

ALLEGHENY COUNTY SANITARY AUTHORITY

September 3, 2021

CONTRACT NO. 1747

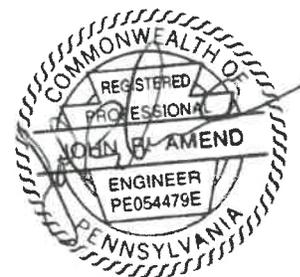
TEMPORARY PRIMARY DISINFECTION

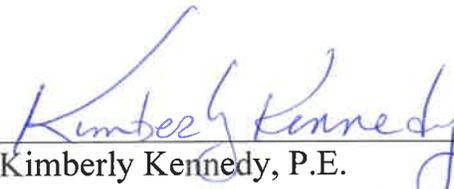
ADDENDUM NO. 1

All bidders bidding Contract No. 1747 G shall read and take note of this Addendum No. 1. The Contract Documents for **Contract No. 1747 G – Temporary Primary Disinfection** are hereby revised and/or clarified as stated below.

Acknowledgement of Contract No. 1747 G; Addendum No. 1

The Acknowledgement attached to Addendum No. 1 is to be signed and returned immediately via email to Dustin Copenhaver at Dustin.Copenhaver@alcosan.org and acknowledged with the Bidder's Proposal.





Kimberly Kennedy, P.E.
Director – Engineering and Construction

**ACKNOWLEDGEMENT OF
CONTRACT NO. 1747 G – TEMPORARY PRIMARY DISINFECTION**

ADDENDUM NUMBER 1

FIRM NAME: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

SEPTEMBER 1, 2021

CONTRACT NO. 1747 G

TEMPORARY PRIMARY DISINFECTION

ADDENDUM NO. 1

A. Contract Documents – Volume 1

See attached Pre-Bid Documents.

1. REVISE the following in Contract Agreement, Article 4:
 - a) Item 2, REVISE Contract Time in Calendar Days for Substantial Completion to 120 days and for Final Completion to 130 days.
 - b) Item 3, REVISE Liquidated Damages for Substantial Completion to \$500/calendar day.

B. Contract Specifications – Volume 2

1. ADD the following to Volume 2:
 - a) VOLUME 2 – Cover Page and Table of Contents
2. REVISE the following in Section 01 32 16:
 - a) Delete the specification number in the footer and replace with “01 32 16”.

C. Contract Drawings

1. Cover Sheet:
 - a) ADD the following to the Bottom of the Drawing Index Table, “Sheet No. 13, Dwg. No. E-4, Electrical Legend and Specifications”
2. Drawing M-1:
 - a) ADD the following item under 1.3.A Materials, “1. In locations where flanges are required as noted on the Drawings, provide backup flanges minimum 1/8-

inch thick. Backup flanges and connecting bolts shall be Type 304 stainless steel minimum. Gasket material shall be Viton.”

- b) ADD the following to 2.1.A, “12. Contractor may use existing pipe support systems for piping support under this contract provided that support systems do not compromise the support systems for any other pipe, conduit, equipment, etc., either structurally or in terms of chemical compatibility. Contractor to coordinate with Owner during construction for final approval of use of existing pipe support systems. For pipe support required in locations where existing support systems cannot be used, pipe hangers and supports shall be provided in accordance with this Section 2.”
- c) DELETE Item 2.2.B in its entirety and replace with the following, “B. Contractor shall provide adjustable hangers as noted above in galvanized steel with threaded, adjustable accessories, suitable for use where existing piping support systems cannot be used.”
- d) REVISE the title of Section 5 to “PIPE AND CABLE PROTECTION RAMP.”
- e) REVISE the following item under 5.1.A to “Steel cross over ramp and pipe housing complete with appurtenances as shown and specified to carry (1) 1-inch Schedule 80 CPVC pipe for sodium bisulfite.”
- f) DELETE references to Section A ramp under Item 5.1.B. Only Section B ramp to be provided and installed as shown on Drawing M-8.
- g) ADD Item 8.2, as follows, “8.2 Contractor shall note that the flow rate given in 8.1 above is the maximum flow rate required by the chlorine residual analyzer while normal sample rates are expected to be as noted in Section 7.3. Flow not required for analysis shall be drained through hose or hard-piped back to primary effluent channel as shown on SK-1 (attached).”
- h) ADD the following item under 9.1.B, Construction, “9. Provide shed with insulation for Zone 5 in accordance with the International Energy Conservation Code.”
- i) ADD the following item under 9.1.B, Construction, “10. All penetrations into and out of the portable shed shall be appropriately sealed to prevent weather intrusion.”

3. Drawing M-7:

- a) REPLACE with attached revised Drawing M-7.

4. Drawing M-8:

- a) ADD attached SK-1, Chlorine Residual Meter Schematic to Drawing M-8.

5. Drawing M-9:

- a) REPLACE with attached revised Drawing M-9.

6. Drawing E-3:

- a) On the Enlarged Plan of the Sampling Structure, REVISE note on electric unit heater to “1.5 kW Electric Unit Heater.”
- b) ADD General Note to Partial Site Plan as follow “Locate shed west of hatch to avoid fugitive gases.”

D. Questions

1. Is insulation required on shed? – yes, please see Addendum Item No. C.2.(h) above.
2. Is any portion of the piping on this project required to be insulated? Specifically, the outdoor portion of the bisulfite line? – no, this line will either be running or if not running, will be immediately drained until the next required use and so will not require insulation.
3. M-6 Notes flanges are required at all fittings from pump to tunnel entrance & connection point. What flange hardware is required? Is 316 SS flange hardware acceptable? – See Addendum Item No. C.2.a.
4. Quantity/stoutness of ramps. – 1 ramp at 80,000 pounds, bolted to roadway. See Addendum Item No. C.2.(e) above.
5. Air vents on peaks of pipe run to be auto or manual? – Air valves are manual as indicated on Schedule of Valves on Drawing M-1.
6. What height is the wooden platform? – 3 feet. Bolted to floor? – yes.
7. Laydown area – Space at the site is limited, although Contractor may use area on top of the primary sedimentation tanks; planks are rated at 5 ton. Other areas, as may be necessary, shall be coordinated with Owner during Construction as it is currently unknown as to what other areas may be available at specific times.
8. On spec sheet M-1 section 2.1; A; 4 it specifies that all hangers and supports shall be capable of adjustment after placement of piping. You had mentioned that the plan was to lay the pipe in the existing fiberglass C-channel. Can you please confirm that all

hangers will not have to be adjustable and that we are allowed to follow that existing C-channel? Also in section 2.2; B: it mentions that all hanger material be fiberglass, but the existing seems to be a stainless or galvanized unistrut with plastic protected unistrut clamps. Could you please advise on the required hanger material type required? – As this is a temporary installation, Contractor may make use of existing C-channels in the tunnel for piping support provided that support of any other pipes, conduits, equipment, etc. are not compromised. However, any new piping supports where existing support systems cannot be used shall be as specified in Item 2 on Drawing M-1. See Addendum Items No. C.2.b) and d).

9. Contract states 100 calendar days to substantial completion and 115 calendar days to final completion. It is unlikely that the new pumps and other process equipment will be able to be procured and fabricated within 100 days. Please provide schedule extension of at least 120 working days. – See Addendum Item No. A.1.a).
10. Please confirm that a project schedule in accordance with section 01 32 16. Please note the footer of the project schedule specification section is titled 01 31 16. – The footer is incorrect, while the title is correct; the Section should be numbered 01 32 16”.

E. Clarifications

None.

Attachments:

Pre-Bid Documents:

1729 Pre-Bid Agenda

1729 Pre-Bid Power Point

VOLUME 2 – Cover Page and Table of Contents

SK-1 – Chlorine Residual Meter Schematic

Revised Drawing M-7

Revised Drawing M-9

***** END OF ADDENDUM NO. 1 *****

Contract 1747
Temporary Primary Disinfection
Pre-Bid Meeting Agenda

Dustin Copenhaver – Alcosan Project Manager
Ray Stasny – Alcosan Construction Manager

INTRODUCTION

- a. Attendees joining via email will be noted in attendee list. Any call-in attendees that wish to be added to the list should send email to PM following meeting.
- b. Opening comments from Project Manager.
- c. Contractors must purchase bid documents from ALCOSAN to submit bids and receive addendum information.
- d. Encourage a target goal of WBE/MBE participation. (10% to 25% of contract value).
- e. Presentation of Contract Scope.

BID DOCUMENTS

1. Legal Notice

- a. Bid security 10% of bid price by certified check or bid bond.
- b. All bids 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 September 14th, 2021 at 2:00 PM sharp!**
- d. Anticipation of award at the **September 23rd, 2021** ALCOSAN Board meeting.
- e. All questions about contract documents shall be submitted to Dustin Copenhaver via email to Dustin.Copenhaver@alcosan.org 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 **September 3rd, 2021**. Responses will be distributed as addenda, as soon as possible, as deemed applicable.
- g. Pre-bid meeting is not mandatory for bidders.

2. Bidding Documents [Article One]

- a. Bid Form - fill in BASE BID on page 1-2. This is sum of Lump Sum Work (8.1). There are no alternates bid. All bids submitted with all bid forms complete and signed by authorized representative of the Company. Only the bid forms need to be submitted (Article 1 -> pages 1-1 through 1-21 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. (Art. 2.16)
- c. Provide a contact for your company in the space designated on page 1-5 for receipt of any communications necessary for the bid evaluation.
- d. Bid Bond - Certified check or Bid Bond. (Art. 2.19)
- e. MBE/WBE lower-tier subcontractor participation counts towards 10%-25% (2.26)
- f. Project Labor Agreement (2.34) Primes to sign and submit Letter of Assent with bid. Subs sign before working on project.

