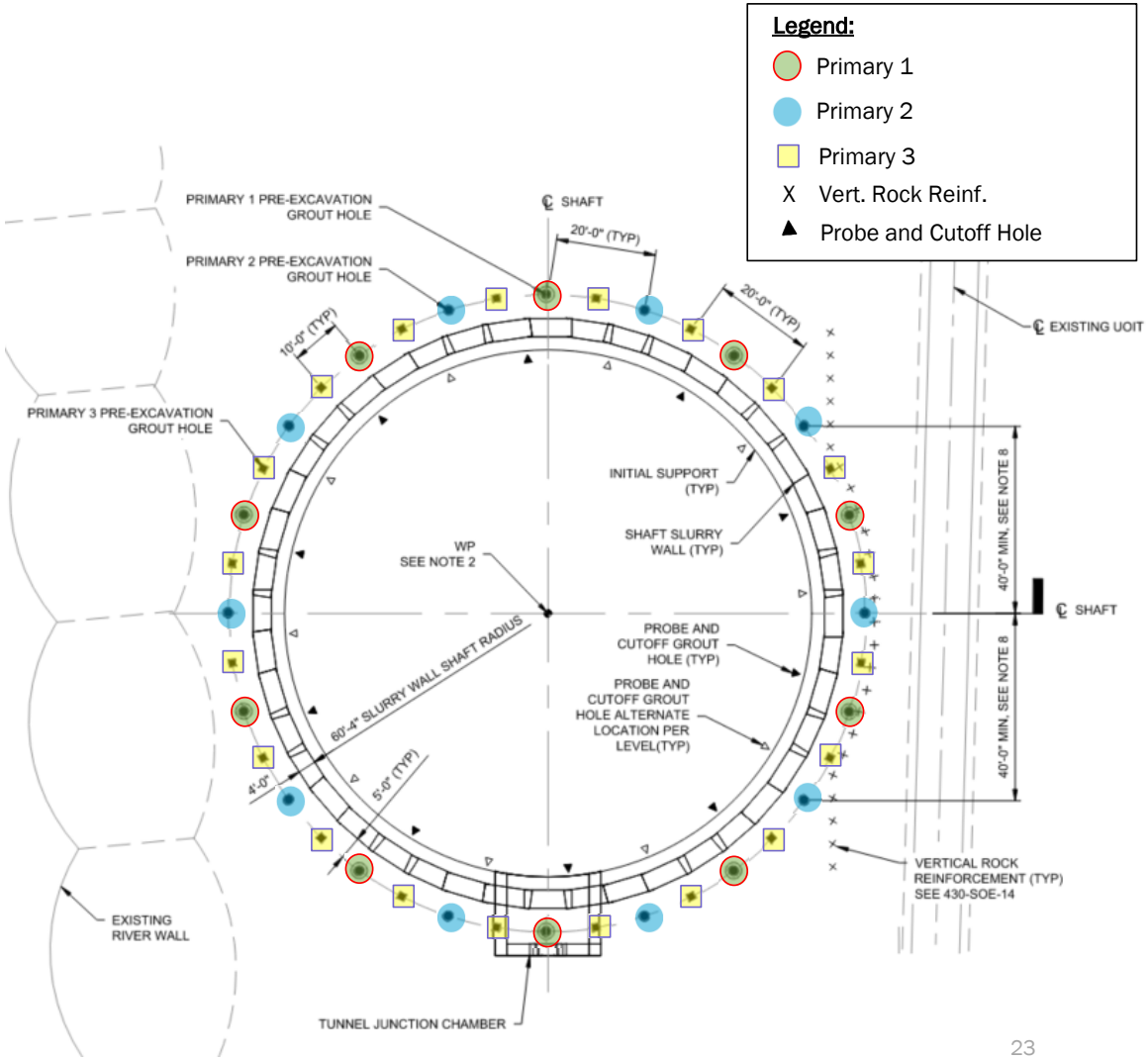


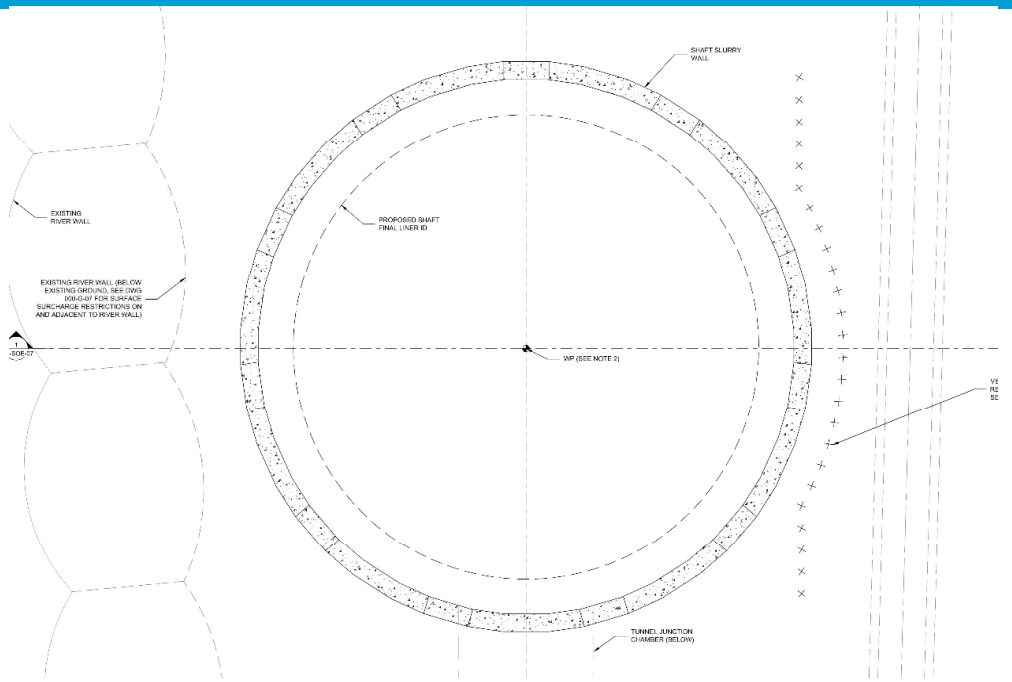
# Pre-excavation Grouting

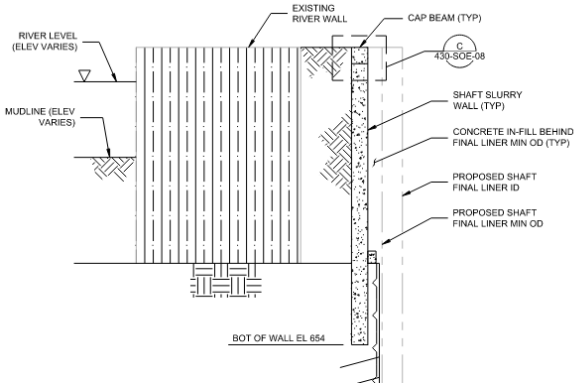
- Primary 1, 2, and 3:
  - All Primary holes required
  - Max spacing on center defined, extending below base slab
  - Reduced pressures for holes adjacent to UOIT
  - If split spacing criteria is exceeded, drilling and grouting of secondary holes is required (*secondary holes not shown*)
  - Verification holes
  - Needs to be completed prior to excavation in rock

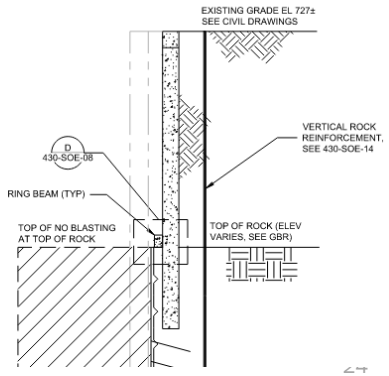


# Shaft SOE - Soil

- Engineer-designed SOE
- Embedded into rock
- Loading restrictions on adjacent river wall
  *(see earlier slide)*
- Potential presence of boulders within soil – see Pay Item 13 – Special Allowance #2
- Demolishing of slurry wall is subject to restrictions

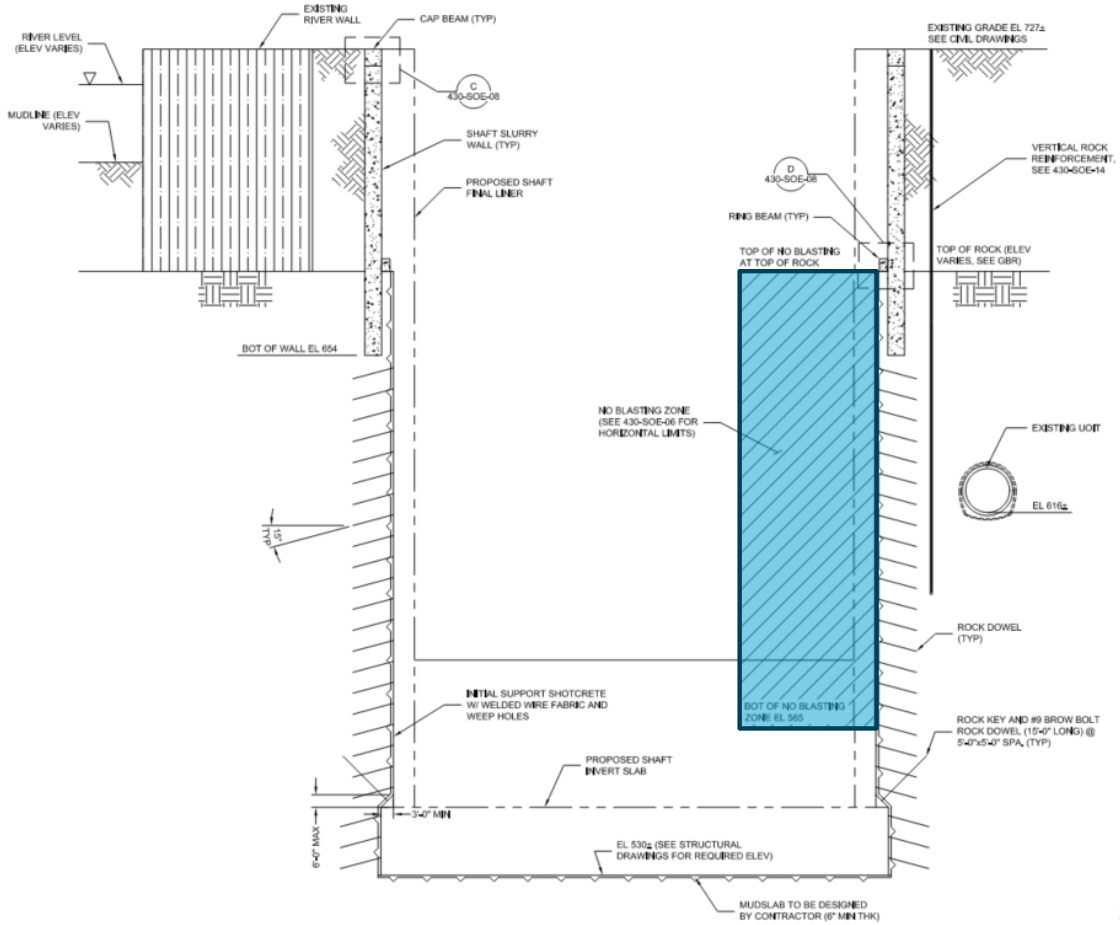


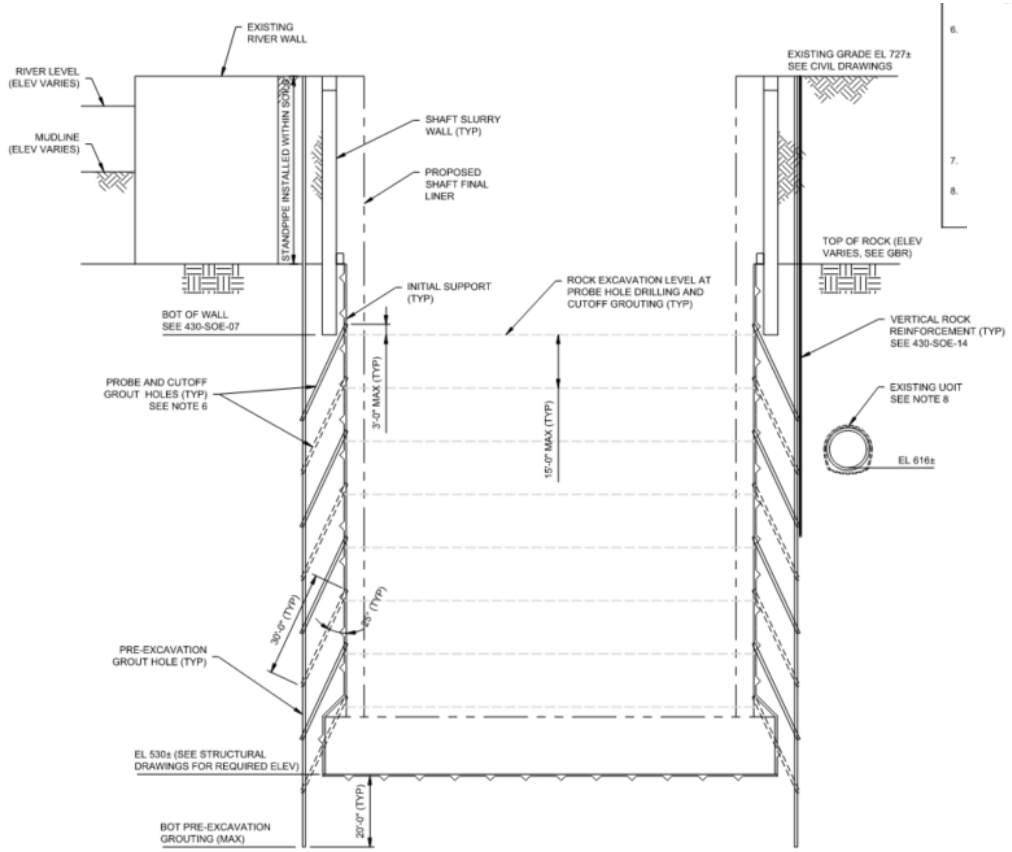
# Shaft Support - Rock

- Rock Excavation:
  - Height limitation for rock excavation
  - Probing and cutoff grouting as excavation is advanced
  - Initial support to be installed in its entirety prior to advancing the excavation
  - Blasting not allowed in areas adjacent to UOIT, as shown on the Contract Drawings
  - Base slab key



# Probing and Cut-off Grouting

- Install around shaft perimeter at each level
- Alternate probe hole locations between levels
- Reduced pressures required adjacent to UOIT
- Manage groundwater to construct permanent works



# Control of Groundwater and Construction Water - 31 23 19

1. Construction Water, Groundwater, Surface Water and Unwatering
2. Dewatering of near surface excavations below water table; Slurry wall to be made relatively watertight
3. Unwatering of water that collects in the WWPS shaft, TJC and near-surface excavation and open cuts
4. Discharge location and maximum flowrate restrictions identified in 31 23 19
5. Testing and treatment by Contractor is base bid – per Spec 31 23 19 & Appendix, needs to meet Alcosan Pretreatment Requirements.

alcosan

**Ground Water Discharge Permit Application**

**(For on-site construction related to groundwater disposal)**

**Applicant Information**

**Company Name or Permittee:** _____ Date: _____

**Project Name:** _____

**Company Mailing Address:** _____

*Street Address*

_____

*City* *State* *ZIP Code*

Person to contact regarding ground water discharge:

**Phone:** _____ **Email** _____

**Name:** _____ **Company** _____

**Ground Water Discharge Location:** **ATTACH DRAWINGS WITH DESCRIPTIONS**

Will there be flexibility in the dewatering system to discharge to the river if it is determined by sampling that it can be discharged directly to the river? YES ☐ NO ☐

If No, why not? _____

Location(s) where ground water sample may be taken:

_____

_____

**Ground Water Flow:** [ ] Continuous – Rate _____GPD [ ] Intermittent – Rate _____GPD

If Intermittent, time of discharge: _____ **AM / PM** to _____ **AM / PM**

Days per week (Circle day): **Mon. Tues. Wed. Thurs. Fri. Sat. Sun.**

Provide a description of the flow ranges expected (Average and Peak), if it will be continuous or intermittent, timeframes, etc.:

_____

_____

_____

# Groundwater and Construction Water, Soil, Rock and Other Encountered Material

1. Testing and treatment by Contractor is base bid
2. Observation of soil and rock testing by Construction Manager, but testing by Contractor
3. Soil, Rock and Other Encountered Material M&P

PART 3 - EXECUTION

3.1 PAY ITEMS

A. Pay Item 1 – WWPS Construction Lump Sum Work
   1. The lump sum bid price for this work includes work identified in the Contract Documents and as summarized in Section 01 11 00, Summary of Work.
   2. Work associated with unit price and allowance items as identified in this Section will not be paid under this pay item.
   3. Measurement and payment for this item will be a physical percent complete as agreed by the Construction Manager and Contractor per the Contractor's Schedule of Values.
   4. Payment for this pay item will be made at the lump sum bid price, which will include all labor, materials, equipment, tools, testing, fees, and incidentals needed to complete the work specified, except as otherwise itemized in the Schedule of Values.
   5. All mechanical, civil, architectural, and structural improvements performed as part of this project is considered part of this lump sum bid price.
   6. All temporary support of excavation (SOE) systems and rock initial support are considered part of this lump sum bid price.
   7. Temporary Water Control
      a. All regulatory testing and treatment of all fluid discharged from temporary water control systems as described in Section 31 23 19, to control construction water and groundwater to meet applicable regulatory requirements is considered part of this lump sum bid price.
      b. Furnishing, delivery, installation, maintenance, operation, monitoring and removal of all temporary water control systems to control groundwater and construction water is considered part of this lump sum bid price.
      c. Coordination with Construction Manager who may observe the regulatory testing performed by Contractor.
   8. Regulatory Testing – subsurface work
      a. All sampling, testing and analysis of all excavated materials for compliance with applicable regulatory requirements including but not limited to soil, rock and other encountered material during subsurface work, pile drilling, temporary SOE work, grout hole drilling, probe hole drilling, spoils, handling, hauling and disposal.
      b. Coordination with Construction Manager who may observe the regulatory testing performed by Contractor.
   9. Excavation, handling, stockpiling, hauling and disposal – Soil and Other Encountered Material
      a. Beyond the circumference of the outer diameter of the shaft slurry wall and below grade, all excavation, handling, stockpiling, hauling and disposal of soil, rock, spoils and other encountered material during subsurface work is considered part of this lump sum bid price.

