City of Pittsburg
California

65 Civic Avenue
Pittsburg, CA 94565
P: (925) 252-4930
F: (925) 252-6928

pittsburgca.gov

Public Works Department – Engineering Division

Date: March 26, 2024

ADDENDUM NO. 3

PROJECT 5067 WTP FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

NOTICE TO BIDDERS:

The following clarifications, amendments, additions and/or deletions as set forth herein shall apply to the above project contract documents and shall be made a part thereof and shall be subject to all the requirements thereof as though originally specified and/or shown. Submitters shall assure themselves that all addendum changes have been incorporated into their proposal.

A. ADDITIONS/DELETIONS/REVISIONS

1. See attached revised Architectural Drawings showing double doors on the South Side of the building and between the Blower Room and the Electrical Room. Delete the hatches and the roof penetrations for the hatches shown on Drawing A107. Please note that the addition of these double doors and the deletion of the roof penetrations will be updated in the Conformed Documents for the other drawings in these Bid Documents.

2. See attached new Specification Section 05 51 33.

3. Add attached Detail 05561 to Drawing S004.

4. Add attached Detail 02001 to Drawing S004.

5. On Drawing M305, add “See Note 1” to the callout for 4” Hollow Core Concrete Blocks and add the following note to the drawing: “1. Provide 4x8x16 (nominal size) hollow core concrete block conforming to ASTM C90, light weight. All materials proposed for the concrete block shall be NSF 61 certified and be suitable for use in potable water. Install the hollow core blocks to allow for drainage towards the filter gallery drain pipe.”

6. On Drawing S402, delete Note 3 in its entirety and replace with the following: “3. Interior concrete surfaces shall be coated with System 6 per Specification Section 09 96 00.”

7. Replace Specification 10 44 16, Fire Extinguishers, in its entirety and replace with the attached Specification Section 10 44 16, Fire Extinguishers.

8. On Drawing S402, Section B, the dimension call-out of, “SEE DRAWINGS BY OTHERS” to be replaced with “12’-0”.”

9. On Drawing I660, add the following note as Note 8. “8. All exposed SHC piping is to be PVC per Section 40 05 10, and all buried SHD piping is to be flexible HDPE tubing inside HDPE containment piping per Section 40 05 10.”

10. Replace Drawing C104 with the attached revised Drawing C104.

11. On Drawings C105, C111 and CP002, change all references for new piping labeled "PSW", "PS", or "PS3" to "CFE".

12. On Drawing C105 and CP002, change all references for new piping labeled "WL" or "W" to "1W".

13. Replace Drawing C102 with the attached revised Drawing C102.

14. Replace Drawing GC004 with the attached revised Drawing GC004.

15. On Drawing C105, change the far-right callout “#5” connection to “#3” for the 30" PS2 Discharge.

16. In Specification 03 10 00, Concrete Forms and Accessories, delete Paragraph 1.5 A in its entirety.

17. On Drawing C105, cloud the 30” PSW (changed to CFE per this addendum, Item A.11) and place a triangle 1 indicating that this pipe is to be included in Additive Bid Item 2.

18. Replace Drawing C100 with the attached revised Drawing C100.

19. Replace Drawing C121 with the attached revised Drawing C121.

20. Replace Drawing C202 with the attached revised Drawing C202.

21. On Drawing C003, delete Triangle 2 pointing at the clouded area surrounding Facilities 40 and 43. Demolition of Facilities 40 and 43 are part of the Base Bid.

22. On Drawing C004, Demolition Note 14, delete the reference to “Additive Bid Item 4.”

23. On Drawing C205, Section 4, delete callout referring to Sidewalk, Detail 3/GC003.

24. On Drawing C004, Demolition Note 13, change the reference to “Additive Bid Item 4” to “Additive Bid Item 2”.

25. See attached revised conduit schedule for Specification Section 26 05 33.

26. Add the following as new Paragraph 2.2.O to Section 40 05 10 (Piping Systems):

    O. Polyvinyl Chlorine – Sewer (PVC-S)

        1. Pipe and fittings:

            a. Conform to AWWA C900, Pressure Class 235 and DR of 18 unless otherwise indicated.

            b. Manufactured from Class 12454A or 12454B virgin compounds as defined in ASTM D1784.

            c. Standard laying length of 20 feet. Shorter pipe lengths may be used in curved alignments to meet manufacturer's joint deflection limitations.

        2. Joints:

            a. Joint Design: Bell and spigot push-on, O-ring gasket, compression type conforming to ASTM D3139.

            b. Gaskets: Elastomeric with solid cross section, conforming to the requirements of ASTM D3139 and ASTM F477.

27. On Drawing M305, change the valve tag on the labeled washwater drain valve from "V3021" to "V3023".

28. In Specification Section 10 14 00, Signage, add the following to the end of the Sign Schedule: "Where a specific quantity or location is not provided in the schedule, bidders may assume a quantity of ten (10) signs."

29. See attached new revised Drawing D403.

30. On Drawings M641, M642, and M643, remove the cages surrounding the access ladders and associated platforms for hydrochloric acid tanks TNK-6430 and TNK-6440.

31. On Drawing E311, remove the conduit between LP30B and CP3220.

32. On Drawing C105, replace pipe labels for new 10" WL piping with 10" 1W. On the same drawing, replace pipe labels for new 30" PSW or PS 3 with 30" CFE. In the "Proposed Pipe Column" in the pipe connection table on the same drawing, replace "CML&C" and "STL" designations with "WSP", replace "DI" with "DIP-F", replace "DIP" with "DIP-B", and replace "PVC" with "PVC-S".

33. On Drawing C106, in the "Proposed Pipe Column" in the pipe connection table, replace "PVC" designations with "PVC-S".

34. On Drawing C110, in the callouts and labels for each profile, replace “CML&C Steel Pipe” and “STL” with “WSP”.

35. On Drawing C111, in the callouts and labels for the profiles, replace “CML&C Steel Pipe” with “WSP”, replace “DI Pipe” with “DIP-B”, replace 10” W with 10” 1W, and replace “PS 3” with “CFE”. Replace pipe labels for new 10” W piping with 10” 1W, and replace pipe labels for new 30” PS piping with 30” CFE.

36. On Drawing C112, in the callouts and labels for the profiles, replace “CML&C Steel Pipe” with “WSP”, replace “DI Pipe” with “DIP-F”, and replace “C900 PVC Pipe” with “PVC-S”.

37. On Drawing C113, in the callouts and labels for the profiles, replace “C900 PVC Pipe” with “PVC-S”.

38. Replace Specification Section 26 50 00, Lighting, with the attached Specification 26 50 00, Lighting.

39. In Specification 43 41 43, High Density Polyethylene Chemical Storage Tanks, Paragraph 2.5, delete the requirements for the Safety Cage and the Guardrail from Tanks TNK-6430 and TNK-6440. For TNK-6430 and TNK-6440, only ladders and platforms are required. Please note that TNK-6410 and TNK 6420 require FRP Ladders and Safety Cages and FRP Access Platforms and Guardrails.

Parameter or Feature		Tanks TNK-6410 and TNK-6420	Tanks TNK-6430 and TNK-6440
FRP Ladder and Safety Cage	--	Required	*Ladder Required* *Safety Cage not required*
FRP Access Platform with Guardrail	--	Required	*Platform Required* *Guardrail not required*

40. In Specification 33 05 13, Manholes and Structures, make the following changes:

    In 1.1.B Related Requirements: delete “6. Section 33 01 30 – Testing for Sanitary Sewer, Storm Drainage – Piping and Manholes” and replace with “6. Not Used”

    In 3.4., Replace “C. Testing concrete manhole and structure sections prior to backfill according to ASTM 497 as specified in Section 33 01 30 – Testing for Sanitary Sewer, Storm Drainage – Piping and Manholes” with “C. “LEAKAGE TESTING FOR MANHOLES

    1. After completion of manhole construction, wall sealing, or rehabilitation, test manholes for water tightness using hydrostatic or vacuum testing procedures.

        a. New Manhole Construction: Conduct test prior to backfilling.

2. Plug influent and effluent lines connected to manhole with suitably-sized pneumatic or mechanical plugs.

    a. Utilize plugs that are properly rated for pressures required for test.

    b. Place plugs a minimum of 6 inches outside of manhole walls.

    c. When pipes connected to the manhole have not been backfilled, brace pipes to prevent dislodging from the manhole.

3. Vacuum Testing:

    a. Install vacuum tester head assembly at top access point of manhole and adjust for proper seal on straight top section of manhole structure. Following manufacturer's instructions and safety precautions, inflate sealing element to the recommended maximum inflation pressure; do not over-inflate.

    b. Evacuate manhole with vacuum pump to 10" mercury (Hg), disconnect pump, and monitor vacuum for the time period specified in the following table.

Depth in Feet	Time in Seconds by Manhole Diameter		
	48"	60"	72"
4	10	13	16
8	20	36	32
12	30	39	48
16	40	52	64
20	50	65	80
24	60	78	96
[a]	5	6.5	8.0

[a] Add times for each additional 2-feet of manhole depth. (The values listed above have been extrapolated from ASTM C924-85).

    c. If the drop in vacuum exceeds 1" Hg over the specified time period tabulated above, locate leaks, complete repairs necessary to seal manhole and repeat test procedure until satisfactory results are obtained.

4. Hydrostatic testing:

    a. Fill manhole with water to top of frame. Add water over a 24 hour period to compensate for absorption and evaporation losses. After 24 hours, refill to top of frame and

observe for loss of water. If, after a 4-hour period the water level is reduced by more than 1/4", the leakage shall be considered excessive. Contractor shall make necessary repairs and retest the manhole.

b. If water loss exceeds amount tabulated above, locate leaks, complete repairs necessary to seal manhole and repeat test produce until satisfactory results are obtained."

41. In Specification 33 41 13, Storm Drainage Piping, Make the following changes:

In 1.1.B Related Requirements: delete "5. Section 33 01 30 – Testing for Sanitary Sewer, Storm Drainage – Piping and Manholes" and replace with "5. Not Used"

In 2.1 STORM DRAINAGE PIPING: delete Sections A, B and C in their entirety and replace with:

A. As specified in Section 40 05 10 Piping Systems. See Paragraph 2.2.O PVC-S material.

In 3.5.C, delete:

"3. Low-Pressure Air Testing:

a. As specified in Section 33 01 30 – Testing for Sanitary Sewer, Storm Drainage – Piping and Manholes

4. Deflection Tests and CCTV Inspections:

a. As specified in Section 33 01 30 – Testing for Sanitary Sewer, Storm Drainage – Piping and Manholes"

and replace with:

3. HYDROSTATIC LEAKAGE TESTS

a. Determine groundwater elevation.

b. Plug wyes, tees, stubouts, laterals and other connections to the storm pipeline. Plug storm pipeline in the downstream manhole. If necessary to isolate flow, plug incoming pipes in the upstream manhole.

c. When test pressures require installation of a riser pipe, connect riser pipe to pipe in the upstream manhole.

d. Fill storm pipe and manholes with water to the specified test elevation, compensating for the measured groundwater elevation.

e. Leakage Tests on Concrete Pipe

1) After filling pipe with water, allow water to saturate concrete for four hours before beginning hydrostatic test.

2) After four hours, replace water lost through absorption into the pipe, re filling to restore to the specified test pressure.

3) Conduct leakage test for a duration of 2 hours. After 2 hours, take water level reading to determine drop of water level and calculate water loss or measure the quantity of water required to restore water to the specified elevation. Total loss of water shall not exceed that calculated from allowable leakage criteria.

4) Allowable Leakage Criteria: Maximum allowable leakage equivalent to 200 gallons per day per inch of inside diameter per mile of pipeline under test.

4. MANDREL TESTING OF PLASTIC PIPES

a. Plastic gravity pipelines shall be cleaned and then mandrel tested for obstructions, such as, but not limited to, deflections, joint offsets, and service lateral pipe intrusions. A mandrel test shall be conducted on gravity flow plastic collection and trunk main piping and service laterals six (6) inches in diameter and larger. Mandrel testing shall be performed even if the pipeline has been placed in service.

b. The Contractor is encouraged to conduct deflection testing during pipe installation to ensure adequate compaction and pipe support. However, the mandatory deflection testing shall be conducted on all plastic gravity flow piping no sooner than 30 days after completion of the trench backfill and testing for compaction. The mandatory testing must be conducted and pass the specified test requirements prior to placement of asphalt concrete or permanent paving.

c. A rigid mandrel shall be pulled through the pipe by hand to ensure that vertical deflection does not exceed the maximum allowable deflection. The maximum allowable deflection shall be 5% for testing of the maximum inside diameter (ID) of the pipe. The maximum (max) average ID shall be equal to the average outside Diameter (OD) minus two minimum wall thicknesses per applicable ASTM Standards. Manufacturing and other tolerances shall not be considered.

d. The mandrel shall:

1) Be rigid, nonadjustable, and consist of nine (9) legs,

2) Be fabricated of steel,

3) Be approved by the City Engineer

a) Corrective Work

1. All obstructions encountered by the mandrel shall be corrected by the Contractor. Obstructions due to deflection shall be corrected by replacement of the over-deflected pipe. Mechanical re-rounding shall not be permitted. Any pipe subject to any method or process other than removal, which attempts, even successfully, to reduce or cure any over deflection, shall be removed and replaced with new pipe from manhole to manhole. The removed pipe shall be disposed of off the project site.
2. If a section of pipe fails to meet the mandrel test and is reinstalled and fails the second time, said section(s) of pipe shall be replaced with an approved rigid pipe material.
3. Contractor shall repair or replace all defective materials and/or workmanship at no additional cost to the City.
4. Any piping that fails to pass the mandrel test shall be replaced at the expense of the Contractor. Repair shall include replacement of the backfill material and paving with new material in accordance with these Technical Specifications."

42. The following modifications are related to the addition of a new concrete retaining wall directly north of the new Chemical Storage Area, in lieu of rebuilding the existing block retraining wall. Additional detail to support the modifications described below will be provided in subsequent addenda.

    a. On Drawing C003, replace Demolition Note 3 with: "Remove existing brick wall. Deliver salvaged blocks to Owner. Construct new retaining wall per Structural Drawings."

    b. On Drawing C100, replace Construction Note 1 with: "Construct 140 LF of new concrete retaining wall. See Structural Drawings for details.

43. Add Paragraph 2.14 to Specification Section 40 05 60:

    2.14 Hose Valves

    A. Hose valves shall be a brass angle valve, composition disc, Crane 17, Lunkenheimer 214, Powell 151, or equal with threaded nipple adapter for hose connection.

44. The Bid Date of Thursday, April 4, 2024 at 2:00 pm (Addendum 2, Item A.1) is changed to Thursday, April 11, 2024 at 2:00 pm.

45. In the Instruction to Bidders, Item 5, delete the third sentence in its entirety: "Bidders should submit any such written inquiries at least five Working Days

before the scheduled bid opening." and replace with the following: "Bidder should submit any such written inquiries before 4:00 pm on March 28, 2024."

46. Replace Drawing C120 with the attached revised Drawing C120.

B. CLARIFICATIONS AND QUESTIONS

Please be advised of the following clarifications to the contract documents:

1. Please confirm that stainless steel airwash piping is to receive coating system 8 per finish schedule in spec Section 09 96 00 page 14 paragraph 2.4.

   Response: The stainless steel airwash piping does not require a coating.

2. Please confirm that coating system 5 and 6 will not be used on this project.

   Response: Systems 5 and 6 will be used. Bidders are advised to carefully review surfaces and services in descriptions of coating systems in Section 09 96 00 to determine appropriate applications on this project.

3. On Drawing S402 the Filtered Water Pump Station Note 3 states that a Polyamidoamine Epoxy is to be used to coat the interior concrete surfaces of the structure. Will this product require to be NSF approved? Is it the intent to use coating system 3? If so what is the surface prep requirement, fillers, and end testing required?

   Response: This note will be modified to refer to Section 09 96 00 for coating requirements. The specific callout for a polyamidoamine epoxy system will be removed. The coating product does need to be NSF certified. See this addendum, Item A.6.

4. General Conditions 4.3 (F) Deductibles and Self-Insured Retentions requires that deductibles in excess of $100,000 must be approved by the City's Risk Manager. Regarding Builder's Risk coverage, if coverage for the peril of earthquake is required, please accept an earthquake deductible of 5% of the values at risk at time of loss, with a $250,000 per occurrence minimum. Lower deductibles for earthquake in this seismic zone have limited availability and do not come at a reasonable cost.

   Response: This question will be responded to as part of Addendum 4.

5. California Public Contract Code Sec. 7105, the Act of God statute, provides Contractors relief from damages in excess of 5% of the contract value when caused by an earthquake (or resulting tidal wave) that registers 3.5 or higher on the Richter Scale. Code 7105 does permit an agency to require Contractors to provide earthquake insurance through a builders' risk insurance policy. When the agency elects to do so, the premium must be shown as a separate bid item. General Conditions 2.2 (B) makes the Contractor responsible for damage to the

work caused by earthquake, but General Conditions 4.3 (A) (5) Builder's Risk Insurance only calls for coverage to be on an all-risk or "all perils" basis. Per industry standards, all risk / all perils policies do not automatically include coverage for the peril of earthquake. Please either amend General Conditions 2.2 (B) Responsibility for the Work and Risk of Loss to include relief as provided by Section 7105, or amend General Conditions 4.3 (A) (5) Builder's Risk Insurance to specifically require coverage for earthquake with a sublimit no greater than $40,000,000 per occurrence and annual aggregate per commercially available limits in this seismic zone, which would also require a bid line item for the earthquake premium.

Response: This question will be responded to as part of Addendum 4.

6. Specification 10 44 16 - 2.2 refers to Portable, Hand-carried Fire Extinguishers. However, a type, size, and capacity are not indicated in the specification section nor the drawings. Please provide a type, size, and capacity of fire extinguishers.

   Response: The fire extinguisher locations are on the architectural code sheet. See this addendum, Item A.7 for revised Specification Section 10 44 16.

7. Please provide a description of bid items to assist the contractor with discern what equipment and scope are associated with each bid item.

   Response: A description of the bid items are provided in Specification Section 01 11 00. Bid Item 3 is described in Specification Paragraph 01 11 00 1.3 C.3. Bid Item 4 is described Specification Paragraphs 01 11 00 1.3 C.1 and 2. The Alternative Additive Bid Items are described throughout the Bid Documents and additional description for Alternative Additive Bid Item is provided in Specification Paragraph 01 11 00 1.3 C.4.

8. Drawing E400 shows all the work associated with the North Filtered Effluent Pump Station as part of Additive Bid Item #2. Please reference drawing GE031 and advise if the breakers, VFDs, conduit, and wire associated with these pumps are part of the additive bid item or the base bid.

   Response: The breakers, VFDs conduit and wire associated with the North Filtered Effluent Pump Station are part of the Base Bid. These items are being installed as part of the Base Bid even if Alternative Additive Bid Item 2 is not selected to allow an easy installation in the future when this bid item is constructed.

9. Can you confirm that there are no AIS or Domestic requirements for the above mentioned project? I did a search of the specs and did not find any reference to this but wanted to double check. Let me know please.

   Response: See response to Addendum 2, Question 27.

10. Section 107316, 2.1, D indicates the roof live loads are non-reducible. Sheet GS001 indicated the roof live load is reducible per CBC. Please confirm that the Live load is reducible per CBC as shown on GS001.

    Response: For pre-engineered canopies, reduction of live loads shall not be used in accordance with Section 10 73 16.

11. Section 107316, 2.1, D calls for a collateral load, but no value is given. Please provide the Collateral Load for each canopy.

    Response: Collateral Load shall be coordinated by the Contractor with the Canopy Engineer based on the loads (e.g., lighting, conduit, process piping, etc.) that will be present in the final installation.

12. Pump Station Sheet S400 shows the column to be HHS, Sheet S403 shows round tube steel. Is 3-plate built up column acceptable?

    Response: Assume HSS square tube columns at Pump Station Sheet S400. A 3-plate built up column is not acceptable.

13. Sheet S401, typical PEMB Roof Bracing would interfere with framed openings unless a diaphragm could be utilized. This would require a panel rib roof. Is panel rib roofing acceptable on the Pump Station Roof?

    Response: Panel rib roofing is acceptable.

14. For the Pump Station, if bracing allows, can the columns be bolted to top of the pier foundations?

    Response: Assume columns embedded in the pier foundations as shown on S403. Anchorage via bolting to top of pier foundations may not develop sufficient capacity due to limited anchor bolt edge distance and concrete failure modes.

15. Sheet S401 shows three roof curbs. Are there any specifications? It here anything that sits on the curbs or are they to remain open?

    Response: The roof curbs and roof hatches are being eliminated from this project per this addendum, Item A.1.

16. Sheet S402 Pump Station Canopy - what is the height of the canopy?

    Response: See this addendum, Item A.8

17. Sheet S644 Chemical Storage Canopy - SSR Roof requires a minimum of a ¼:12 slope. The Storage canopy plans do not show a roof slope. Please provide slope and direction of the slope.

Response: Roof slope shall be 1:12. Slope down towards Grid line A. Top of Steel at Grid line B to be EL 170.00, and Top of Steel at Grid line A to be EL 167.83.

18. Sheet M642 shows fall protection attached to the PEMB structure. What area does the fall protection need to cover? For how many people? Is there a fall protection specification or basis of design? What loads are to be imparted onto the structure?

    Response: The fall protection tie-off system for each tank is intended to cover the top of the tank, including the ladder and associated access platform supplied by the tank manufacturer. It is assumed that only one person at a time will be connected to the fall protection system for a given tank. Per Note 4 on Dwg M642, the fall protection system must be in compliance with OSHA Section 1926.502(d). Bidders shall note that a submittal will be required to substantiate compliance with the listed OSHA requirements.

19. Sheet M643 shows pipe supports attached to the PEMB Structure. What are the loads imparted onto the structure or will this be assumed to be covered by the collateral load?

    Response: Loads for pipe hangers and supports are the responsibility of the Contractor. Refer to General Mechanical drawings (Drawings GM001 through GM008) and Section 40 05 07 (Pipe Hangers and Supports) for requirements. Note that load and support design calculation submittals are required and shall be signed and stamped by California licensed Civil or Structural Engineer.

20. Wall type D/A100 depicts a 3-1/2" metal stud with 5/8" gypboard attached on each side of metal stud. Detail 1/A113 depicts wall type D as having wood crush blocks on exterior side of metal stud and ridged insulation, then the gypboard. Please clarify.

    Response: These are 1" thick pressure treated blocks located behind every metal stud.

21. Spec Section 40 42 13 – 3.3.A states "Unless otherwise noted on the drawings or specified, insulate all exposed piping of size 4" and less installed outdoors and in areas and locations subject to freezing, including outdoor chemical service pipelines and tubing". Please confirm piping 4" and smaller inside the chemical trench requires insulation and jacketing. Spec Section 40 42 13 – 3.1.B.1 states "consider all piping as exposed, except as otherwise noted".

    Response: Yes, all such piping inside the chemical pipe chase shall be insulated per Section 40 42 13.

22. Will HVAC ducts penetrate any fire-rated vertical and horizontal barriers?

    Response: The south duct serving the filter gallery is penetrating the main/upper level slab which has a 1 hour rating. Firestopping is required at that penetration; however, fire smoke dampers are exempt. The roof and exterior walls also have 1 hour ratings and fire smoke dampers are also exempt in those locations. There are no duct penetrations in the electrical room rated walls.

23. For the HVAC Controls shown on GH005, what specs should be followed?

    Response: Refer to specification sections 23 74 00 for ACU controls and 23 80 00 for Exhaust Fan controls.

24. Will a specific controls BMS (building management system) be required for the HVAC controls or is it just direct digital controls (DDC) with no connection to BMS?

    Response: There will be no BMS. All controls are stand-alone/local.

25. For the louvers shown on the HVAC drawings what spec should be followed?

    Response: Refer to specification section 23 86 00 in Addendum 2, Item A.2.

26. P&ID No. I660 shows SHC pipe coming in and out of the Sodium Hypochlorite Metering Pumps to be HDPE. The pipe schedule in Specifications Section 40 05 10 states that SHC Exposed piping to be PVC-P (PVC SCH 80). Please confirm that the exposed SHC piping is to be Sch 80 PVC, and that the buried SHC is to be HDPE tubing inside of HDPE containment pipe, per spec 40 05 10.

    Response: Correct, all exposed SHC piping is to be PVC per Section 40 05 10, and all buried SHD piping is to be flexible HDPE tubing inside HDPE containment piping per Section 40 05 10. See this addendum, Item A.9 for I660 modification.

27. Drawing C104 appears to show a pipe coming off of the 36" CFE pipe at approximately station 1+10 that then proceeds to run North. There is no description of this pipe, and it is not shown on the P&IDs. Is this pipe required? If so, please provide the size, material, and system of this pipe, and provide the location of where this pipe will tie-in to.

    Response: The pipe is not required and has been removed from the sheet. See this addendum, Item A.10.

28. PSW/PS3 on C104, C105, & C111 is not on Pipe Type Schedule. Please provide the Pipe Schedule information for the system PSW/PS3.

Response: New piping labeled "PSW", "PS", or "PS3" will be re-labeled as "CFE" and shall be as specified in Section 40 05 10. See this addendum, Item A.10, for revised Drawing C104. See this addendum, Items A. 11.

29. WL on C104 & C105 is not on Pipe Type Schedule. Please provide the Pipe Schedule information for the system WL.

    Response: New piping labeled "WL" or "W" will be re-labeled as "1W" and shall be as specified in Section 40 05 10. See this addendum, Item A.10, for revised Drawing C104. See this addendum, Item A. 12.

30. There is a call out on the (n) Joint Trench north of the chemical manhole for a 6" SHC on C102 and does not match the sizing on the Chemical Containment Manhole Table Detail 4 on sheet GC004. Please confirm that containment pipe is meant to be 4".

    Response: New double-contained chemical piping will only be required, for new and modified chemical systems, downstream of the tie-in with existing piping upstream of new Chemical Containment Manhole No. 1. New sample lines may occupy joint trench with chemical lines where practical but need not go through chemical containment manholes (and may wrap around them as needed). See this addendum, Item A.13. and A.14 for revised drawings C102 and GC004. Drawing I360 will be updated as part of Addendum 4.

31. CP002 & CP003 show the SW line as 36", please confirm that the new SW line is 42" and ties into the existing 36" lines.

    Response: SW line shall be 42" through the entire alignment and it ties into the existing 36" lines through tees or reducers.

32. 10" WL line is missing on CP002, please confirm if this line will require cathodic protection.

    Response: See this addendum, Item A.12 changing the pipe label from WL to 1W. For ductile iron pipe, cathodic protection and polyethylene wrap is required for buried pipe.

33. CP002 calls for Anode-DIP Cathodic Protection (3/CP005) on the 36" WWD line, but the Pipe Type Schedule states that WWD is welded steel pipe, not Ductile Pipe. Please clarify what the material type & what cathodic protection is required for this WWD line.

    Response: Cathodic protection is not required for the 36" WWD line.

34. CP002 has a call out for a CTS on the 30" PSW line near the FWPS #3, however that portion of the line is above ground. Please clarify if the CTS was intended to be Flush Mounted at the riser of the PSW line shown on Detail 3/C120.

    Response: Install a monitoring test station on the riser pipe and provide an insulating flange joint on the riser immediately above grade. No anodes are required at this location.

35. Please provide specifications for the Electric Actuated Slide Gate shown on Drawing 142-M400 North Effluent Pump Station.

    Response: The electrically actuated slide gates have been removed from the project per Addendum 2, Item A.8.

36. Drawing C102 shows a new joint trench with six (6) dual contained HDPE chem lines & three (3) PVC sample lines running from the operations building to CMH#1. Detail 6 on drawing GC004 shows eight (8) existing chem lines running from the operations building to CMH#1. And P&ID I360 appears to have six (6) chem lines running through CMH#1 but not all of the systems match drawing C102. Please provide clarification/detail for the correct routing of new & existing chem lines into CMH#1, as well as the routing of the chem lines within CMH#1.

    Response: New double-contained chemical piping will only be required for new and modified chemical systems and downstream of the tie-in with the existing piping upstream of new Chemical Containment Manhole No. 1. New sample lines may occupy joint trenches with chemical lines where practical but need not go through chemical containment manholes (and may wrap around them as needed). See this addendum, Item A.13. and A.14 for revised drawings C102 and GC004. Drawing I360 will be updated as part of Addendum 4.