3. Information for Bidders [Article Two]

- a. Submission of Bids (2.04); Sealed Bid to be submitted to ALCOSAN Engineering Department on or before bid opening date and late bids (anything received after 2:00 PM) will be treated as “non-responsive” and returned to the Bidder unopened.
- b. Award Contract Execution and Notice to Proceed (2.07); Intend to award Contract 1747 at the September 23rd, 2021 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 in early November 2021.
- c. Bidders to Investigate (2.13); Bidders may coordinate additional site visits through the Construction Manager Ray Stasny at 412-734-6263 (Office) or Raymond.Stasny@alcosan.org
- d. Tax Exemptions (2.18) See Article 3.21 and Exhibit D.
- e. Bid Security / Contract Execution (2.19)
- f. Alterations of Bids and Documents (2.23)
- g. Qualifications and Experience of Bidders (2.25)
- h. MBE & WBE Participation (2.26)
- i. Project Labor Agreement and Letter of Assent (Prime and Subs) (2.34)

4. Contract Provisions [Article Three]

- a. Project Coordination (3.7 & 3.27)
- b. Retainage; (3.35): 10% to start. Reduced to 5% at 50% completion.
- c. Bonds (3.55); 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) required upon final acceptance of the completed work.
- d. Compliance with Health (COVID-19), Safety, and Environmental Laws (3.72); requires a project-specific written safety program, tailored specifically for the work on this Contract 1747 to be submitted to the Construction Manager prior to performing any work on-site.
- e. Working hours (3.74); 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 overseen by the Construction Manager, ALCOSAN and FDC staff as required, at the sole expense of the Contractor.
- f. Pennsylvania Prevailing Wage Rates (3.75); Minimum wage rates as set forth by the PA Prevailing Wage Act. (See Article 7 Volume 1 of 3)
- g. Compliance to the Buy American (3.76)
- h. Compliance to the PA Steel Products Procurement Act/Trade Practices Act (3.77/3.78)

5. Contract Agreement [Article Four]

- a. Contract Milestones:

Construction Milestone	Contract Time Calendar Days	Notes
Substantial Completion of Contract 1747	100	From Notice to Proceed
Final Completion of Contract 1747	115	From Notice to Proceed

b. Liquidated Damages

Construction Milestone	Liquidated Damages
Substantial Completion of Contract 1747	\$1,500/calendar day
Final Completion of Contract 1747	\$500/calendar day

6. Bonds, Certificates and Statements [Article Five]

- 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)

7. Project Specifications [Article 6]

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

8. Prevailing Minimum Wage Determination [Article 7]

9. Contract Drawings

- a. 14 Drawings

10. Open Discussion / Questions / Site Tour Requests-submit

◆◆◆◆ END OF AGENDA ◆◆◆◆

1747 Temporary Primary Disinfection

Mock tour of work area





Hypo Pumps
DPU 043 - 900
and MCC 38/39

Bisulfite
Building

DPU 040 - 720

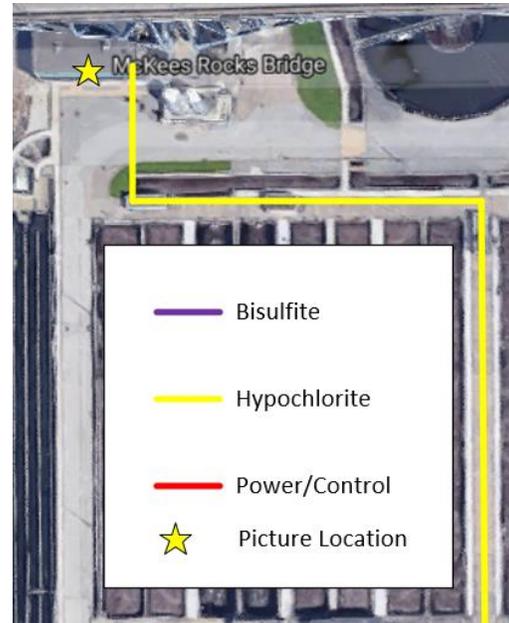
LPB 001 - 709

- Bisulfite
- Hypochlorite
- Power/Control

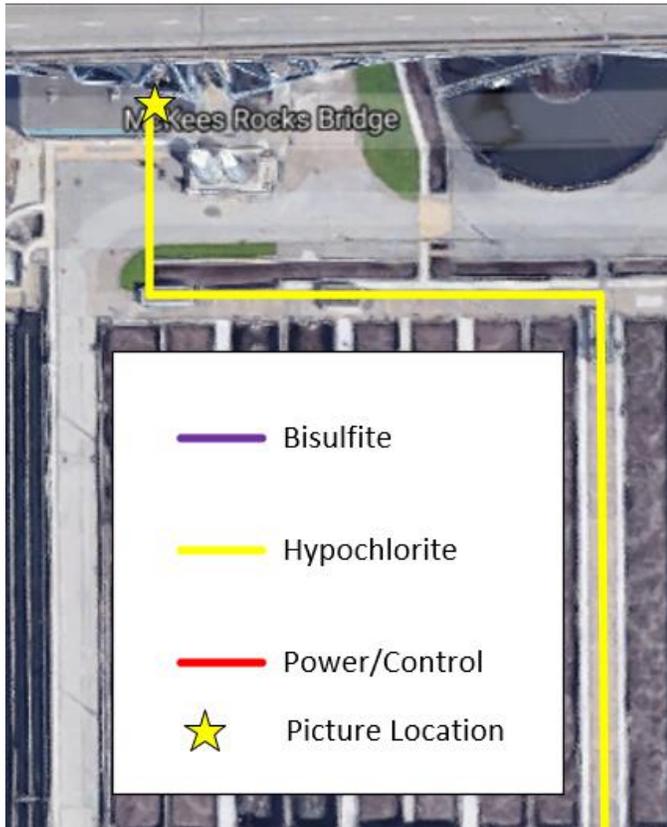


Sodium Hypochlorite System

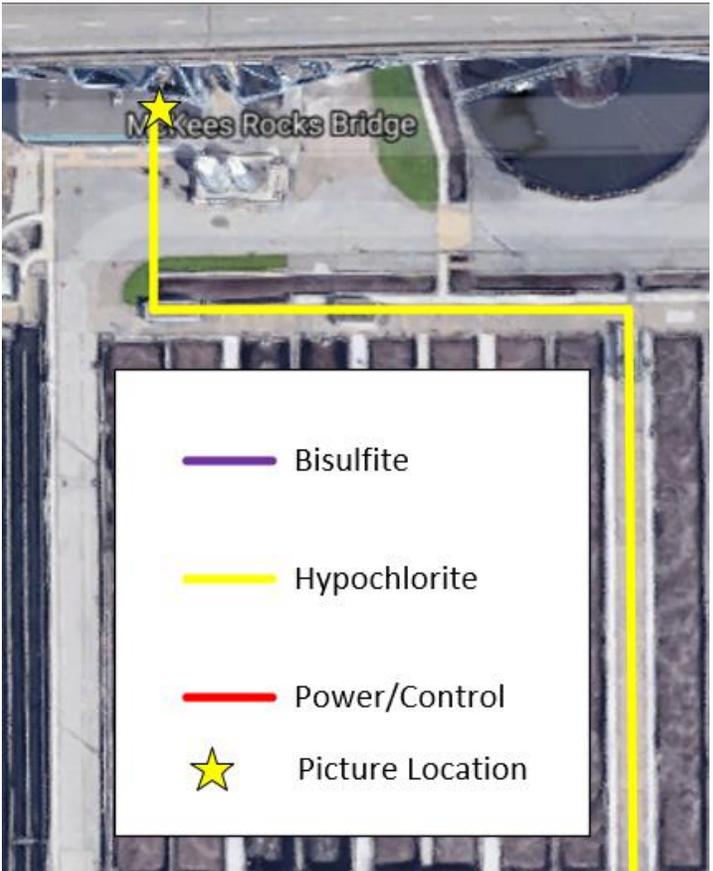
Connect new hypo line to existing capped pipe and run east to pump location