# Groundwater and Construction Water, Soil, Rock and Other Encountered Material

1. Testing and treatment by Contractor is base bid
2. Observation of soil and rock testing by Construction Manager, but testing by Contractor
3. Soil, Rock and Other Encountered Material M&P

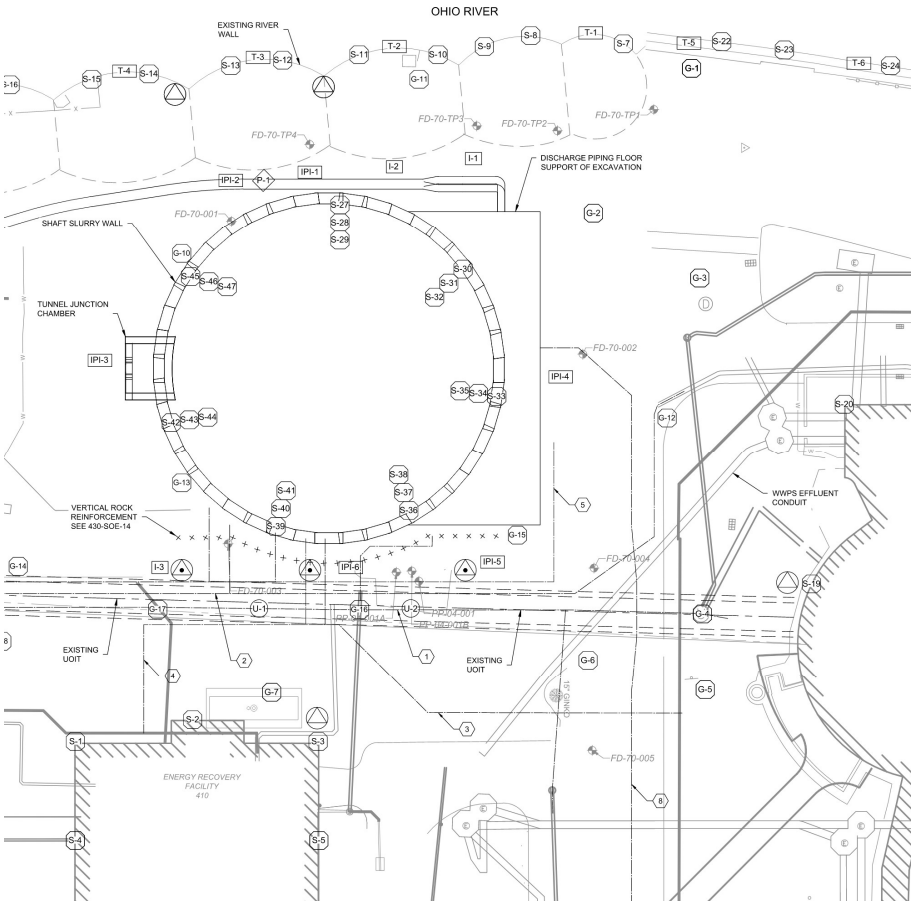
i. All material shall be assumed to be Residual Waste as described in Section 31 23 00.

b. Within the circumference of the outer diameter of the guidewalls, shaft slurry wall and below grade, all excavation, handling, stockpiling, hauling and disposal of soil and other encountered material during subsurface work, is considered part of this lump sum bid price.
   i. All material above approximate elevation 693 shall be assumed to be Residual Waste as described in Section 31 23 00.
   ii. All material below approximate elevation 693 to the top of rock interface shown in the GBR shall be assumed to be Clean Fill as described in Section 31 23 00.

c. If regulatory compliance testing confirms Residual Waste material in excess of the above assumptions, refer to Pay Item 22 – Additional Residual Waste Soil Disposal for payment.

10. Excavation, handling, stockpiling, hauling and disposal – Rock and Other Encountered Material
    a. Within the circumference of the outer diameter of the guidewalls, slurry wall and below including the shaft and the tunnel junction chamber, all excavation, handling, stockpiling hauling and disposal of rock and other encountered material below the soil interface is considered part of this lump sum bid price. Disposal of rock that is not identified as Acid Producing Rock per item b. below is considered part of this lump sum bid price.
    b. If regulatory compliance testing in accordance with PennDOT Publication 293, Chapter 10 confirms Acid Producing Rock refer to Pay Item 23 –Acid Producing Rock Disposal for payment.

# Geotech Monitoring




- Geotechnical Instrumentation
  - GMP, SMP, UMP, Tiltmeter, Inclinometer, Piezometer, Seismographs, Down-hole seismographs
  - Alert and maximum permissible movement levels
  - Installed and baseline prior to construction.

**Alert and Maximum Levels of Instruments**

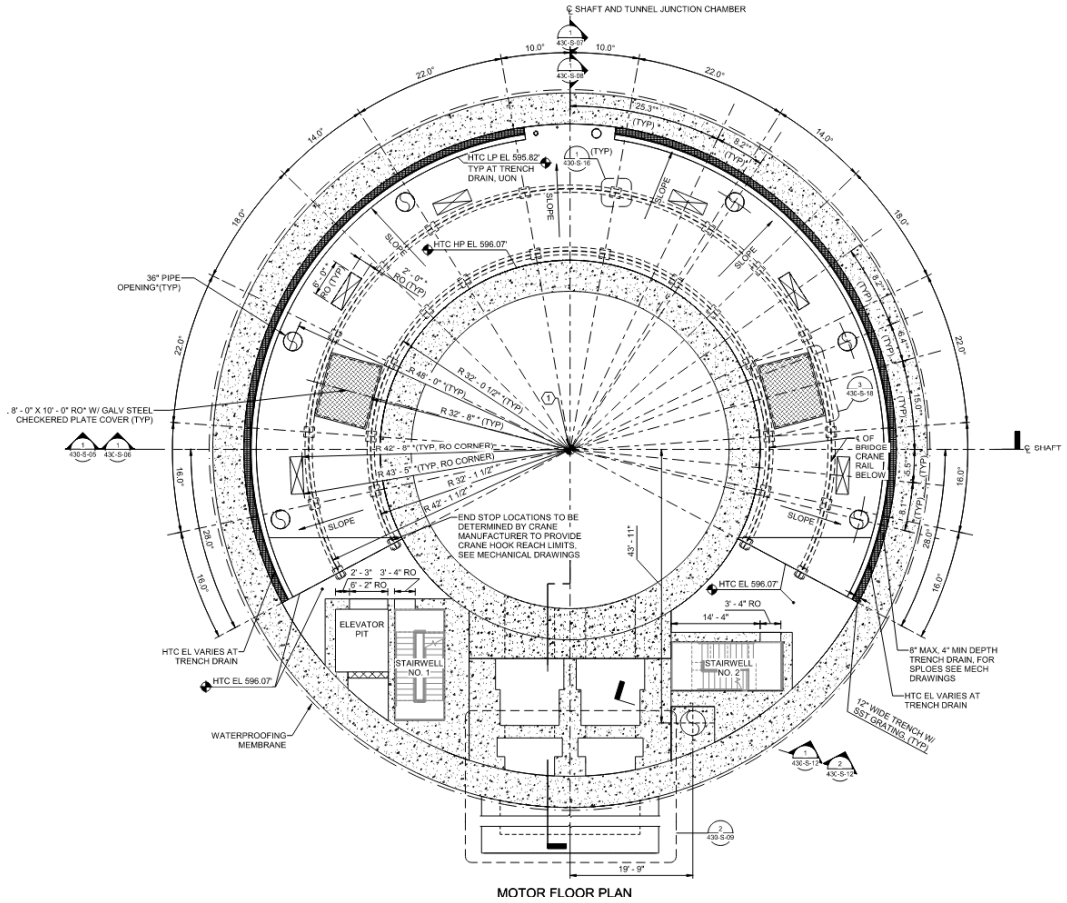
| Monitor | Alert Level | Maximum Level |
|---|---|---|
| Slurry Wall (structure monitoring point) | 0.50 in (horizontal)<br>0.25 in (vertical) | 1.00 in (horizontal)<br>0.50 in (vertical) |
| Inclinometers | 1.00 in (horizontal) | 2.00 in (horizontal) |
| Discharge Piping Floor SOE | 1.00 in (horizontal)<br>0.25 in (vertical) | 2.00 in (horizontal)<br>0.50 in (vertical) |
| Existing Structures (Energy Recovery Facility, Tower, Main Pump Station) | 0.15 in (horizontal)<br>0.15 in (vertical)<br>1/500 (angular distortion) | 0.25 in (horizontal)<br>0.25 in (vertical)<br>1/250 (angular distortion) |
| Grid Crack Gauges* | 0.075 in | 0.125 in |
| Existing River Wall | 0.50 in (horizontal)<br>0.50 in (vertical)<br>1/500 (angular distortion) | 1.00 in (horizontal)<br>1.00 in (vertical)<br>1/250 (angular distortion) |
| Buried Pipelines and Utilities | 0.20 in (vertical) | 0.30 in (vertical) |
| Electrical Conduits (newly installed) | 0.50 in (vertical) | 0.75 in (vertical) |
| Pavement outside the staging area | 0.15 in (horizontal)<br>0.15 in (vertical) | 0.25 in (vertical)<br>0.25 in (vertical) |

* Grid Crack Gauges to be installed by contractor, see Section 02 20 00

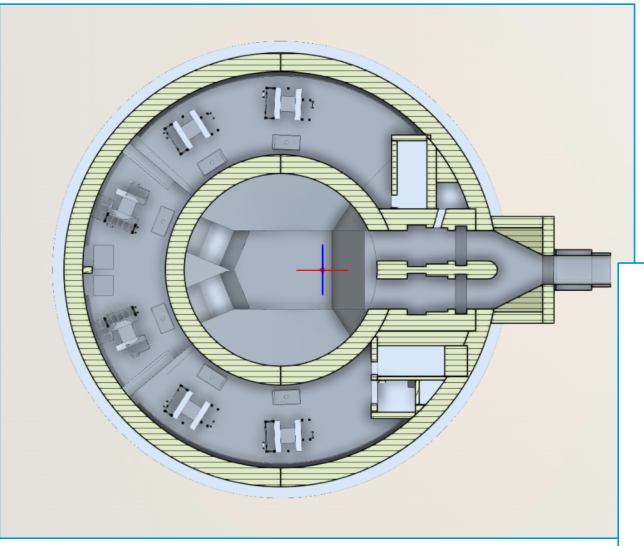
# Shaft Permanent Construction and TJC interface with ORT Contract

# Construction of Shaft – Unique Elements

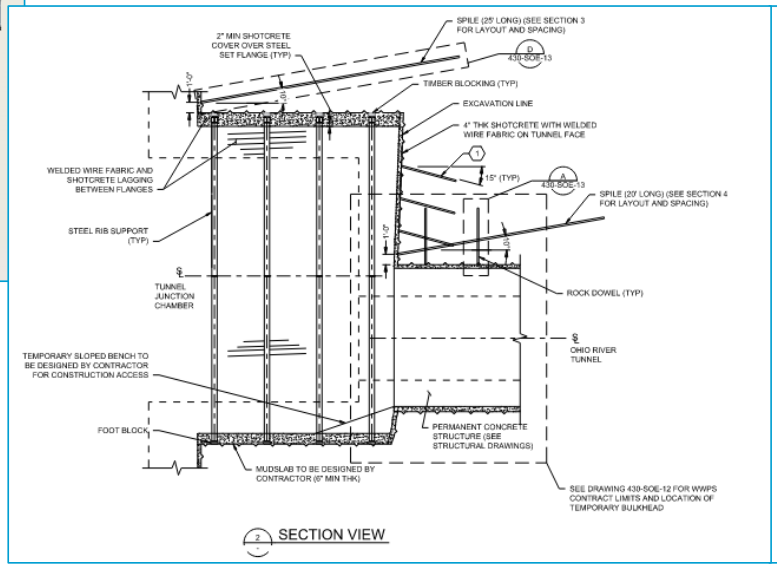
- Waterproofing membrane system
- Mass concrete placement requirements:
  - Temperature Control Plan
- Durable concrete mix design:
  - Alkali-silica reactivity testing (long-lead)
- True circular forms
- Minimum thicknesses to be maintained
- Construction joint layout:
  - Coordination of reinforcement and waterstops
  - Layout restrictions
- High tensile concrete fill geometry
- Underhung circular crane system embedded supports
  - Field fit
- Contractor-designed aluminum access platforms

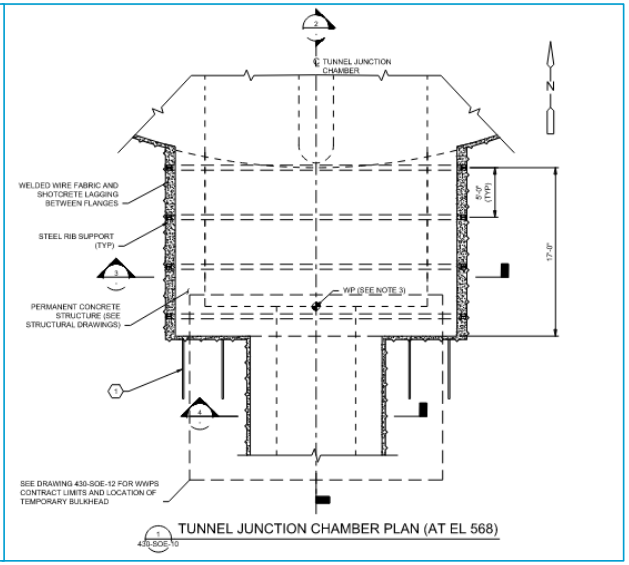


# Tunnel Junction Chamber – Initial Support

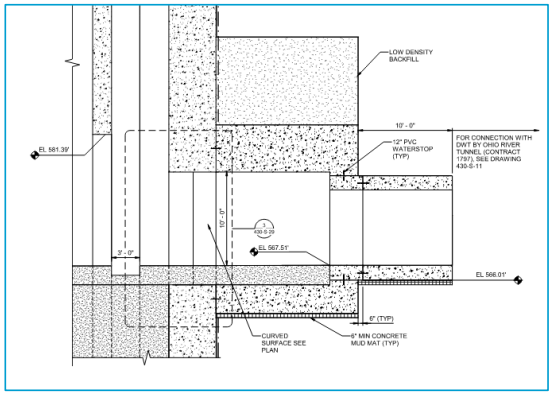


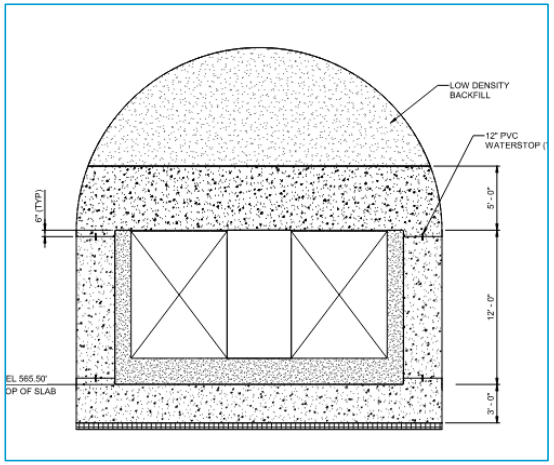
- Tunnel Junction Chamber Initial Support:
  - WWF shotcrete lagging with steel ribs
  - Dowels and spiles
  - Engineer-designed
  - Blasting limitations at Contract interface

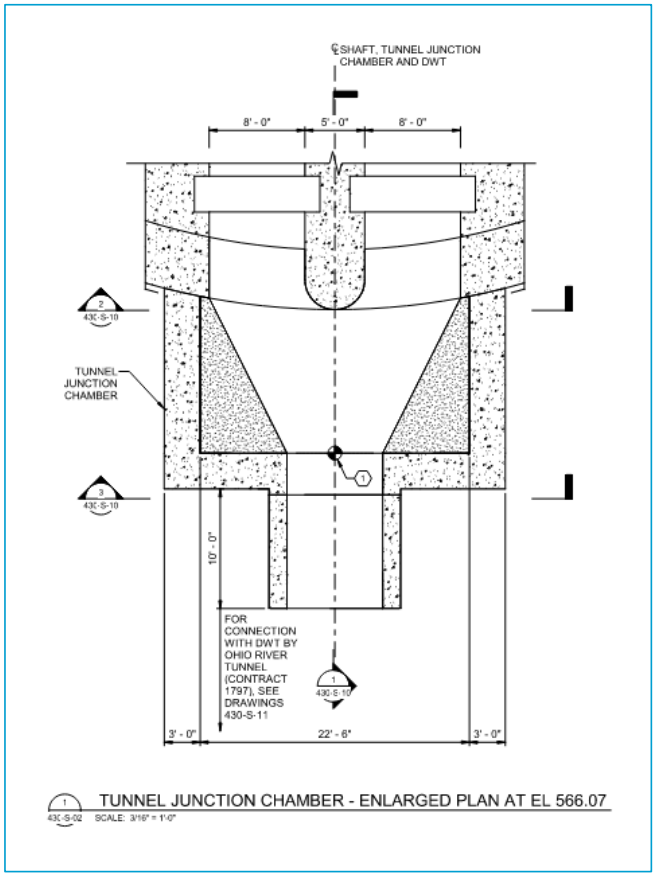


# Tunnel Junction Chamber Permanent Sections & Details

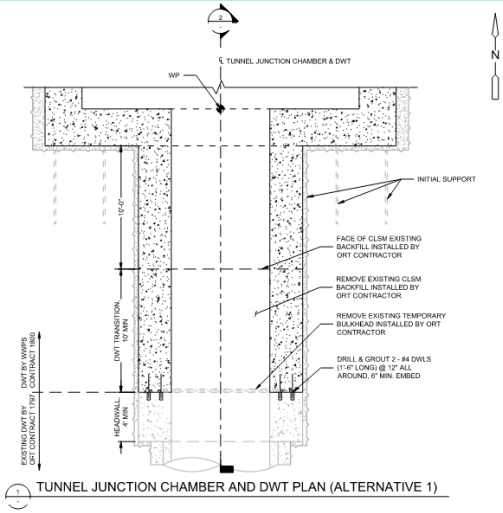


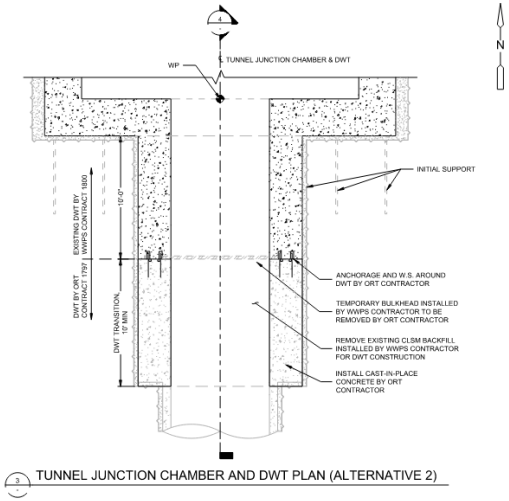




- Flat roof slab required for TJC hydraulics
- Backfill above roof slab with low density backfill
- Coordination of TJC penetration with waterproofing membrane for shaft liner.