37. Drawing C104 calls out Pipe Connection #2 as 36" CFE tying into the existing 30" CFE line and references Detail 2 on Sheet C120. Detail 2 on Sheet C120 shows the existing CFE line as 36" pipe. Please confirm the correct size of the existing CFE line.

    Response: The new 36" CFE replaces the existing 36" CFE into the South FWPS. This line has been mislabeled and is not a 30" pipe size. Please revise to callout as 36" CFE existing. See this addendum, Item A.10.

38. Drawing C105 uses Pipe Connection #5 for the tie in of the 30" PSW to existing line. Connection #5 is for 10" WL. Please confirm that the Connection number should be #3, and that the existing line is a 30" line as well.

    Response: Correct. The far right #5 connection callout should be #3 for the 30" PS2 Discharge. See this addendum, Item A.15

39. Paragraph 1.3, G.2 of Section 03 10 00 says, "The Contractor shall construct one sample concrete wall 10 feet high by 10 feet long with the architectural forms and the form liner, complete with the form tie pattern and finish as specified." The bid documents do not identify locations for form liner, or specify form liner patterns, manufacturers, etc. Please clarify whether the sample concrete wall is required, and if so, please provide specifications for the form liner and indicate the locations on the project where it is required.

    Response: There will be no formliner required on this project. References to formliner will be removed. The sample concrete wall is required to show finish, architectural reveals and form tie pattern on the finished concrete surface. See this addendum, Item A.16.

40. Spec Section 01-14-00: "Work Sequence and Constrains" section 3.2.C.6 states, "Temporary bypass piping as described in the plans must remain in service for the duration of the filter building construction". It appears that not all bypass piping is shown on the drawings. An example of missing bypass piping is the existing 24" WWS pipe that runs thru the new Filter area. There is no bypass piping or rerouted pipe shown on the drawings that routes WWS piping to the existing Filters, nor a bypass specification with details on bypass requirements. Please provide bypass requirements for the 24” WWS and all other piping that will need to be re-routed / bypassed to allow construction of the new filters.

    Response: Bypass piping for the 24” WWS will be required. The information provided in Specification Section 01 14 00, Work Sequence of Constraints, are one means of constructing the work and the specification does not contain all of the requirements. The Contractor shall be responsible for developing the final work sequence for approval by the City. Additional information will be provided in Addendum 4.

41. For Bid Alternate #2, please clarify the extent of the 30" PSW and the 30" CFE piping that would be included in Bid Alternate #2.

    Response: The 30-inch PSW shown on Drawings C104 and C105 are part of Additive Bid Item #2. Please note 30” PSW has been revised to be called 30” CFE. See this addendum, Items A.10 and A.17.

42. Drawing M307 includes a callout indicating, 8" Dia. PVC Sleeve, Typ. @12" Center EL 134.5. Details 1 & 2 on S310 call for #8 reinforcing @ 6" OC, both vertically and horizontally and at each face, as well as #4 ties @ 6" OC at the elevation of the 8" PVC Sleeves in these walls. Please provide a drawing which details the combination of the indicated reinforcing steel in these walls, and the 8" sleeves at 12" centers at elevation 134.5.

    Response: This question will be addressed in Addendum 4.

43. The filter's SOG T.O. Slab elevations differ from sheet S301 to S305,306. Please clarify.

    Response: This question was addressed in Addendum 2, Item A.3.

44. Volume 3 of the Bid Specifications includes sections Detectable Warning Surfaces, Chain Link Fences and Gates, Irrigation, and Landscape Work. We are not able to find any details in the plans for any of the mentioned specification sections. Please confirm.

    Response: These specifications are not needed and are deleted from the project.

45. Please confirm the vault slab and sump elevations of the CFE chemical injection vaults shown on S308.

    Response: CFE chemical injection vault slab elevation is EL 118.50 and slopes approximately 1.5% to the sump. The top of concrete at the sump is EL 116.40. Updated Drawing S308 showing the elevations will be provided in Addendum 4.

46. The ADA ramp on the north and northeast side of the filter structure (A103, Note 17) does not resemble the ramp and details shown on the structural drawings (S303). Please confirm layout, dimensions, and reinforcing details for this ramp.

    Response: See revised drawings C100, C121, C202 A001, A103 and A104. See this addendum, Items A.1, 18, 19 and 20.

47. The Notice Inviting Bids (modified in Addendum 1) and the "Alternative Bid Items" note 2 on Sheet C003 discuss an alternate bid item of constructing a "New North Filter Effluent Clearwell and demolition of the existing North Filter Effluent Clearwell". Note 2 points to structures that are labeled as "Pump Station(s)" on the Facilities Legend and in drawing notes throughout the plans. Please confirm that the terms "Clearwell" and "Pump Station" are interchangeable and are referring to the same structure. If true, when overlaying sheet C104 and C004, it appears that the new 30" RW line on Sheet C104 passes within the footprint of the old pump station/clearwell in the alternate bid item, which may require either a realignment of the 30" RW or the alternative bid item to become mandatory. Even if the RW is to remain in its currently-shown alignment and the existing pump station/clearwell is to be demolished, the demolition noted in "Demolition Note" 10 on sheet C004 would need to be altered. Additionally, the new roadway section appears to cut through Building 40 as well, so the roadway alignment may need to be changed if the alternative bid item is not instituted. If the new pump station is not to be constructed, please clarify the termination of the new 36" CFE at the tee leading to both pump stations as well. Finally, there are no constraints noted for the alternative bid item to demo and construct this new pump station. Please confirm if there are any constraints for starting the demolition of this pump station (i.e. when it can be taken offline). Please advise.

Response: Clearwell and Pump Stations in this case are referring to the same thing. The base bid shall include demolition of the North Clearwell Filter Pump Station and the existing building (Facilities 40 and 43). The North Clearwell Filter Pump Station can be taken offline at any time during the construction. See this addendum, Items A.21 and 22.

48. Spec Section 01 14 00 3.2.C.1 details shutdown requirements for raw water flows to the plant. What are the shutdown time allowances for rerouting/tie-ins to the utilities noted in 01 14 00 3.2.C.3.a-d as well as 3.3.B.3.a.6.

    Response: Plant shutdown hours are noted in Specification 01 14 00, Paragraph 3.2 C.1.

49. Sheet S402 note 4 references detail 02001 on sheet S001 for structure subgrade preparation information. Sheet S001 does not contain detail 02001. Please provide this detail for structure subgrade preparation, as well as any other structure subgrade preparation information.

    Response: See this addendum, Item A.4. Subgrade preparation at the Chemical Storage Area is shown on Drawing No. S643.

50. Specification Section 31 50 00 Item 3.9 requires the removal of the excavation support systems but does not specify what components are required to be removed. Please clarify if soldier piles that are drilled in and backfilled with CLSM can be left in place. Please clarify if wood lagging can be left in place as long as it is pressure treated. Please clarify if tiebacks can be left in place if detensioned during backfill.

    Response: Preparation of the excavation support system design is the Contractor's responsibility. There may be certain areas where the support system must be completely removed to avoid conflicts with new construction that attaches to or is adjacent to the filter gallery. The type and configuration of the system would dictate current unknown information such as the ability to remove, as well as the means, timing, and extent of the removal. This specification is not the design, therefore cannot address those unknowns. Any removal process must be part of the support system design and submittal. Complete or partial removal of any remainder of the system is subject to City preferences, and as directed by the City's representative.

51. Section 4 on plan Sheet C205 shows concrete sidewalk on the east side of the road section. Plan sheet C201 has this same area shaded as Asphalt. Please clarify if the area is concrete sidewalk or asphalt.

    Response: This area should be asphalt and not concrete sidewalk. Please remove detail callout to CG003/Detail 3. See this addendum, Item A.23.

52. What is meant by the PVC valve box? Is this a PVC riser for the iron valve box? Please advise.

    Response: PVC valve box refers to the PVC riser to the iron valve box.

53. On behalf of Poly Processing, with regard to the Polyethylene Tanks in Spec Section 43 41 43 and drawings M641, M642 and M643 The drawings and the spec section reference the tanks to have landing platforms which will be provided. The referenced drawings shows that a cage will be required with the landing platforms. The larger tanks will be equipped with a cage assembly; however, the smaller tanks (1600 IMFO) will not be equipped with cages as the tanks are too short to accommodate a cage system. We respectfully request this requirement be removed from the plans and specifications.

    Response: Requirement for cage surrounding the ladder and platform for smaller tanks will be removed. See this addendum, Item A.39. The requirement for cages for the larger tanks will remain. The requirement for ladders and platforms for all tanks will remain.

54. On Sheet C103, there are three 1" water lines that tie into the ex 4" W but where do they go from here? Please advise.

    Response: These lines go to utility stations at the edges of the basins. Please see sheet M304.

55. Does this job have domestic requirements?

    Response: See response to Question 27, Addendum 2.

56. Please clarify Bid Alt. #1 as noted on plan Sheet M302. "Filter 6 piping and structure to be included with project. All media, troughs, underdrains, valves, actuators, instrumentation and appurtenances to be added as part of additive bid item No. 1". Is the intention to install the filter gallery piping at filter 6, and just not install the valves, actuators, etc.? Or is this note based on installing the underground piping, and not install piping at filter 6 in the filter pipe gallery.

    Response: That is correct. The piping is to be included with the base bid both underground and in the filter pipe gallery. If the additive bid item is not selected, these pipes will be capped and pipe spools are to be included where valves will be placed in the future when Filter 6 is installed.

57. Will leak or water testing be required for the pump station?

    Response: The pump station clearwell must be leak tested. The Contractor shall use the provision outlined in ACI 350.01 and AWWA D110-04 for the hydraulic testing and net liquid loss. Also, NSF 61 requirements must be met.

58. Per Section 09 96 00 High Performance Coatings, page 15, 2.4 Finish Schedule, A. “New Chemical Storage Facility/Concrete Exposed to Chemical Spills/Sys. No.7/Color Gray”, will the new chemical manholes be considered part of this system and require interior lining?

    Response: No, the new chemical containment manholes need not be coated, as the required material, HDPE, is resistant to corrosion. Refer to callout indicated HDPE material in Detail 4, Drawing GC004.

59. Per Section 09 96 00 High Performance Coatings, page 15, 2.4 Finish Schedule, A. “Exposed FRP Grating, Guardrail, Pipe Supports, and Equipment/Fiberglass Reinforced Plastic/Sys. No.4”. Per plan sheet GS002/#65, FRP Molded Grating, 1, and FRP Stairs and Handrail System, 1 and 12, state that the new FRP Gratings, Stairs, and Handrailing are to arrive onsite with a factory coating and non-skid. Is it the engineer’s intent to field coat the new FRP Gratings, Stairs, and Handrails? Field coat new FRP on the interior of the building?

    Response: No, the FRP Stairs and Handrailing System are not intended to be field coated.

60. Per System No. 1 - is it the engineer's intent to prepare shop galvanized metal to receive field apply primer? Is field coating required for shop galvanized handrail, grating, and platforms:

    Response: Bidders should note that there is very little galvanized material on this project. Guardrail and grating are generally either aluminum or FRP. Engineered platforms and stairways are generally either concrete or aluminum. Bidders should assume shop-galvanized steel products will be field coated unless explicitly noted otherwise in the Drawings or Specifications.

61. On Sheet C004, Demolition Notes 13 and 14 referent "Additive Bid Item 4". There is no additive bid item listed in the bid schedule. Please clarify.

    Response: For Note 13, the reference to Additive Bid Item 4 should be Additive Bid Item No. 2. For Note 14, the reference to Additive Bid Item 4 should be deleted. It is part of the base bid. See this Addendum, Items A.22 and A.24.

62. Per General Conditions, Article 2, Contractor 2.2(B), Contractor bears all risks of injury or damage to the Work and the materials and equipment delivered to any Worksite, by any cause including fire, earthquake, wind, weather, vandalism or theft and Article 4, Insurance 4.3A(5), The builder’s risk insurance policy must be issued on an occurrence basis, for all-risk or “all perils” coverage. Pursuant to PCC 7105, Contractors are not responsible to the public agency for repairing or restoring damages caused by an Act of God in excess of 5% of the contracted amount. If coverage for Acts of God are required, a separate bid item for this coverage is required. Please confirm the requirement for such policy shall exclude Acts of God as defined in PCC 7105.

Response: This question will be responded to as part of Addendum 4.

63. Drawings C122 and C104 have conflicting information. Please clarify the 10” & 6” SD on sheet C122 and C104. Also, clarify the 36” SD on Drawing C122 and the 36” WWD on Drawing C104.

    Response: See this addendum, Item A.10. The 36" SD should be 36" WWD. The SD shall be 6" SD as it connects to an existing 6" line. The SD line shall be 12" between the inlet and the manhole.

64. The following conduits have a different origin and destination shown on the interconnection drawings vs what is shown in the conduit schedule. Which shall prevail?

    NX30003

    NX30004

    SX30010

    SX30020

    C30060

    C30061

    L30060

    Additionally, the following conduits are not shown on the conduit schedule but are shown on the drawings. Are we to assume that note 4 on sheet GE001 will apply?

    C60106B

    L60111

    C60106C

    CX60401

    LX60401

    S30009

    C30023

    C30023

    S30009

    C40009A

    C40009B

There is also one unlabeled conduit on sheet E311 routing from LP30B to CP3220. Will this note also apply here?

Response: See the updated conduit schedule. Revise drawing E311 so that no conduit is shown between LP30B and CP3220. See this addendum, Item A.31. The power for each blower control panel will be coming from a step down transformer in each panel, converting the incoming 480VAC to 120VAC and 24VDC. See this addendum, Item A.25 for the updated conduit schedule.

65. Can you please provide more information on the origin and destination of the following conduits: P30720A and S60110.

    Response: Refer to conduit schedule for origin and destination information. See this addendum, Item A.25.

66. It is unclear how the new joint trench ties into the existing chemical system on the East side of the existing Operations Building. Please verify if the new joint trench is meant to tie directly into the East side of Operations Building/Chemical Metering Room or if the new joint trench is meant to tie into the existing joint trench, outside of the structure in the road. If the intent is to tie into the building, please provide details on how that will be done. If the tie-in is in the road, please provide the location of the tie-in, and details of how that will be accomplished.

    Response: See response to Question 30, this addendum.

67. General Conditions Article 7.8.C states that the City will bear the initial cost of inspection and testing. However, Volume 1 Division 01 Spec 01 45 00 Part 1.2.B states the Contractor shall employ and pay a qualified independent testing agency where individual Sections specifically indicate the Contractor is responsible for certain inspections, tests, and QC services. These two statements contradict and following the Order of Precedence in the General Conditions Article 3.2, the General Conditions are of higher precedence than the Specifications. Please confirm if the City will bear the costs of inspections and testing or if the bidding contractors shall follow the individual specification sections to determine responsibility.

    Response: This question will be responded to as part of Addendum 4.

68. The pipe schedule in spec Section 40 05 10 calls out pipe type PVC-S, please provide this specification.

    Response: See this addendum, Item A.26.

69. Drawing C102 has a call out to “Remove and replace existing partially buried 18” BFV (typ 2)”. This call out is not repeated on the enlarged drawing C121. Please provide more information about these valves.

    Response: Photos have been added to sheet C102 to provide more context about the two 18” BFV’s.

70. Drawing C103 has a call out to “Remove and replace existing partially buried 18” BFV (typ. 3)”. This call out is not repeated on the enlarged drawing C121. Please provide more information about these valves.

    Response: A photo has been added to Drawing C103 to provide more context about the one 18” BFV.

71. The scale on Drawing C104 appears to be incorrect. Please verify scale.

    Response: Scale on Drawing C104 has been updated to correctly be 1” = 10’. See this addendum, Item A.10.

72. On Drawing C104, what is the line that appears to extend north from the 36” CFE near the new filters?

    Response: Please see response to Question 27 above.

73. Is mechanical detail 11 supposed to be a wall pipe? This is called out on sheet M302. This is called out on a steel line.

    Response: Detail 11 on Drawing GM004 is a wall penetration detail with a weep ring that is cast into the concrete. Per Specification 40 05 10, AW, WWD, CFE and WWS are welded steel or stainless steel pipe.

74. Please clarify the backwash and washwater drain valves listed on sheet M305.

    Response: The valve tag on the labeled washwater drain valve on sheet M305 is incorrect. Please modify this valve to be labeled as V3023. See this addendum, Item A.27. V3033 is the 36" washwater drain valve shown on the valve schedule. The backwash valve V3021 is shown correctly on M305 and is 30" as shown in the valve schedule.

    The 18" Filtered Effluent line splits at the 18" tee. Upwards, the line is considered Filter to Waste. Below, through the floor, is considered FE. The Filtered Effluent Valve is labeled correctly on the plans and should not be confused with Filter to Waste.

75. There are no specs that I can find for FCV3034. What kind of flow control valve is this supposed to be (butterfly, check, plug)? It is called out on sheet M311.

    Response: This is valve V3034 on the valve schedule. It is a butterfly valve.

76. The sign schedule at the end of specification section 10 14 00 is vague on the number of signs required. Nor do the drawings indicate the locations of all the listed signs. Please provide a quantity of the Sign Types for locations indicated as, "Directed by Engineer".

    Response: The sign schedule provides clear direction for quantities and/or location for most sign types. Where a specific quantity or location is not provided in the schedule, bidders may assume a quantity of ten (10) signs. See this addendum, Item A.28.

77. Please provide specifications and listed manufacturers for Ball Check Valves for services D, CFE, SA, HCL and SHC shown on P&IDs I-300, I-360 and I-642.

    Response: In general, the check valves are to match the pipe schedule as follows:

    D = drains to SD system = PVC-P, w/ EPDM or FPM seals

    CFE = SA = potable water = PVC-P, w/ EPDM or FPM seals

    HCL = hydrochloric acid = CPVC or PVC-P, w/ FKM seals

    SHC = sodium hypochlorite = CPVC or PVC-P, w/ FKM seals

    Source check valve manufacturers to match ball valves per specification 40 05 60 Section 2.5, C.

78. Please provide specifications and listed manufacturers for Pressure Reducing / Sustaining Valves for service "SA" as shown on P&ID I-360.

    Response: These valves are called out and specified in the Key Notes included on Sheet M312.

79. Please confirm that all of the piping shown on Detail 2, M311 is typical for all 6 filters. The other drawings do not show this piping on the wall, or that many wall penetrations w/ SST Intake Pipes (11 EA x 6 Filters = 66 Total)

    Response: Detail 2 on sheet M311 will occur at filters 2 and 5 as shown on M302.

80. The Sheet C100 Note 1 calls for the brick wall to be reinstalled using the salvaged brick. Please provide any construction details for replacing/reconstructing this wall.

    Response: See this addendum, Item A.42.

81. I would just like to try and get some clarification on this reclaimed brick wall on C203. I'm curious if you know that this will be a single or double brick wall, and what the footing for this is supposed to look like. Also if there will be a cap.

    Response: See Response to Question 81.

82. P&IDs I-640 and I-641 show an Air Release Valve on the high points of the HCL and SHC lines before they enter the tanks. Specification section 40 05 60 2.9 provides Air Release Valves for Clean water service only, and there is not a specification for ARVs for chemical service. Note 10 on Drawing #M641 states that "Provide Degassing Valves at all local high points along Sodium Hypochlorite pipelines". Please confirm that the Air Release Valve shown on P&IDs I-640 and I-641 are Degassing Valves per spec section 40 05 60 2.10, and not Air Release Valves.

    Response: The air valves located at high points on fill piping to each of the chemical storage tanks should be a CPVC combination air relief valve to allow release of air or other accumulated gases during tank filling, and to relief vacuum conditions and prevent siphoning when draining the fill pipes. Section 40 05 60 will be modified via Addendum 4 to include a specification for such a combination air relief valve. For all other air release valves at high points along sodium hypochlorite piping, degassing valves per Section 40 05 60, Paragraph 2.10 should be used.

83. 09 96 00 calls for a coating of the stainless steel air piping, which is very uncommon. Confirming that a coating is required for the stainless steel air piping, assuming bare lining as it doesn't specify.

    Response: See response to Question 1.

84. We need to know what type of hydrant is needed for the waterline at the chemical storage area. There are no specs or details.

    Response: The hydrant is a hose valve. See this addendum, Item A.43.

85. Paragraph 3.3, B.3.h of Section 01 14 00 says, "New filter basins must undergo successful hydraulic structure testing prior to undergoing disinfection." Since the project specifications do not establish the testing criteria, please confirm that

meeting the applicable provisions of ACI 350.1 will constitute successful hydraulic structure testing of the new filter basins.

Response: The filter basins must be leak tested. The Contractor shall use the provision outlined in ACI 350.01 and AWWA D110-04 for the hydraulic testing and net liquid loss. Also, NSF 61 requirements must be met.

86. Sheet C100 Note 4 calls for AC pavement between the filter building and the lower roadway curb. Sheet C205 Section 4 calls for this area to be a concrete sidewalk. Please clarify.

Response: See this addendum, Item A.23.

BIDDERS MUST SIGN AND ATTACH one (1) copy of this addendum document to the proposal as acknowledgment of receipt of these instructions and that said addendum was properly evaluated in the proposal.

ANY PROPOSAL NOT IN COMPLIANCE WITH THIS ADDENDUM MAY BE REJECTED.

Issued: 3-26-2026

Dayne Johnson, P.E.
Assistant City Engineer

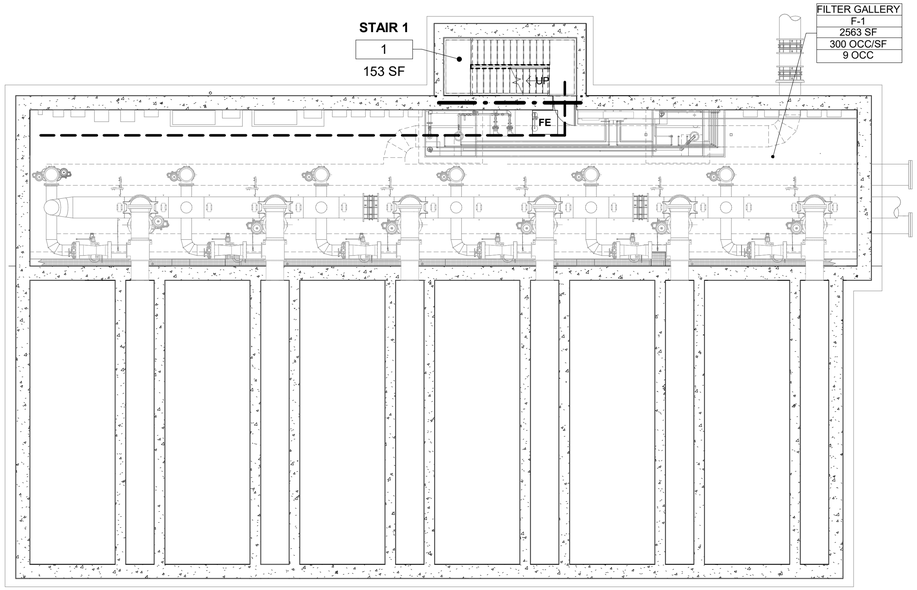
ADDENDUM NO. 3, PROJECT 5067 WTP FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION is hereby acknowledged and was considered in this Project Proposal.

Bidder's Signature _____ Date _____

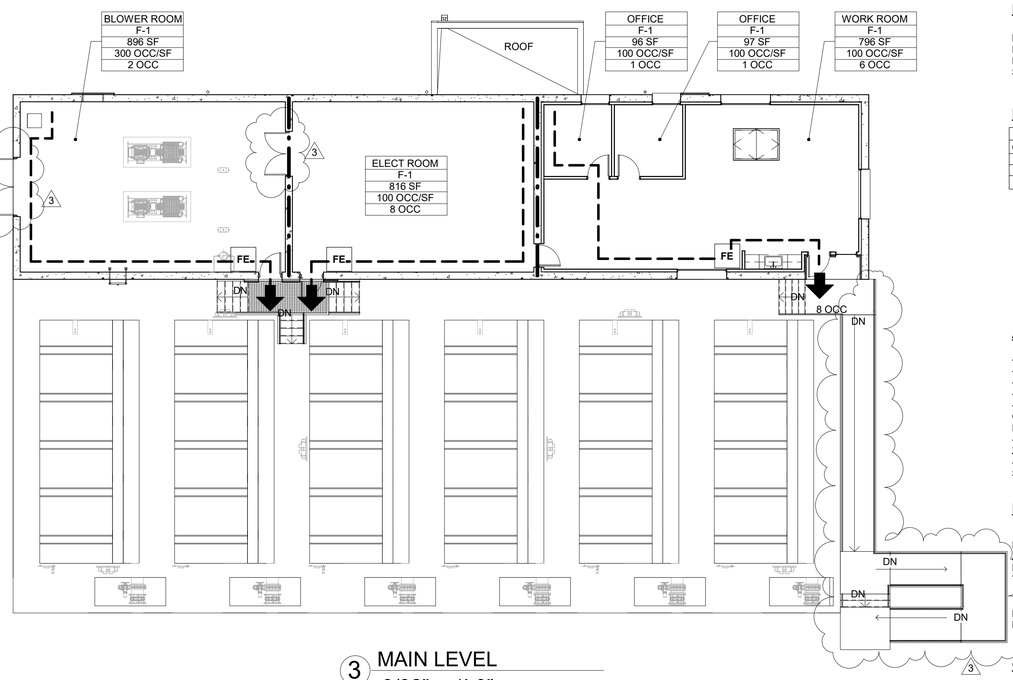
Firm Name _____

Mailing Address _____

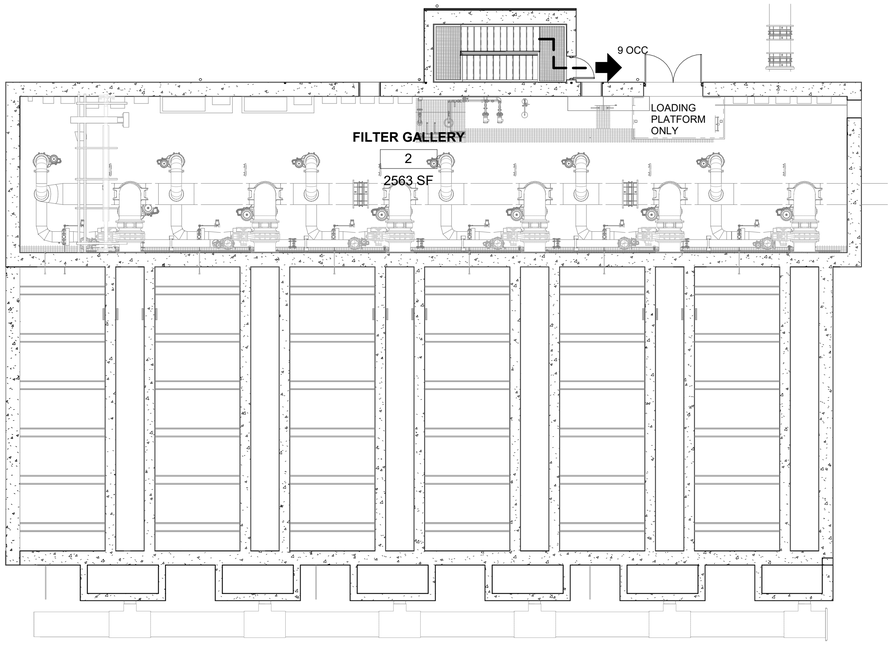
City/State/Zip+4 _____



1 GALLERY BASEMENT LEVEL
3/32" = 1'-0"



3 MAIN LEVEL
3/32" = 1'-0"



2 PLATFORM LEVEL
3/32" = 1'-0"

BUILDING GENERAL INFO

BUILDING OWNER: CITY OF PITTSBURG
PERMIT APPLICANT: CITY OF PITTSBURG
PROJECT ADDRESS: 300 OLYMPIA DRIVE, PITTSBURG, CALIFORNIA
SEISMIC ZONE: 4

LEGEND

USE	USE OF SPACE
OCC CATEGORY	OCCUPANCY CATEGORY
SF	AREA OF SPACE
OCC/SF	OCC LOAD FACTOR
OCCUPANTS	OCCUPANT LOAD
XX OCC	BUILDING EXIT AND OCCUPANT COUNT
	EXIT PATH
	1 HOUR RATED FIRE PARTITION
FE	FIRE EXTINGUISHER WALL MOUNTED

APPLICABLE CODES

- 2022 CALIFORNIA BUILDING CODE
- 2022 CALIFORNIA ENERGY CODE
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
- 2022 CALIFORNIA FIRE CODE
- AMERICANS WITH DISABILITIES ACT (ADA), ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES, 2010
- REQUIREMENTS OF PITTSBURG'S LOCAL BUILDING CODES AND ZONING ORDINANCES
- CONTRA COSTA COUNTY DEPARTMENT OF PUBLIC WORKS, STANDARDS, SPECIFICATIONS AND DETAILS

BUILDING DESCRIPTION

PROJECT DESCRIPTION: NEW CONCRETE EDIFICATION TO SERVE AS A FILTER FACILITY, CONTAINING NEW CONCRETE BASINS, PUMP ROOMS, ONE ELECTRICAL ROOM AND A WORK ROOM WITH TWO OFFICES.