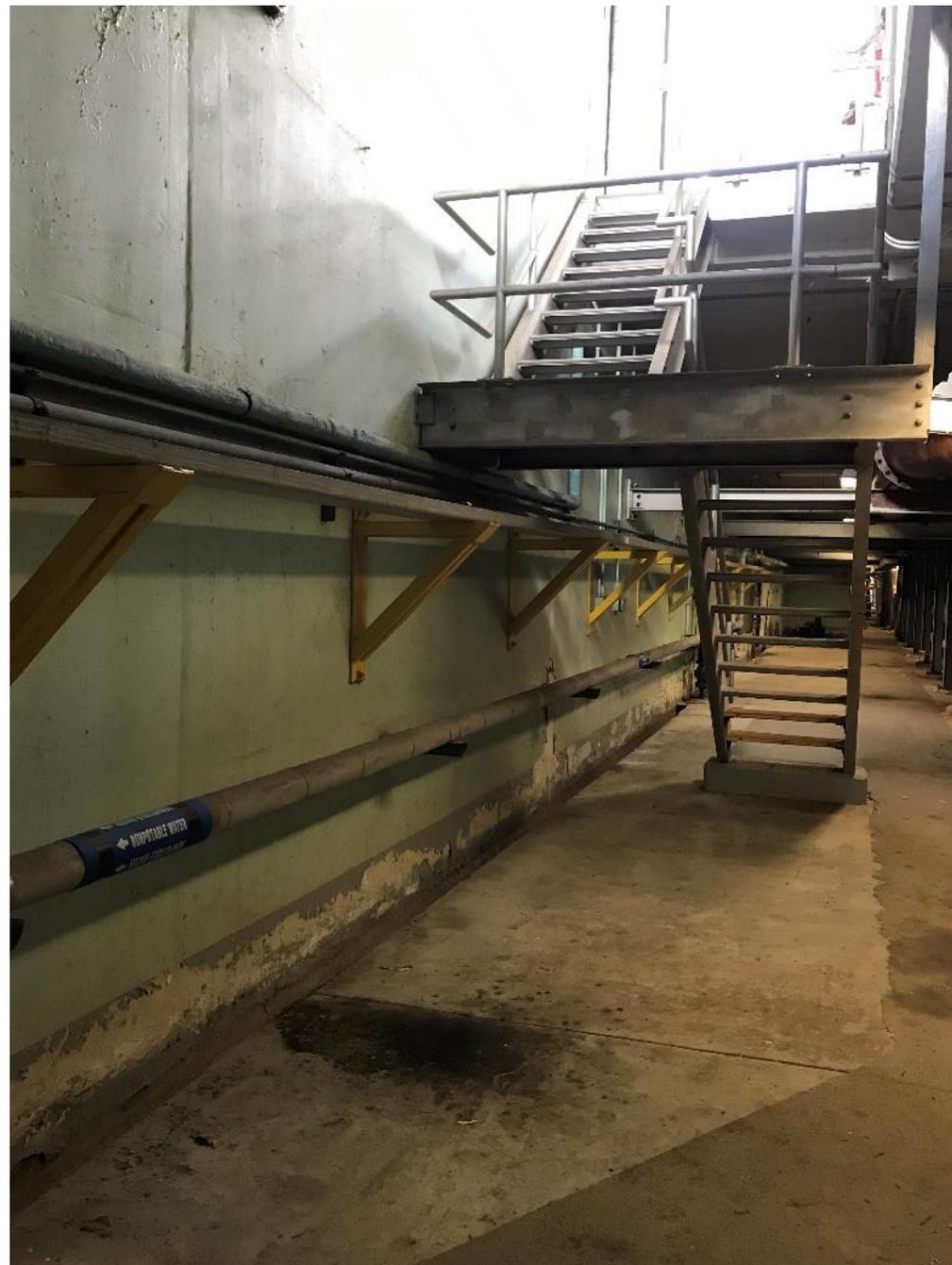
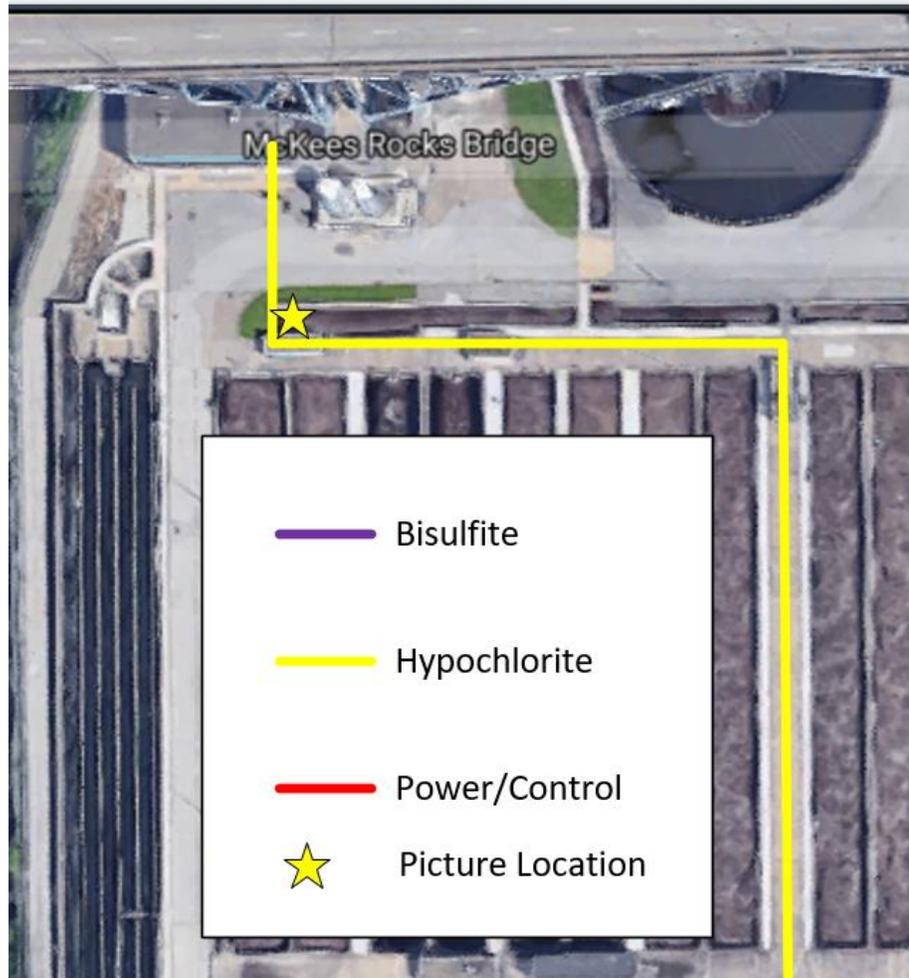
The pumps and controls to be along this wall with discharge piping heading south through tunnel