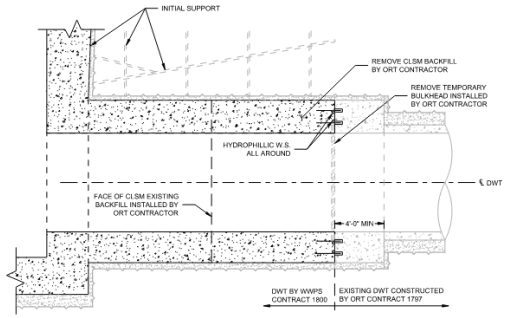
# Tunnel Junction Chamber – Interface with ORT



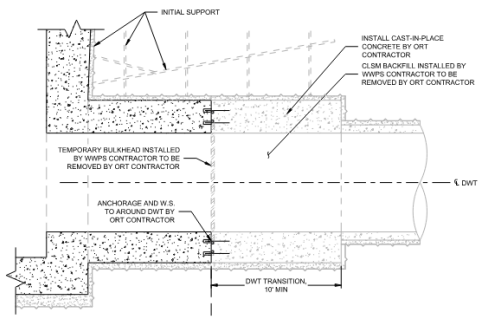

TUNNEL JUNCTION CHAMBER AND DWT PLAN (ALTERNATIVE 1)




TUNNEL JUNCTION CHAMBER AND DWT PLAN (ALTERNATIVE 2)



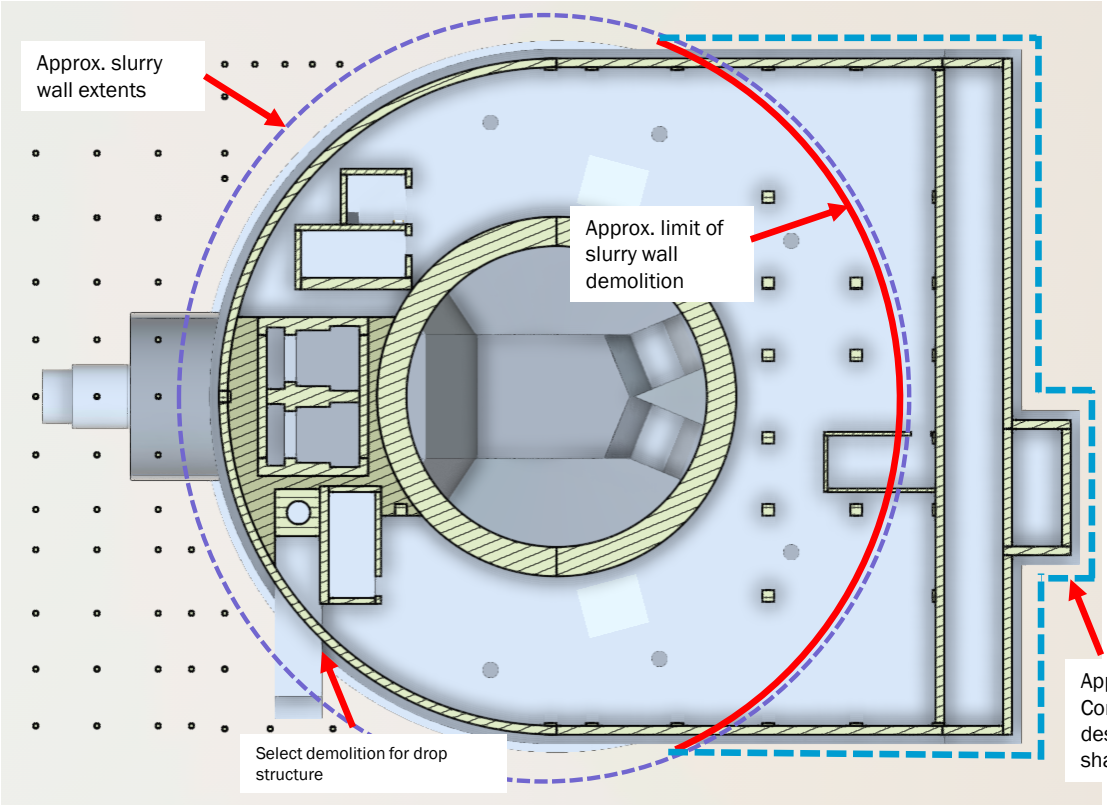

SECTION VIEW (ALTERNATIVE 1)




SECTION VIEW (ALTERNATIVE 2)

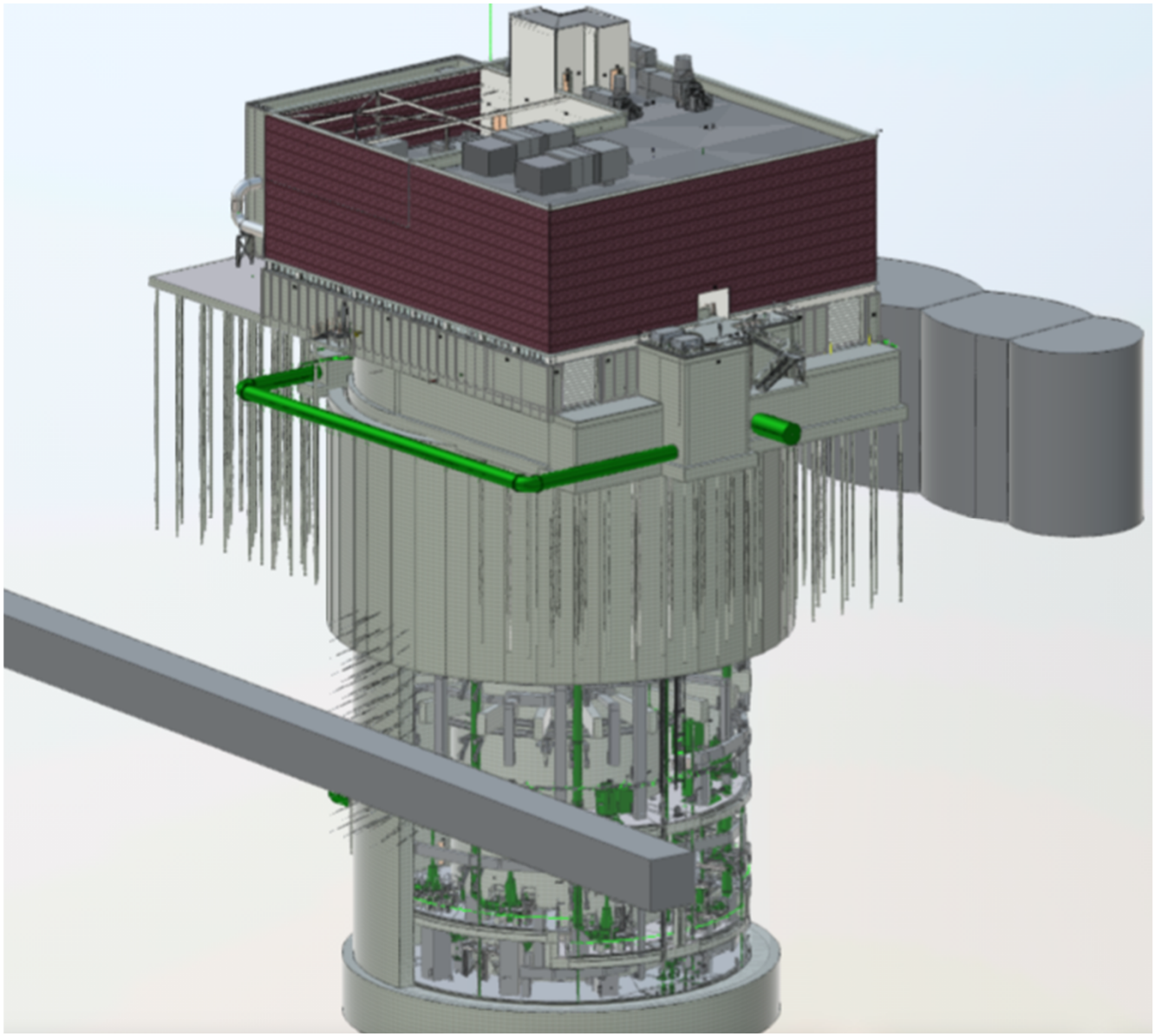
- Two alternatives at the tie-in driven by timing of schedule of WWPS Project and Ohio River Tunnel Project
  - Alternative 1 – ORT work at the interface complete prior to WWPS
  - Alternative 2 – WWPS work at the interface complete prior to ORT
- Contractor-designed Bulkhead
- DWT Transition Section
- Contractor shall bid both alternatives, paid for one

# Discharge Piping Floor SOE System




- Shallow SOE system:
  - Contractor-designed
    - Performance criteria in Contract Documents
    - Requires coordination with Engineer-designed slurry wall
  - Slurry wall may not be demolished until shaft permanent liner is installed to underside of Discharge Piping Floor
  - Groundwater Control

# Pump Station Overview



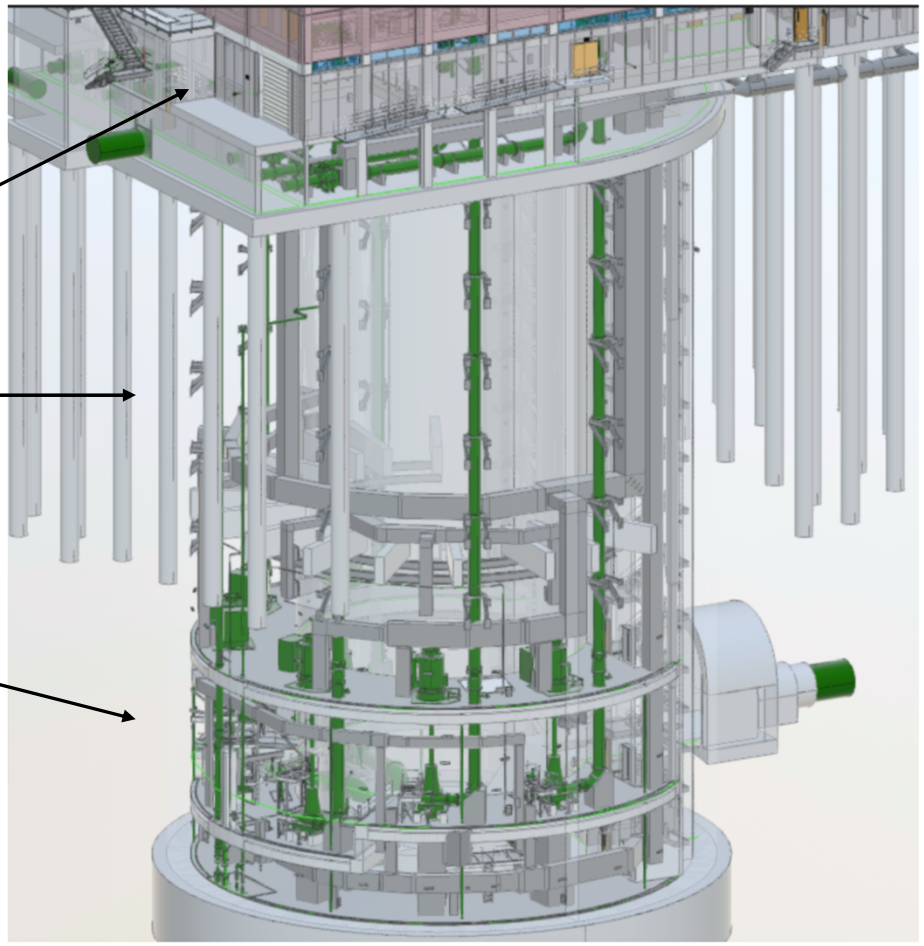
Brown and Caldwell

# Multiple Levels

- Electrical Room, HVAC Area
- Entry Level
- Discharge Piping Level

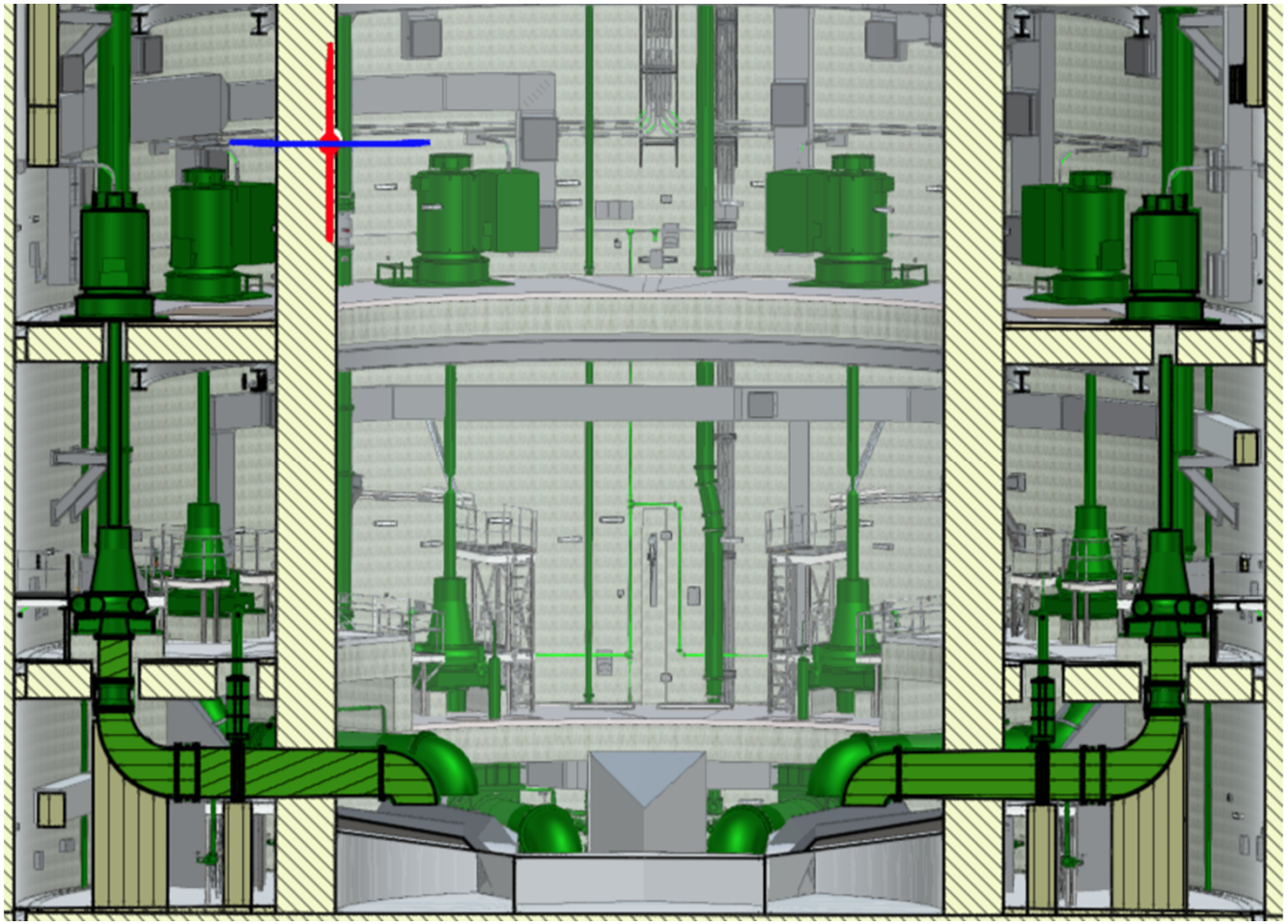
Superstructure pile supported

- Motor Level
- Wet Weather Pump Floor
- Basement Level – Pump Suction and Emergency Drain Pumps

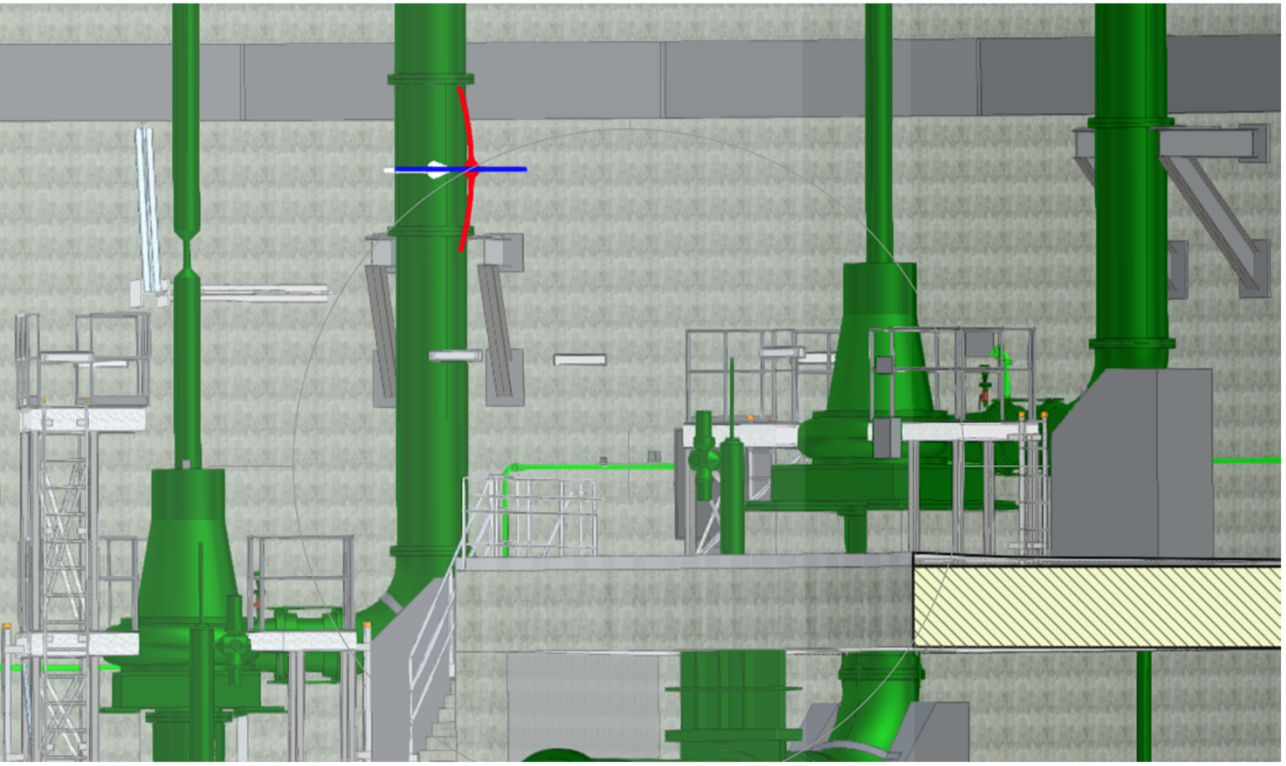


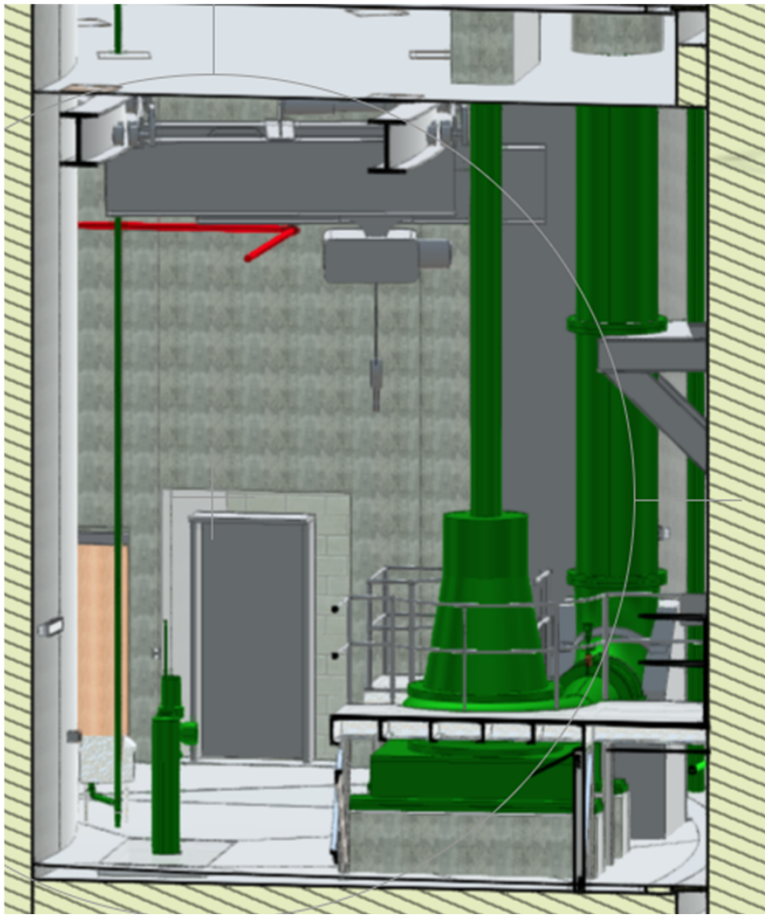
# Pump, Motor and Basement Levels

- (6) 30 mgd pumps/motors
- Suction/discharge piping, valving, and flow meters
- Radial cranes at multiple levels
- Shaft-handling system
- Floor access hatches
- HVAC and plumbing work extends to lower levels