BUILDING SIZE: 3655 SF
BUILDING USE: FACTORY INDUSTRIAL F-1

OCCUPANCY AND USE

APPLICABLE OCCUPANCY CLASSIFICATION GROUPS:
F-1:

OCCUPANT LOAD SUMMARY (BUILDING)

LEVEL	AREA(SF)	FUNCTION	OCC LOAD
1	2618 SF	EQUIPMENT GALLERY	9 OCC
2	897 SF	PUMP ROOM	3 OCC
2	816 SF	ELEC ROOM	3 OCC
2	798 SF	WORK ROOM	6 OCC
2	96 SF	OFFICE	1 OCC
2	96 SF	OFFICE	1 OCC
		TOTAL	23 OCC

FIRE AND SMOKE PROTECTION

CH 7 & CH 9

MAXIMUM AREA OF EXTERIOR WALL OPENINGS (TABLE 705.8)				
BUILDING NON SPRINKLERED				
	NORTH	EAST	SOUTH	WEST
FIRE SEPARATION DISTANCE PROVIDED	>30'	>30'	>30'	>30'
AREA ALLOWED	No limit	No limit	No limit	No limit
AREA PROPOSED	N/A	N/A	N/A	N/A

FIRE PROTECTION ELEMENTS			
	Required	Provided	Compliance
AUTOMATIC SPRINKLER SYSTEM PER 903.2.4	NO	NO	
STANDPIPE SYSTEM PER 905.3	NO	NO	
FIRE ALARM SYSTEM PER 907.2.4	NO	NO	
SMOKE DETECTION SYSTEM PER 907.2.4	NO	NO	
PORTABLE FIRE EXTINGUISHER PER NFPA 10	YES	YES	
CARBON MONOXIDE DETECTION	NO	NO	
SIGNAGE PER 912.5	NO	NO	

BUILDING EXITS (PER 1006)

CH 10

BUILDING EXITING TABLE (REFER TO PLANS FOR EXITS)			
LEVEL	OCCUPANT LOAD	EXITS	
		REQUIRED	PROVIDED
1	9 occ	1	1
2	20 occ	1	3

OTHER EGRESS REQUIREMENTS

	REQUIRED	PROVIDED
ILLUMINATED EXIT SIGNS (1013.5)	AT EXITS	YES
EXIT ACCESS ILLUMINATION (1008.2.1)	1 FC AT FLOOR	YES
EXIT TRAVEL DISTANCE (TABLE 1017.2)	200' MAX	YES
COMMON PATH OF EGRESS LIMIT (1006.2.1)	75' MAX	SEE PLANS
EXIT SEPARATION DISTANCE (1007.1.1)	1/2 DIAGONAL OF SPACE	YES

BUILDING HEIGHT AND AREA

CH 5

ALLOWABLE HEIGHT (PER 504)

BUILDING CONSTRUCTION TYPE : VA NON SPRINKLERED VALUES (NS)	ALLOWED	PROPOSED
BUILDING HEIGHT (PER 504.3)	50' - 0"	30' - 2"
NUMBER OF STORIES (PER 503.1.1)	-	2
ALLOWABLE AREA (PER TABLE 506.2)	14,000 SF	3, 135 SF

CONSTRUCTION

CH 6

FIRE RESISTIVE RATING REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601)			
CONSTRUCTION TYPE = VA			
BUILDING ELEMENT		REQUIRED	PROPOSED
STRUCTURAL FRAME		1	1
BEARING WALLS	EXT	1	1
	INT	1	1
INTERIOR NONBEARING WALLS AND PARTITIONS		0	0
FLOOR CONSTRUCTION		1	1
ROOF CONSTRUCTION		1	1

LICENSED ARCHITECT — GREG A. ROBLEY — No. C-30986 — 02/28/25 — RENEWAL DATE — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
DATE: 01/22/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
CODE INFORMATION

BY	DESCRIPTION	REV	DATE
	Addendum 3	1	03.21.24

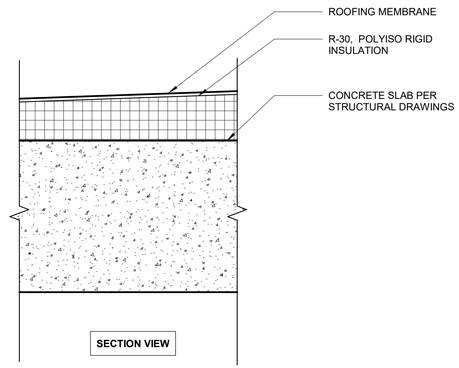
DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
48 OF 233

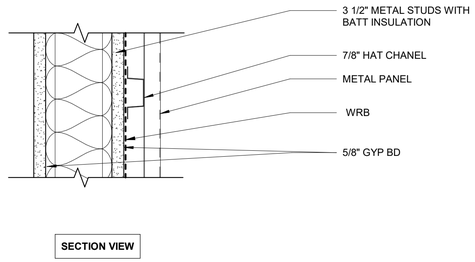
THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A001

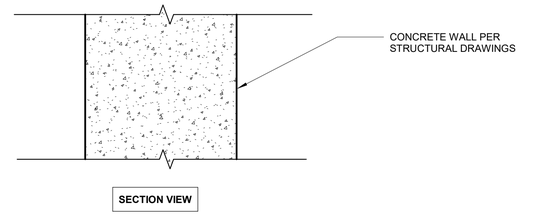
WEST YOST
Water. Engineered.



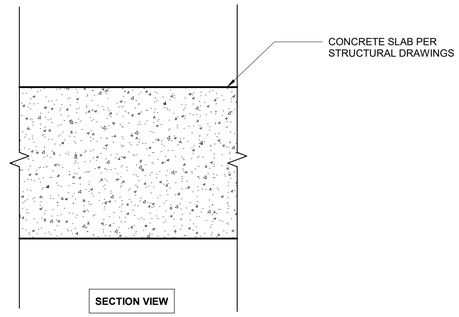
G ROOF ASSEMBLY
SCALE: 3" = 1'-0"



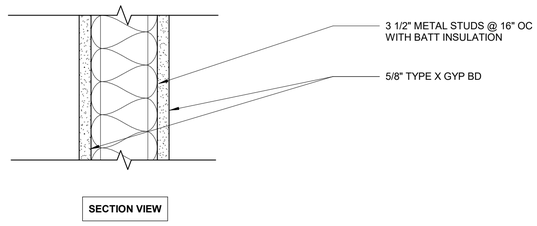
D EXTERIOR METAL STUD WALL
SCALE: 3" = 1'-0"



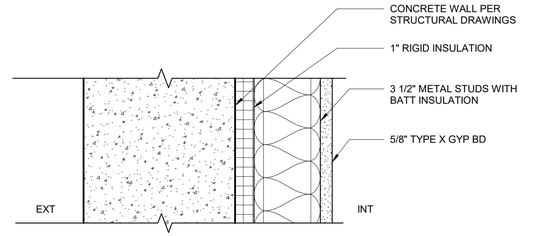
A CONCRETE WALL
SCALE: 3" = 1'-0"



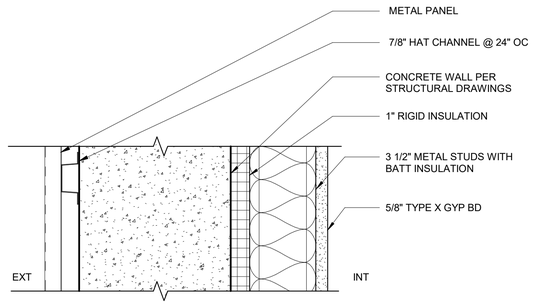
H FLOOR ASSEMBLY
SCALE: 3" = 1'-0"



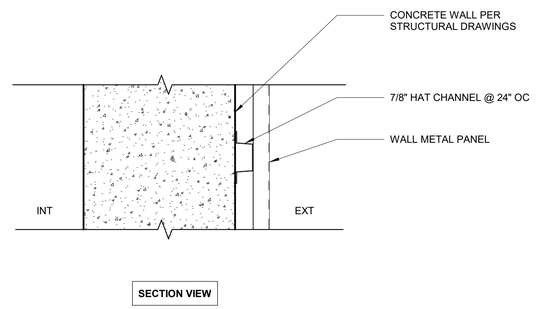
E METAL STUD WALL
SCALE: 3" = 1'-0"



B METAL STUD WALL @ CONCRETE WALL
SCALE: 3" = 1'-0"



F MTL PANEL @ INSULATED WALL
SCALE: 3" = 1'-0"



C CONCRETE WALL W/ EXT MTL PANEL
SCALE: 3" = 1'-0"

WEST YOST
Water. Engineered.

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 87734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER REHABILITATION AND HYPOCHLORITE CONVERSION VERTICAL & HORIZONTAL ASSEMBLIES

DESCRIPTION	BY	DATE

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
49 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A100

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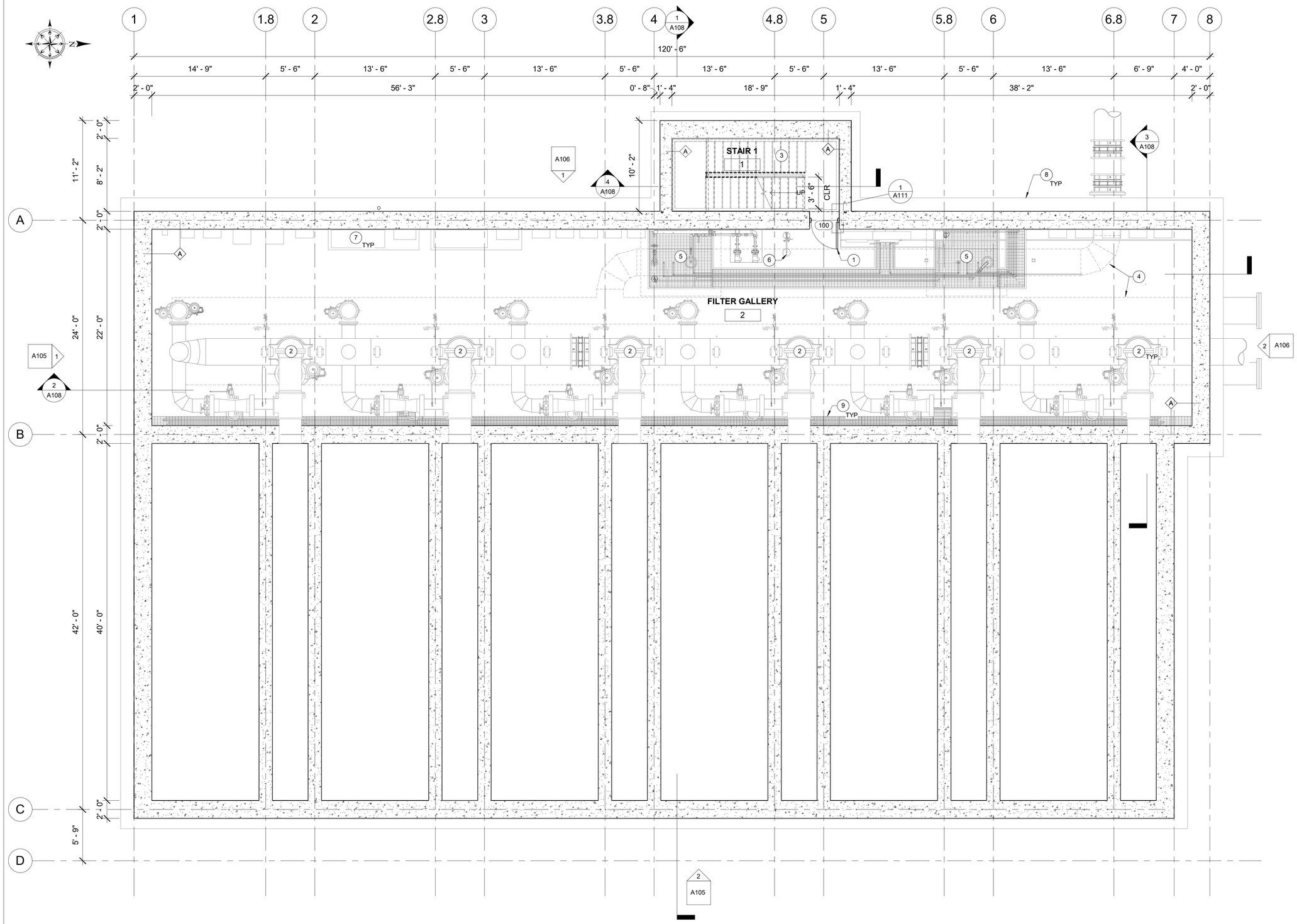


SHEET GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS.

KEYNOTES

1 HM DOOR, SEE SPECS
2 PROCESS MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
3 METAL STAIRS, PER STRUCTURAL DRAWINGS
4 UNDERGROUND PIPING PER PROCESS MECHANICAL DRAWINGS
5 VAULT, SEE STRUCTURAL DRAWINGS
6 EMERGENCY SHOWER, SEE PLUMBING DRAWINGS
7 ELECTRICAL PANELS, SEE ELECTRICAL DRAWINGS
8 LINE OF FOOTING BEYOND
9 TRENCH BELOW PER STRUCTURAL DRAWINGS

GALLERY BASEMENT LEVEL - FLOOR PLAN
1 3/16" = 1'-0"

LICENSED ARCHITECT A. ROBLEY No. C-30986 02/28/25 DATE STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
GALLERY BASEMENT LEVEL - FLOOR PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

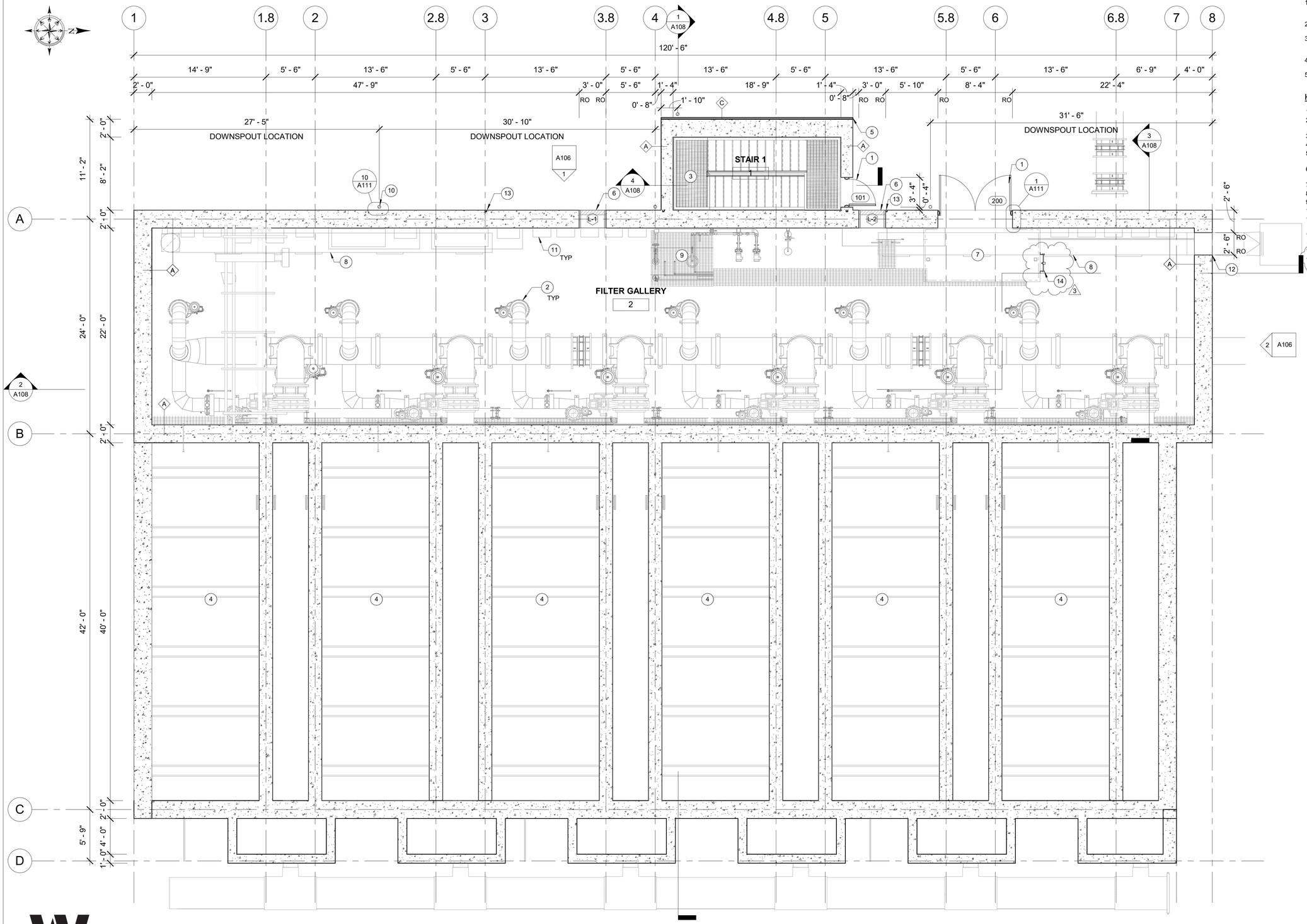
SHEET NO.
50 OF 233

DWG. NO.
A101

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

WEST YOST
Water. Engineered.

C:\Users\mBenavente\OneDrive - MWA Architects\Documents\City of Pittsburg - Filter Rehabilitation & Hypochlorite conversion - post 100%_mbenaventeGAV37.rvt



SHEET GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS.

KEYNOTES

1 HM DOOR, SEE SPECS
2 PROCESS MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
3 METAL STAIRS, PER STRUCTURAL DRAWINGS
4 UNOCCUPIED AREA - WATER BASINS
5 METAL PANEL OVER 7/8" HAT CHANNEL, SEE SPECS
6 LOUVER, SEE LOUVER SCHEDULE AND MECHANICAL DRAWINGS
7 PLATFORM PER STRUCTURAL DRAWINGS
8 HVAC DUCTING, SEE HVAC DRAWINGS
9 VAULT BELOW, SEE STRUCTURAL DRAWINGS
10 DOWNSPOUT
11 ELECTRICAL PANELS, SEE ELECTRICAL DRAWINGS
12 OPENING FOR HVAC DUCTING, SEE STRUCTURAL AND HVAC DRAWINGS
13 REVEAL, SEE ELEVATIONS
14 METAL LADDER PER STRUCTURAL DRAWINGS

1 PLATFORM LEVEL - FLOOR PLAN
3/16" = 1'-0"

WEST YOST
Water. Engineered.

LICENSED ARCHITECT — GREG A. ROBLEY — No. C-30986 — 02/28/25 — EXPIRES — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
DATE: 01/22/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 87734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
PLATFORM LEVEL - FLOOR PLAN

DATE	REV	DESCRIPTION	BY
03.21.24	1	Addendum 3	

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
51 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A102

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SHEET GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS.

KEYNOTES

2 HM DOOR, SEE SPECS
3 HM WINDOW, SEE SPECS
4 COFFEE BAR, SEE INTERIOR ELEVATIONS
5 CONCRETE PAD TO HOST ELECTRICAL EQUIPMENT, SEE STRUCTURAL AND ELECTRICAL DRAWINGS
6 PROCESS MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
7 LOUVER, SEE LOUVER SCHEDULE AND MECHANICAL DRAWINGS
8 HATCH PER SPECS, SEE STRUCTURAL DRAWINGS FOR LOUVER LOCATION
9 FILTERS, NON OCCUPIED AREA
10 CONCRETE STAIRS, SEE STRUCTURAL DRAWINGS
11 METAL STAIRS, PER STRUCTURAL DRAWINGS
12 FLOOR OPENING PER STRUCTURAL DRAWINGS, OPENING TO HOST HVAC DUCT, SEE HVAC DRAWINGS
13 FIXED LADDER PER STRUCTURAL DRAWINGS
14 SLOPE PER STRUCTURAL DRAWINGS
15 DOWNSPOUT
16 SHEET METAL SCUPPER WITH SHEET METAL DOWNSPOUT PER SPECS
17 ADA RAMP PER STRUCTURAL & CIVIL DRAWINGS
18 REVEAL

1 MAIN LEVEL - FLOOR PLAN
3/16" = 1'-0"

WEST YOST
Water. Engineered.

LICENSED ARCHITECT
GREG A. ROBLEY
No. C-30986
02/28/25
RENEWAL DATE
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 77734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
MAIN LEVEL - FLOOR PLAN

BY	DESCRIPTION	REV	DATE
	Addendum 3	1	03.21.24

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
52 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A103

SHEET GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS.

KEYNOTES

1 SHEET METAL SCUPPER WITH SHEET METAL DOWNSPOUT PER SPECS
2 HVAC EQUIPMENTS, SEE HVAC DRAWINGS
4 CRICKET
5 FIXED LADDER PER STRUCTURAL DRAWINGS
6 ROOF BELOW
7 ROOF WALK PADS PER SPECS
8 SEE STRUCTURAL DRAWINGS FOR CURB LOCATIONS AND OPENINGS, COORDINATE WITH HVAC
9 ROOF OPENING, SEE HVAC AND STRUCTURAL DRAWINGS

ROOF LEVEL - FLOOR PLAN
1 3/16" = 1'-0"

LICENSED ARCHITECT — GREG A. ROBLEY — No. C-30986 — 02/28/25 — EXPIRE DATE — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 87734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
ROOF LEVEL - FLOOR PLAN

DATE	REV	DESCRIPTION	BY
03.21.24	1	Addendum 3	

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
53 OF 233

DWG. NO.
A104

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

WEST YOST
Water. Engineered.

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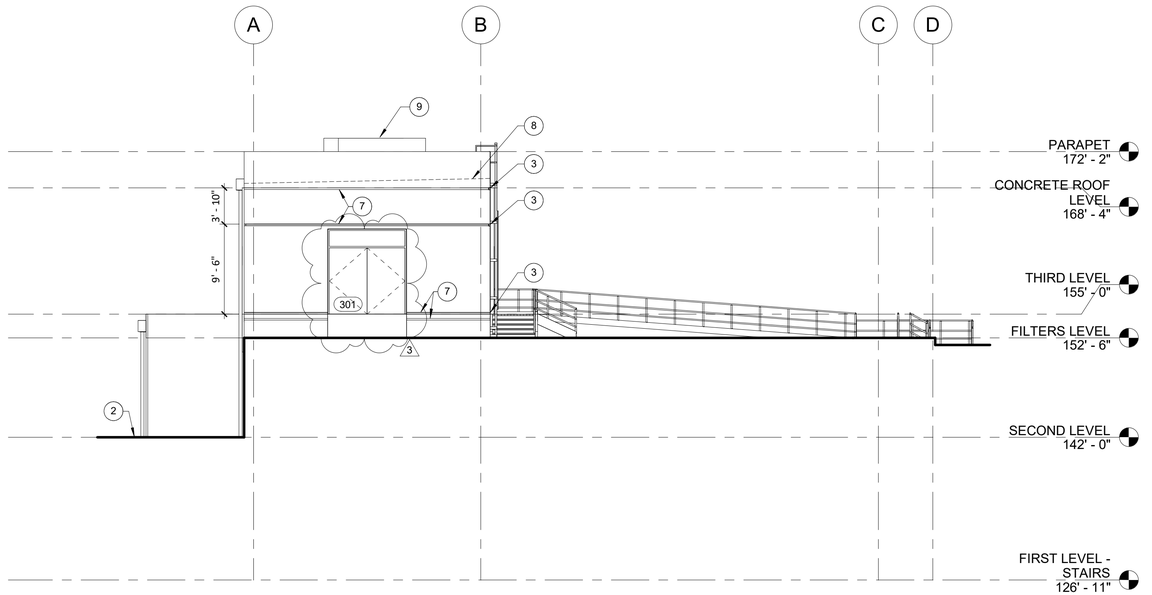
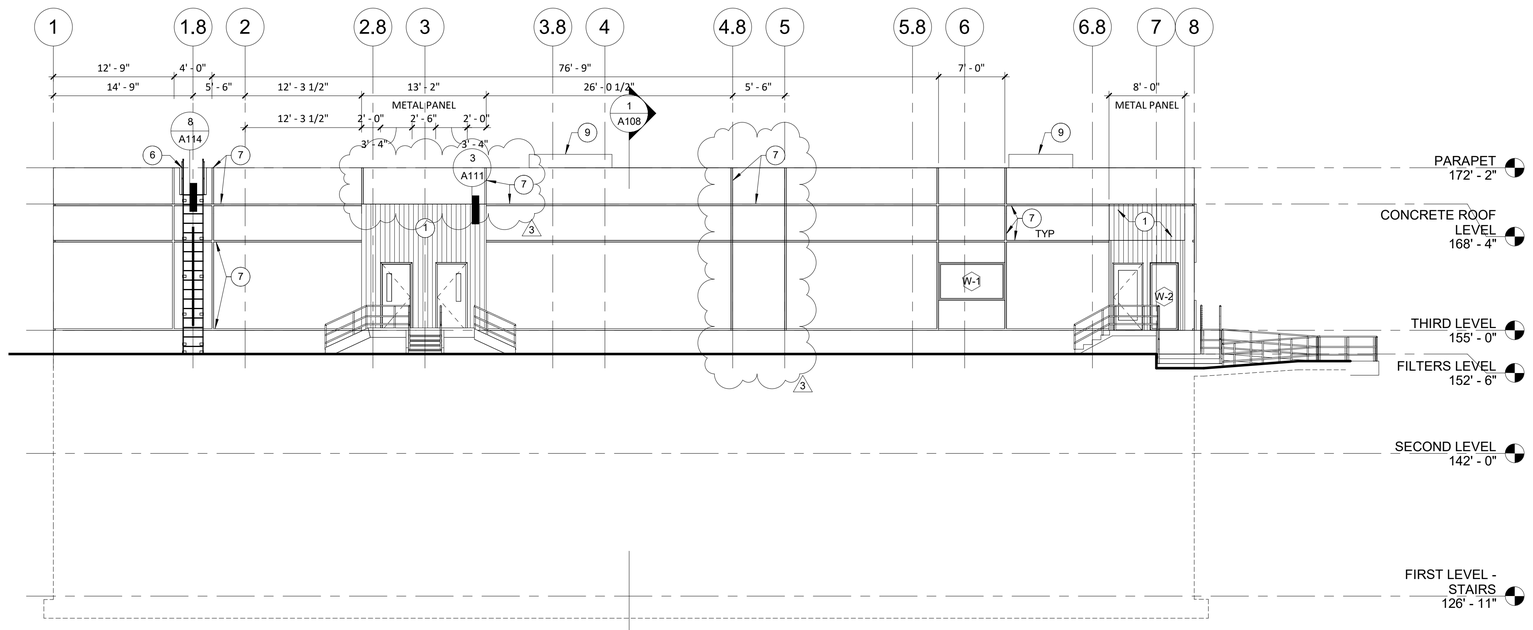


1 SOUTH ELEVATION
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"

SHEET GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS.