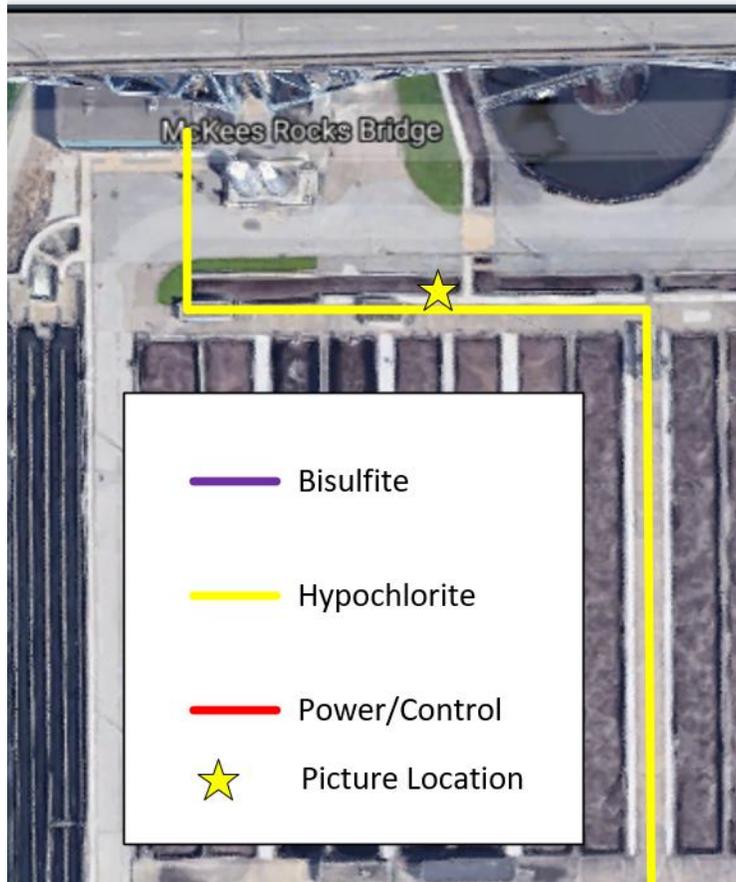
A view up ramp into tunnel



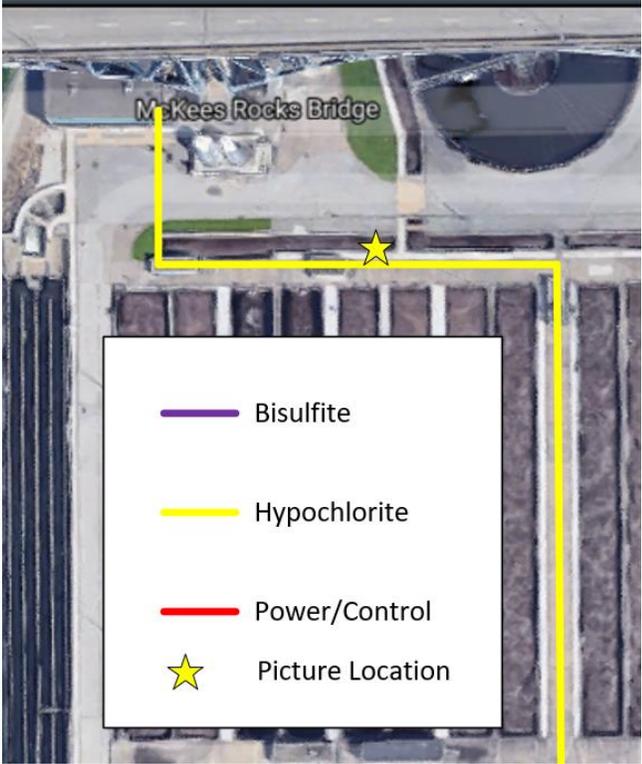
Round the corner heading east



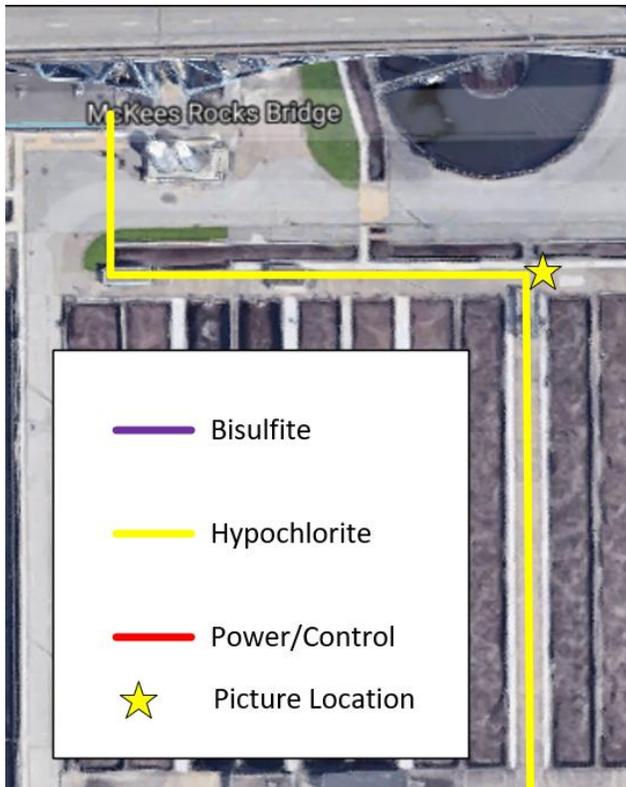
The existing west splitter box that will be removed at some point, will need coordination for hypo routing



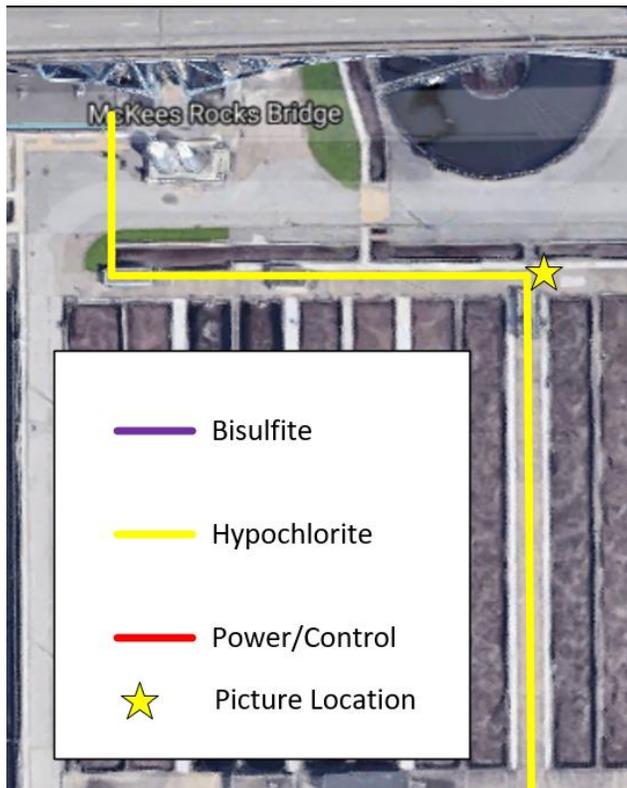
Continuing east towards central tunnel



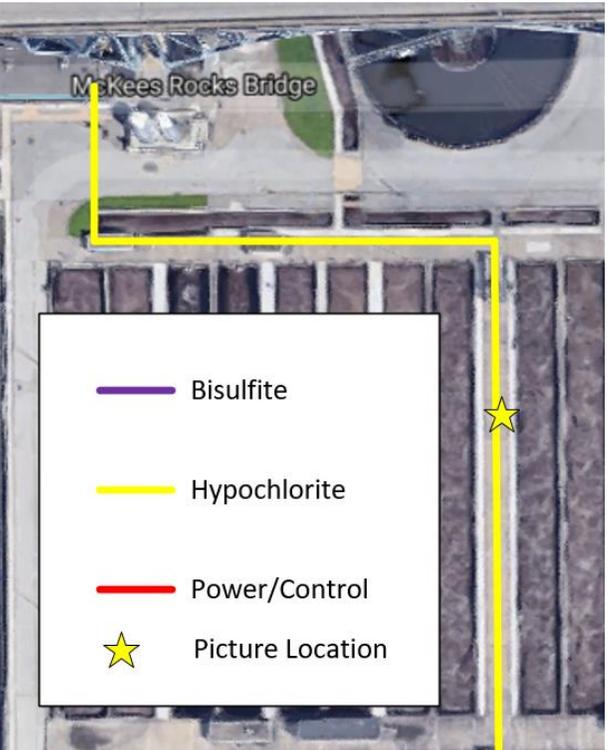
Intersection of the east/west and central tunnel