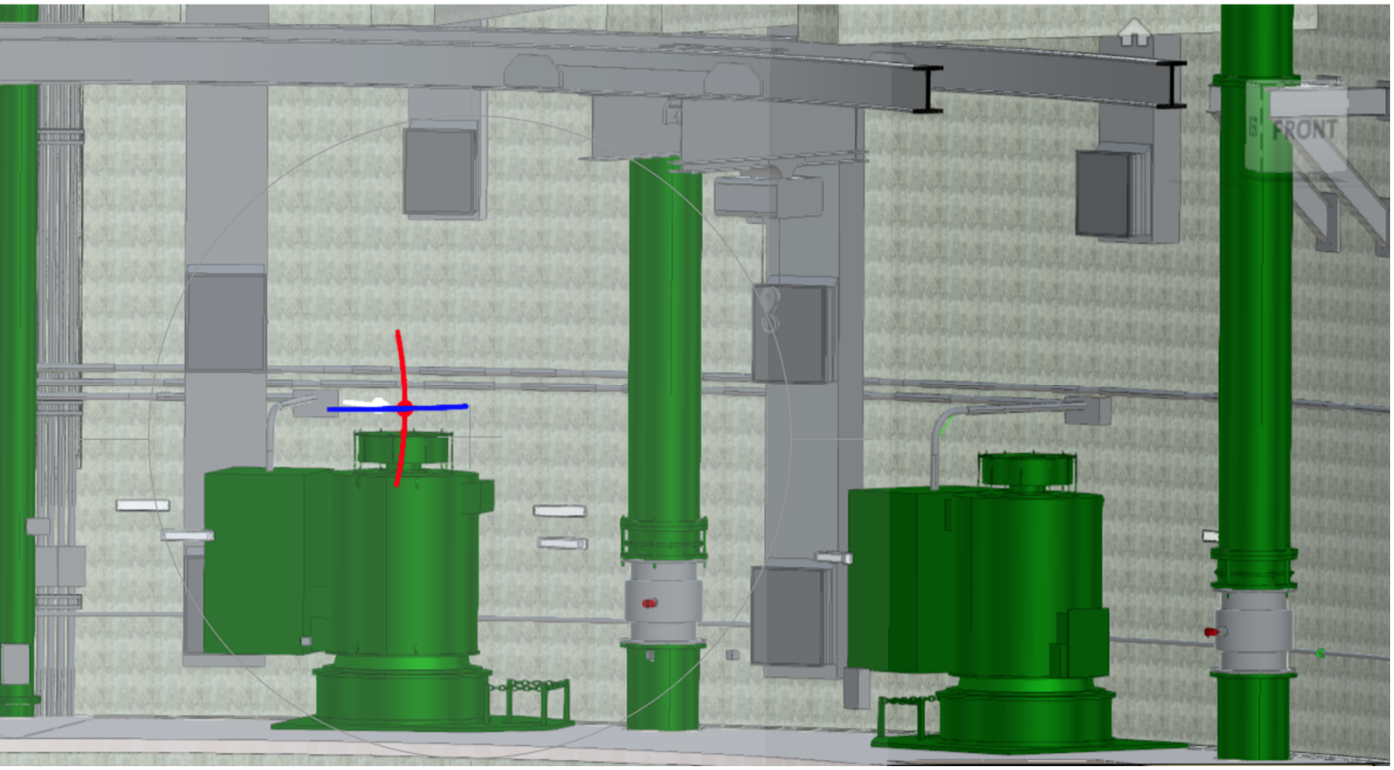


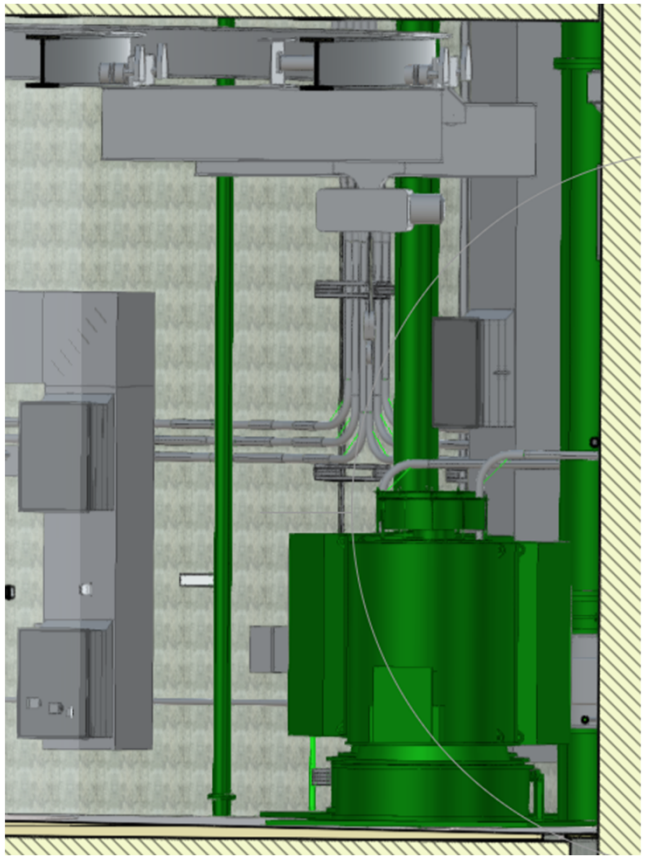
# Pump Room and Radial Crane System



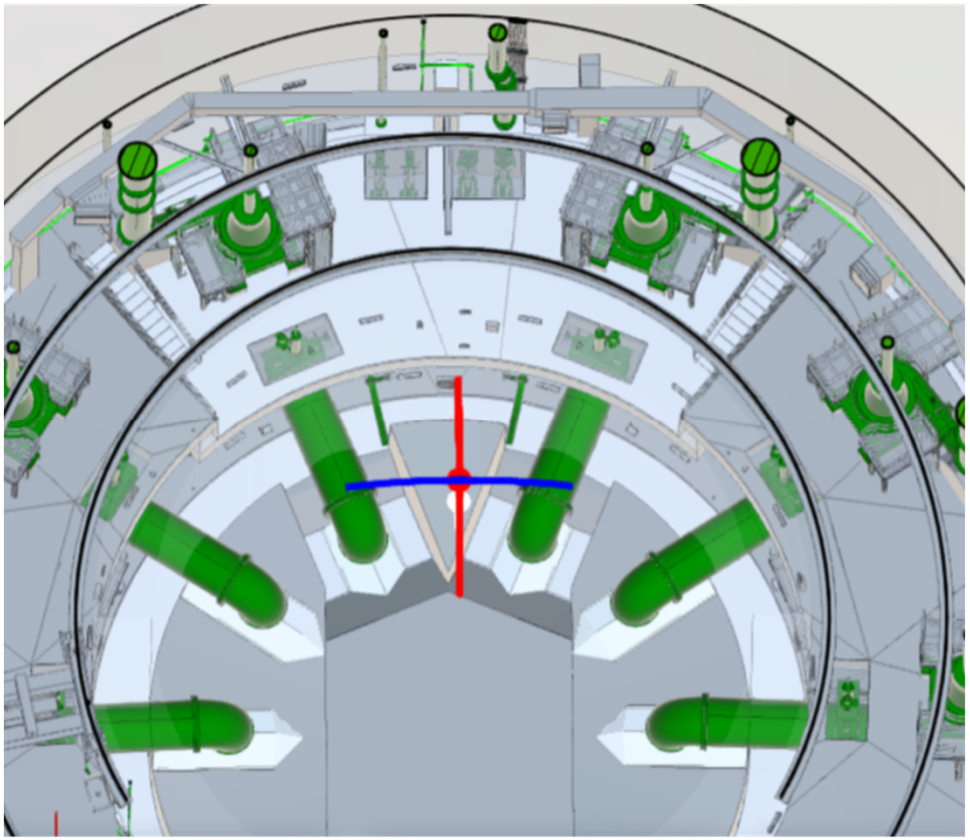


# Motor Room and Radial Crane System

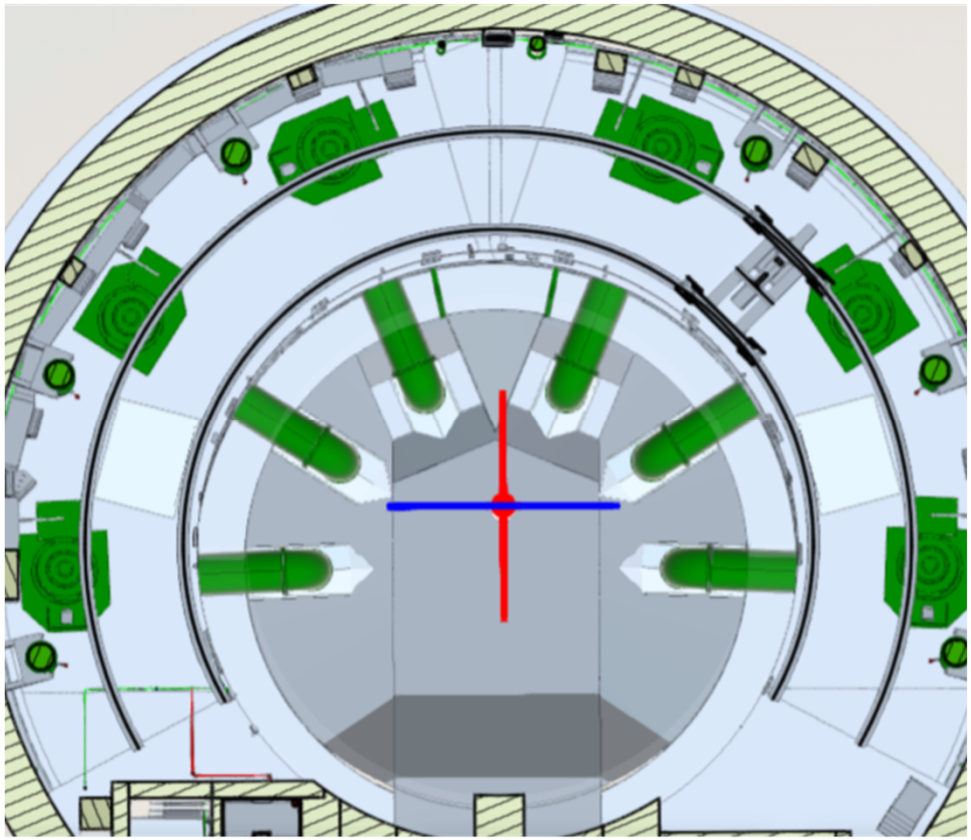


# Radial Crane with Telescoping Girder



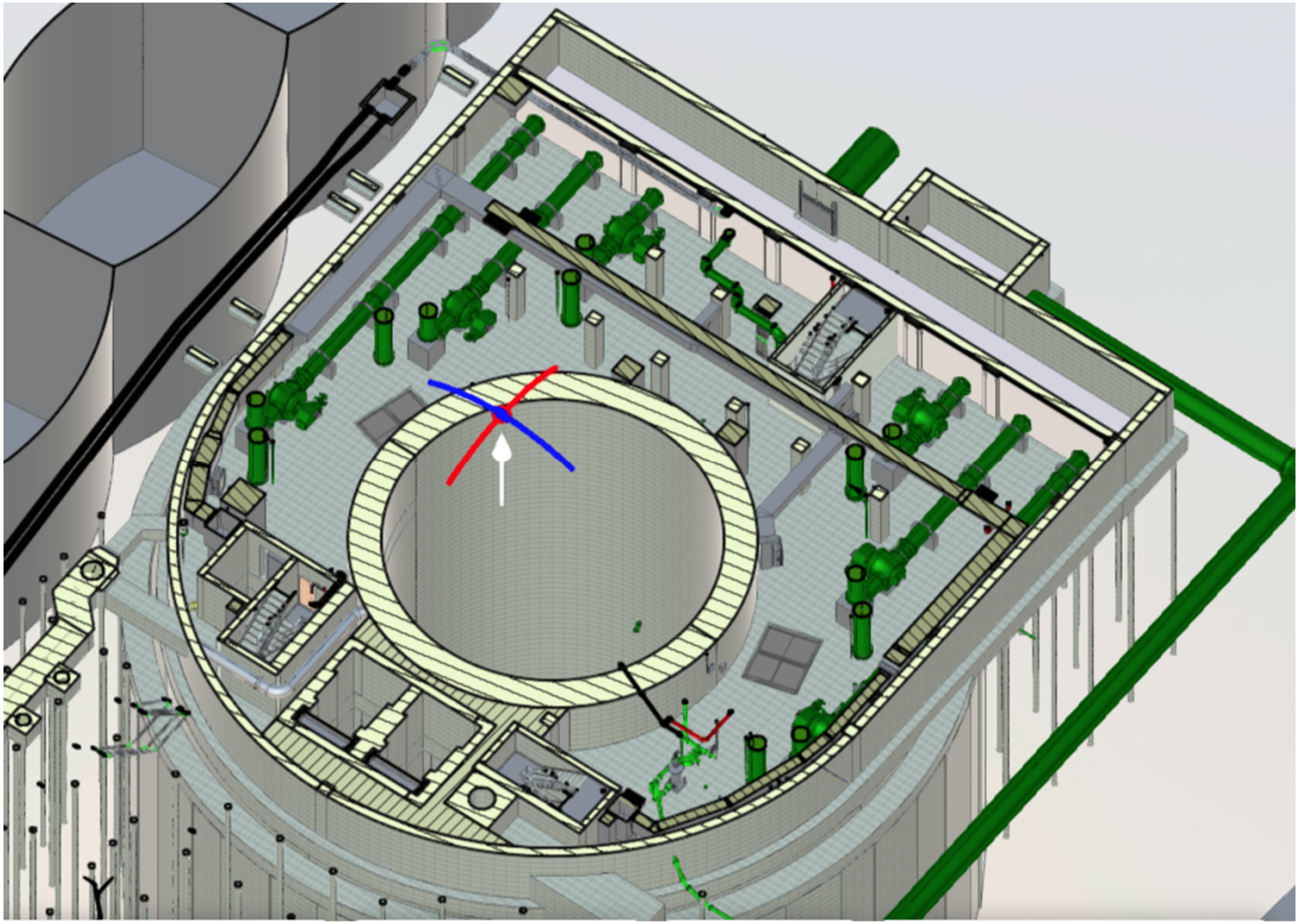
Pump Room



Motor Room

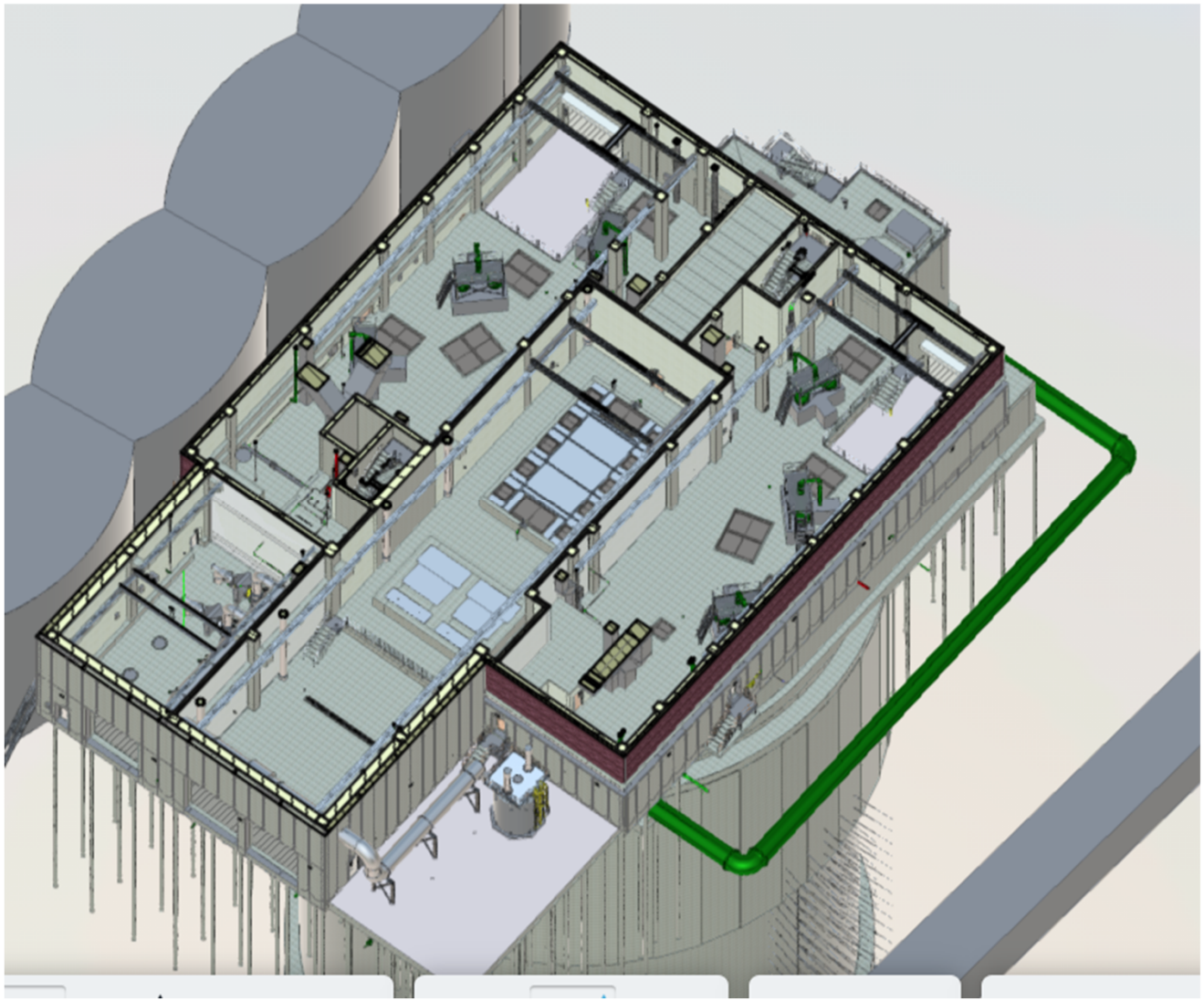
# Discharge Pipe Level

- Discharge piping
- Discharge structure
- Cone Valves
- Access hatches
- Recirculation pipe drop structure