KEYNOTES

1 METAL PANEL OVER 7/8" HAT CHANNEL, SEE SPECS
2 GRADE PER CIVIL DRAWINGS
3 REVEAL
4 OPENINGS FOR ELECTRICAL CONDUITS, REFER TO STRUCTURAL DRAWINGS FOR LOCATION AND ELECTRICAL DRAWINGS
5 OPENING FOR HVAC DUCTING, SEE STRUCTURAL AND HVAC DRAWINGS
6 FIXED LADDER PER STRUCTURAL DRAWINGS
7 REVEAL, SEE DETAIL 4/A114. REVEAL'S BOTTOM ALIGNS WITH RO WHERE OCURRS
8 ROOF SLOPE BEYOND
9 HVAC EQUIPMENT, SEE HVAC DRAWINGS

LICENSED ARCHITECT — GREG A. ROBLEY — No. C-30986 — 02/28/25 — RENEWAL DATE — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 87734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
ELEVATIONS - 1

DRAWN: M. BENAVENTE	CHECKED: D. WILLIAMS	REVIEWED: G. ROBLEY	DATE: JAN 2024	SCALE: AS INDICATED

BY	DESCRIPTION	REV	DATE
	Addendum 3	1	03.21.24

SHEET NO.
54 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A105

WEST YOST
Water. Engineered.

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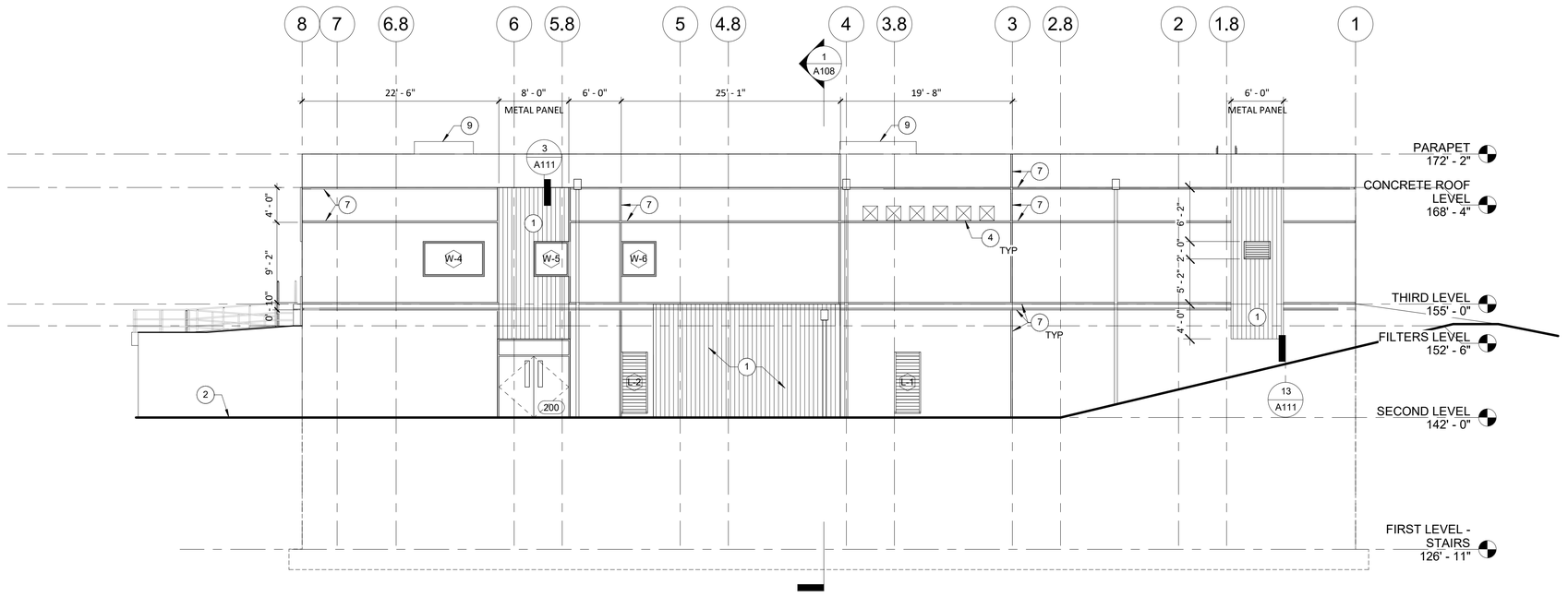
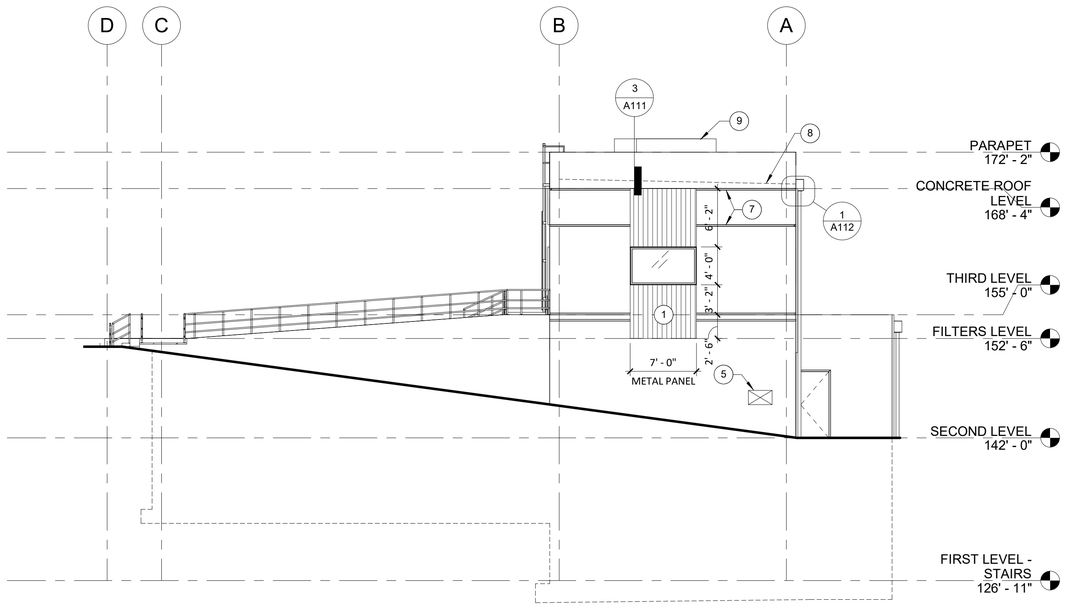


1 WEST ELEVATION
1/8" = 1'-0"



2 NORTH ELEVATION
1/8" = 1'-0"

SHEET GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS.

KEYNOTES

1 METAL PANEL OVER 7/8" HAT CHANNEL, SEE SPECS
2 GRADE PER CIVIL DRAWINGS
3 REVEAL
4 OPENINGS FOR ELECTRICAL CONDUITS, REFER TO STRUCTURAL DRAWINGS FOR LOCATION AND ELECTRICAL DRAWINGS
5 OPENING FOR HVAC DUCTING, SEE STRUCTURAL AND HVAC DRAWINGS
6 FIXED LADDER PER STRUCTURAL DRAWINGS
7 REVEAL, SEE DETAIL 4/A114. REVEAL'S BOTTOM ALIGNS WITH RO WHERE OCURRS
8 ROOF SLOPE BEYOND
9 HVAC EQUIPMENT, SEE HVAC DRAWINGS

LICENSED ARCHITECT A. ROBLEY No. C-30986 02/28/25 RENEWAL DATE STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 01/22/2024
Greg Robley DATE:
License No.30986 , Exp: 02/2025

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
ELEVATIONS - 2

DATE	REV	DESCRIPTION	BY

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
55 OF 233

DWG. NO.
A106

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

WEST YOST
Water. Engineered.

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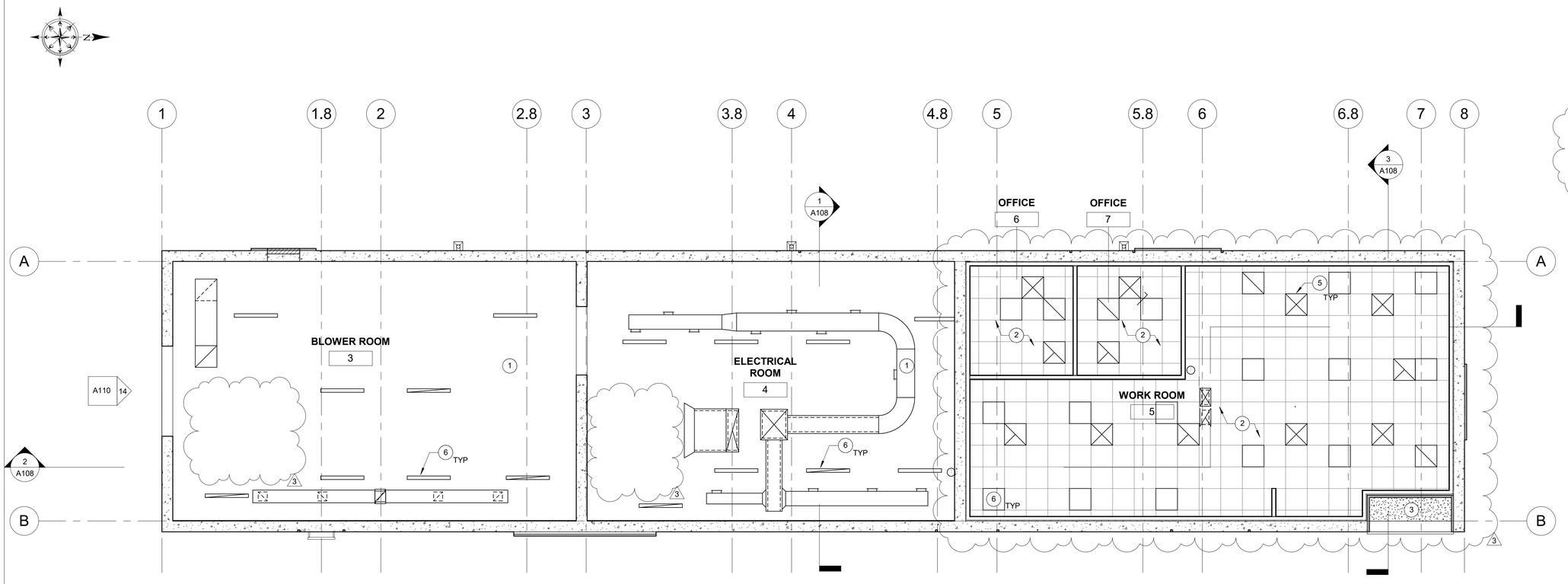
SHEET GENERAL NOTES

1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS

KEYNOTES

1 OPEN TO STRUCTURE
2 2X2 ACOUSTIC CEILING TILE
3 GYPSUM SOFFIT, SEE DETAIL
5 HVAC FAN, SEE HVAC DRAWINGS
6 LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS



1 REFLECTED CEILING PLAN
3/16" = 1'-0"

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WEST YOST
Water. Engineered.

LICENSED ARCHITECT GREG A. ROBLEY No. C-30986 02/28/25 RENEWAL DATE STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 01/22/2024 DATE:
Greg Robley
License No.30986 , Exp: 02/2025

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No.: 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
REFLECTED CEILING PLAN

DATE	REV	DESCRIPTION	BY
03.21.24	1	Addendum 3	

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
56 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

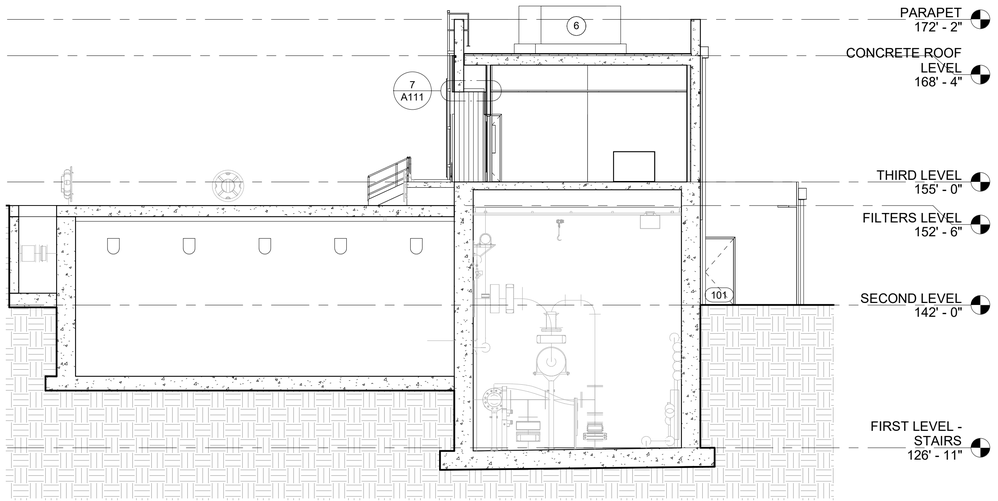
DWG. NO.
A107

SHEET GENERAL NOTES

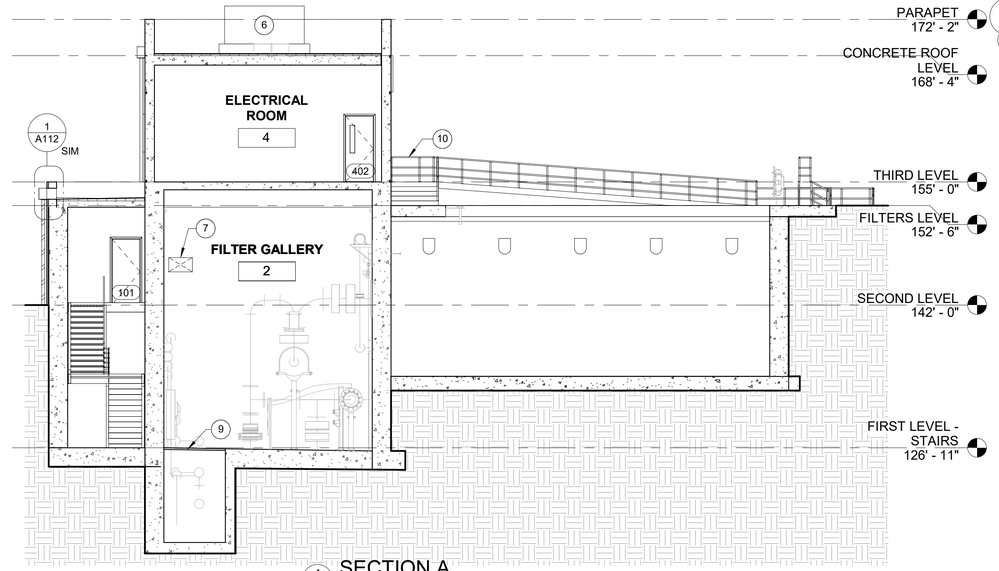
1. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, AND CENTERLINE OF WALLS, COLUMNS, DOORS AND WINDOWS UNO
2. SEE CODE PLANS FOR LOCATIONS OF FIRE RATED WALL ASSEMBLIES
3. SEE OTHER DISCIPLINE DRAWINGS FOR HVAC EQUIPMENT, ELECTRICAL EQUIPMENT AND PROCESS MECHANICAL EQUIPMENT.
4. SEE ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS
5. PROVIDE ADA COMPLIANT GUARDRAILS AND HANDRAILS.

KEYNOTES

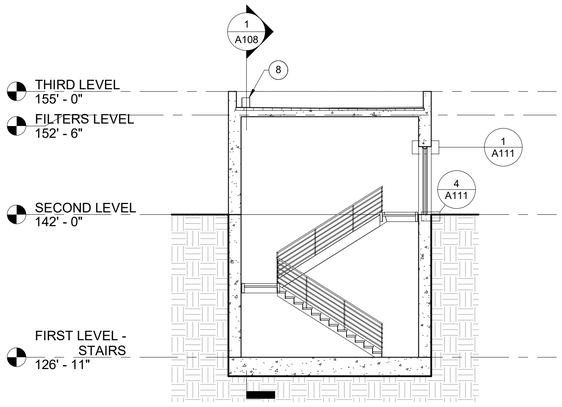
1 LOADING PLATFORM PER STRUCTURAL DRAWINGS
2 PROCESS MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
3 CRANE PER STRUCTURAL DRAWINGS
4 OPENINGS FOR ELECTRICAL CONDUITS, REFER TO STRUCTURAL DRAWINGS FOR LOCATION AND ELECTRICAL DRAWINGS
6 HVAC EQUIPMENT, SEE HVAC DRAWINGS
7 OPENING FOR HVAC DUCTING, SEE STRUCTURAL AND HVAC DRAWINGS
8 SCUPPER OPENING
9 VAULT, WITH METAL GRATE PER STRUCTURAL DRAWINGS
10 ADA RAMP PER STRUCTURAL DRAWINGS



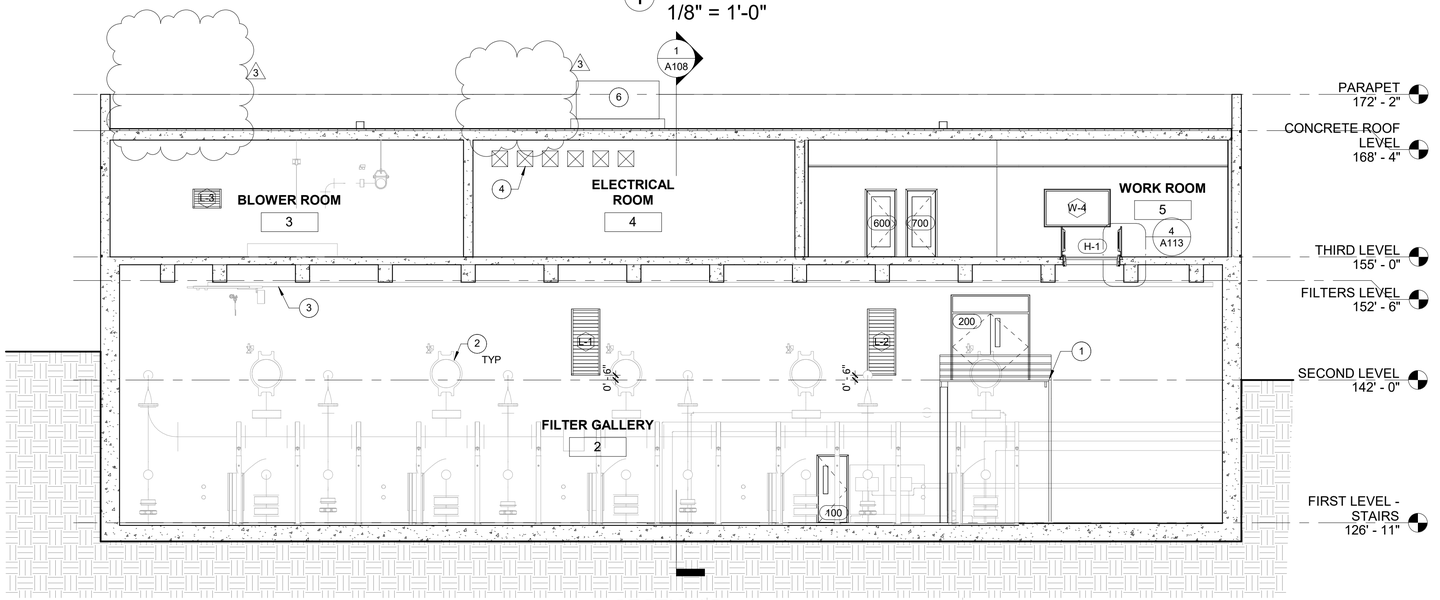
3 SECTION C
1/8" = 1'-0"



1 SECTION A
1/8" = 1'-0"



4 SECTION D
1/8" = 1'-0"



2 SECTION B
1/8" = 1'-0"

WEST YOST
Water. Engineered.

LICENSED ARCHITECT
GREG A. ROBLEY
No. C-30986
02/28/25
RENEWAL DATE
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No.: 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
SECTIONS

BY	DESCRIPTION	REV	DATE
	Addendum 3	1	03.21.24

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
57 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A108

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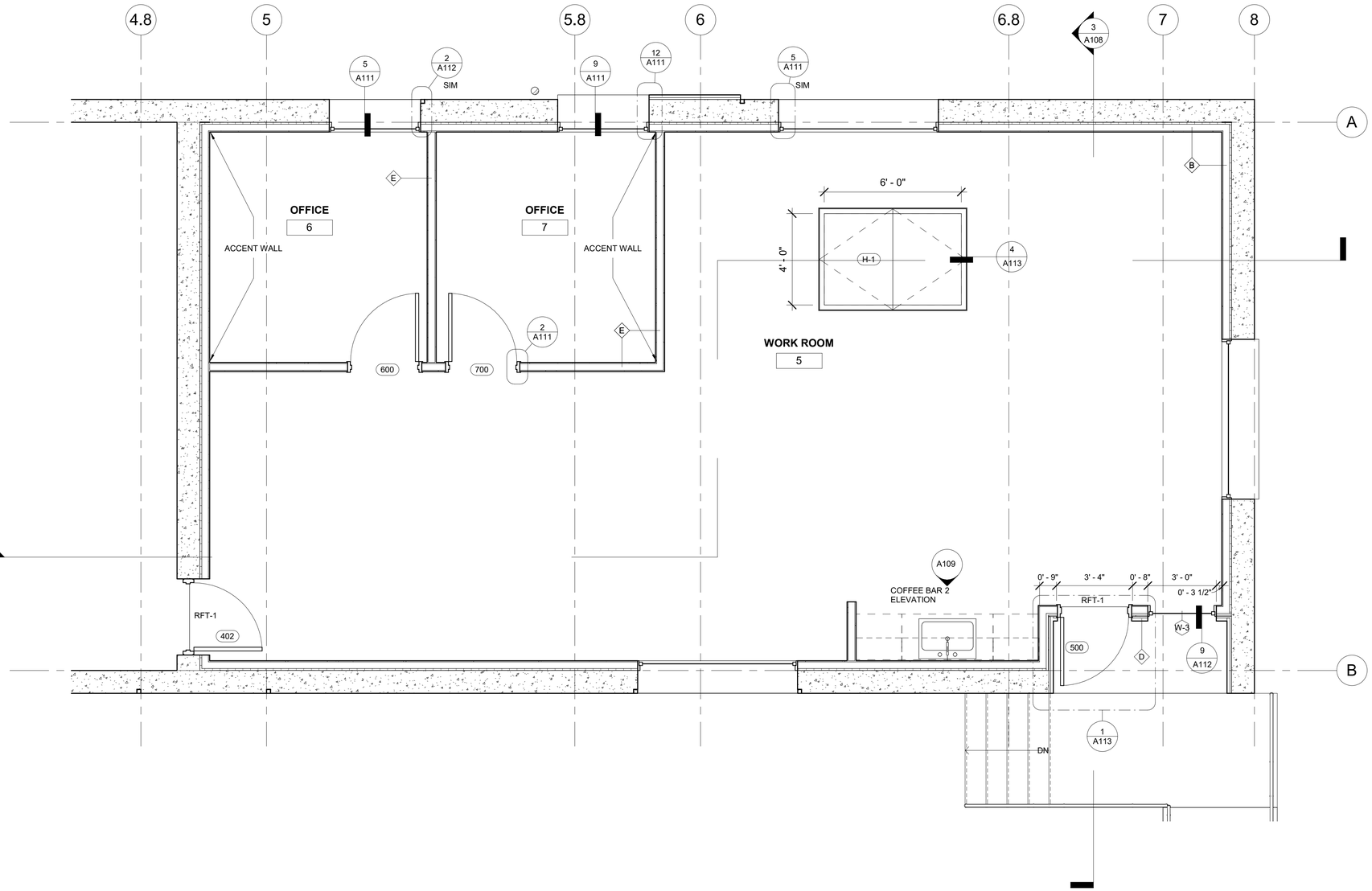
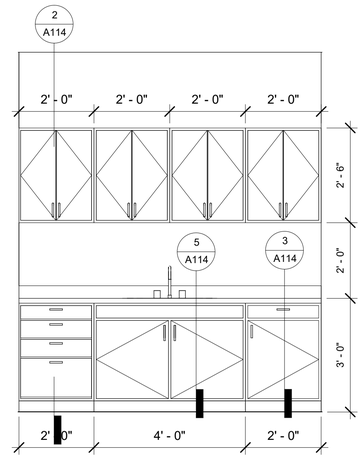
INTERIOR FINISH SCHEDULE									
NUMBER	NAME	FLOOR FINISH	BASE FINISH	CEILING FINISH	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	COMMENTS
1	STAIR 1	CONCRETE	N/A	-					
1	STAIR 1	CONCRETE	N/A	-					
2	FILTER GALLERY	CONCRETE	N/A	-					
3	BLOWER ROOM	CONCRETE	RB-1	P-1	P-1	P-1	P-1	P-1	
4	ELECTRICAL ROOM	CONCRETE	RB-1	P-1	P-1	P-1	P-1	P-1	
5	WORK ROOM	RESILIENT TILE FLOOR	RB-1	ACT-1	P-1	P-1	P-1	P-1	
6	OFFICE	RESILIENT TILE FLOOR	RB-1	ACT-1	P-1	P-1	P-2	P-1	SEE PLAN FOR ACCENT WALL LOCATION
7	OFFICE	RESILIENT TILE FLOOR	RB-1	ACT-1	P-2	P-1	P-1	P-1	SEE PLAN FOR ACCENT WALL LOCATION

2



1 THIRD LEVEL - FLOOR PLAN - Callout 1
3/8" = 1'-0"



2 COFFEE BAR ELEVATION
1/2" = 1'-0"

WEST YOST
Water. Engineered.