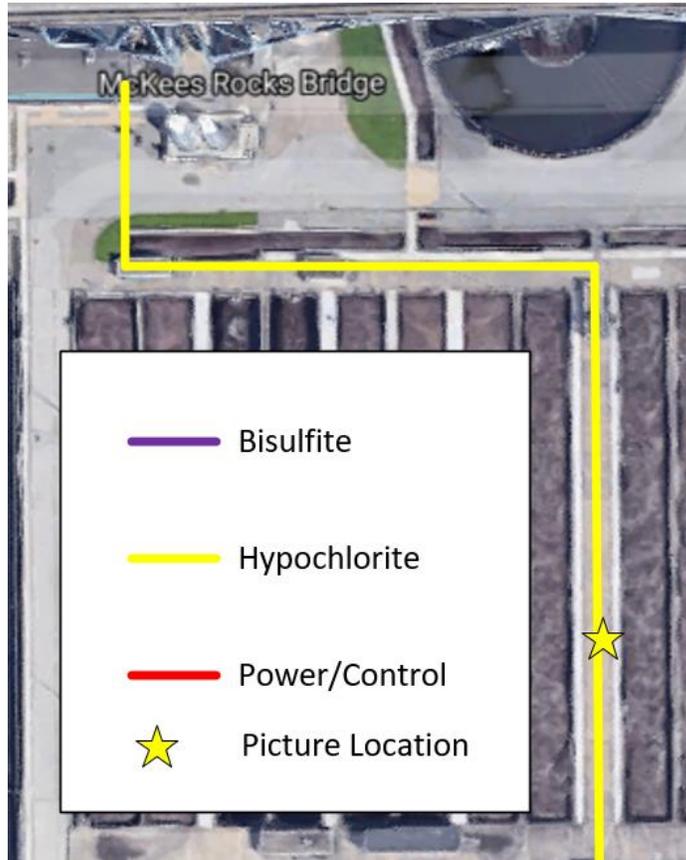
Looking south from intersection



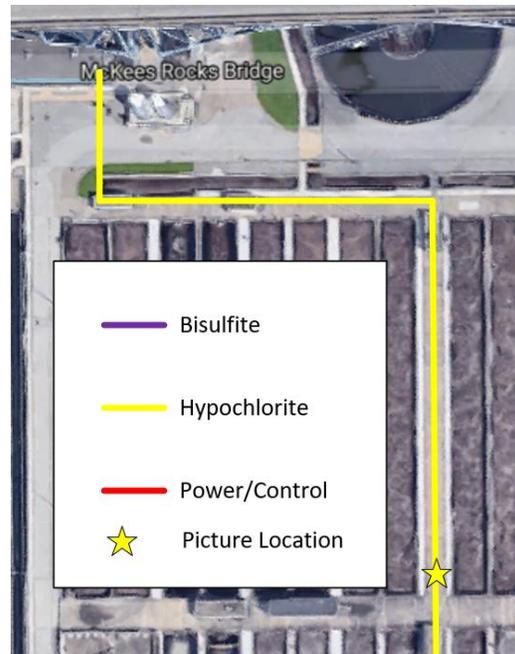
Continuing south



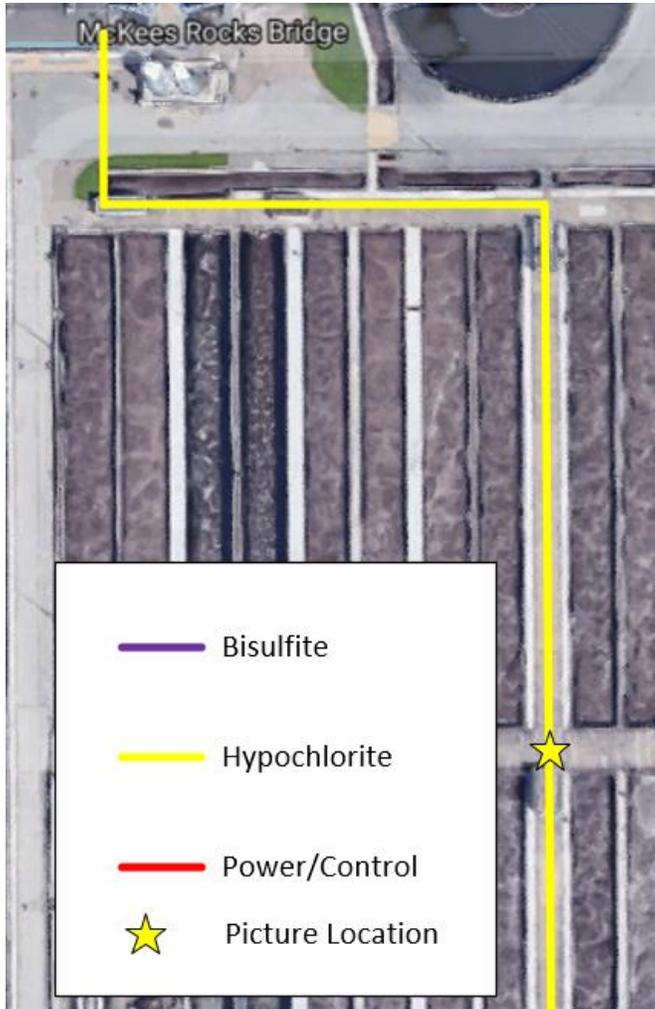
Continuing south



Continuing south, nearing intersection of east/west tunnel



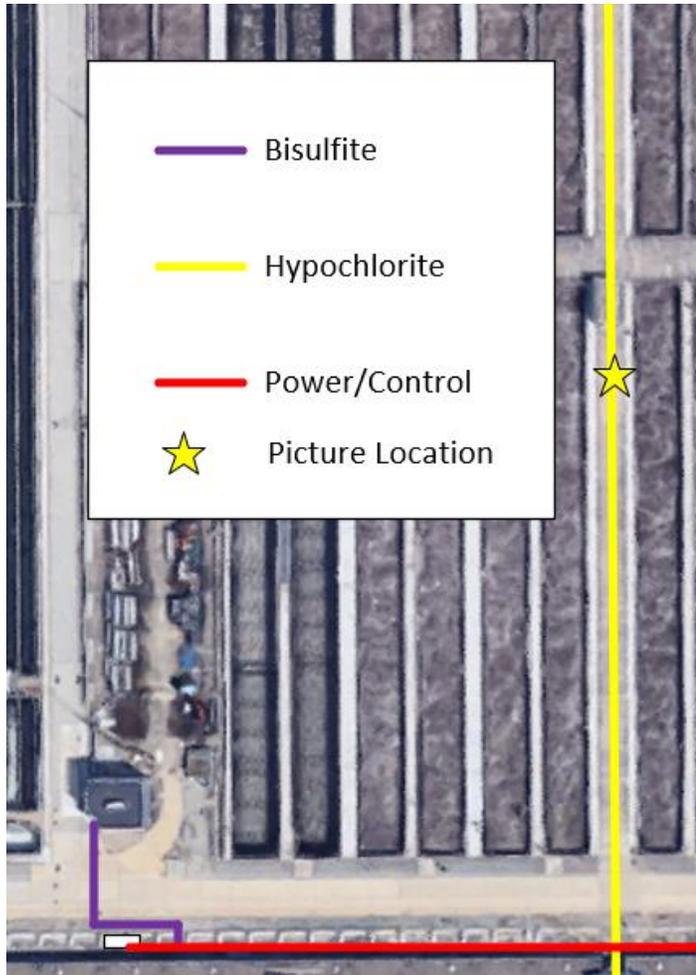
Looking north at east/west intersection



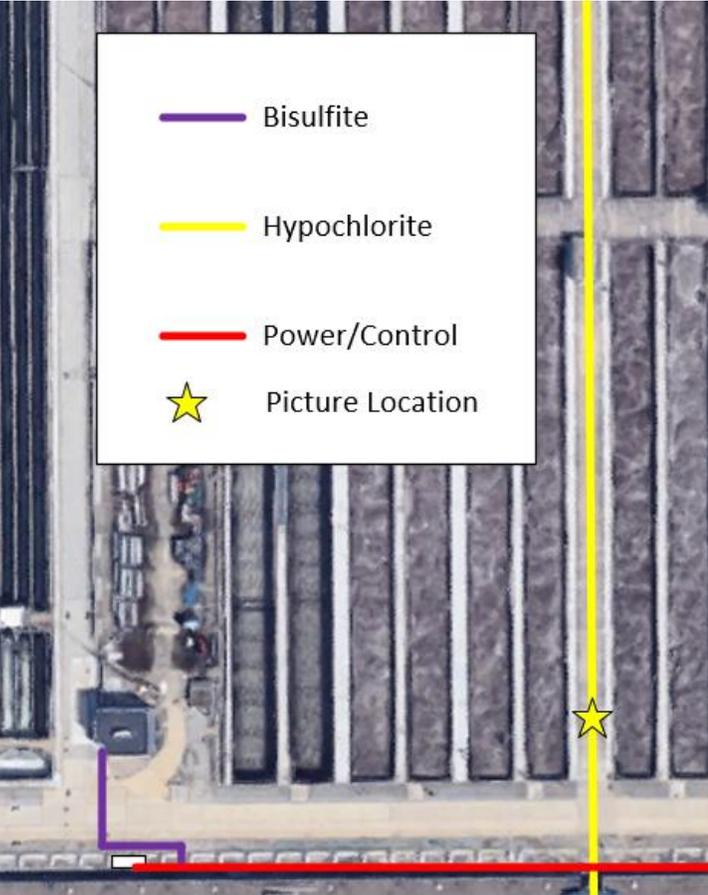
Same view but from more south



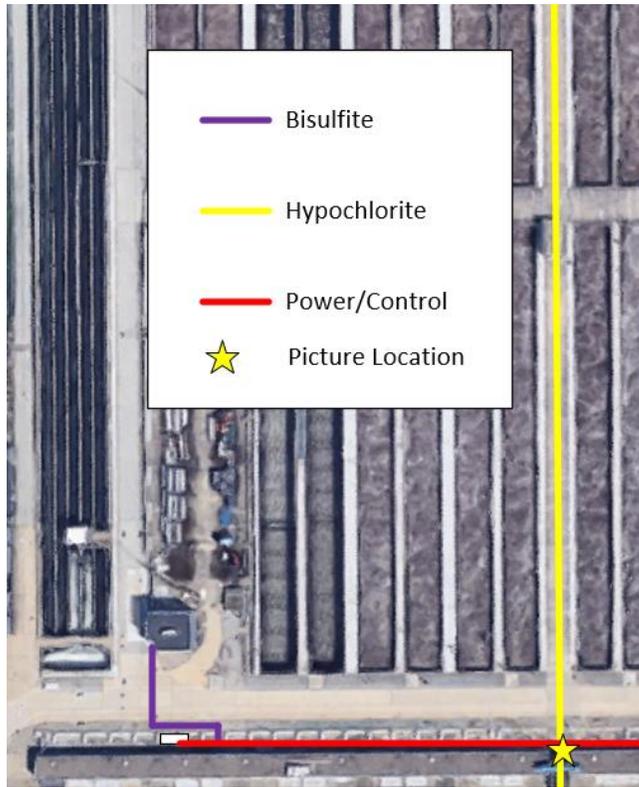
Heading south through central tunnel



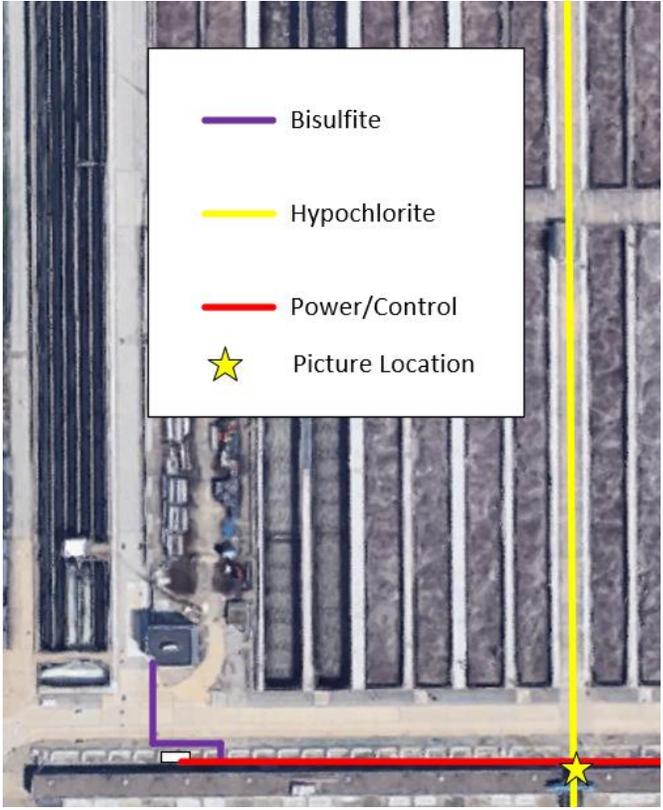
Heading south through central tunnel



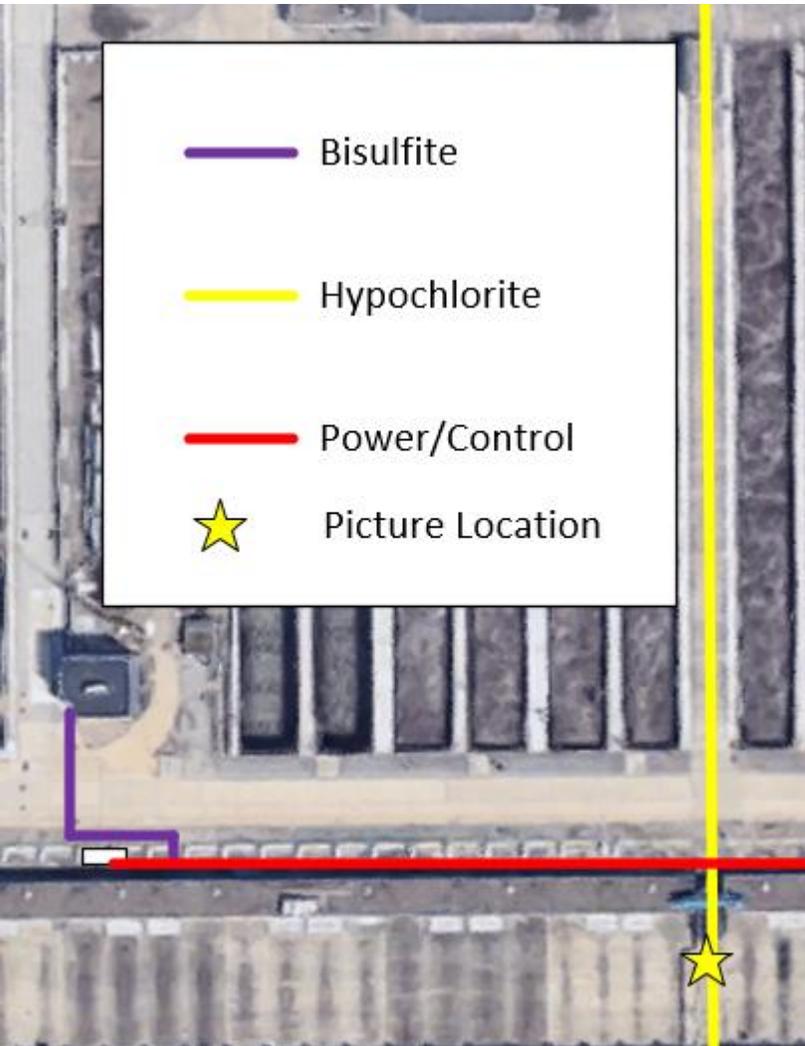
Nearing congested stairwell



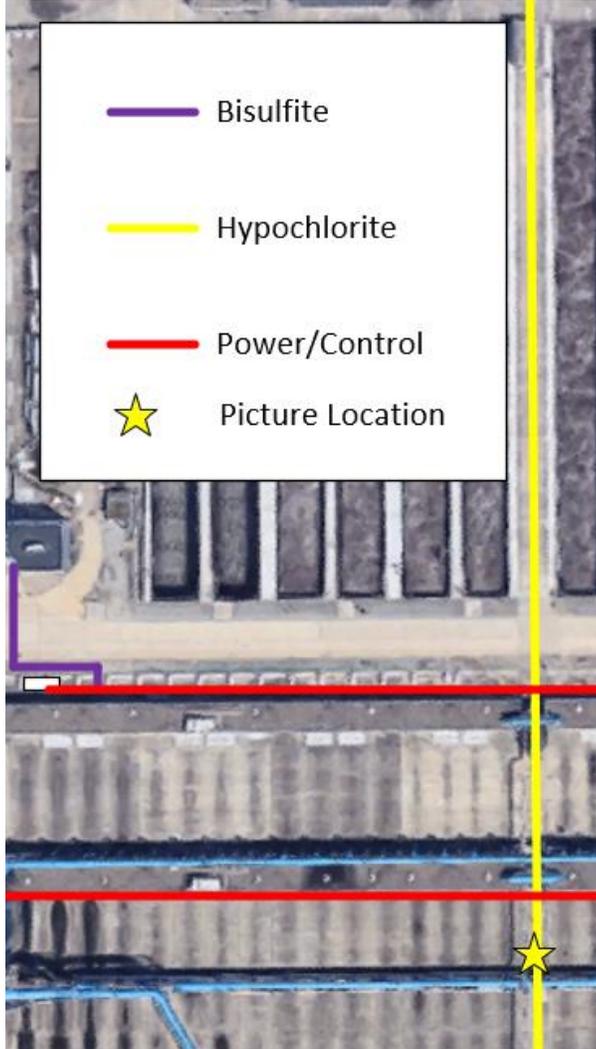
View of stairwell



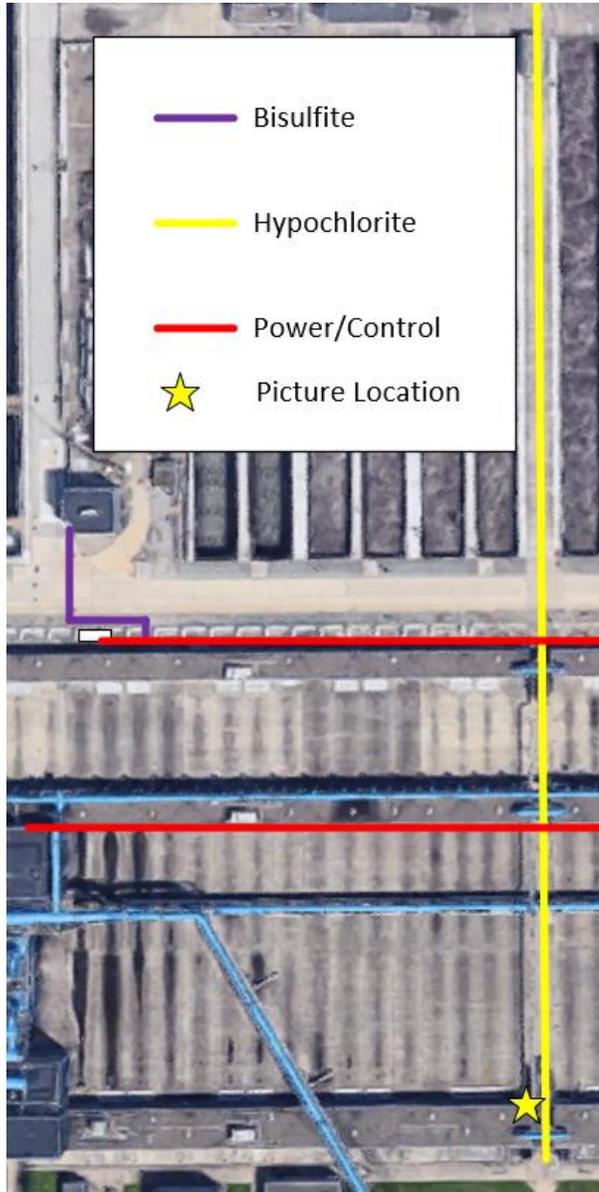
View from bottom of stairs heading south



Continuing south



Heading south, nearing end of hypo line



Zoomed out view of scum line (white pipe)



Close up of scum
line to be
disconnected to
feed hypo line
through