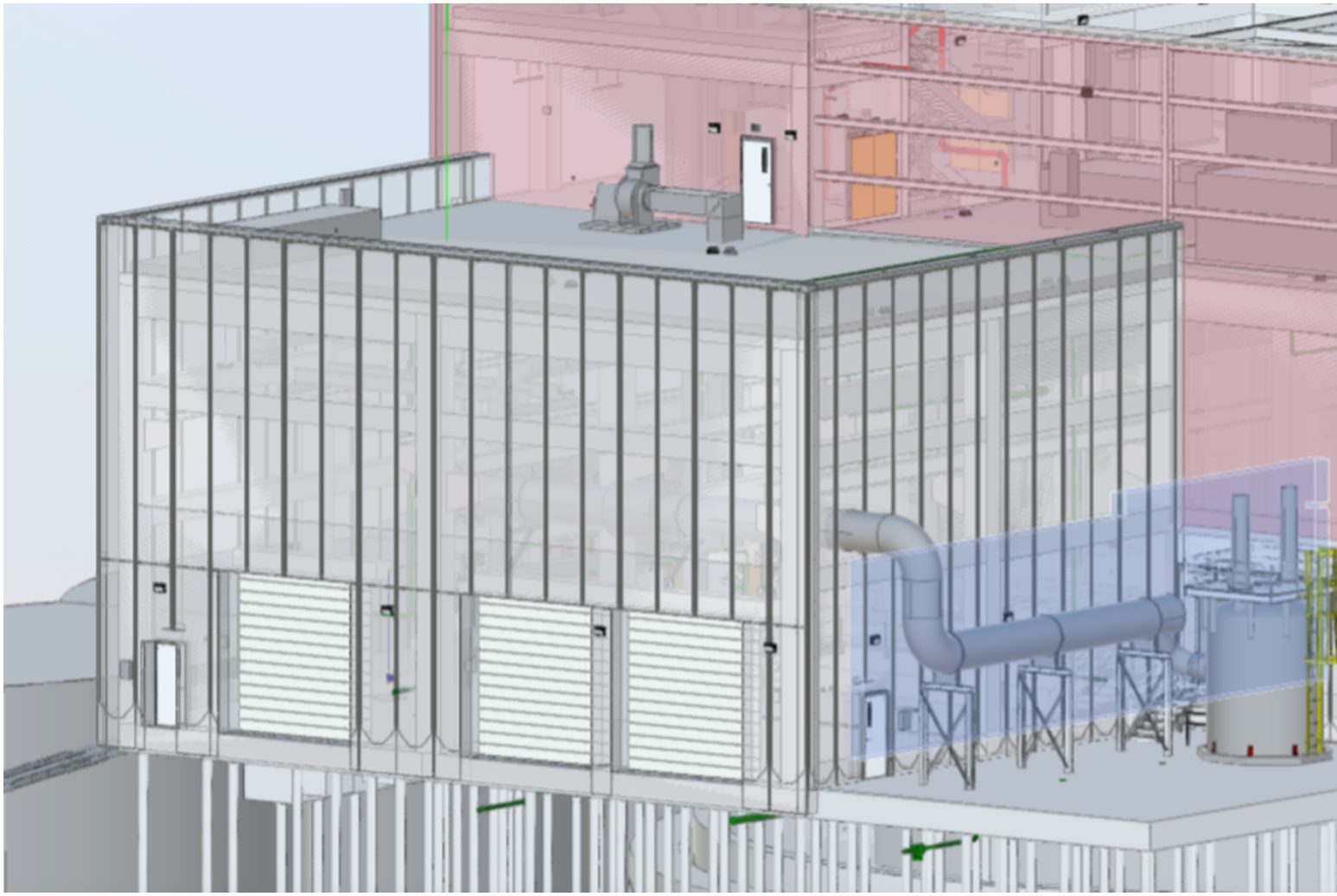
# Entry Level ~ El. 730.75

- Discharge pipe/siphon break valving
- (2) Loading docks with cranes
- Floor hatches
- Wet well access room with covered openings
- Restroom/janitor closet
- Masonry wall construction separating process areas



# Grade Level

- Odor control carbon scrubber system with vessels outdoors
- Fan Room
- System serves multiple areas



# Electrical/HVAC Level

- Electrical Room
- Elevator Control Room
- HVAC Rooftop Units and MAUs within masonry screening walls

# Roof Level

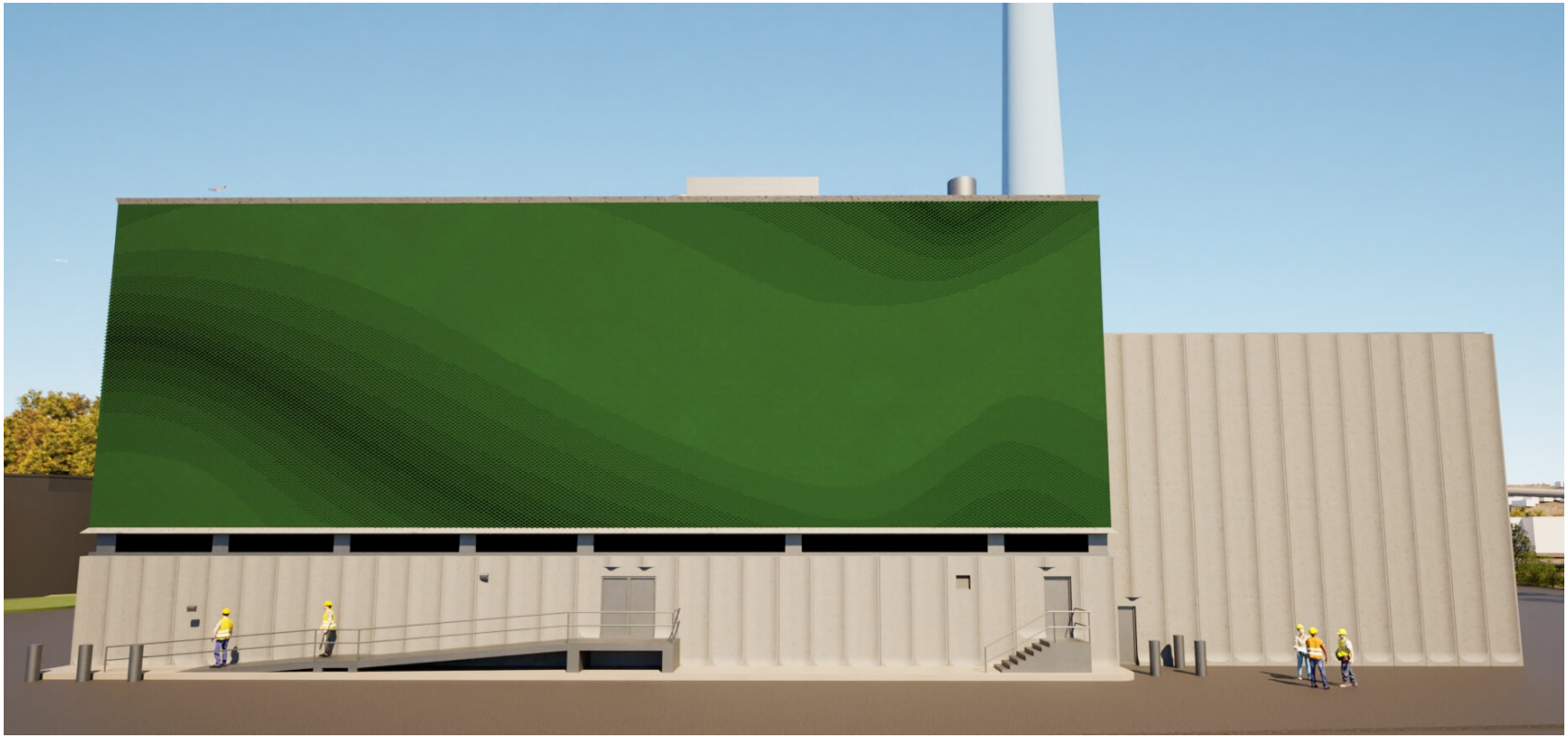
- HVAC Rooftop Units and MAUs
- Elevator access
- EPDM roofing system

## Facade

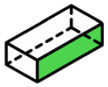
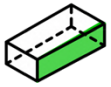
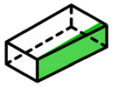
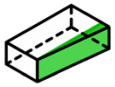
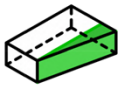
# View from Northwest

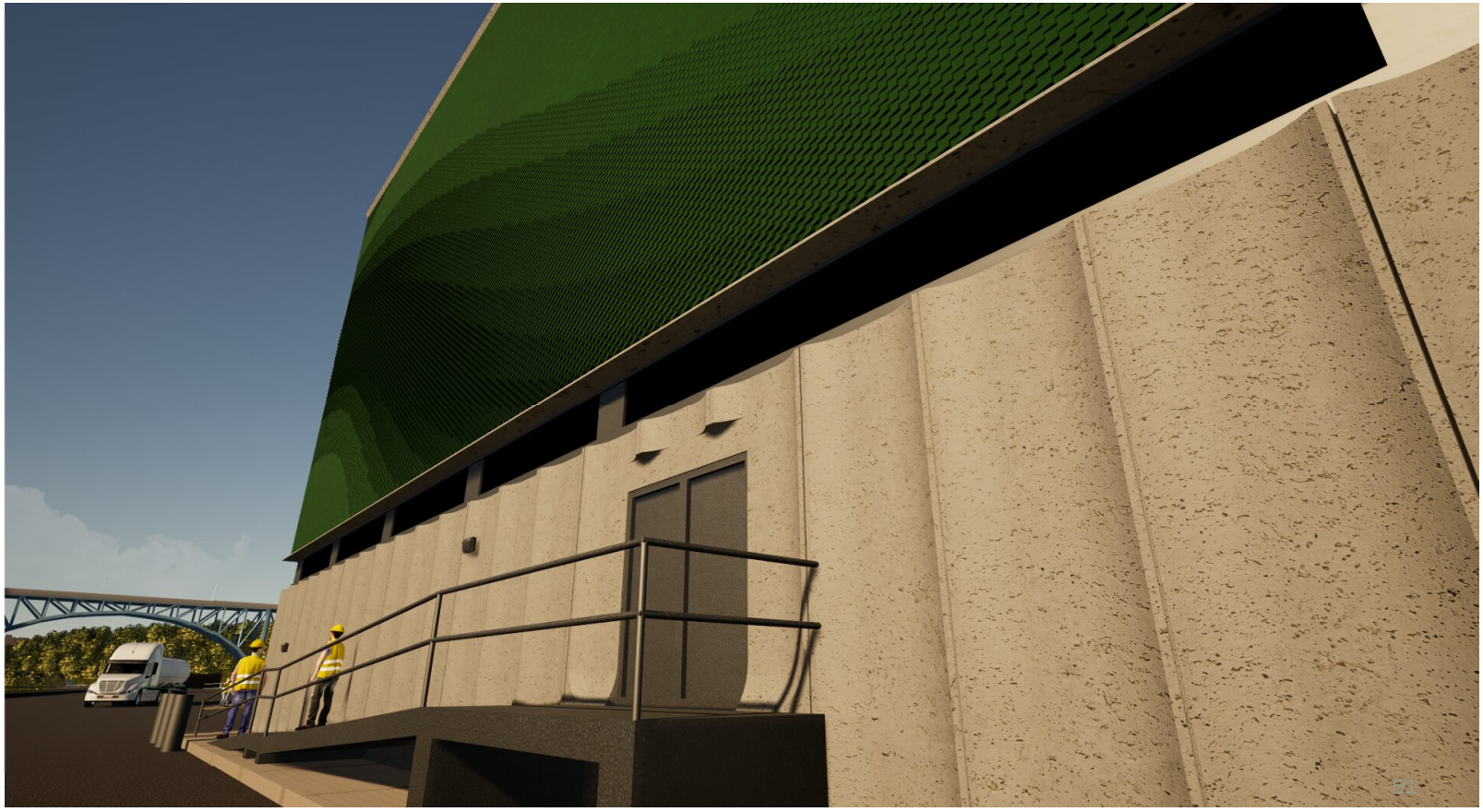
# WWPS View from Tracy Street

# WWPS View from River Wall



# WWPS Brick Shapes

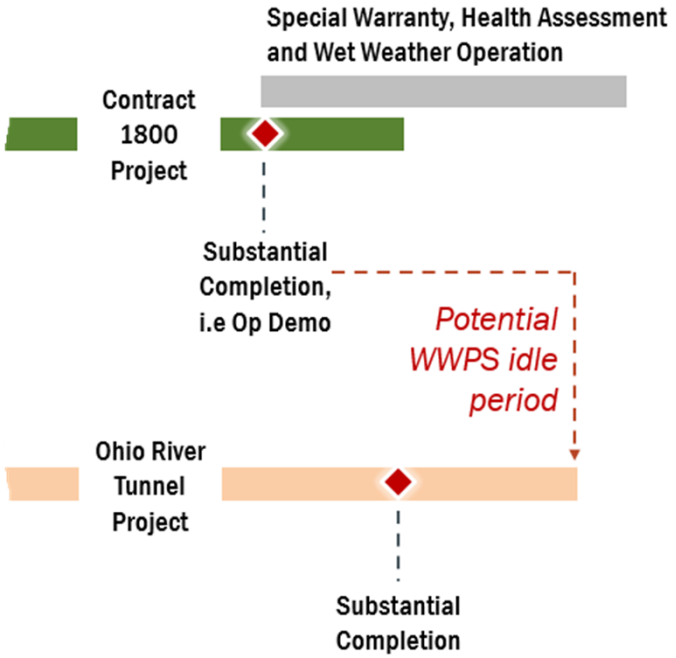
- Standard 
- Brick Shape 1 
- Brick Shape 2 
- Brick Shape 3 
- Brick Shape 4 
- Brick Shape 5 
- Brick Shape 6 



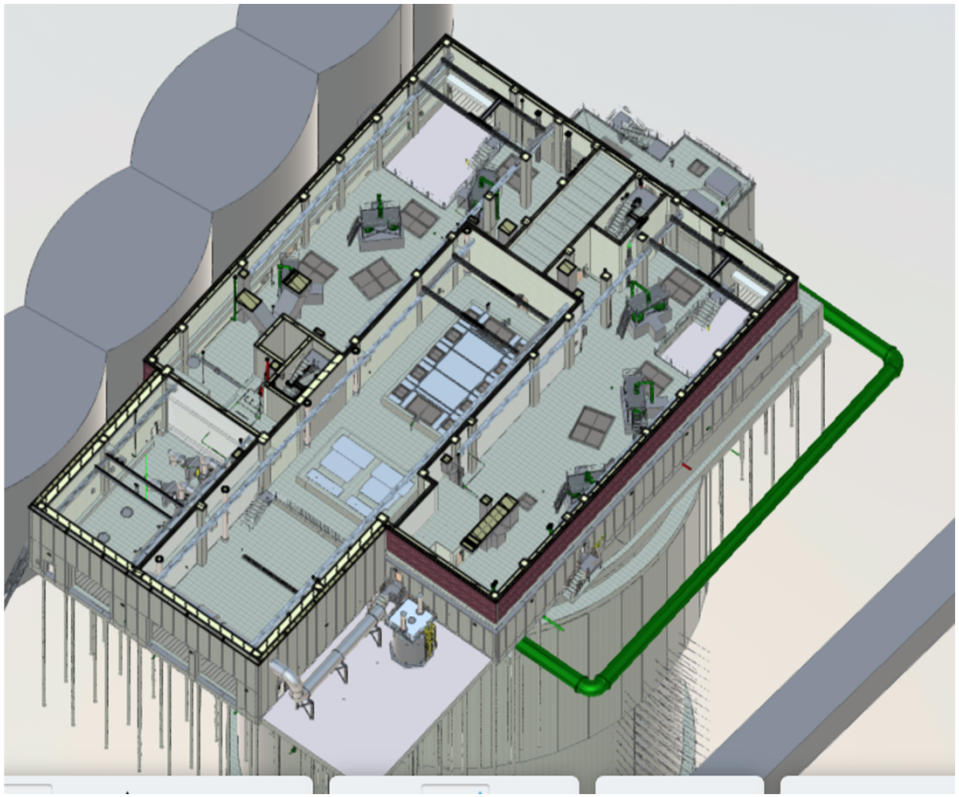
# Phase 6 – Commissioning and Warranty

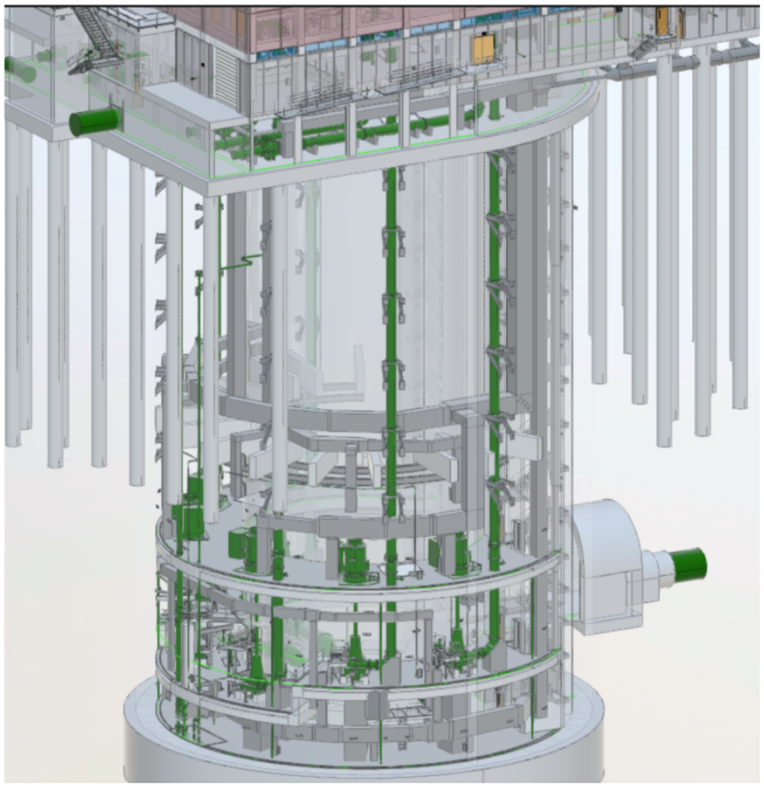
# WWPS Potential Idle Period

- Refer to Section 43 23 16
- Pumps are installed but idle until tunnel is completed and adit connection made
- Recirculation mode using recirculation pipe only permits startup and operation at low suction head only
- Special Warranty on Wet Weather Pumps
- Pump ‘Health Assessment’ required
- Testing during actual wet weather events is required once Ohio River Tunnel is commissioned