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LICENSED ARCHITECT — GREG A. ROBLEY — No. C-30986 — 02/28/25 — RENEWAL DATE — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
FINISH PLAN

DRAWN: M. BENAVENTE	CHECKED: D. WILLIAMS	REVIEWED: G. ROBLEY	DATE: JAN 2024	SCALE: AS INDICATED

DATE	REV	DESCRIPTION	BY
03.14.24	1	Addendum 2	

SHEET NO.
58 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A109

SHEET GENERAL NOTES

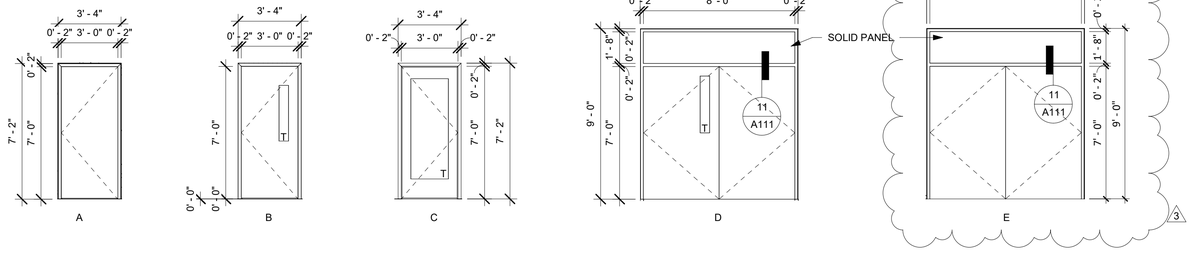
1. REFER TO SPECIFICATION 08_80_00 FOR GL-# DESCRIPTIONS
2. REFER TO ELEVATIONS AND PLANS FOR WALL R.O.
3. CONTRACTOR TO FIELD VERIFY ALL OPENING MEASUREMENTS AND INDICATE ON SUBMITTALS

DOOR SCHEDULE

DOOR							FRAME		DETAILS					
MARK	ROOM	WIDTH	HEIGHT	TYPE	MATERIAL	FINISH	MATERIAL	FINISH	HEAD	JAMB	THRESHOLD	FIRE RATING	HARDWARE SET	COMMENTS
100	STAIR 1	3' - 0"	7' - 0"	B	Hollow Metal	Painted	HM	Painted	1/A111	1/A111	-	60 MIN	1.0	
101	STAIR 1	3' - 0"	7' - 0"	A	Hollow Metal	Painted	HM	Painted	1/A111	1/A111	4/A111	None (Not Rated)	3.0	EXTERIOR DOOR
200	FILTER GALLERY	8' - 0"	7' - 0"	D	Hollow Metal	Painted	HM	Painted	10/A112	1/A111	4/A111		4.0	EXTERIOR DOOR - REMOVABLE TRANSOM
300	BLOWER ROOM	3' - 0"	7' - 0"	B 2	Hollow Metal	Painted	HM	Painted	10/A112	6/A114	-	None (Not Rated)	2.0	EXTERIOR DOOR
301	BLOWER ROOM	8' - 0"	7' - 0"	E	Hollow Metal	Painted	HM	Painted	10/A112	1/A111	4/A111	None (Not Rated)		EXTERIOR DOOR - REMOVABLE TRANSOM
400	ELECTRICAL ROOM	3' - 0"	7' - 0"	B 2	Hollow Metal	Painted	HM	Painted	10/A112	6/A114	-	None (Not Rated)	5.0	EXTERIOR DOOR
401	BLOWER ROOM	6' - 0"	9' - 0"	D	Hollow Metal	Painted	HM	Painted	10/A112	1/A111	-	60 MIN	2.0	
402	ELECTRICAL ROOM	3' - 0"	7' - 0"	B	Hollow Metal	Painted	HM	Painted	5/A111	5/A111	-	60 MIN	7.0	
500	WORK ROOM	3' - 0"	7' - 0"	C	Hollow Metal	Painted	HM	Painted	6/A112	1/A113	3/A-109	None (Not Rated)	8.0	EXTERIOR DOOR
600	OFFICE	3' - 0"	7' - 0"	C 2	Wood	SRO	HM	Painted	2/A111	2/A111	-	None (Not Rated)	10.0	
700	OFFICE	3' - 0"	7' - 0"	C	Wood	SRO	HM	Painted	2/A111	2/A111	-	None (Not Rated)	10.0	
H-1		6' - 0"	1' - 0 1/2"										2	HATCH, SEE PLANS FOR DIMENSIONS AND LOCATION. COORDINATE WITH STRUCTURAL

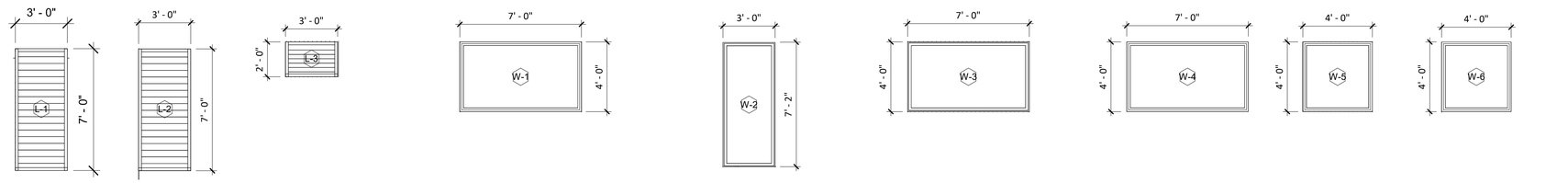
3

NOTE: PROVIDE EXIT SIGNS PER CODE AT EXTERIOR EXIT DOORS



WINDOW AND LOUVER SCHEDULE

WINDOW / LOUVER			DETAIL					
Mark	Width	Height	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	GLAZING TYPE	FIRE RATING	Comments
L-1	3' - 0"	7' - 0"	4/A112	12/A112	8/A112	-	-	
L-2	3' - 0"	7' - 0"	4/A112	12/A112	8/A112	-	-	
L-3	3' - 0"	2' - 0"	3/A112	11/A112	6/A112	-	-	
W-1	7' - 0"	4' - 0"	5/A111	2/A112	8/A111	GL-2	-	
W-2	3' - 0"	7' - 2"	5/A112	1/A113	9/A112	GL-2	-	
W-3	7' - 0"	4' - 0"	6/A111	5/A111	9/A111	GL-2	-	
W-4	7' - 0"	4' - 0"	5/A111	5/A111	8/A111	GL-2	-	
W-5	4' - 0"	4' - 0"	6/A111	12/A111 / 2/A112	9/A111	GL-2	-	
W-6	4' - 0"	4' - 0"	5/A111	5/A111 / 2/A112	8/A111	GL-2	-	



L-1
SCALE: 1/4" = 1'-0"

L-2
SCALE: 1/4" = 1'-0"

L-3
SCALE: 1/4" = 1'-0"

W-1
SCALE: 1/4" = 1'-0"

W-2
SCALE: 1/4" = 1'-0"

W-3
SCALE: 1/4" = 1'-0"

W-4
SCALE: 1/4" = 1'-0"

W-5
SCALE: 1/4" = 1'-0"

W-6
SCALE: 1/4" = 1'-0"

WEST YOST
Water. Engineered.

LICENSED ARCHITECT — GREG A. ROBLEY — No. C-30986 — 02/28/25 — DATE — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 77734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
DOOR SCHEDULE AND WINDOW
SCHEDULE

DATE	REV	DESCRIPTION	BY
03.14.24	1	Addendum 2	
03.21.24	2	Addendum 3	

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
59 OF 233

THIS LINE IS 1 INCH AT FULL SCALE. IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A110

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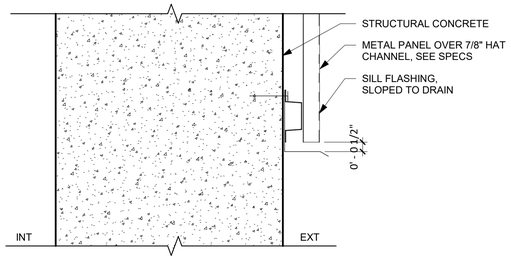
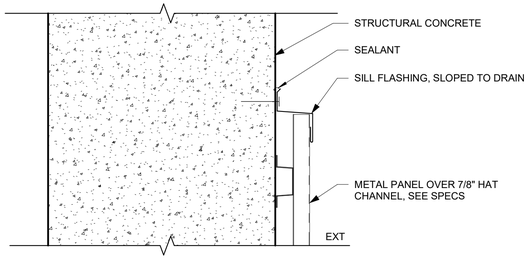
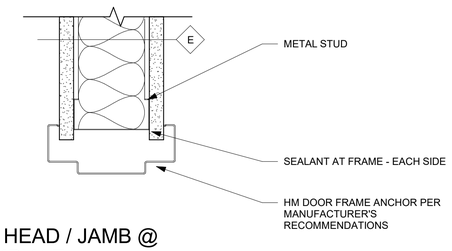


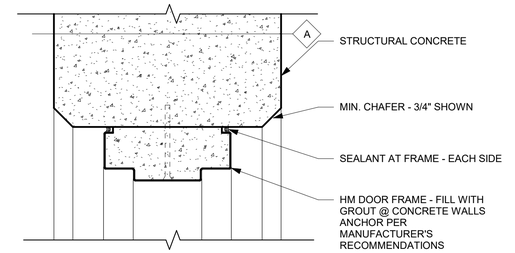
13 FLASHING @ BOTTOM OF METAL PANEL
3" = 1'-0"



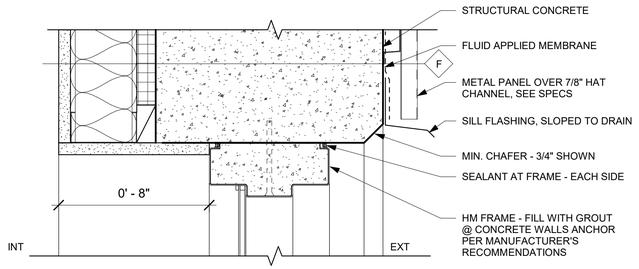
3 FLASHING @ TOP OF METAL PANEL
3" = 1'-0"



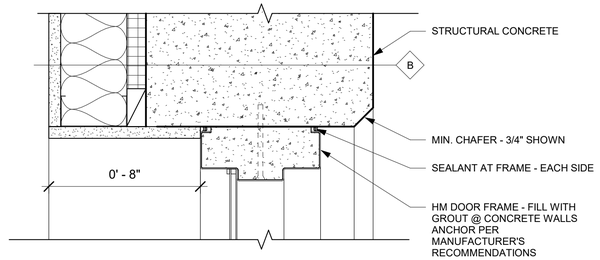
2 DOOR HEAD / JAMB @ ASSEMBLY E
3" = 1'-0"



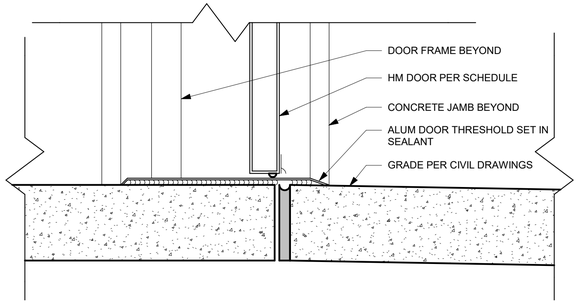
1 DOOR HEAD / JAMB
3" = 1'-0"



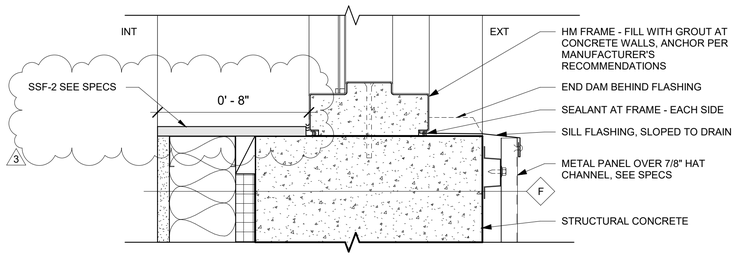
6 WINDOW HEAD @ ASSEMBLY F
3" = 1'-0"



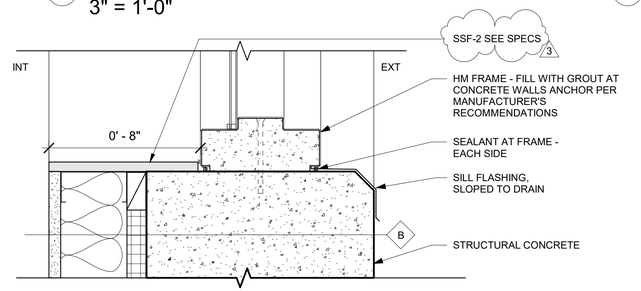
5 WINDOW HEAD / JAMB @ ASSEMBLY B
3" = 1'-0"



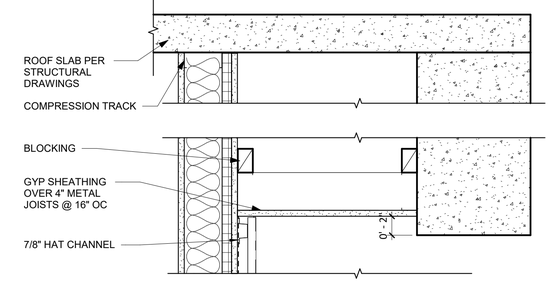
4 THRESHOLD @ EXT DOOR
3" = 1'-0"



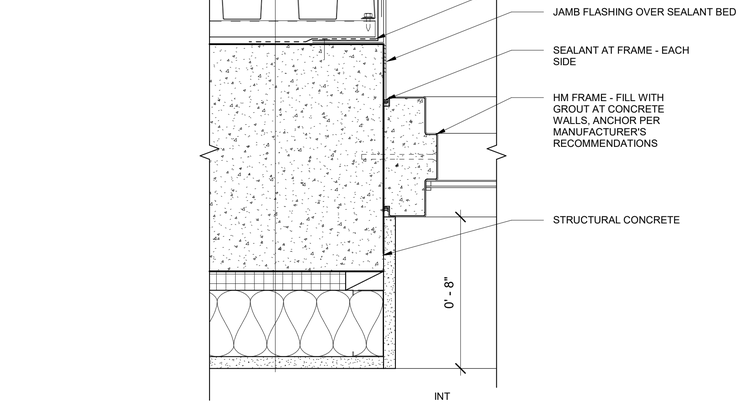
9 WINDOW SILL @ ASSEMBLY F
3" = 1'-0"



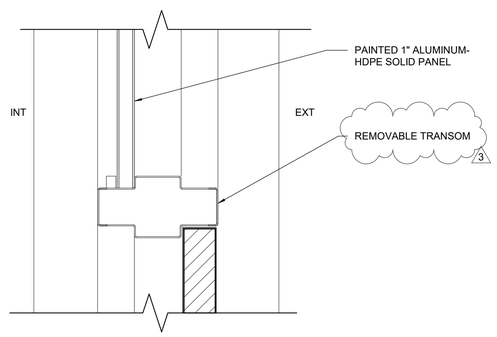
8 WINDOW SILL @ ASSEMBLY B
3" = 1'-0"



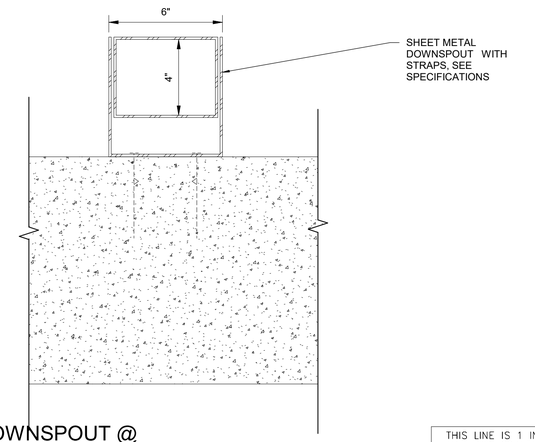
7 SOFFIT DETAIL
1 1/2" = 1'-0"



12 WINDOW JAMB @ METAL PANEL
3" = 1'-0"



11 TRANSOM DETAIL
3" = 1'-0"



10 DOWNSPOUT @ CONCRETE WALL
3" = 1'-0"

WEST YOST
Water. Engineered.

LICENSED ARCHITECT
GREG A. ROBLEY
No. C-30986
02/28/25
RENEWAL DATE
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Greg Robley
License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
DETAILS - 1

DRAWN: M. BENAVENTE	CHECKED: D. WILLIAMS	REVIEWED: G. ROBLEY	DATE: JAN 2024	SCALE: AS INDICATED

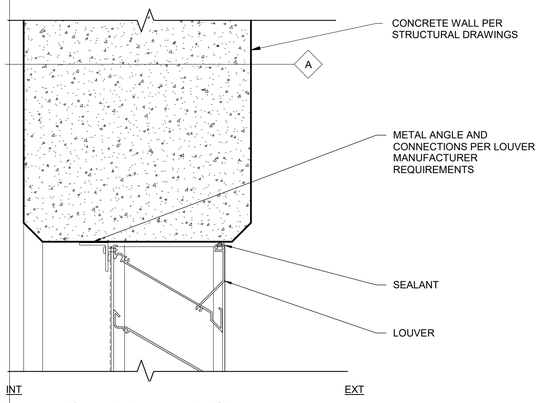
BY	DESCRIPTION	REV	DATE
	Addendum 3	1	03.21.24

SHEET NO.
60 OF 233

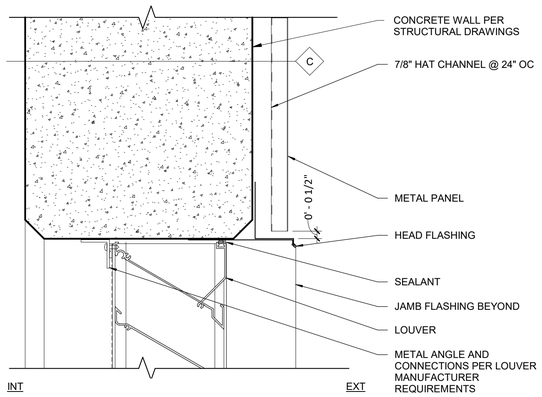
THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A111

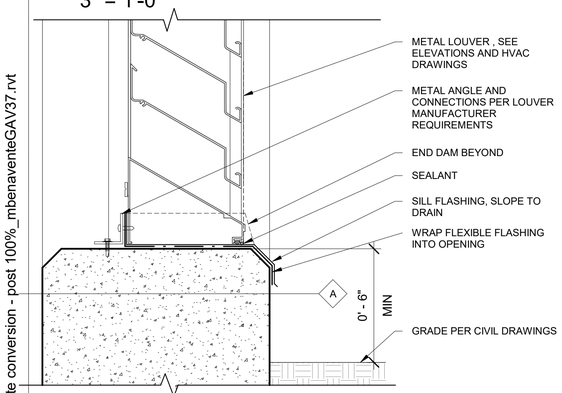
C:\Users\mBenaventeOneDrive - MWA Architects\Documents\City of Pittsburg - Filter Rehabilitation & Hypochlorite conversion - post 100%_mbenaventeGAV37.rvt



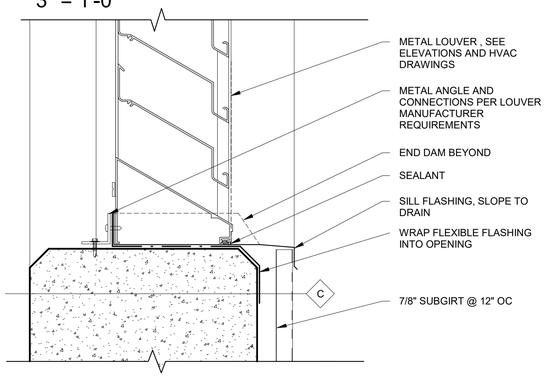
4 LOUVER HEAD @ ASSEMBLY A
3" = 1'-0"



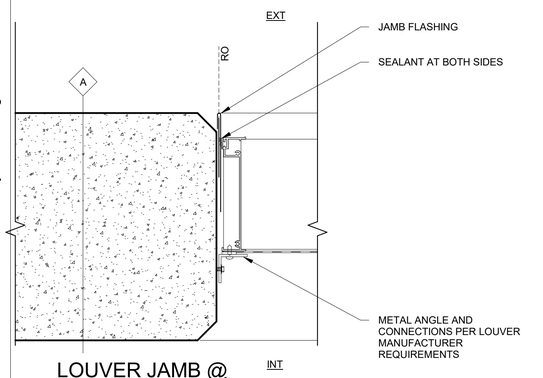
3 LOUVER HEAD @ ASSEMBLY C
3" = 1'-0"



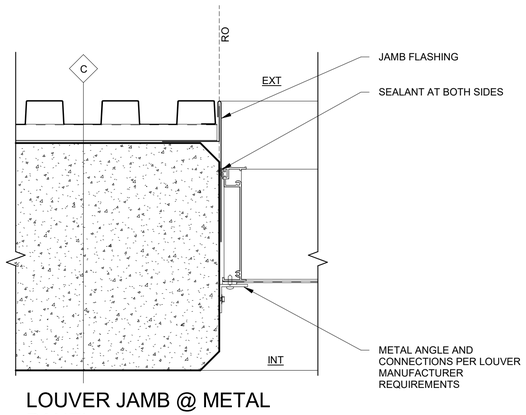
8 LOUVER SILL @ ASSEMBLY A
3" = 1'-0"



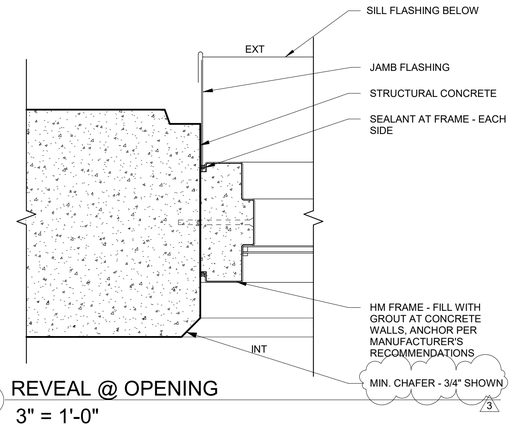
7 LOUVER SILL @ ASSEMBLY C
3" = 1'-0"



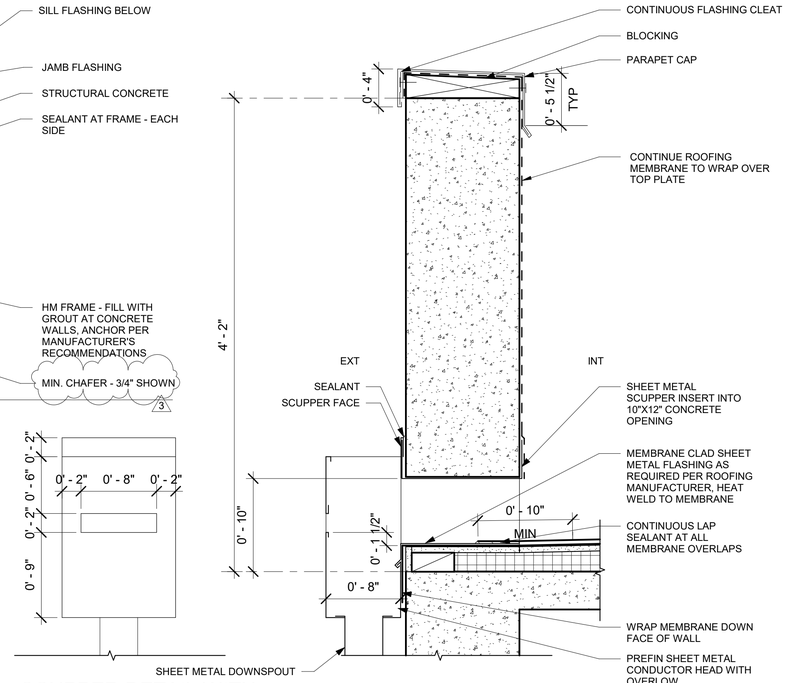
12 LOUVER JAMB @ ASSEMBLY A
3" = 1'-0"



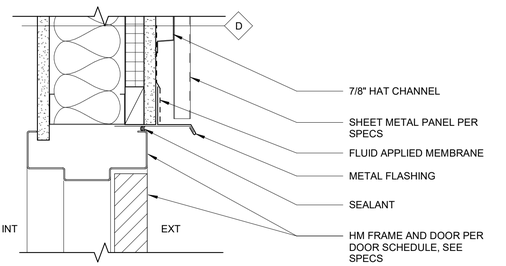
11 LOUVER JAMB @ METAL PANEL
3" = 1'-0"



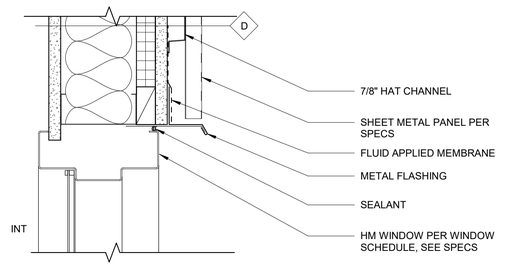
2 REVEAL @ OPENING
3" = 1'-0"



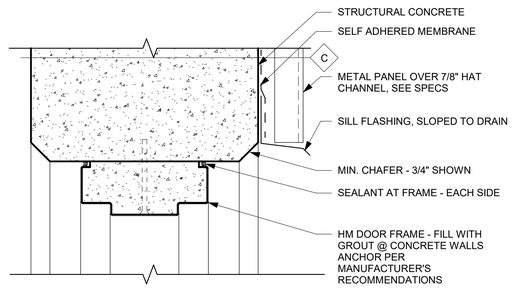
1 SCUPPER DETAIL WITH PARAPET CAP
1 1/2" = 1'-0"



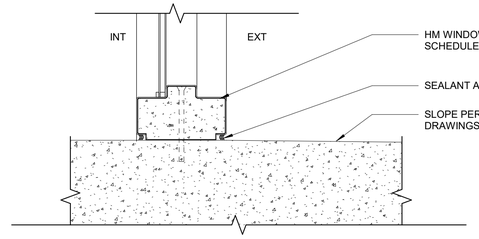
6 DOOR HEAD @ ASSEMBLY D
3" = 1'-0"



5 WINDOW HEAD @ ASSEMBLY D
3" = 1'-0"



10 DOOR HEAD @ ASSEMBLY C
3" = 1'-0"



9 WINDOW SILL @ GRADE
3" = 1'-0"

WEST YOST
Water. Engineered.

LICENSED ARCHITECT GREG A. ROBLEY No. C-30986 02/28/25 RENEWAL DATE STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 01/22/2024 DATE:
Greg Robley
License No.30986 , Exp: 02/2025

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No.: 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
DETAILS - 2

DATE	REV	DESCRIPTION	BY
03.21.24	1	Addendum 3	

DRAWN: M. BENAVENTE
CHECKED: D. WILLIAMS
REVIEWED: G. ROBLEY
DATE: JAN 2024
SCALE: AS INDICATED

SHEET NO.
61 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A112

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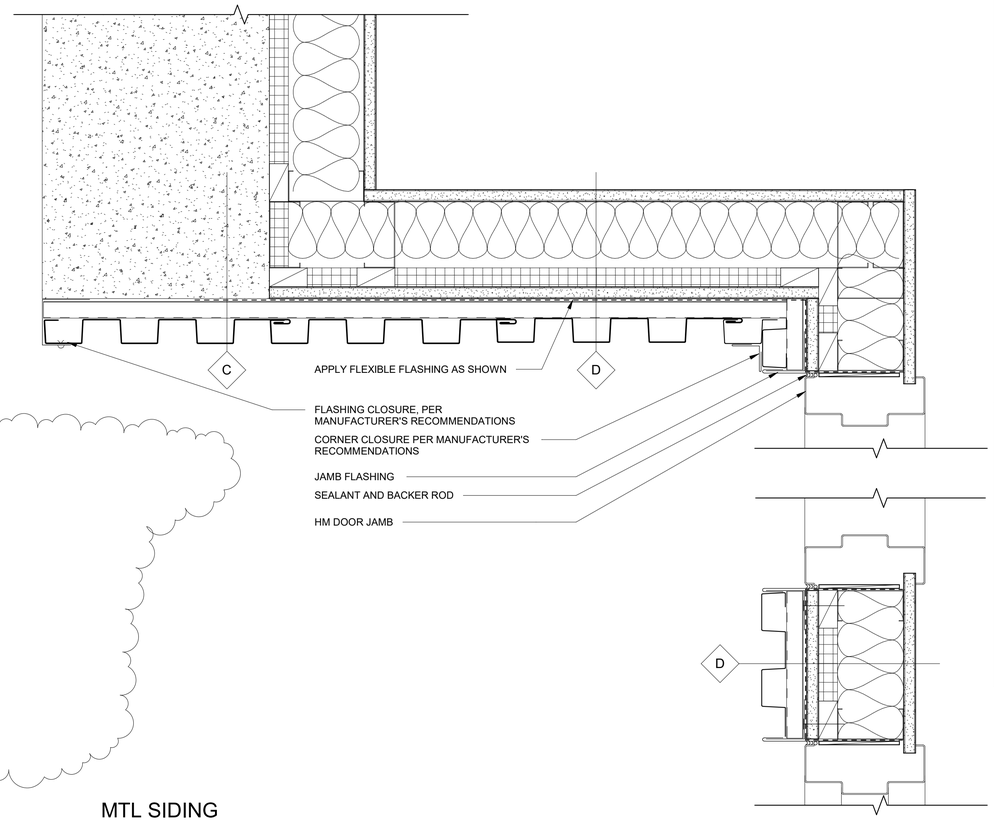
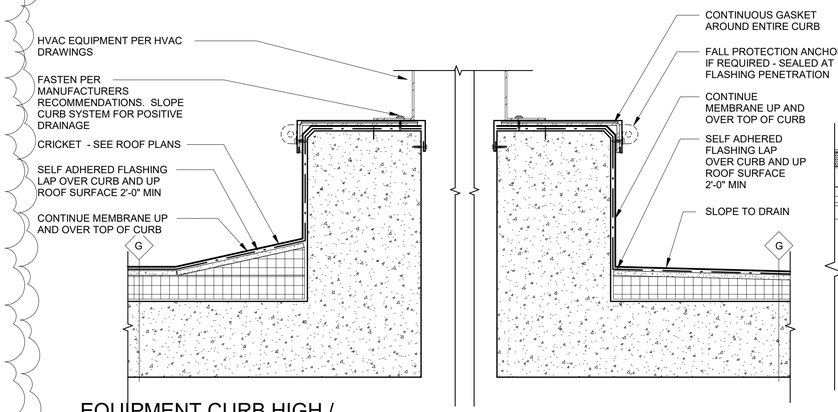
REMOVED

REMOVED



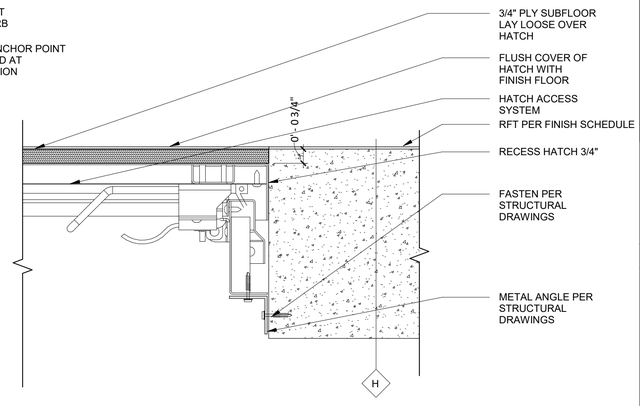
MTL SIDING TERMINATION @ CONCRETE WALL

1 3" = 1'-0"



EQUIPMENT CURB HIGH / LOW SIDE

3 1 1/2" = 1'-0"



HATCH @ FLOOR

4 3" = 1'-0"

WEST YOST
Water. Engineered.