Top view of scum line and final destination of hypo



MCC38 and 39 on ground floor to power hypo pumps



DPU 043 – 900
to connect hypo
controls



Bisulfite System

Existing bisulfite system to be tied into



Bisulfite building and the road that needs crossing



The hatch that the bisulfite is being added



The effluent channel is on the left, the odor control building is on the right



DPU 040 – 720 the effluent channel equipment ties into



LPB 001 – 709
to power
effluent channel
equipment



Misc Items

Stop log groove
for the furnished
stop logs



Existing chlorine residual analyzer





ALCOSAN

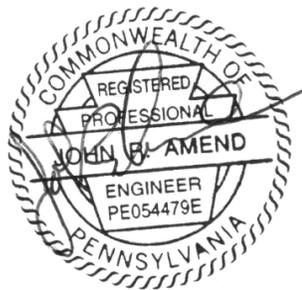
3300 Preble Avenue, Pittsburgh, PA 15233

Project Manual
Volume 2 of 2

Temporary Primary Disinfection

Contract No. 1747

August 2021



Prepared By:

Arcadis US, Inc.

50 Fountain Plaza, Suite 600
Buffalo, NY 14202
Telephone: +1 716 667 0900

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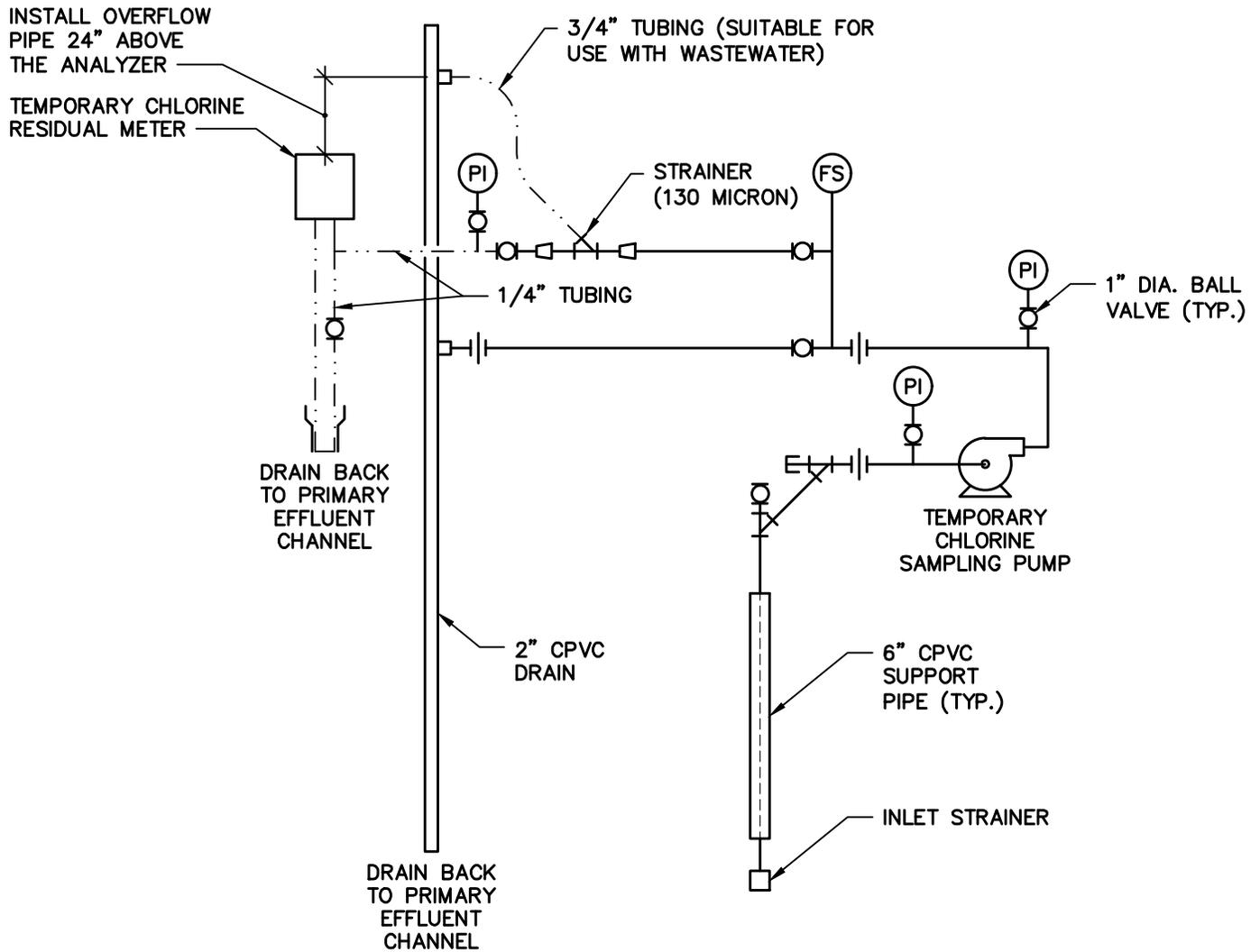
VOLUME 2 OF 2