# WWPS – Recirculation Mode for Startup Prior to Adit Connection





# Bid Form, Contract Schedule


55

# Bid Form 1800G

| Item | Description | Quantity | Unit | Unit Price | Extended Total Amount |
|---|---|---|---|---|---|
| 01 | WWPS CONSTRUCTION LUMP SUM WORK | 1 | LS | | $ |
| 02 | DRILLED MICROPILES | 9003 | VLF | | $ |
| 03 | STATIC COMPRESSION AND TENSION VERIFICATION PILE LOAD TESTS | 2 | EA | | $ |
| 04 | PRE-EXCAVATION GROUT HOLD DRILLING IN SOIL | 3,255 | LF | | $ |
| 05 | PRE-EXCAVATION GROUT HOLE DRILLING IN ROCK | 10,590 | LF | | $ |
| 06 | PROBE HOLE DRILLING IN ROCK | 2,700 | LF | | $ |
| 07 | SHAFT PRE-EXCAVATION GROUTING EXCLUSIVE OF GROUT MATERIALS | 600 | CREW HOURS | | $ |
| 08 | CUT-OFF GROUTING EXCLUSIVE OF GROUT MATERIALS | 100 | CREW HOURS | | $ |
| 09 | INITIAL SUPPORT SPOT ROCK DOWELS | 2050 | LF | | $ |
| 10 | ALTERNATIVE 1 CONNECTION TO ORT CONTRACT DEWATERING TUNNEL | 1 | LS | | $ |
| 11 | ALTERNATIVE 2 CONNECTION TO ORT CONTRACT DEWATERING TUNNEL | 1 | LS | | $ |
| 12 | SPECIFIC ALLOWANCE #1 – DISPUTE REVIEW BOARD (DRB) | 250,000 | USD | N/A | $ |
| 13 | SPECIFIC ALLOWANCE #2 – STOPPAGE TO SLURRY WALL TRENCH EXCAVATIONS | 250,000 | USD | N/A | $ |
| 14 | SPECIFIC ALLOWANCE #3 – DRILLING THROUGH OBSTRUCTIONS FOR MICROPILE INSTALLATION | 50,000 | USD | N/A | $ |
| 15 | SPECIFIC ALLOWANCE #4 – DISPOSAL OF OTHER CONTAMINATED WASTE | 500,000 | USD | N/A | $ |
| 16 | SPECIFIC ALLOWANCE #5 – NON-COMPLIANT GROUNDWATER DISPOSAL | 100,000 | USD | N/A | $ |
| 17 | SPECIFIC ALLOWANCE #6 – HANDLING AND DISPOSAL OF LEAD-BASED COATINGS AND ASBESTOS-CONTAINING MATERIALS (ACM) (GREATER THAN 1 PERCENT ASBESTOS) | 25,000 | USD | N/A | $ |
| 18 | SPECIFIC ALLOWANCE #7 – EXCAVATION OF "HARD SLAG" REMOVAL | 1,000 | CY | | $ |
| 19 | SPECIFIC ALLOWANCE #8 – EXCAVATION AND DEMOLITION OF UNFORESEEN CONCRETE, MASONRY, AND OTHER MANMADE OBSTRUCTIONS | 200 | CY | | $ |
| 20 | SPECIFIC ALLOWANCE #9 – CONTINGENT UNCLASSIFIED EXCAVATION | 2,000 | CY | | $ |
| 21 | SPECIFIC ALLOWANCE #10 – CONTINGENT PLACEMENT OF BACKFILL MATERIAL | 2,400 | CY | | $ |
| 22 | SPECIFIC ALLOWANCE #11 – ADDITIONAL RESIDUAL WASTE SOIL DISPOSAL | 14,400 | TONS | | $ |
| 23 | SPECIFIC ALLOWANCE #12 – ACID PRODUCING ROCK DISPOSAL | 43,400 | TONS | | $ |
| 24 | SPECIFIC ALLOWANCE #13 – GROUT MATERIALS USED FOR PRE-EXCAVATION GROUTING AND CUT-OFF GROUTING | 250,000 | USD | N/A | $ |
| 25 | SPECIFIC ALLOWANCE #14 – UNFORESEEN UTILITY REMOVAL AND RELOCATION | 100,000 | USD | N/A | $ |
| | | | | | |
| | TOTAL OF EXTENDED ITEM AMOUNTS FOR UNIT PRICE WORK LISTED ABOVE (Sum of Extended Total Amount for 01 thru 25) | | | | $ |

Contract No.1800 G

8.2 Base Bid Summary:

**TOTAL BASE BID**:

_____ Dollars
(Words)

and _____ Cents. $_____
(Words) (Figures)

# Bid Forms for 1800E, H and P

8. BASE BID.

8.1 Lump Sum Work: Bidder further agrees to accept as full payment for the Lump Sum Work proposed within the Bidding Documents based upon the undersigned's own estimate of quantities and costs and including sales, consumer, use, and other taxes, except as provided below, and overhead and profit, for **CONTRACT NO. 1800 E** the following lump sum of:

_____ Dollars
(Words)

and _____ Cents $ _____
(Words) (Figures)

8. BASE BID.

8.1 Lump Sum Work: Bidder further agrees to accept as full payment for the Lump Sum Work proposed within the Bidding Documents based upon the undersigned's own estimate of quantities and costs and including sales, consumer, use, and other taxes, except as provided below, and overhead and profit, for **CONTRACT NO. 1800 P** the following lump sum of:

_____ Dollars
(Words)

and _____ Cents $ _____
(Words) (Figures)

8. BASE BID.

8.1 Lump Sum Work: Bidder further agrees to accept as full payment for the Lump Sum Work proposed within the Bidding Documents based upon the undersigned's own estimate of quantities and costs and including sales, consumer, use, and other taxes, except as provided below, and overhead and profit, for **CONTRACT NO. 1800 H** the following lump sum of:

_____ Dollars
(Words)

and _____ Cents $ _____
(Words) (Figures)

# Questions

# ATTACHMENT – B

Pre-Bid Meeting Attendance Sheet

# ALLEGHENY COUNTY SANITARY AUTHORITY
## Pre-Bid Meeting Attendance

| PROJECT: Wet Weather Pump Station | CONTRACT NO. 1800 |
|---|---|
| DATE: Wednesday, June 11, 2025 | TIME: 10:30 A.M. |

| | NAME | AFFILIATION | PHONE | E-MAIL |
|---|---|---|---|---|
| 1 | Jeff Argyros | ALCOSAN | (412) 734-6281 | jeff.argyros@alcosan.org |
| 2 | Matt Gilfillan | ALCOSAN | (412) 734-8361 | matthew.gilfillan@alcosan.org |
| 3 | Joe Tripodi | ALCOSAN | (412) 734-8709 | joseph.tripodi@alcosan.org |
| 4 | Tyler Trainor | ALCOSAN | (412) 766-4810 x8232 | tyler.trainor@alcosan.org |
| 5 | J/M MARQUARDT | J.F. SHEA CONST. INC. | (508) 277-1660 | Jim.Marquardt@JFSHEA.com |
| 6 | Matt Over | Schnabel | (925) 222-0318 | mover@schnabel-eng.com |
| 7 | Heather Dodson | BC | (412) 5199217 | hdodson@bruncald.com |
| 8 | JEFF ITT | BC | (216) 606-1316 | Jitt@bruncald.com |
| 9 | BRUCE BALL | BC | ( ) | bball@bruncald.com |
| 10 | ROD STOULDERS | JDC | (216) 738 9579 | rstoulders@jaydec.us |
| 11 | James Undicelli | Jay Dec Contractors | (216) 870 6745 | jundicelli@jaydec.us |
| 12 | PAUL HANDLEY | SKB USA Construction | (724) 265-4600 | phandley@skbusa.com |
| 13 | RYAN WAGNER | FAY | (724) 265-4600 | RWAGNER@JBFAY.COM |
| 14 | CRAIG HAMILTON | KELLER-NA | (804) 405-3208 | Craig.Hamilton@KELLER-NA.com |

# ALLEGHENY COUNTY SANITARY AUTHORITY
## Pre-Bid Meeting Attendance

| PROJECT: Wet Weather Pump Station | CONTRACT NO. 1800 |
|---|---|
| DATE: Wednesday, June 11, 2025 | TIME: 10:30 A.M. |

| | NAME | AFFILIATION | PHONE | EMAIL |
|---|---|---|---|---|
| 15 | Chris Dekkewa | Joseph B. Fay | (412) 471-4200 x106 | cdekkewa@shikunusa.com |
| 16 | Charles Zugell | JBB/SA Construction | (412) 665-6112 | czugell@shikunusa.com |
| 17 | ANDY GRAFF | OSCAR RENDA | (413) 231-1000 | Bidding team@SOUTHLANDHOLDS.com |
| 18 | SCOTT JARLO | SSM | (412) 965-9264 | |
| 19 | Hunter Barone | SSM | (412) 892-0805 | hbarone@ssmi.biz |
| 20 | Mike FitzGerald | Brava + Caldwell | (724) 759-9380 | mfitzgerald1@brunerld.com |
| 21 | AL LASH | Clista Electric | (870) 2085096 | alash@clistaelectric.com |
| 22 | Craig Robash | Wellington Power | (412) 287-3398 | crobash@wellingtonpower.com |
| 23 | JOSH MICHULKA | Wellington Power | (412) 302-2260 | jmichulka@wellingtonpower.com |
| 24 | DAVID SPANO | BRAYMAN | (412) 585-7326 | ESTIMATING@BRAYMAN.COM |
| 25 | DENNY MARCH | BRAYMAN | (870) 250-0322 | d_march@brayman.com. |
| 26 | MATT FLEURY | MASCARO | (412) 321-4901 | MFLEURY@MASCAROCONSTRUCTION.COM |
| 27 | Dave DeChicchis | Mascaro | (412) 290-5646 | ddechicchis@mascaroconstruction.com |
| 28 | PAT OHRIN | NTE | (724) 744 6971 | pohrin@nteeng.com |

# ALLEGHENY COUNTY SANITARY AUTHORITY
## Pre-Bid Meeting Attendance

| PROJECT: Wet Weather Pump Station | CONTRACT NO. 1800 |
|---|---|
| DATE: Wednesday, June 11, 2025 | TIME: 10:30 A.M. |

| | NAME | AFFILIATION | PHONE | EMAIL |
|---|---|---|---|---|
| 29 | JOHN WISE | NICHOLSON | (412) 389-1604 | john.wise@nicholsonconstruction.com |
| 30 | William Beck | Nicholson | (412) 720-3829 | william.beck@nicholsonconstruction.com |
| 31 | Greg Franz | Trumbull Corporation | (412) 892-8312 | greg.franz@trumbullcorp.com |
| 32 | Harry Hardman | 3 Rivers Tunnel Constructors A Joint Venture | (412) 807-2150 | hhardman@trumbullcorp.com |
| 33 | GREG COSTA | W G TOMKO | (724) 348-2040 | gcostar@wgtomko.com |
| 34 | DAN PAULOVICH | WAYNE CROUSE, INC | (724) 601-0994 | dpaulovich@waynecrouse.com |
| 35 | FRED VOGT | WAYNE CROUSE, INC | (412) 398-0271 | fvogt@waynecrouse.com |
| 36 | Mike Culbertson | Keller | (330) 413.1787 | mike.culbertson@kellerna.com |
| 37 | KEN PAYTAS | NATIONAL TRENCH SAFETY | (412) 352.2534 | KENNEATPAYTAS@NTSAFETY.COM |
| 38 | David Whitlatch | A+A Consultant | (724) 635-9543 | dwhitlatch@aaconsultantinc.com |
| 39 | Jen Kilburn | A&A Consultants | (724) 635-9548 | JKilburn@aaconsultantsinc.com |
| 40 | Mac Ross | JF Shea | (814) 404 4778 | mac.ross@jfshea.com |
| 41 | Mike Lackey | MOSITES Const. | (412) 923-2255 | mikel@mosites.com |
| 42 | Jacob Luarte | Obayashi | (650) 619-6382 | Jacob.Luarte@obayashi-usa.com |
| 43 | Dan Kelly | Multivista | (412) 295 4292 | d.kelly@multivista.com |

# ALLEGHENY COUNTY SANITARY AUTHORITY
## Pre-Bid Meeting Attendance

| PROJECT: Wet Weather Pump Station | CONTRACT NO. 1800 |
|---|---|
| DATE: Wednesday, June 11, 2025 | TIME: 10:30 A.M. |

| | NAME | AFFILIATION | PHONE | EMAIL |
|---|---|---|---|---|
| 44 | Hayden Nawrel | Sargent Electric | (412) 523-1786 | hnawrel@sargentelectric.com |
| 45 | ERIC MORA | SARGENT ELECTRIC | (412) 354-7870 | emora@sargentelectric.com |
| 46 | SHAWNA MUNN | AECON GROUP | ( ) | smunn@aecon.com |
| 47 | COREY HALL | " | ( ) | chall@aecon.com |
| 48 | GIL BERRY | GIL BERRY & ASSOCIATES DBE | (412) 720-1448 | GILBERRY60@YMAIL.COM |
| 49 | LORNE BERRY | GIL BERRY & ASSOCIATES DBE | (412) 996-0274 | LORNE.BERRY@GILBERRYASSOCIATES.COM |
| 50 | Ronie Guzman | Obayashi corp. | (GSD ###) 504 9362 | ronie.guzman@obayashi-usa.com |
| 51 | STUART SULLIVAN | " | (512) 470-0237 | STUART.SULLIVAN@OBAYASHI-USA.COM |
| 52 | Donna Chappel | AIG | (412) 722-0065 x242 | DCHAPPEL@AIGCONSTRUCTORS.COM |
| 53 | Steve McManis | Mele & Mele & Sons | (412) 606 3863 | smcmanis@meleinc.com |
| 54 | RALPH J. PAGONE | GOETTLE | (412) 298 9139 | rpagone@goettle.com |
| 55 | MICK ROARTY | PJ Dick | (412) 977-5990 | mike.roarty@pjdick.com |
| 56 | Josh Reinert | Thoroughbred | (724) 816 6378 | jreinert@thetcgelectric.com |
| 57 | JOSEPH RESTELLI | " | (412) 789-6415 | JRESTELLI@THETCGELECTRIC.COM |
| 58 | BRAD ZOOK | MICHAEL BAKER INTL | (717) 320 4682 | bradley.zook@mbakerintl.com |

# ALLEGHENY COUNTY SANITARY AUTHORITY
## Pre-Bid Meeting Attendance

| PROJECT: Wet Weather Pump Station | CONTRACT NO. 1800 |
|---|---|
| DATE: Wednesday, June 11, 2025 | TIME: 10:30 A.M. |

| | NAME | AFFILIATION | PHONE | EMAIL |
|---|---|---|---|---|
| 59 | FRANK ZOTTOLA | INDEPENDENCE EXCAVATING | (412) 228-6199 | fzottola@indexc.com |
| 60 | GARY GUY | Guy's Mechanical Systems | (724)873.4590 | gary@guysmech.com |
| 61 | RYAN VATZ | PJ DICK | (724) 384 4600 o. | ryanv@pjdick.com |
| 62 | Ben Jacobs | Independence Excavating | (412) 804-8170 | bjacobs@indexc.com |
| 63 | Beth Joyce | ALCOSAN | (412 734-8719 | beth.joyce@alcosan.org |
| 64 | Joe Felix | Xylem | (412) 266 0813 | Joseph.felix@xylem.com |
| 65 | Scott DeBacco | Xylem | (330) 301 9509 | Scott.debacco@xylem.com |
| 66 | Javed Cardias | Xylem | (412 3340464 | Javed Cardias@xylem.com |
| 67 | Ryan Novelli | Independent Enterprises | (412) 715-9733 | RNovelli@ieionet.com |
| 68 | SCOTT PILGRIM | RED SWING GROUP | (724)325-1215 | S.PILGRIM@REDSWINGGROUP.COM |
| 69 | Lorenzo Scalli | Mosites | (412) 287-5310 | lorenzos@mosites.com |
| 70 | | | ( ) | |
| 71 | | | ( ) | |
| 72 | | | ( ) | |