LICENSED ARCHITECT — GREG A. ROBLEY — No. C-30986 — 02/28/25 RENEWAL DATE — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:

Greg Robley — 01/22/2024
License No.30986 , Exp: 02/2025 — DATE:

ACCEPTED FOR USE:

JOHN SAMUELSON, P.E.
City Engineer
License No. 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
DETAILS - 3

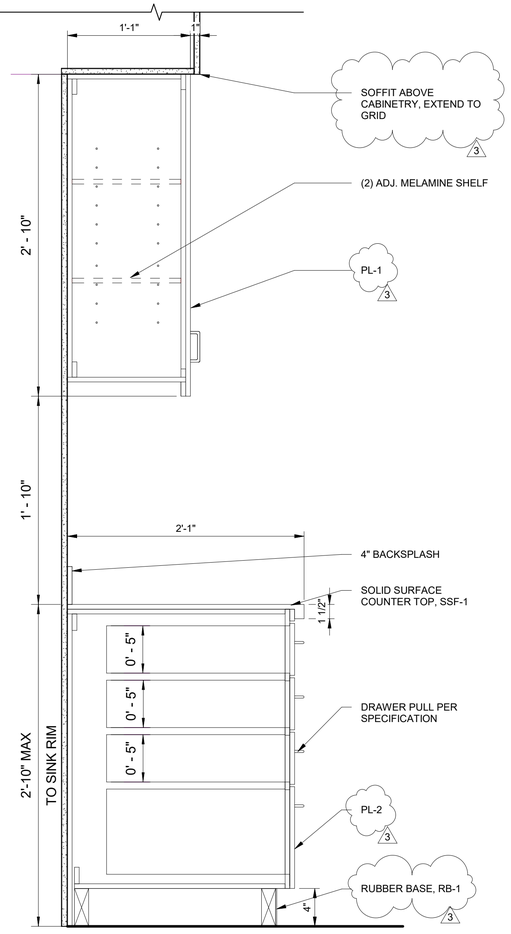
DRAWN: M. BENAVENTE	CHECKED: D. WILLIAMS	REVIEWED: G. ROBLEY	DATE: JAN 2024	SCALE: AS INDICATED

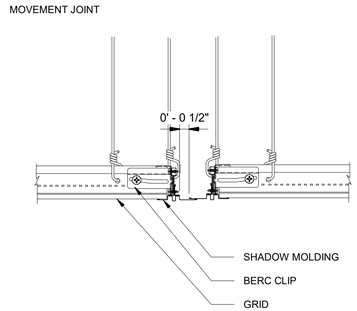
DATE	REV	DESCRIPTION	BY
03.14.24	1	Addendum 2	
03.21.24	2	Addendum 3	

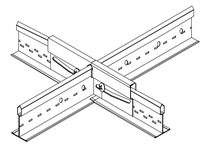
SHEET NO.
62 OF 233

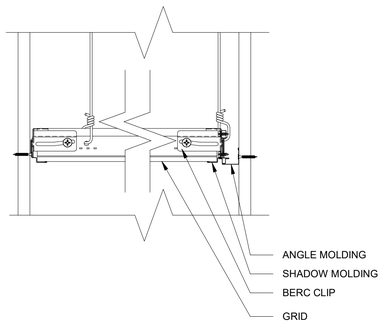
THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

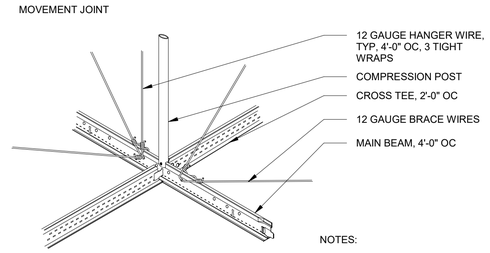
DWG. NO.
A113











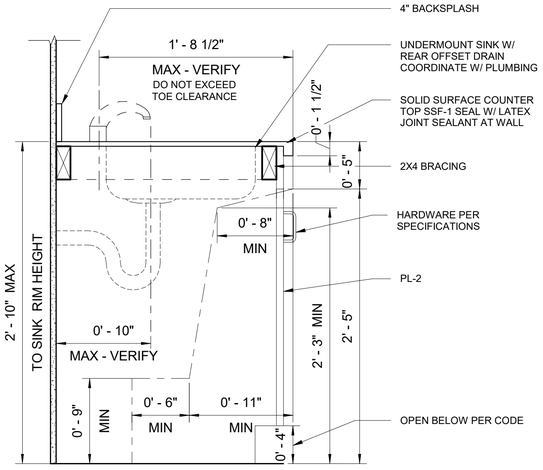
NOTES:

1. BRACING WIRES TO BE ATTACHED A MAXIMUM OF 45 DEGREES TO THE PLANE OF THE CEILING AND PARALLEL TO THE COMPONENTS AT THE BRACING POINT.

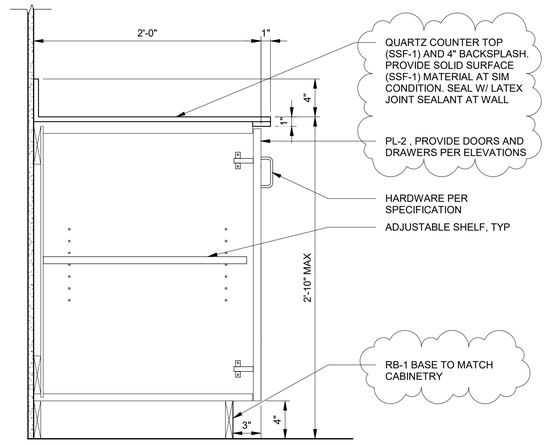
2. BRACE WIRES TO BE TAUT AND TIED AT BOTH ENDS WITH THREE TIGHT WRAPS.

1 SUSPENDED CEILING DETAILS
3" = 1'-0"

2 UPPER AND LOWER (DRAWERS)
1 1/2" = 1'-0"

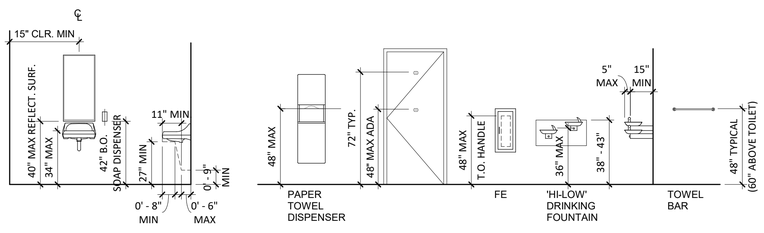


5 CLEAR KNEE SPACE
1 1/2" = 1'-0"

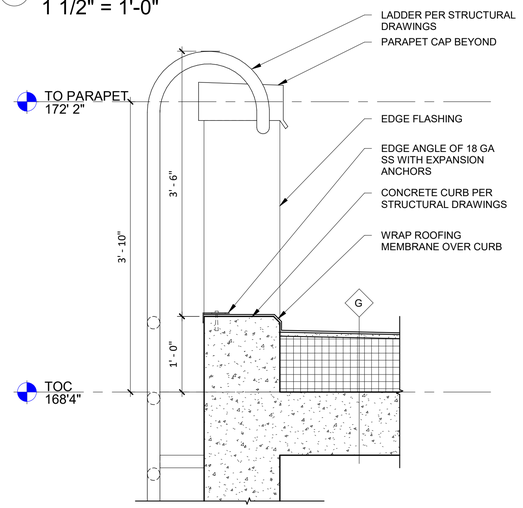


3 TYPICAL COUNTERTOP
1 1/2" = 1'-0"

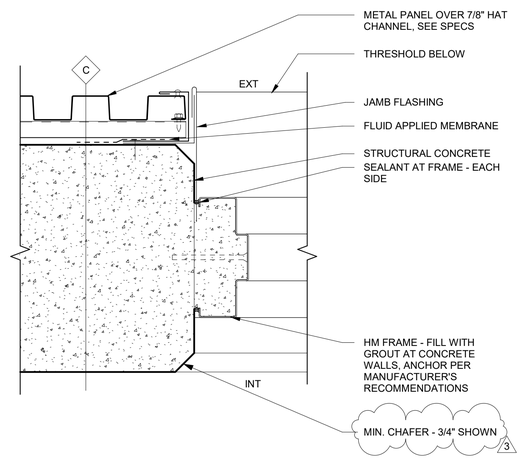
4 REVEAL
6" = 1'-0"



7 CODE - ADA MOUNTING HEIGHTS
1/4" = 1'-0"



8 LADDER OPENING @ ROOF
1" = 1'-0"



6 DOOR JAMB @ ASSEMBLY C
3" = 1'-0"

WEST YOST
Water. Engineered.

C:\Users\mBenaventeOneDrive - MWA Architects\Documents\City of Pittsburg - Filter Rehabilitation & Hypochlorite conversion - post 100%_mbenaventeGAV37.rvt

LICENSED ARCHITECT GREG A. ROBLEY No. C-30986 02/28/25 RENEWAL DATE STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: Greg Robley License No.30986 , Exp: 02/2025
01/22/2024
DATE:

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734,
Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER REHABILITATION AND
HYPOCHLORITE CONVERSION
DETAILS - 4

DRAWN: M. BENAVENTE	CHECKED: D. WILLIAMS	REVIEWED: G. ROBLEY	DATE: JAN 2024	SCALE: AS INDICATED

BY	DESCRIPTION	REV	DATE
	Addendum 3	1	03.21.24

SHEET NO.
63 OF 233

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

DWG. NO.
A114

SECTION 05 51 33
ALUMINUM LADDERS

PART 1 - GENERAL

1.1 THE REQUIREMENT

A. Furnish all labor, materials, equipment and incidentals required to provide complete ladders and accessories as shown on the Drawings and as specified herein.

B. Related Work Specified Elsewhere:

1. Section 05 50 00, Metal Fabrications

1.2 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

A. Occupational Safety and Health Standards (OSHA)

1. Code of Federal Regulations, 29 CFR, Part 1910

B. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.3 SUBMITTALS

A. Submit manufacturer's shop drawings, in accordance with Division 1, showing dimensions, material lists, methods of supporting, methods of anchoring, and finishes.

B. Submit structural analysis data and design calculations for ladders and anchorages, sealed and signed by a qualified Professional Civil or Structural Engineer licensed in California.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. The use of manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired.

B. All like materials shall be the products of one manufacturer or supplier in order to provide standardization of appearance.

2.2 FIXED LADDERS

A. Fixed ladders and accessories shall comply with all requirements of OSHA, 29 CFR 1910.27.

B. Acceptable Manufacturers:

1. Shop-fabricated from details on the Drawings

2. Precision Ladders LLC, Morristown, TN, FL Series (length as shown on the Drawings)

3. O'Keeffe's Inc. San Francisco, Model 502 Access Ladder

4. Premanufactured equal approved by the ENGINEER.

2.3 MATERIALS

A. Side Rails – Aluminum plates and bars, alloy 6061-T6 or alloy 6063-T5 for aluminum extrusions. Where side rail extensions are provided, the side rail shall be channel shape having a wall thickness not less than 0.125-in and a depth of not less than 3-in.

B. Rungs/Treads - Knurled or serrated aluminum bars, not less than 3/4-inches in diameter fabricated of alloy 6061-T6. Alternatively, serrated tubular aluminum extrusions of alloy 6063-T5/T6 not less than 1¼-inch square. Attach rungs to side rails with self-locking Type 316 Stainless Steel fasteners or weld as shown on the Drawings.

C. Wall/Floor Support Brackets: Aluminum plates, alloy 6061-T6.

2.4 LADDER SAFETY-POST EXTENSION

A. Fixed ladders occurring below grating, checkered plate or hatch doors shall be provided with attached telescoping tubular safety post extension, unless otherwise noted. Unit shall be completely assembled with stainless steel fasteners and brackets for securing to the ladder rungs provided by the manufacturer. Provide corrosion resistant construction.

2.5 FALL PREVENTION SYSTEM

A. Provide complete rigid-rail and locking sleeve fall prevention system at locations noted on the Drawings. System shall be complete with all mounting hardware and accessories.

B. The fall prevention system shall be the RTC-2000 Climb Rite, as manufactured by Sellstrom; Saf-T-Climb, as manufactured by North Products, Inc., or approved equal.

C. All necessary components shall be provided, including two safety belts for each fall prevention installation to provide a complete and fully operational fall prevention system. Safety belts shall fit a waist range from 23 inches to 54 inches.

D. A rail extension shall be provided for each installation. At all locations where fall prevention systems are installed, a safety chain with a snap hook shall be permanently attached to the top of the ladder. The chain shall be long enough to allow a person to connect the belt to the chain while standing on the landing adjacent to the ladder. The chain and snap hook shall have a minimum allowable capacity of 500 pounds.

E. Safety rails and associated accessories shall match the ladder material. Except that fiberglass ladders shall have stainless steel safety rails and accessories.

F. Where ladders begin below the access platform of a structure (e.g.: meter vaults, hatchways, etc.) provide a permanently installed mandril at each ladder to allow use of the removable extension previously specified.

G. Unless otherwise designated by the ENGINEER or indicated on the Drawings, fall prevention systems shall be provided on all ladders. At minimum, fall prevention system shall be provide on all ladders used to ascend heights exceeding 20 ft.

2.6 GENERAL FABRICATION

A. Details shall be as shown on the Drawings and as specified.

B. Components shall be free of splinters, sharp edges, burrs or hazardous projections.

C. For ladder rungs or capped top ends of side rails. Grind welds on exterior face of side rails or stringers smooth. Accurately fabricate joints for neat, tight fit.

D. Attachments not made by welding shall be made with self-locking Type 316 stainless steel fasteners.

E. Mill finish unless otherwise noted. Ship with a shop coat of methacrylate lacquer.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install ladders and accessories in compliance with manufacturer's shop drawings and detailed instructions.

B. Install fabrications, plumb, square and level and securely anchored to supports. Smooth and adjust miters and field cuts to assure tight joints.

C. Where aluminum contacts a dissimilar metal, apply to the dissimilar a heavy brush coat of zinc-chromate primer followed by two coats of aluminum metal and masonry paint.

D. Where aluminum contacts concrete, apply a heavy coat of acceptable alkali resistant epoxy paint to the concrete.

3.2 PROTECTION

A. Protect aluminum fabrications from damage due to work of adjacent trades.

3.3 CLEANING

A. As work progresses, remove debris and leave installation sites broom clean.

B. Prior to final acceptance, clean ladders of any paint, mud or other adherents.

END OF SECTION

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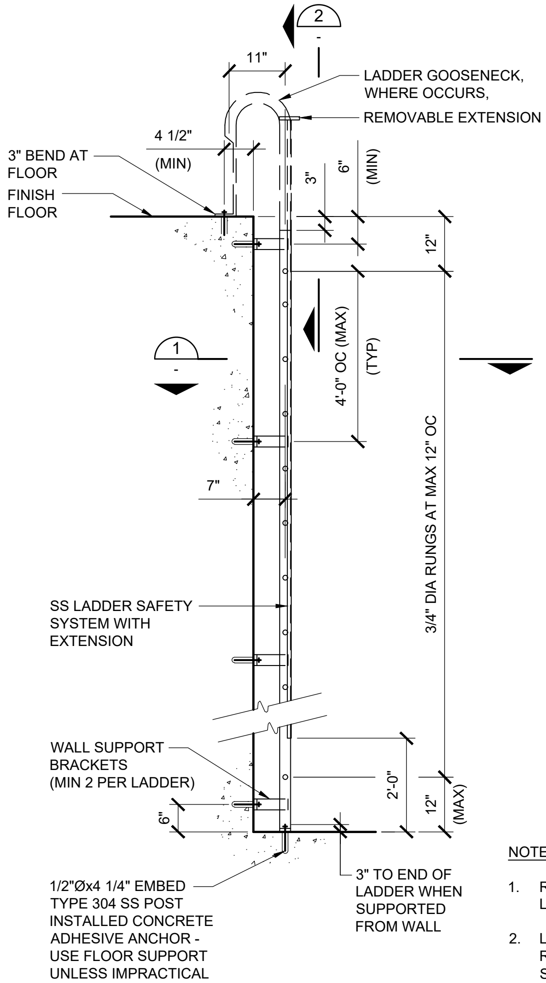
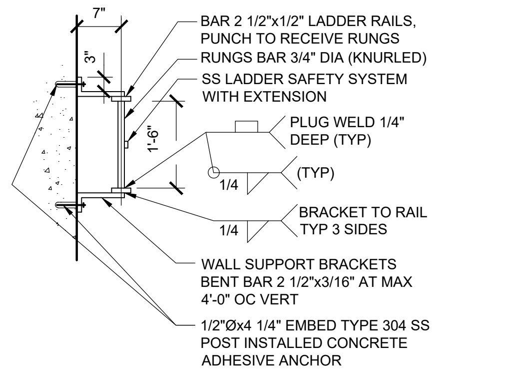
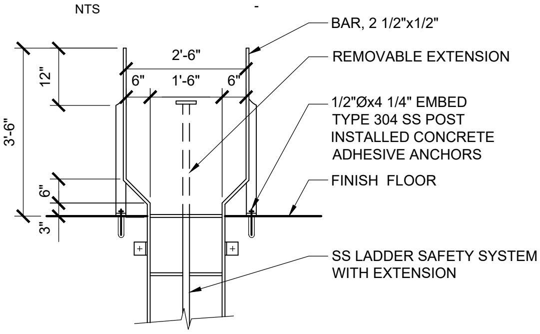




LADDER PLAN

SECTION 1 -
NTS



LADDER GOOSENECK

SECTION 2 -
NTS

NOTES:

1. REFER TO PLANS AND PROJECT SPECIFICATIONS FOR LADDER MATERIAL.
2. LADDER IS DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES SHEET GS001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. PROVIDE A LADDER SAFETY SYSTEM WHERE CLIMB IS GREATER THAN 20 FEET OR TOP OF LADDER IS GREATER THAN 24 FEET ABOVE THE LOWER LEVEL.

LADDER

DETAIL 05561 -
NTS

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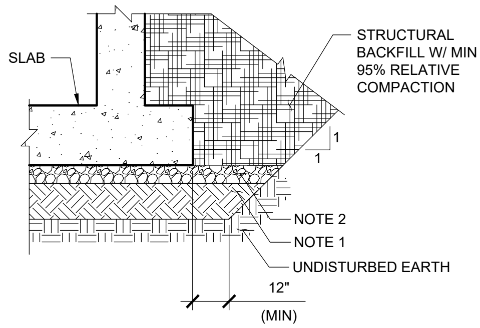
DESIGNED BY:	DMY
DRAWN BY:	BV
CHECKED BY:	-
SCALE:	-
DATE:	MARCH 2024

CITY OF PITTSBURG
WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

LADDER DETAIL

THIS BAR SCALES EXACTLY ONE-HALF INCH AT FULL SCALE

SHEET NO.
FIG-1
SHEET OF



CLASS 2 AGGREGATE ROAD BASE GRADATION	
SIEVE SIZE	PERCENT PASSING
1"	100
3/4"	88-100
NO. 4	30-65
NO. 30	5-35
NO. 200	0-12

NOTES:

1. FOOTINGS/FOUNDATIONS SHALL BE EXCAVATED INTO FIRM NATIVE SOIL OR ENGINEERED FILL. MATERIAL SHALL BE COMPACTED PER GEOTECHNICAL ENGINEER'S RECOMMENDATION. WHERE A RECOMMENDATION DOES NOT EXIST, COMPACT TO 95% OF MAXIMUM DENSITY AND MOISTURE CONTENT OF NOT LESS THAN TWO PERCENTAGE POINTS ABOVE OPTIMUM PER ASTM D1557. FOOTING/FOUNDATION EXCAVATIONS SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER OR AN OWNER AUTHORIZED REPRESENTATIVE BEFORE PLACEMENT OF STEEL OR CONCRETE.

2. 12" THICK (MIN) CLASS 2 AGGREGATE ROAD BASE (3/4" TO FINE) COMPACTED TO 95% OF MAXIMUM DENSITY AND MOISTURE CONTENT OF NOT LESS THAN TWO PERCENTAGE POINTS ABOVE OPTIMUM PER ASTM D1557.

TYPICAL SUBGRADE PREPARATION
(EXCEPT FOR CHEMICAL STORAGE AREA)

DETAIL 02001
NTS
-

TJC and ASSOCIATES, Inc.

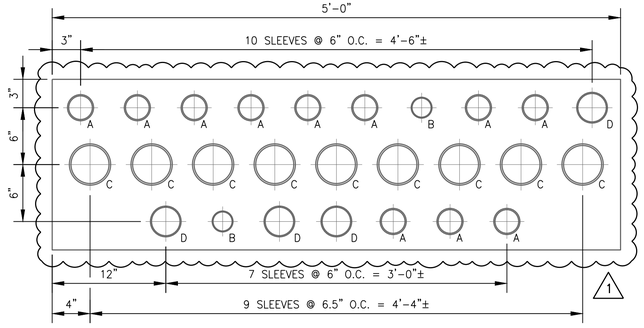
DESIGNED BY:	DMY
DRAWN BY:	ADP
CHECKED BY:	-
SCALE:	-
DATE:	MARCH 2024

CITY OF PITTSBURG
WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

TYPICAL SUBGRADE PREPARATION DETAIL

THIS BAR SCALES EXACTLY ONE-HALF INCH AT FULL SCALE

SHEET NO.
FIG-2
SHEET OF

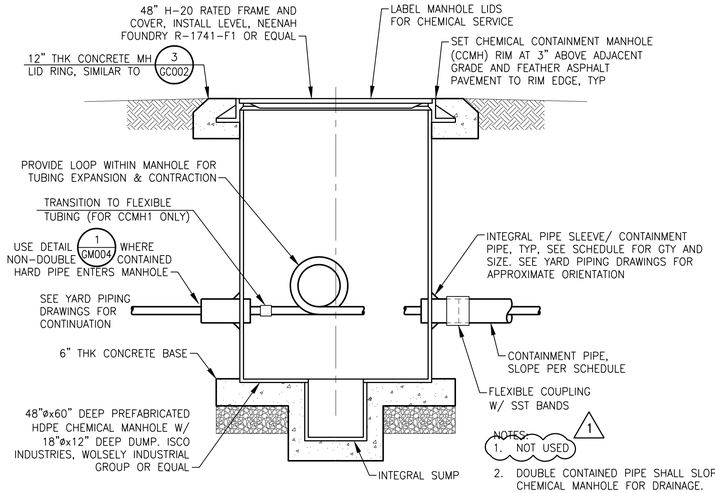


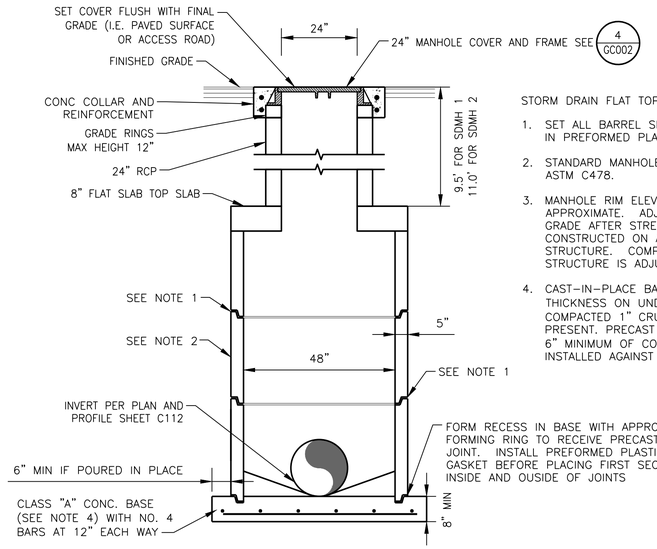
SLEEVE SCHEDULE	
A	2½" SCH. 40 STL. PIPE
B	2" SCH. 40 STL. PIPE
C	4" SCH. 40 STL. PIPE
D	3" SCH. 40 STL PIPE

START OF (E) JOINT TRENCH AT CHEMICAL METERING ROOM

DETAIL 1/C103

NOT TO SCALE





STORM DRAIN FLAT TOP MANHOLE NOTES:

1. SET ALL BARREL SECTIONS & TAPER SECTIONS IN PREFORMED PLASTIC SEALING COMPOUND.
2. STANDARD MANHOLE BARREL SECTION PER ASTM C478.
3. MANHOLE RIM ELEVATION SHOWN ON PLAN IS APPROXIMATE. ADJUST FRAME AND COVER TO GRADE AFTER STREET OR SIDEWALK HAS BEEN CONSTRUCTED ON ALL SIDES OF THE STRUCTURE. COMPLETE PAVING AFTER STRUCTURE IS ADJUSTED.
4. CAST-IN-PLACE BASE SHALL BE POURED FULL THICKNESS ON UNDISTURBED SOIL OR ON 6" COMPACTED 1" CRUSHED ROCK IF WATER IS PRESENT. PRECAST BASE SHALL BE PLACED ON 6" MINIMUM OF COMPACTED 1" CRUSHED ROCK INSTALLED AGAINST UNDISTURBED EARTH.