<u>Document or Section Number</u>	<u>Name or Description</u>	<u>Initial Page</u>
00 01 10	Table of Contents	00 01 10-1

DIVISION 01 – GENERAL REQUIREMENTS

01 11 00	Summary of Work	01 11 10-1
01 11 20	Job Conditions	01 11 20-1
01 22 00	Measurement and Payment	01 22 00-1
01 25 13	Substitutions	01 25 13-1
01 26 13	Requests for Information (RFI)	01 26 13-1
01 30 00	Special Conditions	01 30 00-1
01 31 19	Project Meetings	01 31 19-1
01 32 16	Progress Schedule	01 32 16-1
01 33 00	Submittals	01 33 00-1
01 33 04	Operations and Maintenance Manuals	01 33 04-1
01 33 16	eBuilder® Project Management Information System	01 33 16-1
01 35 05	Environmental Protection and Special Controls	01 35 05-1
01 42 19	Reference Standards and Abbreviations	01 42 19-1
01 45 00	Quality Requirements	01 45 00-1
01 50 00	Construction Facilities, Temporary Controls and Utilities	01 50 00-1
01 52 00	Maintenance of Plant Operations	01 52 00-1
01 61 03	Material and Equipment	01 61 03-1
01 65 50	Product Delivery, Storage, and Handling	01 65 50-1
01 71 14	Mobilization and Demobilization	01 71 14-1
01 71 16	Manufacturer Acceptance of Conditions	01 71 16-1
01 73 20	Openings and Penetrations in Construction	01 73 20-1
01 73 29	Demolition, Cutting and Patching	01 73 29-1
01 74 23	Cleaning	01 74 23-1
01 75 00	Facility Startup	01 75 00-1
01 78 36	Warranties and Guarantees	01 78 36-1
01 78 39	Contract Closeout and Execution Requirements	01 78 39-1

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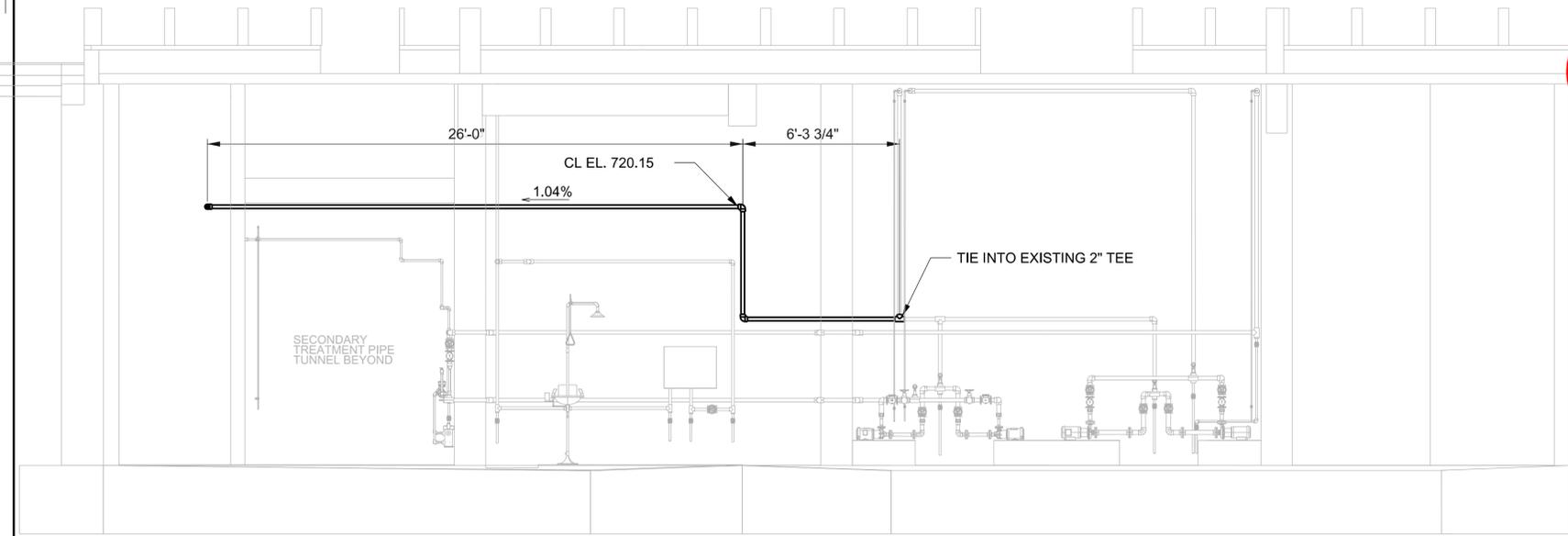
CHLORINE RESIDUAL METER SCHEMATIC

NOT TO SCALE

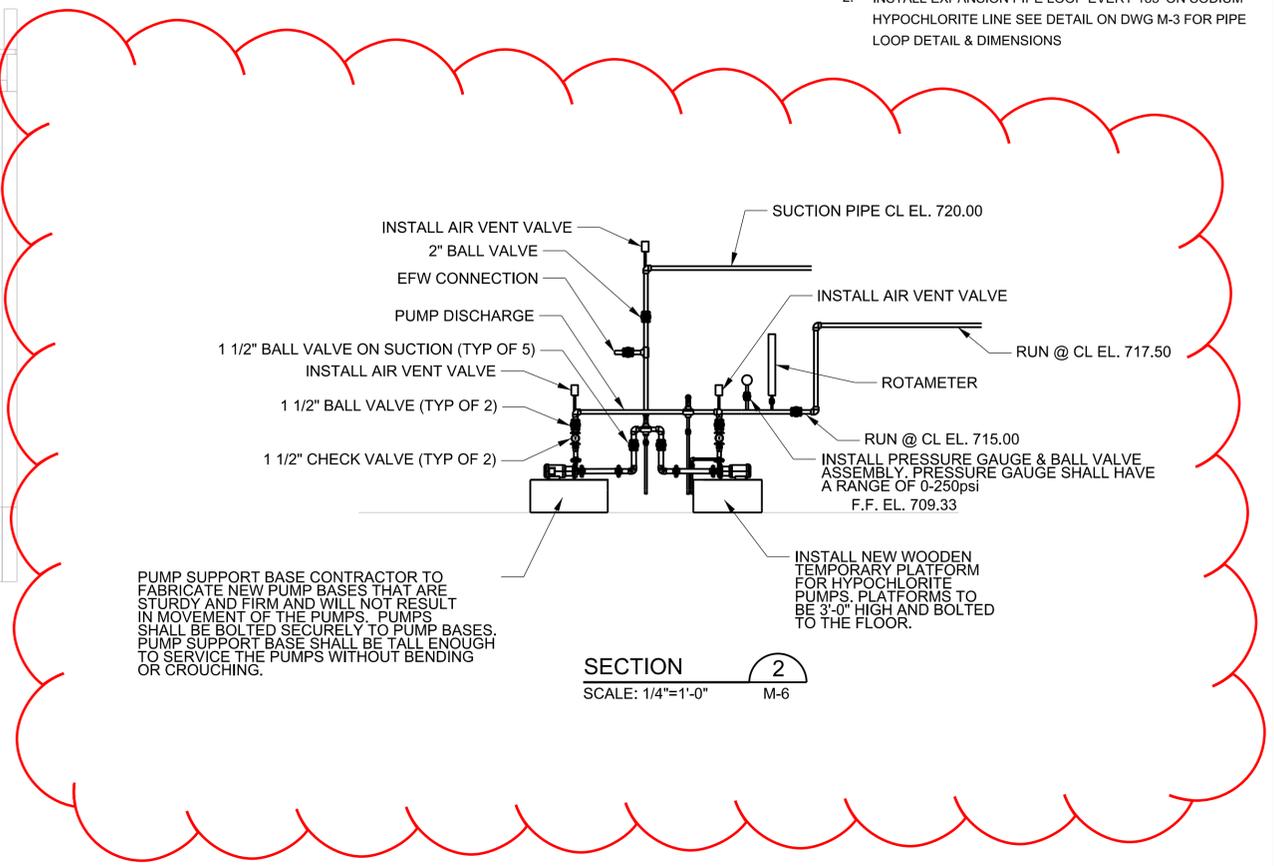
NOTE:

1. ALL PIPING IS 1" CPVC (SCHEDULE 80) UNLESS OTHERWISE NOTED.

- NOTES:
1. PIPING AND VALVES SPECIFIED ON DWG M-1.
 2. INSTALL EXPANSION PIPE LOOP EVERY 185' ON SODIUM HYPOCHLORITE LINE SEE DETAIL ON DWG M-3 FOR PIPE LOOP DETAIL & DIMENSIONS

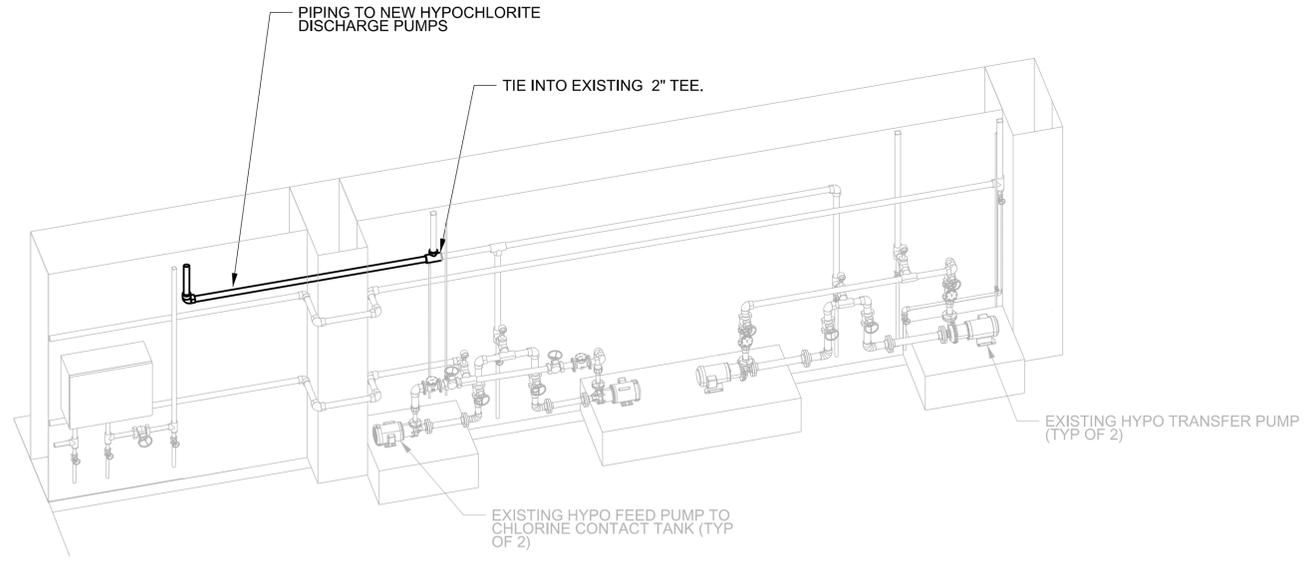


SECTION 1
SCALE: 1/4"=1'-0"
M-6



PUMP SUPPORT BASE CONTRACTOR TO FABRICATE NEW PUMP BASES THAT ARE STURDY AND FIRM AND WILL NOT RESULT IN MOVEMENT OF THE PUMPS. PUMPS SHALL BE BOLTED SECURELY TO PUMP BASES. PUMP SUPPORT BASE SHALL BE TALL ENOUGH TO SERVICE THE PUMPS WITHOUT BENDING OR CROUCHING.

SECTION 2
SCALE: 1/4"=1'-0"
M-6



ISOMETRIC OF SOUTH WALL
SCALE: N.T.S.

Designed by:
R. SHAH
Drawn by:
T. MUELLER
Checked by:
A. HINTZ

REV No.	DATE	REVISION DESCRIPTION	APPV
1	9/2/2021	Addendum 1	

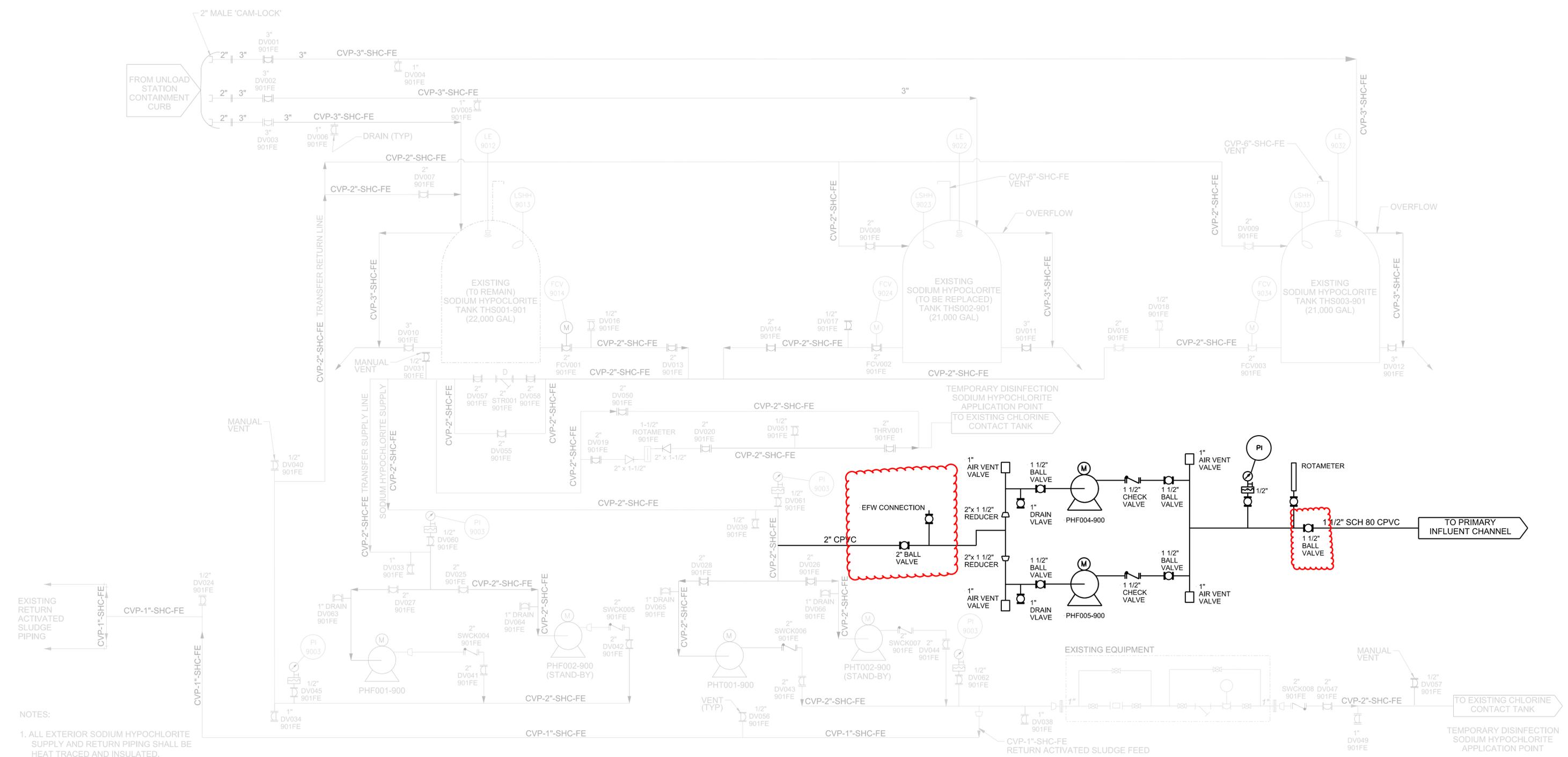
ARCADIS
ARCADIS, INC
1 SEAGATE #700
TOLEDO, OH 43604
TEL. 419.473.1121 FAX 419.213.1640
www.arcadis.com

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

ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
TEMPORARY PRIMARY DISINFECTION
M-7
**EFFLUENT FLUSHING WATER AND
CHLORINATION BUILDING SECTIONS.**

Contract: 1747
CAD File Name: M-7.dgn
Date: 08 / 2021
Sheet: 07 OF 14

NOTE:
 1. PUMPS, VALVES AND PIPING SPECIFIED ON DRRAWING M-1.



NOTES:
 1. ALL EXTERIOR SODIUM HYPOCHLORITE SUPPLY AND RETURN PIPING SHALL BE HEAT TRACED AND INSULATED.

Designed by: R. SHAH	REVISION		
Drawn by: T. MUELLER	REV No.	DATE	DESCRIPTION
Checked by: A. HINTZ	1	9/2/2021	Addendum 1
	APPV		



ARLETTA SCOTT WILLIAMS EXECUTIVE DIRECTOR, ALCOGAN		ALLEGHENY COUNTY SANITARY AUTHORITY WASTEWATER TREATMENT PLANT TEMPORARY PRIMARY DISINFECTION		Contract: 1747
M-9 TEMPORARY PRIMARY DISINFECTION PROCESS & INSTRUMENTATION DIAGRAM				CAD File Name: M-9.dgn
				Date: 01 / 2021
				Sheet: 9 OF 14