Today's Date: 06/11/2025

**Allegheny County Sanitary Authority**

**Contract 1800 – Wet Weather Pump Station**

**PRE-BID MEETING SIGN-IN** – CORE SHED VISIT

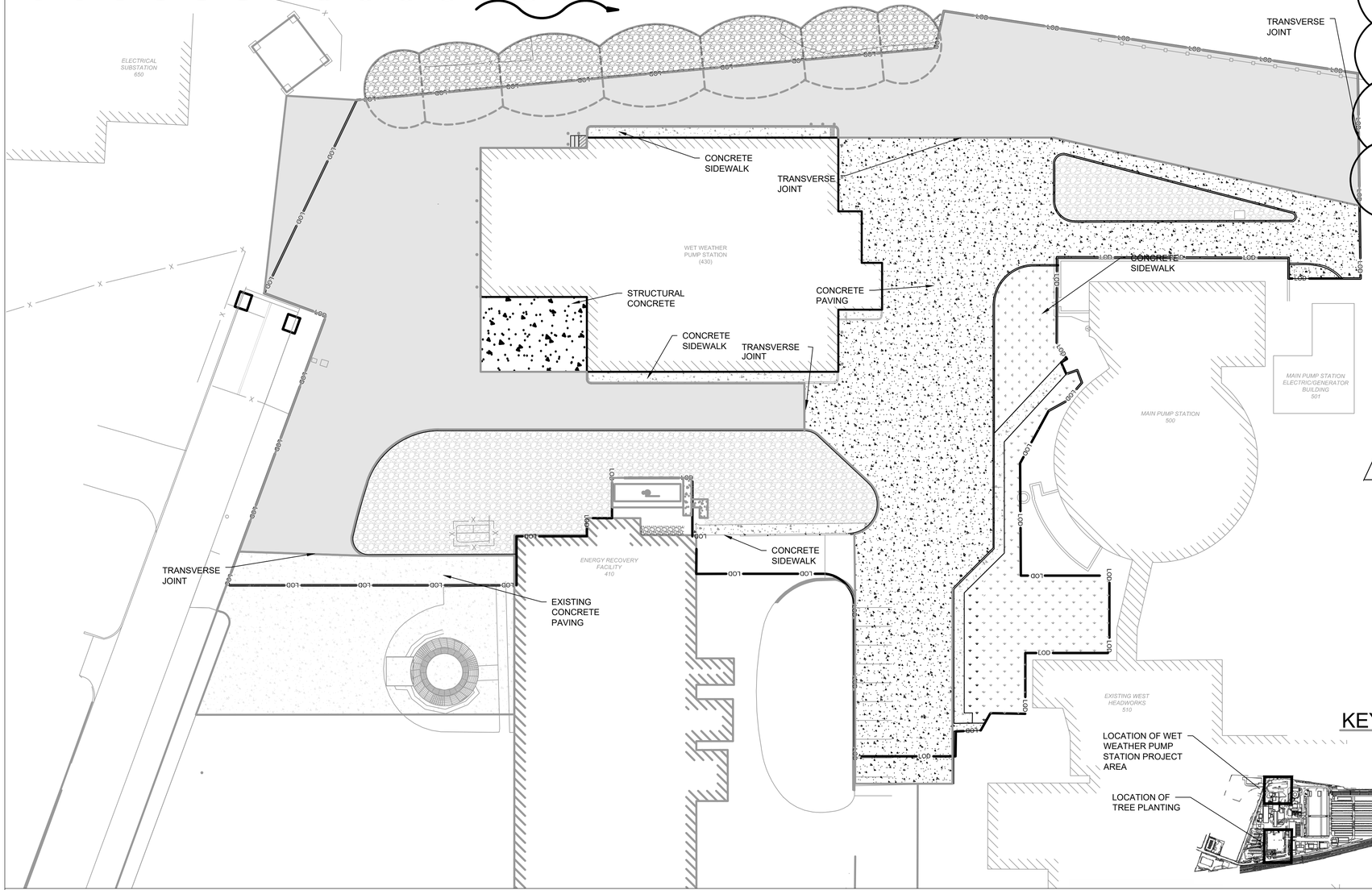
| | Name | Company | Email | Phone Number |
|---|---|---|---|---|
| 1. | STUART SULLIVAN | OBRIEN | STUART.SULLIVAN@OBRIENUSA.com | |
| 2. | COREY HALL | AECOM | CHALL@AECOM.COM | |
| 3. | SHAWNA MUNN | AECOM | SMUNN@AECOM.COM | |
| 4. | Chris Deklewa | Joseph B. Fay | cdeklewa@shikunusa.com | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| 15. | | | | |

# ATTACHMENT – C

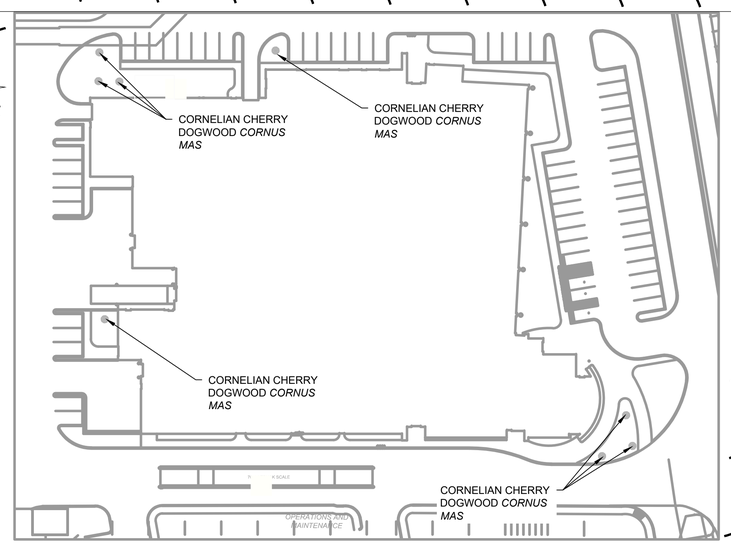
Addendum No. 2 Drawings

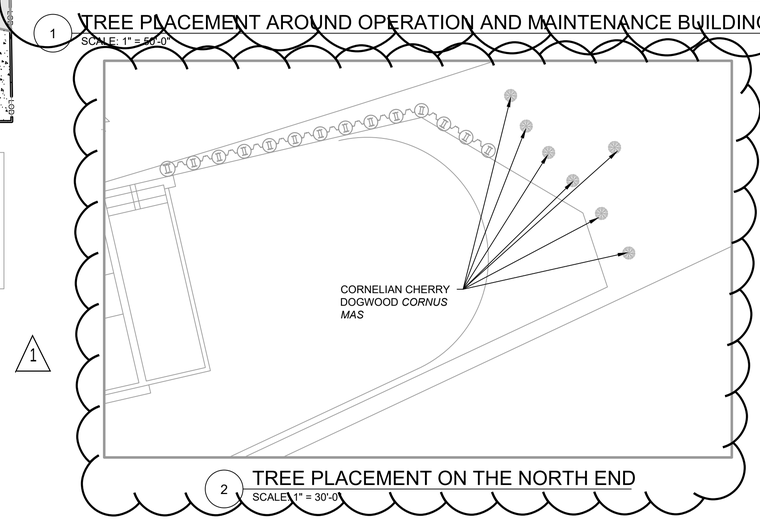
| SUMMARY OF TREES TO BE REMOVED | | | |
|---|---|---|---|
| BOTANICAL NAME | COMMON NAME | DIAMETER (INCHES) | SUMMED DIAMETER OF TREES (INCHES) |
| GINKGO BILOBA | GINKO | 12 | 57 |
| GINKGO BILOBA | GINKO | 15 | |
| GINKGO BILOBA | GINKO | 18 | |
| QUERCUS RUBA | RED OAK | 12 | |

| SUMMARY OF TREES TO BE PLANTED | | | |
|---|---|---|---|
| BOTANICAL NAME | COMMON NAME | DIAMETER (INCHES) | SUMMED DIAMETER OF TREES (INCHES) |
| 15 CORNUS MAS 'GOLDEN GLORY' | 15 CORNELIAN CHERRY DOGWOOD | 3-5 | 60 |




1 TREE PLACEMENT AROUND OPERATION AND MAINTENANCE BUILDING
SCALE: 1" = 50'-0"




2 TREE PLACEMENT ON THE NORTH END
SCALE: 1" = 30'-0"

KEYPLAN




LEGEND

- ASPHALT PAVEMENT
- CONCRETE
- SEEDING/LANDSCAPING
- GRAVEL PAVEMENT

0 30' 60'
SCALE: 1"=30'

| Designed by: | |
|---|---|
| | L.SPRANKLE |
| Drawn by: | |
| | L.SPRANKLE |
| Checked by: | |
| | C. CASADEI |

| REVISION | | | |
|---|---|---|---|
| REV No. | DATE | DESCRIPTION | APPV |
| 0 | 5/16/25 | ISSUED FOR BID | CC |
| 1 | 6/12/25 | Add. 2 - Add Additional Trees to North End | CC |
| | | | |
| | | | |
| | | | |
| | | | |

Brown AND Caldwell

Collective Efforts, LLC
Civil and Environmental Engineers
Signer Name: Coreen M. Casadei
Signing Reason: I approved this document.
Signing Time: 2025-06-11 15:58:17(EDT)

COMMONWEALTH OF PENNSYLVANIA
COREEN M. CASADEI
ENGINEER
No. 042411

alcosan
allegheny county sanitary authority

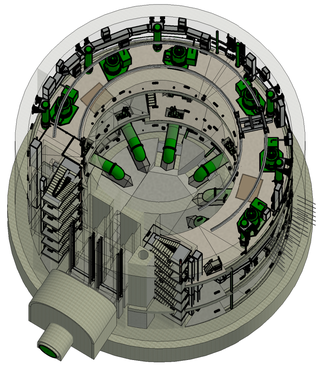

ARLETTA SCOTT WILLIAMS
EXECUTIVE DIRECTOR, ALCOSAN
3300 PREBLE AVE.
PITTSBURGH, PA 15233
(412) 766 - 4810
www.alcosan.org

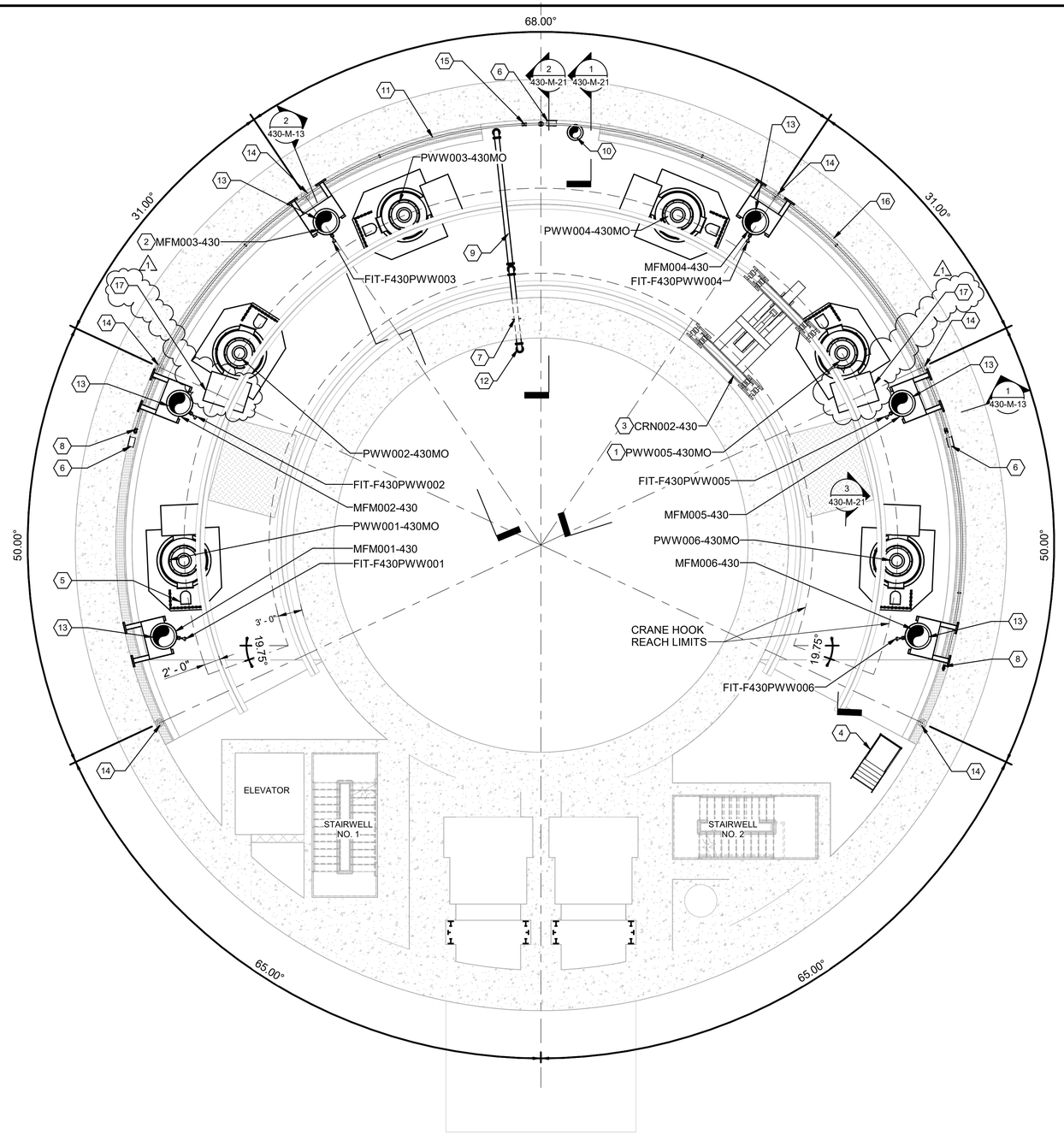

ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
WET WEATHER PUMP STATION

# 000-C-23
# PAVING AND LANDSCAPING PLAN

| | |
|---|---|
| Contract: | 1800 |
| CAD File Name: | 000-C-23.dwg |
| Date: | 5/16/2025 |
| Sheet: | 36 of 405 |

2f1c074c177a8a5767daec8bce892d0b






MOTOR FLOOR PLAN

0 4' 8' 16'
SCALE : 1/8" = 1'-0"

N

## GENERAL NOTES:

1. SEE DETAIL 1/430-M-26 FOR WASHDOWN AND SEAL WATER SYSTEM ISOMETRIC.

## KEYNOTES:

1 VERTICAL NON-CLOG EXTENDED SHAFT WET WEATHER PUMP MOTOR, TYP.
2 MAGNETIC FLOW METER, TYP.
3 TELESCOPING RADIAL BRIDGE CRANE.
4 CONTRACTOR SHALL PROVIDE AND ASSEMBLE ONE DIVERSE SUPPLY, INC. STAINLESS STEEL SINGLE ENTRY MOBILE WORK PLATFORM WITH RAILS MODEL NUMBER DS-SEP6-3648, OR APPROVED EQUAL.
5 INTEGRAL PUMP SHAFT HANDLING SYSTEM INTEGRATED INTO THE MOTOR BASE, TYP.
6 UTILITY STATION, SEE DETAIL D31001/430-MD-07. PROVIDE EACH HOSE RACK WITH A 50 FOOT UTILITY HOSE.
7 TYPE F PIPE PENETRATION. SEE DETAIL 3/430-MD-03.
8 90-DEGREE BEND UP.
9 DIP-6"-RSW-FE.
10 DIP-16"-RSW-FE
11 SSP-2"-SLW-PGRV
12 90 DEGREE BEND DOWN.
13 CBP-30"-RSW-FE
14 FLOOR DRAIN.
15 TEE DOWN.
16 TRENCH DRAIN, TYP. REFERENCE STRUCTURAL DRAWINGS FOR DETAILS.
17 MOTOR TERMINAL ENCLOSURE SHALL HAVE REMOVABLE PANEL. HINGED ACCESS DOORS ARE NOT ALLOWED. MOTOR FLANGE BOLT PATTERN ON PWW002-430MO AND PWW005-430MO SHALL BE ROTATED 15 DEG FOR CLEARANCE FROM DISCHARGE PIPE.

1

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Plot Date: 6/10/2025 8:47:16 AM

| Designed by: | REVISION | | | |
|---|---|---|---|---|
| A.JUERGENS | REV No. | DATE | DESCRIPTION | APPV |
| Drawn by: | 0 | 5/16/25 | ISSUED FOR BID | AJ |
| R.PAVLISICH | 1 | 6/12/25 | ADD. 2 - ROTATE MOTOR ENCLOSURE | AJ |
| Checked by: | | | | |
| C.MICHALOS | | | | |

Brown AND Caldwell

Signer Name: Andrew Juergens
Signing Reason: I approved this document.
Signing Time: 2025-06-11 13:53:20(EDT)

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
ANDREW D. JUERGENS
ENGINEER
PE096611


alcosan allegheny county sanitary authority

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ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
WET WEATHER PUMP STATION

430-M-03
MOTOR FLOOR PLAN

| | |
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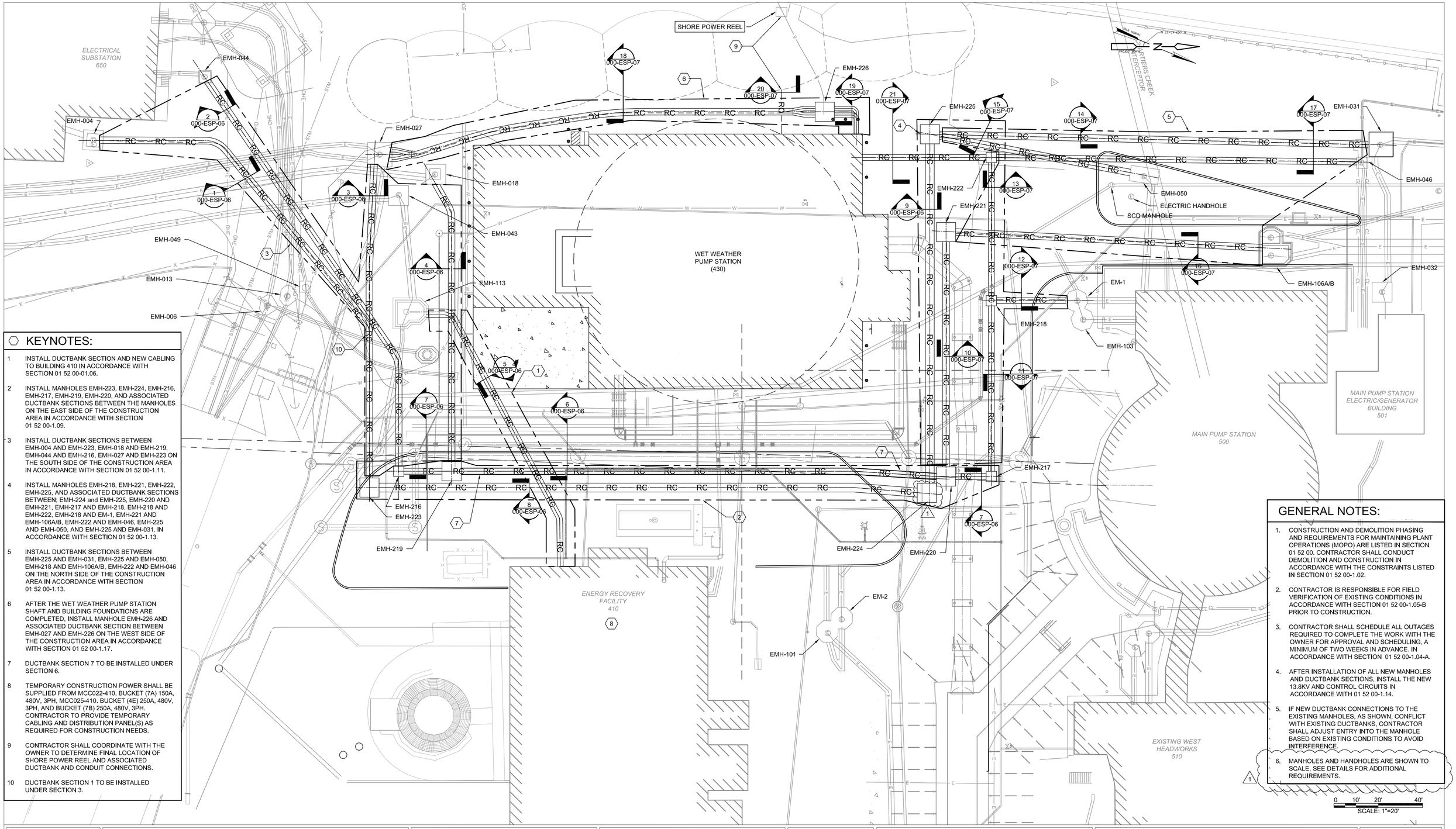
| Contract: | 1800 |
| CAD File Name: | |
| Date: | 5/16/2025 |
| Sheet: | 221 of 406 |




## KEYNOTES:

1 INSTALL DUCTBANK SECTION AND NEW CABLING TO BUILDING 410 IN ACCORDANCE WITH SECTION 01 52 00-01.06.

2 INSTALL MANHOLES EMH-223, EMH-224, EMH-216, EMH-217, EMH-219, EMH-220, AND ASSOCIATED DUCTBANK SECTIONS BETWEEN THE MANHOLES ON THE EAST SIDE OF THE CONSTRUCTION AREA IN ACCORDANCE WITH SECTION 01 52 00-1.09.