FLAT TOP STORMDRAIN MANHOLE SECTION

DETAIL 5/VAR

NOT TO SCALE

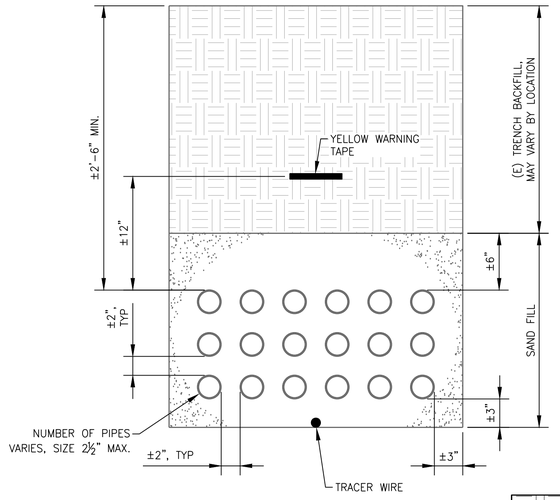
MANHOLE NO.	CHEMICAL SERVICE	INLET HARD PIPE DIA., IN.	INLET PIPE SLEEVE DIA., IN.	PROCESS FLUID DESTINATION	TUBING DIA., IN.	CONTAINMENT PIPE DIA., IN.	CONTAINMENT PIPE SLOPE
CCMH1	SHC – SODIUM HYPOCHLORITE	2	4	SW	0.75	4	TOWARDS CCMH1
	SHC – SODIUM HYPOCHLORITE	0.75	3	CFE	0.75	4	TOWARDS CCMH2
	LAS – LIQUID AMMONIUM SULFATE	1	3	CFE	1	4	TOWARDS CCMH2
	HA – HYDROFLUOSILICIC ACID	1	3	CFE	1	4	TOWARDS CCMH2
	CSO – CAUSTIC SODA	1	3	CFE	1	4	TOWARDS CCMH2
	CP – CATIONIC POLYMER	2.5	5	SW	2	6	TOWARDS CCMH1
	SC – SPARE CHEMICAL	2	4	SW	2	4	TOWARDS CCMH1
	SC – SPARE CHEMICAL	2	4	CFE	2	6	TOWARDS CCMH2
CCMH2	SHC – SODIUM HYPOCHLORITE	N/A	N/A	CFE	0.75	4	TOWARDS CCMH2
	LAS – LIQUID AMMONIUM SULFATE	N/A	N/A	CFE	1	4	TOWARDS CCMH2
	HA – HYDROFLUOSILICIC ACID	N/A	N/A	CFE	1	4	TOWARDS CCMH2
	CSO – CAUSTIC SODA	N/A	N/A	CFE	1	4	TOWARDS CCMH2
	SC – SPARE CHEMICAL	N/A	N/A	CFE	2	6	TOWARDS CCMH2

SAMPLE LINES NOT INCLUDED. SEE NOTE 5, DETAIL 6, THIS DWG. 1

CHEMICAL CONTAINMENT MANHOLE

DETAIL 4/VAR

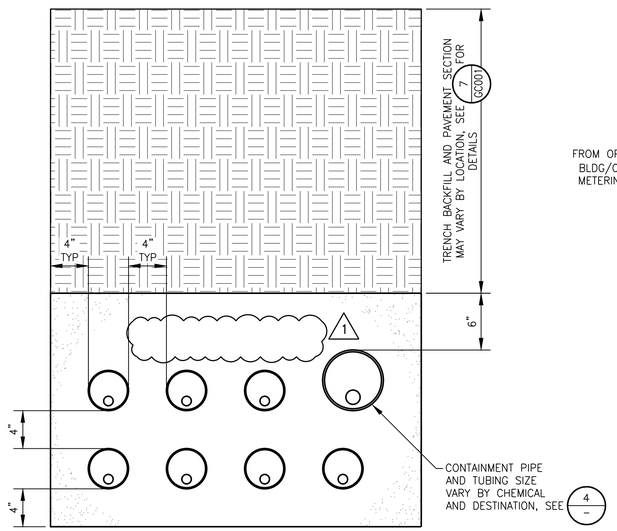
NOT TO SCALE



TYPICAL (E) JOINT TRENCH

DETAIL 2/VAR

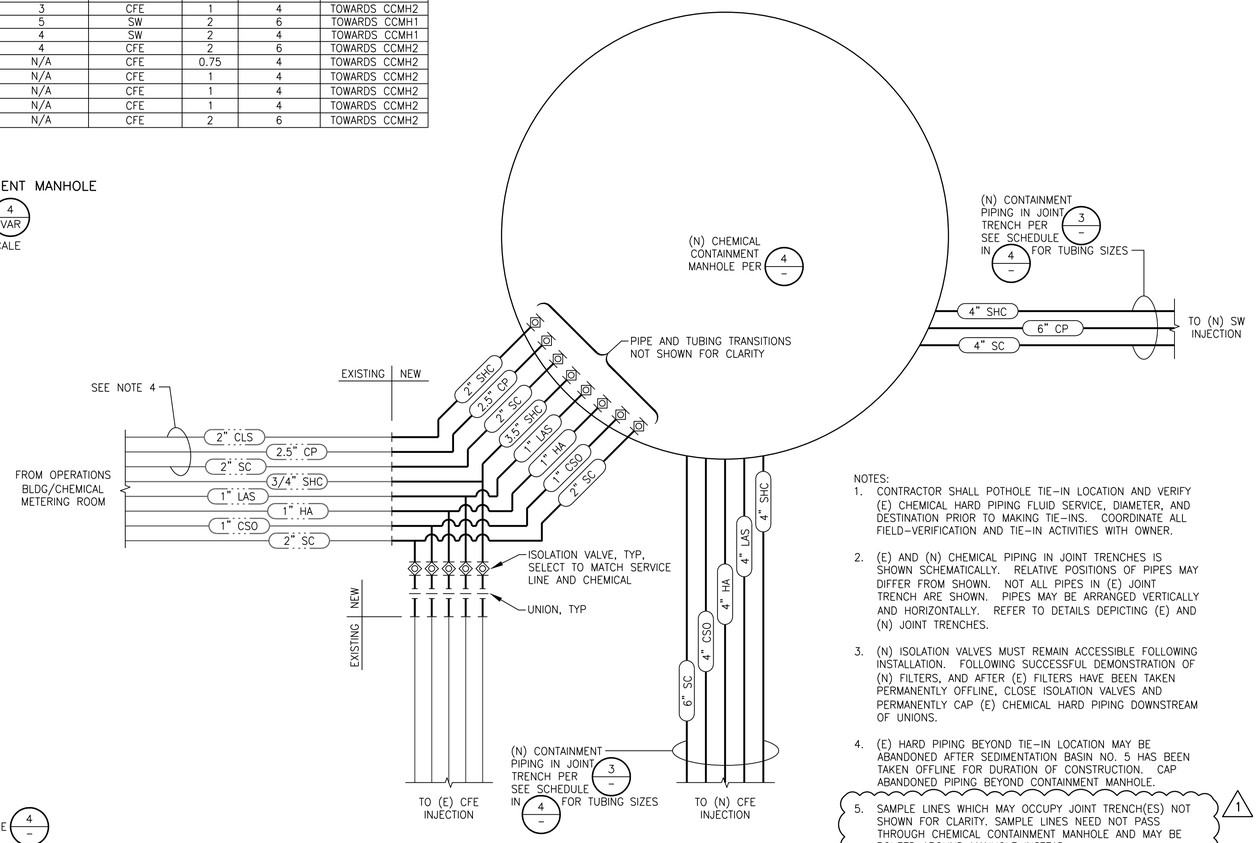
NOT TO SCALE



TYPICAL (N) JOINT CHEMICAL TRENCH

DETAIL 3/VAR

NOT TO SCALE



CHEMICAL PIPE TIE-INS

DETAIL 6/TYP

NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL POTHOLE TIE-IN LOCATION AND VERIFY (E) CHEMICAL HARD PIPING FLUID SERVICE, DIAMETER, AND DESTINATION PRIOR TO MAKING TIE-INS. COORDINATE ALL FIELD-VERIFICATION AND TIE-IN ACTIVITIES WITH OWNER.
2. (E) AND (N) CHEMICAL PIPING IN JOINT TRENCHES IS SHOWN SCHEMATICALLY. RELATIVE POSITIONS OF PIPES MAY DIFFER FROM SHOWN. NOT ALL PIPES IN (E) JOINT TRENCH ARE SHOWN. PIPES MAY BE ARRANGED VERTICALLY AND HORIZONTALLY. REFER TO DETAILS DEPICTING (E) AND (N) JOINT TRENCHES.
3. (N) ISOLATION VALVES MUST REMAIN ACCESSIBLE FOLLOWING INSTALLATION. FOLLOWING SUCCESSFUL DEMONSTRATION OF (N) FILTERS, AND AFTER (E) FILTERS HAVE BEEN TAKEN PERMANENTLY OFFLINE, CLOSE ISOLATION VALVES AND PERMANENTLY CAP (E) CHEMICAL HARD PIPING DOWNSTREAM OF UNIONS.
4. (E) HARD PIPING BEYOND TIE-IN LOCATION MAY BE ABANDONED AFTER SEDIMENTATION BASIN NO. 5 HAS BEEN TAKEN OFFLINE FOR DURATION OF CONSTRUCTION. CAP ABANDONED PIPING BEYOND CONTAINMENT MANHOLE.
5. SAMPLE LINES WHICH MAY OCCUPY JOINT TRENCH(ES) NOT SHOWN FOR CLARITY. SAMPLE LINES NEED NOT PASS THROUGH CHEMICAL CONTAINMENT MANHOLE AND MAY BE ROUTED AROUND MANHOLE INSTEAD. 1

PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp: 12/2024
DATE: 03/25/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

CIVIL DETAILS 4

DRAWN: SMB	CHECKED: TRB	REVIEWED: AMS	DATE: 1/19/2024	SCALE: AS SHOWN

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	AMS

SHEET NO. 12 OF 232

DWG. NO. GC004

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

WEST YOST
Water. Engineered.

ORIGINAL PAGE SIZE: 22"X34"

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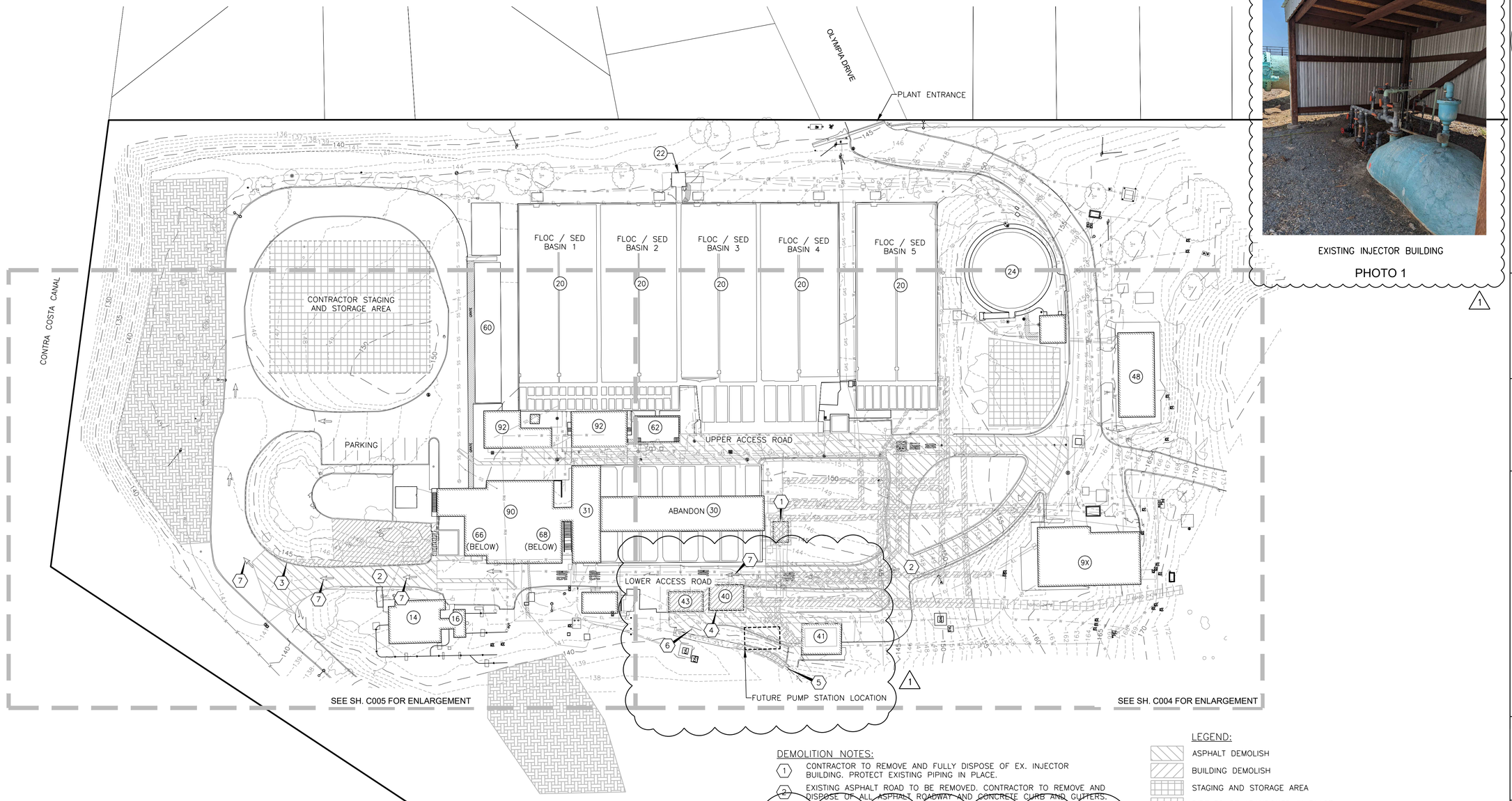

EXISTING INJECTOR BUILDING

PHOTO 1

1

DEMOLITION NOTES:

1. CONTRACTOR TO REMOVE AND FULLY DISPOSE OF EX. INJECTOR BUILDING. PROTECT EXISTING PIPING IN PLACE.
2. EXISTING ASPHALT ROAD TO BE REMOVED. CONTRACTOR TO REMOVE AND DISPOSE OF ALL ASPHALT ROADWAY AND CONCRETE CURB AND GUTTERS.
3. REMOVE EXISTING BRICK WALL. DELIVER SALAVAGED BLOCKS TO OWNER. CONSTRUCT NEW RETAINING WALL PER STRUCTURAL DRAWINGS.
4. CONTRACTOR TO REMOVE AND FULLY DISPOSE OF EXISTING BUILDING AND PUMP STATION COMPONENTS. REMOVE TOP SLAB AND PLUG INLET PIPE PER DETAIL 4, SHEET GC001. REST OF EXISTING CLEARWELL TO REMAIN. PERFORATE BOTTOM SLAB AND FILL WITH STRUCTURAL FULL (AB) TO GRADE. SEE SHEET D400.
5. REMOVE AND DISPOSE OF EXISTING DITCH WITHIN LIMITS SHOWN.
6. REMOVE AND DISPOSE OF EXISTING CURB AND ASPHALT PAVEMENT WITHIN LIMITS SHOWN.
7. REPLACE STRIPING REMOVED DURING CONTRUCTION.

1

LEGEND:

- ASPHALT DEMOLISH
- BUILDING DEMOLISH
- STAGING AND STORAGE AREA
- PIPE TO BE ABANDONED IN PLACE
- ON SITE SOIL DISPOSAL LOCATIONS

GENERAL NOTES:

1. FOR UTILITY DEMOLITION SEE ENLARGEMENT PLANS ON SHEETS C004 AND C005
2. UTILITIES SHOWN ARE FROM SURVEY, POTHOLE DATA AND AS-BUILT DRAWINGS. CONTRACTOR SHALL POTHOLE UTILITIES PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND SIZE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES THAT MAY AFFECT CONSTRUCTION.
3. SEE MECHANICAL PLANS AND "D" SERIES SHEETS FOR DEMOLITION INSIDE BUILDINGS AND MECHANICAL EQUIPMENT.

ALTERNATE ADDITIVE BID ITEMS

2 ALTERNATE ADDITIVE BID ITEM #2: RELOCATION OF NEW NORTH CLEARWELL AND FILTERED EFFLUENT PUMP STATION. SEE M400 FOR MECHANICAL DRAWINGS.

1

FACILITIES LEGEND:

(9X) HIGH LIFT PS2	(31) WTP OFFICES (TO REMAIN)	(60) CHEMICAL STORAGE 1 (EXISTING)
(14) CHLORINE DIOXIDE CONTACTOR	(40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)	(62) CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
(16) RAPID MIX	(41) FILTERED WATER PUMP STATION 2 (SOUTH)	(64) CHEMICAL STORAGE 3 (NEW)
(20) PRETREATMENT BASINS	(42) FILTERED WATER PUMP STATION 3 (NEW NORTH)	(66) CHLORINE AND CHLORINE DIOXIDE ROOM
(22) SETTLED SLUDGE PUMP STATION	(43) ABANDONED BUILDING	(68) CHEMICAL METERING ROOM
(24) SLUDGE THICKENER	(48) HIGH SERVICE BOOSTER STATION	(90) OPERATIONS BUILDING
(30) FILTERS	(50) REMOTE STORAGE	(92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

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0 1/2" 1"
SCALE IN INCHES

PROFESSIONAL ENGINEER ★ TIMOTHY R. BANYAI ★ No. C60715 Exp. 12-31-24 ★ STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
Timothy R. Banyai 03/25/2024
TIMOTHY R. BANYAI, P.E. DATE:
License No. 60715, Exp. 12/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E. Date:
City Engineer
License No. 67734, Exp. 06/2025

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

OVERALL WTP DEMOLITION PLAN

DRAWN: SMB	CHECKED: TRB	REVIEWED: AMS	DATE: 1/19/2024	SCALE: 1"=40'

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	KME

SHEET NO.
15 OF 232

DWG. NO.
C003

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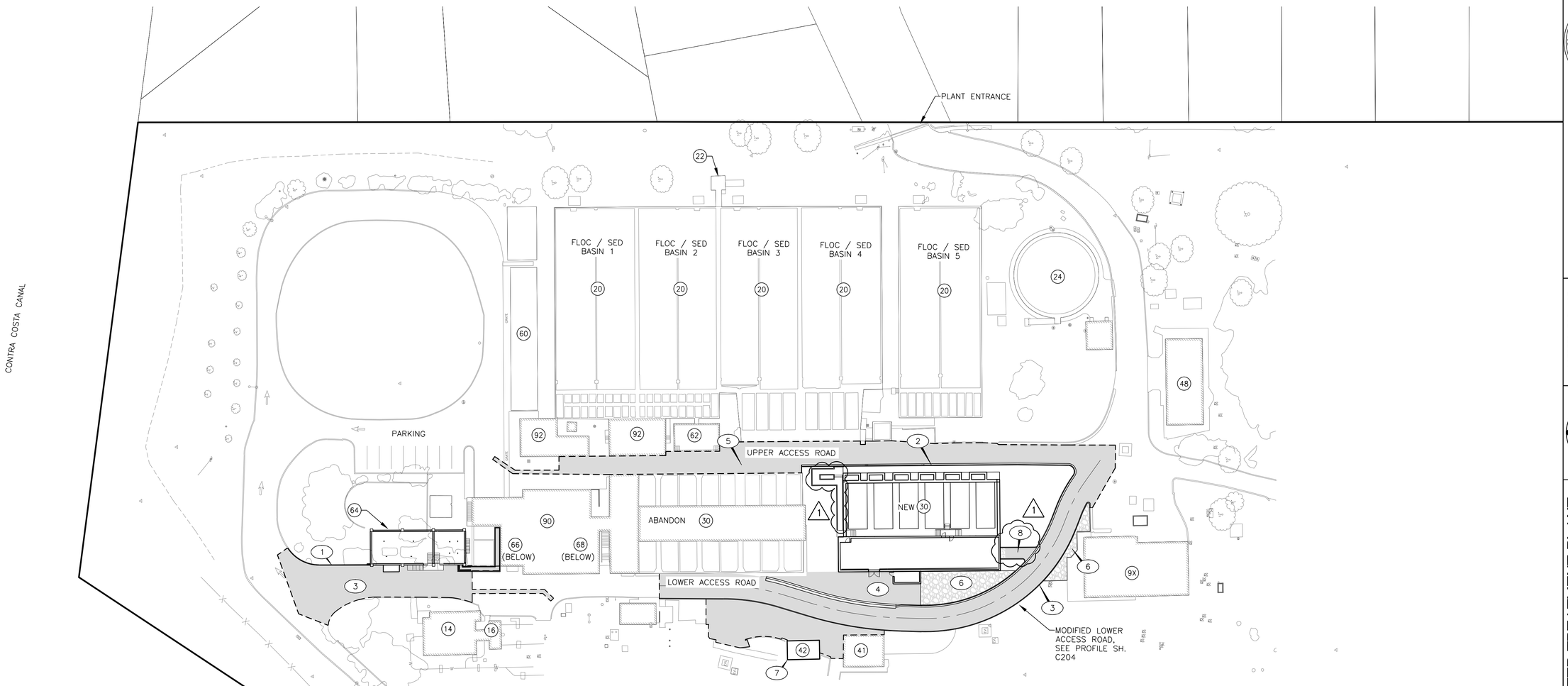

LEGEND:

ASPHALT

GRAVEL

CONCRETE

GENERAL NOTES:

1. SIGNING AND STRIPING PER SPEC 101400. SIGNING AND STRIPING PER LOCATIONS TO AS DIRECTED BY OWNER. SIGN POSTS AND FOOTINGS PER CITY OF PITTSBURG DETAIL T-11.

CONSTRUCTION NOTES:

1. CONSTRUCT 140 LF OF NEW BRICK WALL USING SALVAGED BRICKS.
2. CONSTRUCT 165 LF OF NEW 6" VERT CURB PER DETAIL 8, SHEET GC003.
3. CONSTRUCT NEW AC PAVEMENT PER DET. 1, SHEET GC003.
4. CONSTRUCT NEW AC PAVEMENT PER DET. 1, SHEET GC003.
5. REPLACE EXISTING AC PAVEMENT PER DET. 5, SHEET GC003.
6. GEOFABRIC LAYER WITH 2" OF ROCK. COORDINATE ROCK TYPE WITH OWNER
7. CONSTRUCT NEW PUMP STATION. SEE SHEET M400.
8. ACCESS RAMP TO BLOWER ROOM

FACILITIES LEGEND:

- 9X HIGH LIFT PS2
- 14 CHLORINE DIOXIDE CONTACTOR
- 16 RAPID MIX
- 20 PRETREATMENT BASINS
- 22 SETTLED SLUDGE PUMP STATION
- 24 SLUDGE THICKENER
- 30 FILTERS
- 31 WTP OFFICES (TO REMAIN)
- 40 FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)
- 41 FILTERED WATER PUMP STATION 2 (SOUTH)
- 42 FILTERED WATER PUMP STATION 3 (NEW NORTH)
- 43 ABANDONED BUILDING
- 48 HIGH SERVICE BOOSTER STATION
- 50 REMOTE STORAGE
- 60 CHEMICAL STORAGE 1 (EXISTING)
- 62 CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
- 64 CHEMICAL STORAGE 3 (NEW)
- 66 CHLORINE AND CHLORINE DIOXIDE ROOM
- 68 CHEMICAL METERING ROOM
- 90 OPERATIONS BUILDING
- 92 EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

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SCALE IN FEET

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PROFESSIONAL ENGINEER
TIMOTHY R. BANYAI
No. C60715
Exp. 12-31-24
CIVIL
STATE OF CALIFORNIA

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TIMOTHY R. BANYAI, P.E.
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City Engineer
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Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

OVERALL PROPOSED SITE PLAN

DRAWN: SMB
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REVIEWED: AMS
DATE: 1/19/2024
SCALE: 1"=40'

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	KME

SHEET NO.
18 OF 232

DWG. NO.
C100

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PICTURE 1
EXISTING 18" BFV'S
(VIEW FROM EAST)

PICTURE 2
EXISTING 18" BFV'S
(VIEW FROM TOP)

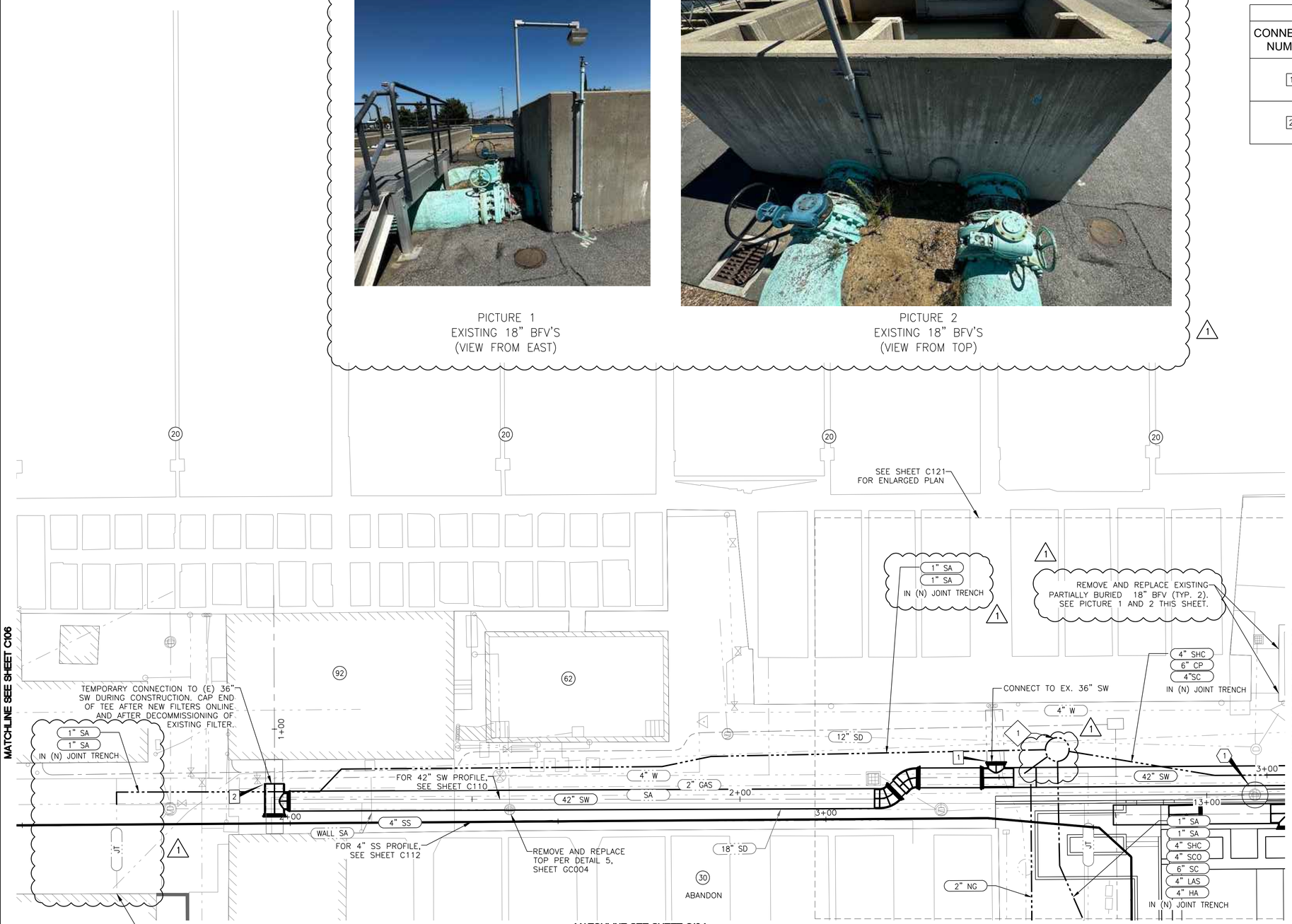
PIPE CONNECTION TABLE				
CONNECTION NUMBER	ALIGNMENT NAME	EXISTING PIPE & MATERIAL	PROPOSED PIPE	CONNECTION TYPE
1	42" SW SEE SHEET C110	36" SW CML&C	42" SW CML&C	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
2	42" SW SEE SHEET C110	36" SW CML&C	42" SW CML&C	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001

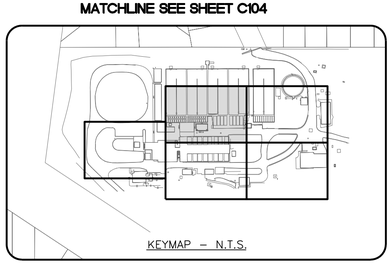
CHEMICAL KEY NOTES:

(1) CHEMICAL MANHOLE PER DETAIL 4, SHEET GC004
RIM: 150.97
N: 2192314.9164
E: 6157019.4268

STORM KEY NOTES:

(1) 48" FLAT TOP SDMH 1
RIM: 151.04'
DEPTH: 18.24'
N: 2192191.8572
E: 6157009.3043





KEYMAP – N.T.S.