3 INSTALL DUCTBANK SECTIONS BETWEEN EMH-004 AND EMH-223, EMH-018 AND EMH-219, EMH-044 AND EMH-216, EMH-027 AND EMH-223 ON THE SOUTH SIDE OF THE CONSTRUCTION AREA IN ACCORDANCE WITH SECTION 01 52 00-1.11.

4 INSTALL MANHOLES EMH-218, EMH-221, EMH-222, EMH-225, AND ASSOCIATED DUCTBANK SECTIONS BETWEEN; EMH-224 and EMH-225, EMH-220 AND EMH-221, EMH-217 AND EMH-218, EMH-218 AND EMH-222, EMH-218 AND EM-1, EMH-221 AND EMH-106A/B, EMH-222 AND EMH-046, EMH-225 AND EMH-050, AND EMH-225 AND EMH-031. IN ACCORDANCE WITH SECTION 01 52 00-1.13.

5 INSTALL DUCTBANK SECTIONS BETWEEN EMH-225 AND EMH-031, EMH-225 AND EMH-050, EMH-218 AND EMH-106A/B, EMH-222 AND EMH-046 ON THE NORTH SIDE OF THE CONSTRUCTION AREA IN ACCORDANCE WITH SECTION 01 52 00-1.13.

6 AFTER THE WET WEATHER PUMP STATION SHAFT AND BUILDING FOUNDATIONS ARE COMPLETED, INSTALL MANHOLE EMH-226 AND ASSOCIATED DUCTBANK SECTION BETWEEN EMH-027 AND EMH-226 ON THE WEST SIDE OF THE CONSTRUCTION AREA IN ACCORDANCE WITH SECTION 01 52 00-1.17.

7 DUCTBANK SECTION 7 TO BE INSTALLED UNDER SECTION 6.

8 TEMPORARY CONSTRUCTION POWER SHALL BE SUPPLIED FROM MCC022-410. BUCKET (7A) 150A, 480V, 3PH, MCC025-410. BUCKET (4E) 250A, 480V, 3PH, AND BUCKET (7B) 250A, 480V, 3PH. CONTRACTOR TO PROVIDE TEMPORARY CABLING AND DISTRIBUTION PANEL(S) AS REQUIRED FOR CONSTRUCTION NEEDS.

9 CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE FINAL LOCATION OF SHORE POWER REEL AND ASSOCIATED DUCTBANK AND CONDUIT CONNECTIONS.

10 DUCTBANK SECTION 1 TO BE INSTALLED UNDER SECTION 3.

## GENERAL NOTES:

1. CONSTRUCTION AND DEMOLITION PHASING AND REQUIREMENTS FOR MAINTAINING PLANT OPERATIONS (MOPO) ARE LISTED IN SECTION 01 52 00. CONTRACTOR SHALL CONDUCT DEMOLITION AND CONSTRUCTION IN ACCORDANCE WITH THE CONSTRAINTS LISTED IN SECTION 01 52 00-1.02.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF EXISTING CONDITIONS IN ACCORDANCE WITH SECTION 01 52 00-1.05-B PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL SCHEDULE ALL OUTAGES REQUIRED TO COMPLETE THE WORK WITH THE OWNER FOR APPROVAL AND SCHEDULING, A MINIMUM OF TWO WEEKS IN ADVANCE. IN ACCORDANCE WITH SECTION 01 52 00-1.04-A.
4. AFTER INSTALLATION OF ALL NEW MANHOLES AND DUCTBANK SECTIONS, INSTALL THE NEW 13.8KV AND CONTROL CIRCUITS IN ACCORDANCE WITH 01 52 00-1.14.
5. IF NEW DUCTBANK CONNECTIONS TO THE EXISTING MANHOLES, AS SHOWN, CONFLICT WITH EXISTING DUCTBANKS, CONTRACTOR SHALL ADJUST ENTRY INTO THE MANHOLE BASED ON EXISTING CONDITIONS TO AVOID INTERFERENCE.
6. MANHOLES AND HANDHOLES ARE SHOWN TO SCALE, SEE DETAILS FOR ADDITIONAL REQUIREMENTS.

0 10' 20' 40'
SCALE: 1"=20'

| Designed by: | REVISION | | | |
|---|---|---|---|---|
| P.STRAKER | REV No. | DATE | DESCRIPTION | APPV |
| Drawn by: | 0 | 5/16/25 | ISSUED FOR BID | RF |
| P.STRAKER | 1 | 6/12/25 | ADD. 2 MANHOLE/HANDHOLE SIZING | RF |
| Checked by: | | | | |
| R.FRYE | | | | |

Brown AND Caldwell

Signer Name: Ralph Frye
Signing Reason: I approved this document.
Signing Time: 2025-06-11 13:48:40(EDT)

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER RALPH A. FRYE III. PE083434E

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ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
WET WEATHER PUMP STATION

000-ESP-04
ELECTRICAL SITE PLAN

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| Contract: | 1800 |
| CAD File Name: | 000-ESP-04.dwg |
| Date: | 5/16/2025 |
| Sheet: | 328 of 405 |

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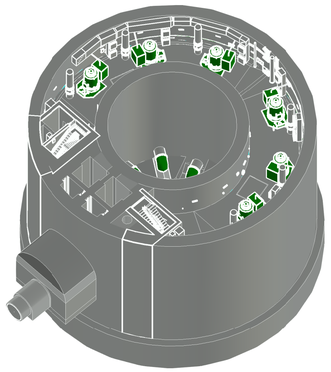

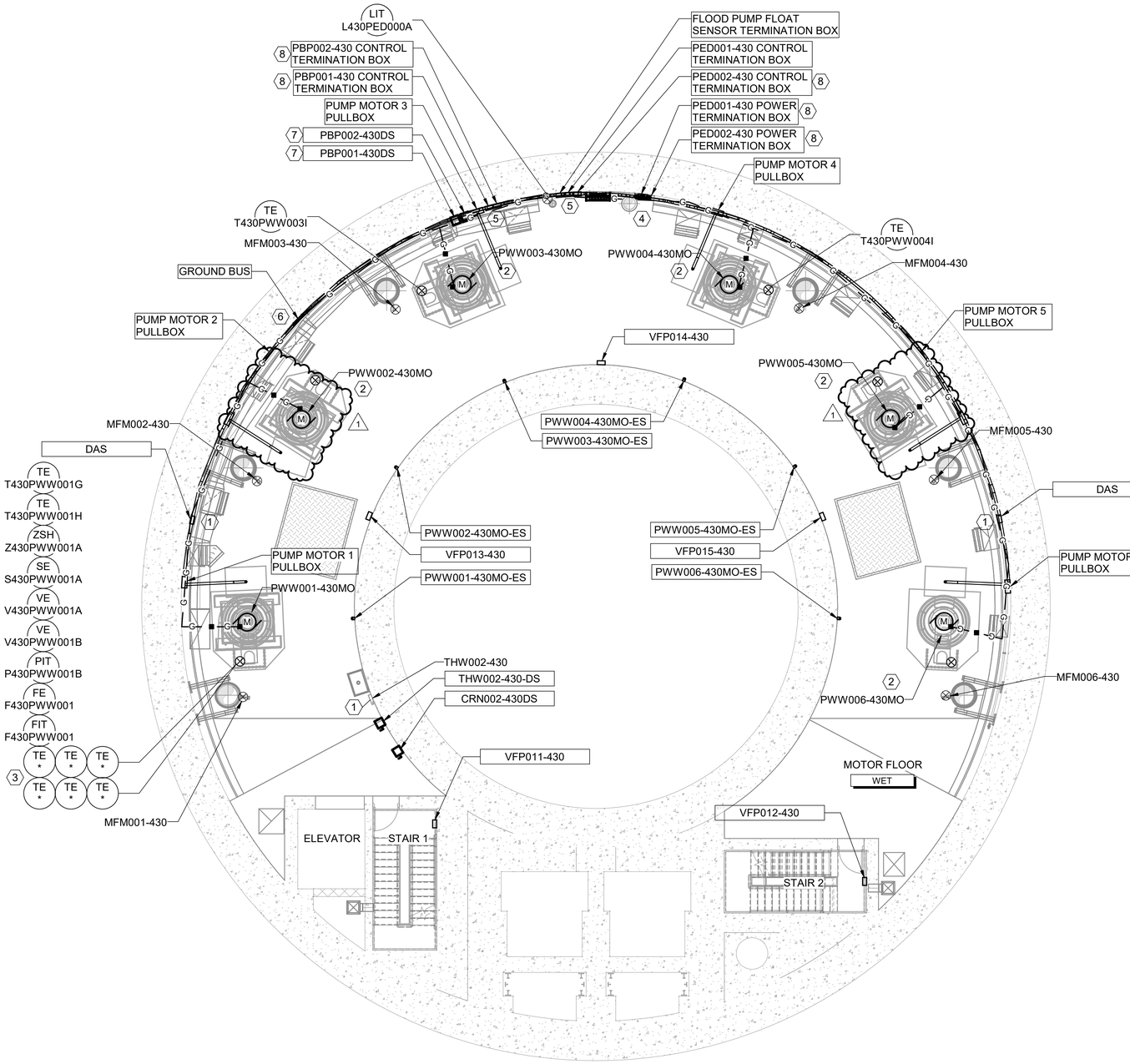


## MOTOR FLOOR POWER PLAN

SCALE : 1/8" = 1'-0"

N

## GENERAL NOTES:

1. ALL CONTRACTOR PROVIDED ELECTRICAL EQUIPMENT ON THIS LEVEL SHALL BE RATED NEMA-4X.
2. GROUND JUMPERS TO THE GROUND RINGS ON ALL MAG METERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

## KEYNOTES:

1. COORDINATE WITH ALCOSAN AND OTHER DISCIPLINES REGARDING FINAL LOCATIONS FOR ANTENNAS.
2. WET WEATHER PUMPS PWW002-430, PWW003-430, PWW004-430,PWW005-430, AND PWW006-430 TYPICAL OF PWW001-430 WITH INSTRUMENTS TE, ZSH, SE, VE, PIT, FE, AND FIT.
3. FOR MOTOR WINDING LOOP NUMBERS (*) REFER TO SECTION 40 61 97 INSTRUMENT LIST.
4. CONNECT POWER TERMINATION BOXES TO GROUND RING WITH #2/0 AWG WIRE.
5. CONNECT CONTROL AND FLOAT SENSOR TERMINATION BOXES TO GROUND RING WITH #14 AWG WIRE.
6. CONNECT TO DISCHARGE PIPING FLOOR GROUND BUS WITH 4/0 BARE COPPER GROUND CONDUCTOR.
7. DISCONNECTS PROVIDED BY OTHERS. CONTRACTOR SHALL INSTALL DISCONNECTS.
8. TERMINATION BOXES PROVIDED BY OTHERS. CONTRACTOR SHALL INSTALL TERMINATION BOXES.

| Designed by: | REVISION | | | |
|---|---|---|---|---|
| P.STRAKER | REV No. | DATE | DESCRIPTION | APPV |
| Drawn by: | 0 | 5/16/25 | ISSUED FOR BID | RF |
| P.STRAKER | 1 | 6/12/25 | ADD. 2 ROTATE MOTOR ENCLOSURE | RF |
| Checked by: | | | | |
| R.FRYE | | | | |

Brown AND Caldwell

Signer Name: Ralph Frye
Signing Reason: I approved this document.
Signing Time: 2025-06-11 13:48:40(EDT)

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER RALPH A. FRYE III PE053442E

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ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
WET WEATHER PUMP STATION

430-ET-03
MOTOR FLOOR POWER PLAN

Contract: 1800
CAD File Name:
Date: 5/16/2025
Sheet: 359 of 413

Plot Date: 6/10/2025 12:45:57 PM
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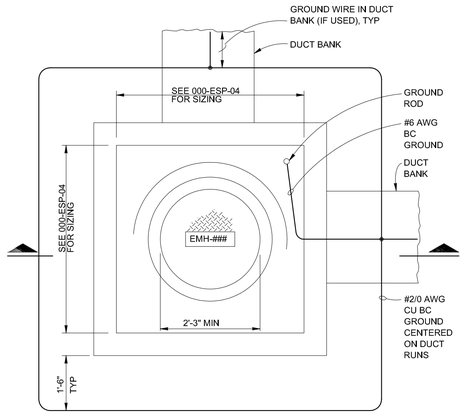
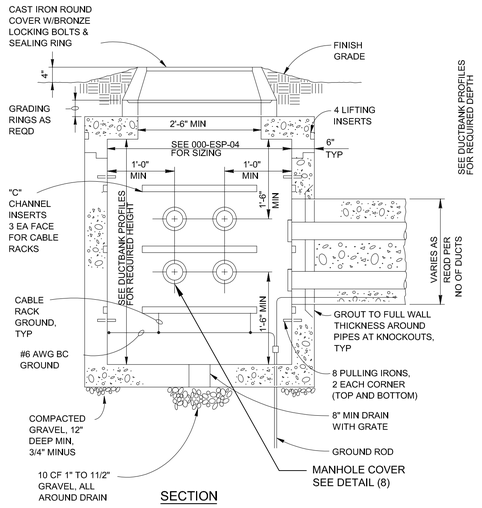



PLAN



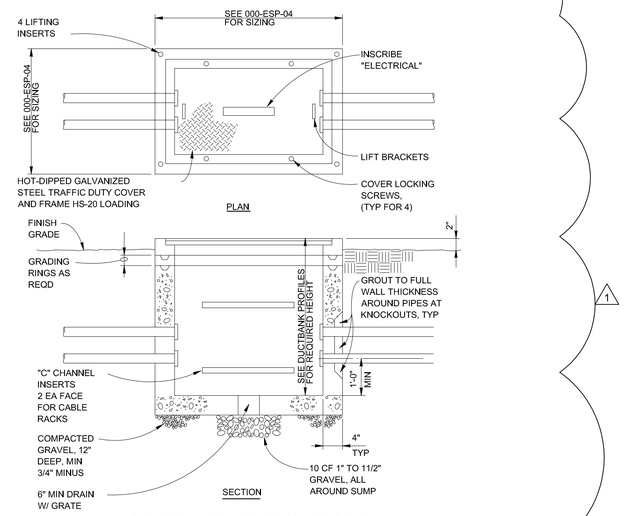

SECTION

# TYPICAL MANHOLE (WITH GROUNDING)

1 NTS

NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. SEE ELECTRICAL DUCTBANK PROFILES FOR REQUIRED HEIGHT.

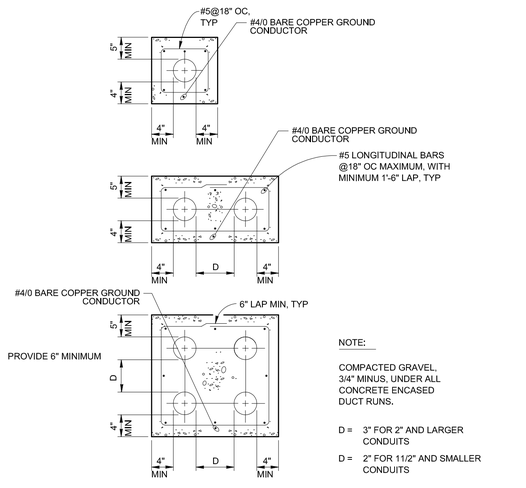



# TYPICAL HANDHOLE

2 NTS

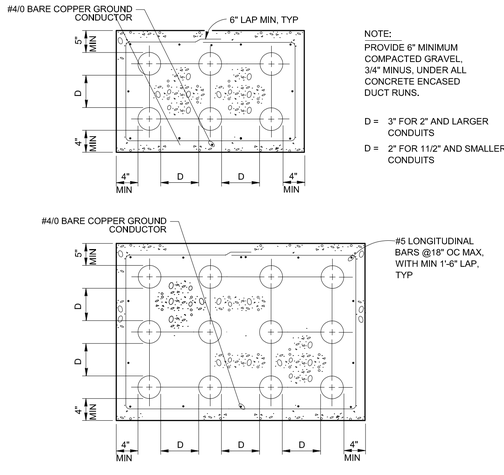
NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. SEE ELECTRICAL DUCTBANK PROFILES FOR REQUIRED HEIGHT.



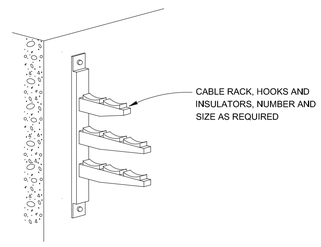

# TYPICAL DUCTBANK DETAILS

3 NTS



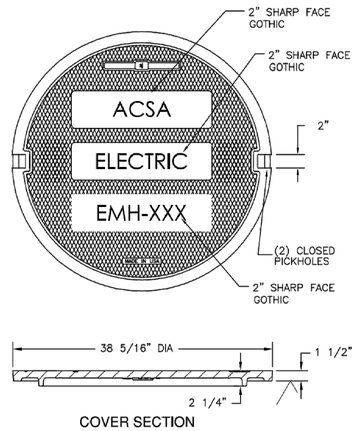

# TYPICAL DUCTBANK DETAILS

4 NTS




# TYPICAL CABLE RACK

5 NTS




COVER SECTION

# TYPICAL MANHOLE COVER

6 NTS

| Designed by: | REVISION | | | |
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| P.STRAKER | REV No. | DATE | DESCRIPTION | APPV |
| Drawn by: | 0 | 5/16/25 | ISSUED FOR BID | RF |
| P.STRAKER | 1 | 6/12/25 | ADD. 2 MANHOLE/HANDHOLE SIZING | RF |
| Checked by: | | | | |
| R.FRYE | | | | |

Brown AND Caldwell

Signer Name: Ralph Frye
Signing Reason: I approved this document.
Signing Time: 2025-06-11 13:48:40(EDT)

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ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
WET WEATHER PUMP STATION

430-ED-03
PROJECT DETAILS 1

| | |
|---|---|
| Contract: | 1800 |
| CAD File Name: | 430-ED-03.dwg |
| Date: | 5/16/2025 |
| Sheet: | 363 of 405 |

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