FACILITIES LEGEND:

(9X) HIGH LIFT PS2	(31) WTP OFFICES (TO REMAIN)	(60) CHEMICAL STORAGE 1 (EXISTING)
(14) CHLORINE DIOXIDE CONTACTOR	(40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)	(62) CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
(16) RAPID MIX	(41) FILTERED WATER PUMP STATION 2 (SOUTH)	(64) CHEMICAL STORAGE 3 (NEW)
(20) PRETREATMENT BASINS	(42) FILTERED WATER PUMP STATION 3 (NEW NORTH)	(66) CHLORINE AND CHLORINE DIOXIDE ROOM
(22) SETTLED SLUDGE PUMP STATION	(43) ABANDONED BUILDING	(68) CHEMICAL METERING ROOM
(24) SLUDGE THICKENER	(48) HIGH SERVICE BOOSTER STATION	(90) OPERATIONS BUILDING
(30) FILTERS	(50) REMOTE STORAGE	(92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

N

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SCALE IN FEET

ORIGINAL PAGE SIZE: 22"X34"

PROFESSIONAL ENGINEER TIMOTHY R. BANYAI No. C60715 Exp. 12-31-24 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: Timothy R. Banyai 03/25/2024
TIMOTHY R. BANYAI, P.E. DATE:
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ACCEPTED FOR USE:
JOHN SAMUELSON, P.E. Date:
City Engineer
License No. 67734, Exp. 06/2025

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

YARD PIPING PLAN (AREA 1)

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	KME

DRAWN: SMB
CHECKED: TRB
REVIEWED: AMS
DATE: 1/19/2024
SCALE: 1" = 10'

SHEET NO.
20 OF 232

DWG. NO.
C102

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0 1/2" 1"
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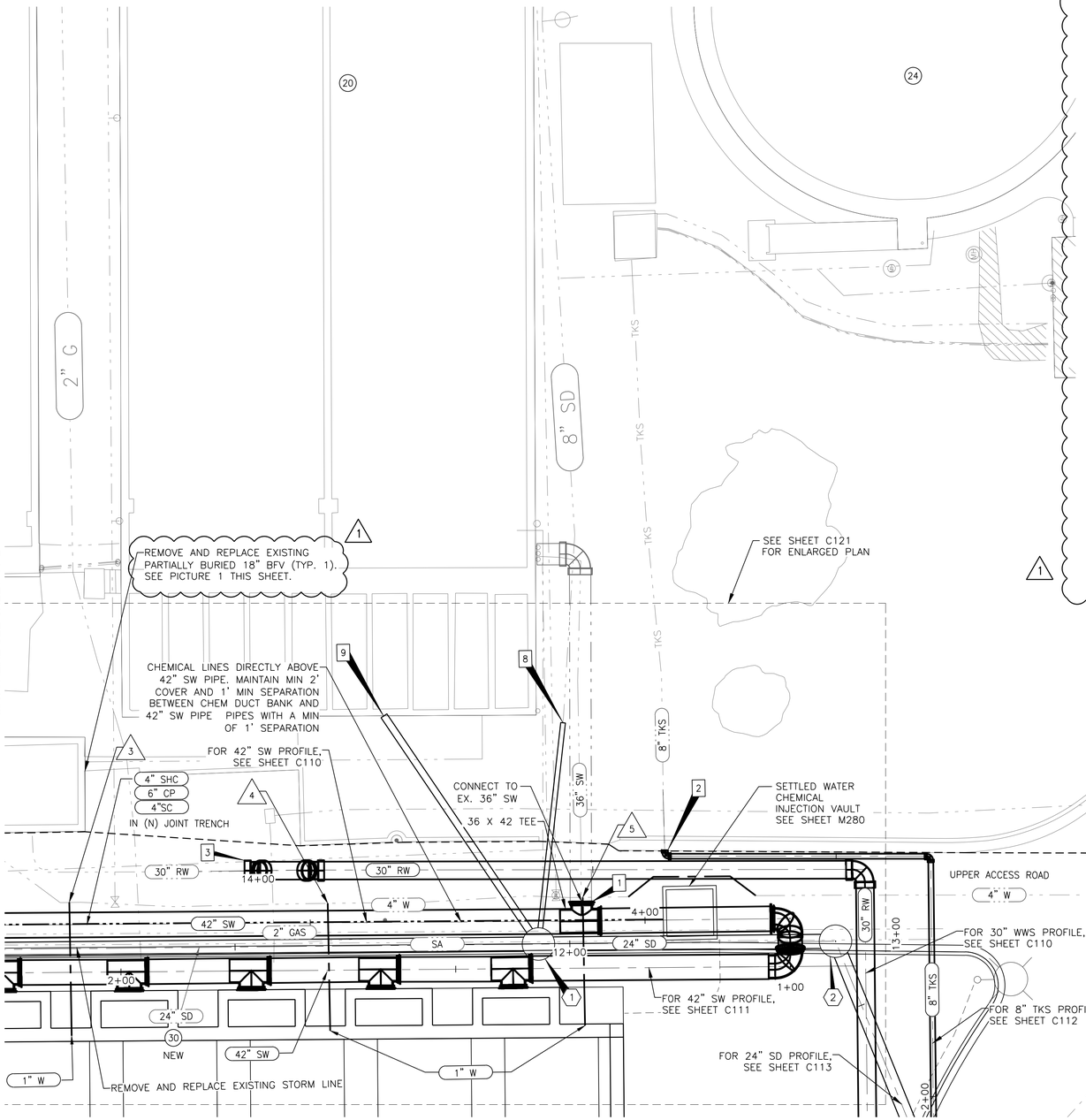
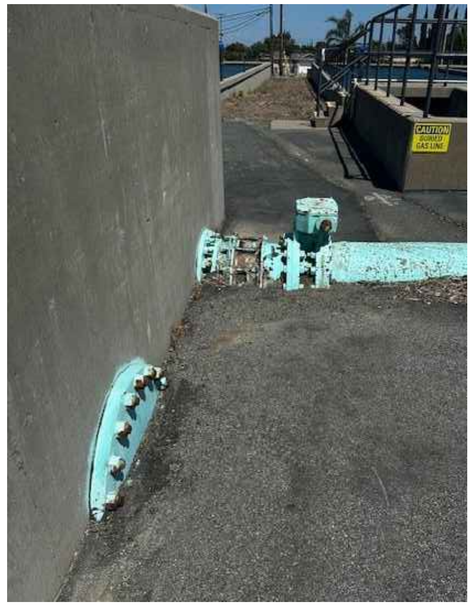


MATCHLINE SEE SHEET C102

MATCHLINE SEE SHEET C105



1 PICTURE 1
EXISTING 18" BFV
(VIEW FROM EAST)

PIPE CONNECTION TABLE

CONNECTION NUMBER	ALIGNMENT NAME	EXISTING PIPE & MATERIAL	PROPOSED PIPE	CONNECTION TYPE
1	42" SW SEE SHEET C110	36" SW CML&C	42" SW CML&C	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
2	8" TKS SEE SHEET C110	8" TKS DI	8" TKS DI	RESTRAINED JOINT CONNECTION WITH STRADDLE BLOCK
3	30" RW SEE SHEET C110	30" RW CML&C	30" RW CML&C	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
8	NA	UNKNOWN	8" SD PVC	STORM MANHOLE & SEE NOTE 1
9	NA	UNKNOWN	12" SD PVC	STORM MANHOLE & SEE NOTE 1

NOTE 1: CONTRACTOR TO POTHOLE & VERIFY PIPE MATERIAL PRIOR TO CONSTRUCTION. COORDINATE WITH ENGINEER ON CONNECTION

WATER KEY NOTES:

3 1" MUELLER B-25008N CORP STOP (OR APPROVED EQUAL) TAP INTO EXISTING 4" WL
N: 2192261.8002
E: 6157016.9436

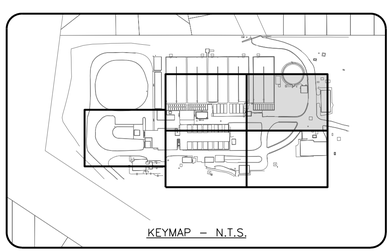
4 1" MUELLER B-25008N CORP STOP (OR APPROVED EQUAL) TAP INTO EXISTING 4" WL
N: 2192223.2180
E: 6157016.0161

5 1" MUELLER B-25008N CORP STOP (OR APPROVED EQUAL) TAP INTO EXISTING 4" WL
N: 2192185.2508
E: 6157012.6446

STORM KEY NOTES:

1 48" FLAT TOP SDMH 2
RIM: 152.55'
DEPTH: 19.95'
N: 2192191.8572
E: 6157009.3043

2 48" SDMH 3
RIM: 154.98'
DEPTH: 22.56'
N: 2192147.4979
E: 6157008.8298



KEYMAP – N.T.S.

FACILITIES LEGEND:

- (9X) HIGH LIFT PS2
- (14) CHLORINE DIOXIDE CONTACTOR
- (16) RAPID MIX
- (20) PRETREATMENT BASINS
- (22) SETTLED SLUDGE PUMP STATION
- (24) SLUDGE THICKENER
- (30) FILTERS
- (31) WTP OFFICES (TO REMAIN)
- (40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)
- (41) FILTERED WATER PUMP STATION 2 (SOUTH)
- (42) FILTERED WATER PUMP STATION 3 (NEW NORTH)
- (43) ABANDONED BUILDING
- (48) HIGH SERVICE BOOSTER STATION
- (50) REMOTE STORAGE
- (60) CHEMICAL STORAGE 1 (EXISTING)
- (62) CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
- (64) CHEMICAL STORAGE 3 (NEW)
- (66) CHLORINE AND CHLORINE DIOXIDE ROOM
- (68) CHEMICAL METERING ROOM
- (90) OPERATIONS BUILDING
- (92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

N
0 10 20
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ORIGINAL PAGE SIZE: 22"X34"

PROFESSIONAL ENGINEER TIMOTHY R. BANYAI No. C60715 Exp. 12-31-24 REGISTERED CIVIL ENGINEER STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: Timothy R. Banyai 03/25/2024
TIMOTHY R. BANYAI, P.E. DATE:
License No. 60715, Exp: 12/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION
YARD PIPING PLAN (AREA 2)

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	KME

DRAWN: SMB
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REVIEWED: AMS
DATE: 1/19/2024
SCALE: 1" = 10'

SHEET NO.
21 OF 232

DWG. NO.
C103

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0 1/2" 1"
SCALE IN INCHES

\\CNS-FS01\Walnut Creek\Clients\1040 City of Pittsburg\50-22-01 Filter & Cl2 Improvm\CAD\Production\1040-50-22-01-C103.dwg 3-21-24 11:35:59 AM akhan

MATCHLINE SEE SHEET C102

MATCHLINE SEE SHEET C106

MATCHLINE SEE SHEET C105

PIPE CONNECTION TABLE				
CONNECTION NUMBER	ALIGNMENT NAME	EXISTING PIPE & MATERIAL	PROPOSED PIPE	CONNECTION TYPE
1	30" RW SEE SHEET C110	30" RW CML&C	30" RW WSP	FIELD WELDED BUTT STRAP PER DETAIL 3, SHEET GC001
2	36" CFE SEE SHEET C111	36" CFE CML&C	36" CFE WSP	SEE CONNECTION DETAIL 2, SHEET C120

(30) ABANDON

(68) (BELOW)

PIPE CONNECTION DETAIL, SEE DETAIL 1 SHEET C120

FOR 36" WWD PROFILE, SEE SHEET C113

CONNECT TO EX. 24" SD

FOR 36" CFE PROFILE, SEE SHEET C112

FOR 30" PS 3 PROFILE, SEE SHEET C111

SEE SHEET C122 FOR ENLARGED PLAN

4" SS

1" SA
1" SA
4" SHC
4" SCO
6" SC
4" LAS
4" HA
IN (N) JOINT TRENCH

36" WWD
2" 1W
10" W
30" RW
10"-1W-DIP
36" CFE
1" SA
30" CFE
36" WWD

4+00
1+00
10+00
1+77
20+00

WATER KEY NOTES:

1. NEW HYDRANT PER CITY OF PITTSBURG DETAIL W-4
   N: 2192322.2202
   E: 6156929.7802
2. 2" MUELLER B-25008N CORP STOP (OR APPROVED EQUAL) TAP INTO EXISTING 10" WL
   N: 2192321.3675
   E: 6156921.0345

STORM KEY NOTES:

1. STORM INLET
   12" PVC
   RIM: 141.80'
   IE OUT: 135.46'
   SLOPE: 0.50%
2. 72" SDMH 7
   RIM: 142.26'
   DEPTH: 9.48'
   N: 2192326.3123
   E: 6156897.1988
3. 72" SDMH 8
   RIM: 141.72'
   DEPTH: 9.03'
   N: 2192351.4188
   E: 6156886.3032
4. SDMH 9
   RIM: 142.14'
   DEPTH: 4.84'
   N: 2192351.9112
   E: 6156868.2707
5. RIP RAP PROTECTED STORM OUTLET INTO EXISTING POND
   N: 2192353.3008
   E: 6156825.8461

CHEMICAL KEY NOTES:

1. CHEMICAL MANHOLE PER DETAIL 4, SHEET GC004
   RIM: 142.13
   N: 2192314.9164
   E: 6157019.4268

KEYMAP – N.T.S.

FACILITIES LEGEND:

(9X) HIGH LIFT PS2	(31) WTP OFFICES (TO REMAIN)	(60) CHEMICAL STORAGE 1 (EXISTING)
(14) CHLORINE DIOXIDE CONTACTOR	(40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)	(62) CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
(16) RAPID MIX	(41) FILTERED WATER PUMP STATION 2 (SOUTH)	(64) CHEMICAL STORAGE 3 (NEW)
(20) PRETREATMENT BASINS	(42) FILTERED WATER PUMP STATION 3 (NEW NORTH)	(66) CHLORINE AND CHLORINE DIOXIDE ROOM
(22) SETTLED SLUDGE PUMP STATION	(43) ABANDONED BUILDING	(68) CHEMICAL METERING ROOM
(24) SLUDGE THICKENER	(48) HIGH SERVICE BOOSTER STATION	(90) OPERATIONS BUILDING
(30) FILTERS	(50) REMOTE STORAGE	(92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS

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WEST YOST
Water. Engineered.

ORIGINAL PAGE SIZE: 22"X34"

PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp. 12/2024
DATE: 03/25/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION
YARD PIPING PLAN (AREA 3)

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	KME

DRAWN: SMB
CHECKED: TRB
REVIEWED: AMS
DATE: 1/19/2024
SCALE: 1" = 10'

SHEET NO.
22 OF 232

DWG. NO.
C104

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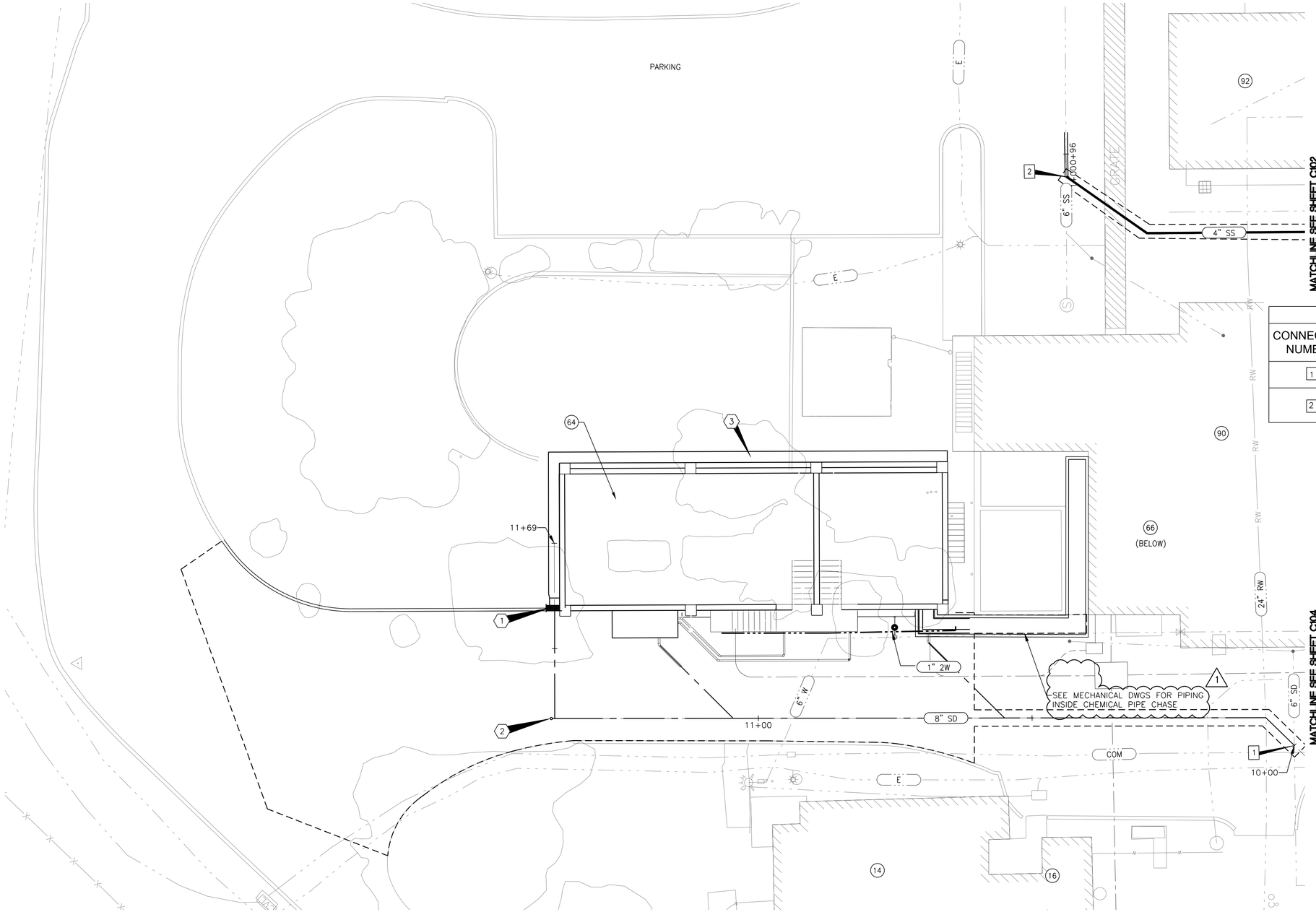


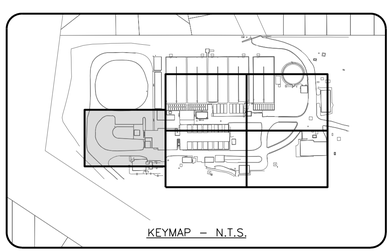
PIPE CONNECTION TABLE

CONNECTION NUMBER	ALIGNMENT NAME	EXISTING PIPE & MATERIAL	PROPOSED PIPE	CONNECTION TYPE
1	8"-SD-PVC SEE SHEET C113	UNKNOWN	8" PVC	SEE NOTE 1
2	4"-SS-PVC SEE SHEET 113	UNKNOWN	4" PVC	SEE NOTE 1

NOTE 1: CONTRACTOR TO POTHOLE & VERIFY PIPE MATERIAL PRIOR TO CONSTRUCTION. COORDINATE WITH ENGINEER ON CONNECTION

STORM KEY NOTES:

1. STORM INLET
   8" PVC
   RIM: 146.25'
   SLOPE: MIN 0.50%
2. STORM CLEANOUT
3. CONCRETE DITCH
   PER DETAIL 9/GC003
   SLOPE: MIN 0.50%


KEYMAP – N.T.S.

FACILITIES LEGEND:

- 9X HIGH LIFT PS2
- 14 CHLORINE DIOXIDE CONTACTOR
- 16 RAPID MIX
- 20 PRETREATMENT BASINS
- 22 SETTLED SLUDGE PUMP STATION
- 24 SLUDGE THICKENER
- 30 FILTERS
- 31 WTP OFFICES (TO REMAIN)
- 40 FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)
- 41 FILTERED WATER PUMP STATION 2 (SOUTH)
- 42 FILTERED WATER PUMP STATION 3 (NEW NORTH)
- 43 ABANDONED BUILDING
- 48 HIGH SERVICE BOOSTER STATION
- 50 REMOTE STORAGE
- 60 CHEMICAL STORAGE 1 (EXISTING)
- 62 CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
- 64 CHEMICAL STORAGE 3 (NEW)
- 66 CHLORINE AND CHLORINE DIOXIDE ROOM
- 68 CHEMICAL METERING ROOM
- 90 OPERATIONS BUILDING
- 92 EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

N

0 20 40
SCALE IN FEET

ORIGINAL PAGE SIZE: 22"X34"

PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp. 12/2024
DATE: 03/25/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION
YARD PIPING PLAN (AREA 5)

DRAWN: SMB	CHECKED: TRB	REVIEWED: AMS	DATE: 1/19/2024	SCALE: 1"=20'

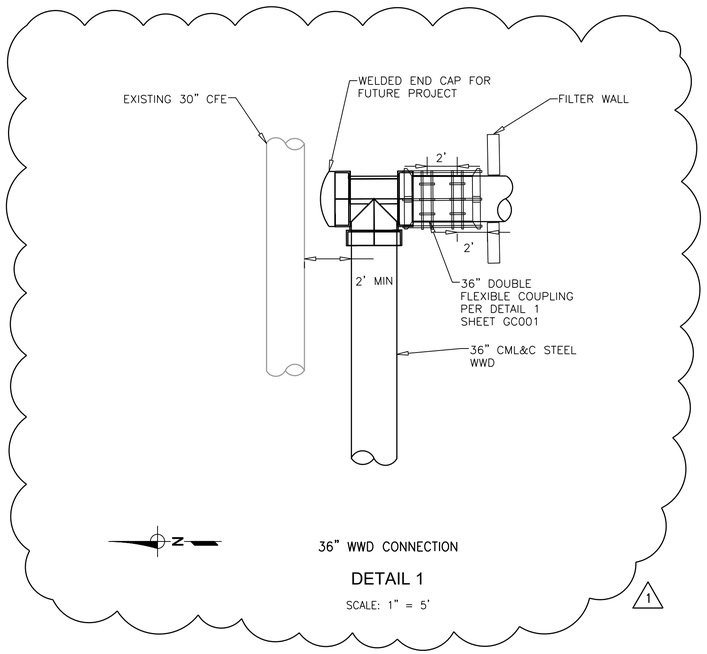
DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	AMS

SHEET NO.
24 OF 232

DWG. NO.
C106

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

W:\Clients\1040 City of Pittsburg\50-22-01 Filter & Cl2 Improvm\CAD\Production\1040-50-22-01-C106.dwg 3-20-24 03:40:06 PM ovegvary

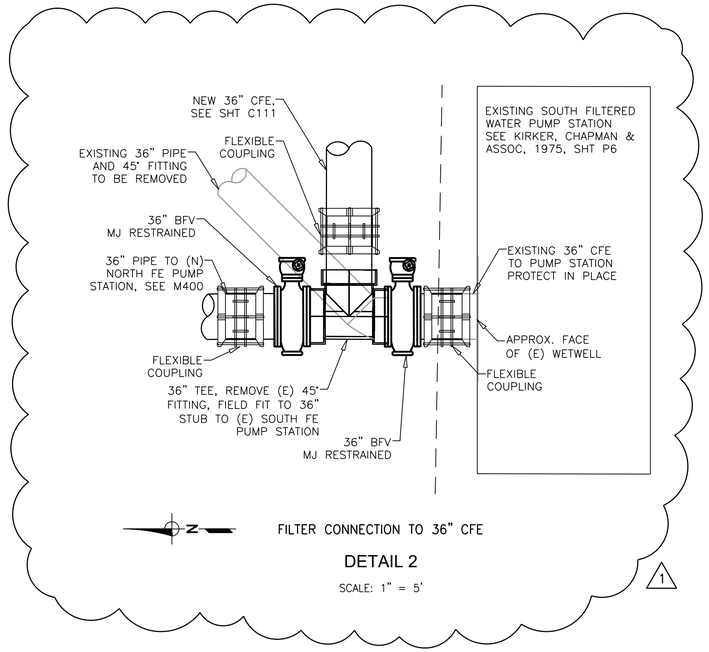


36" WWD CONNECTION

DETAIL 1

SCALE: 1" = 5'

1

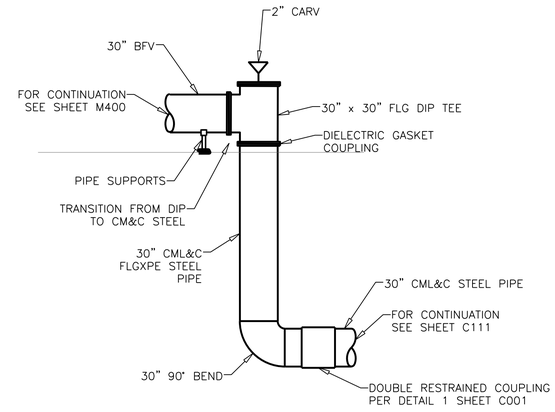


FILTER CONNECTION TO 36" CFE

DETAIL 2

SCALE: 1" = 5'

1



PUMP STATION 3 ABOVE GROUND PIPING ELEVATION

DETAIL 3

SCALE: NTS

PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp: 12/2024
DATE: 03/25/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION
PIPE CONNECTION ENLARGEMENTS

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	KME

DRAWN: SMB
CHECKED: TRB
REVIEWED: AMS
DATE: 1/19/2024
SCALE: AS SHOWN

SHEET NO.
29 OF 232

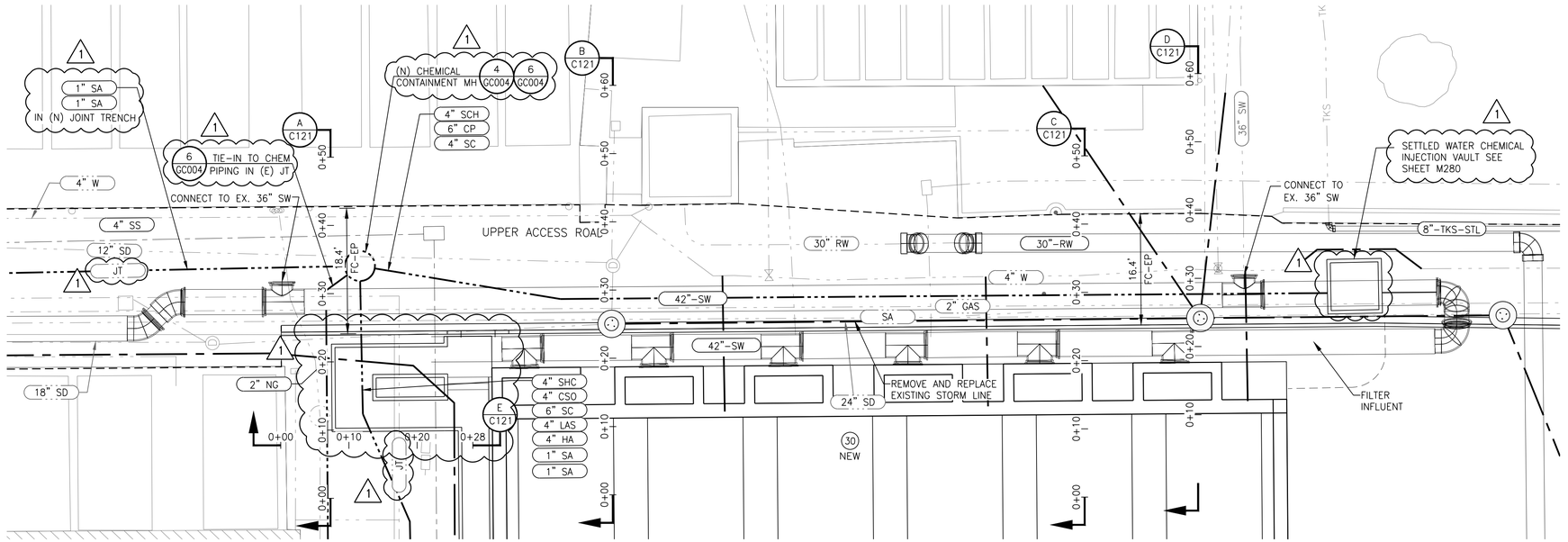
DWG. NO.
C120

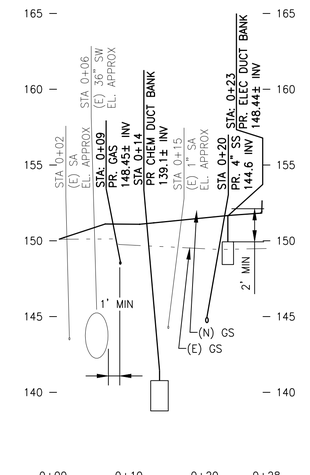
THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

WEST YOST
Water. Engineered.

ORIGINAL PAGE SIZE: 22"X34"

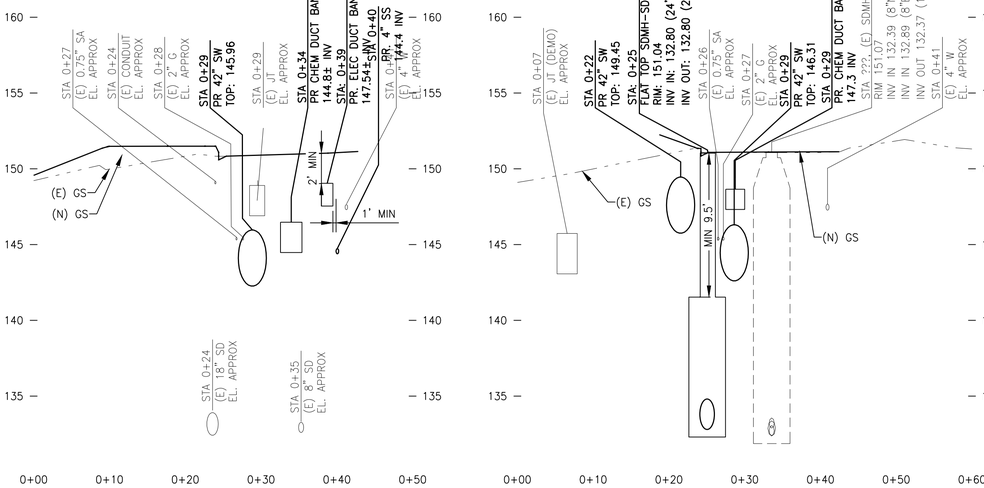
W:\Clients\1040 City of Pittsburg\50-22-01 Filter & Cl2 improvm\CAD\Production\1040-50-22-01-C120.dwg 3-25-24 04:55:50 PM kerkert





SECTION E C121

SCALE: H: 1"=10', V:1"=2"

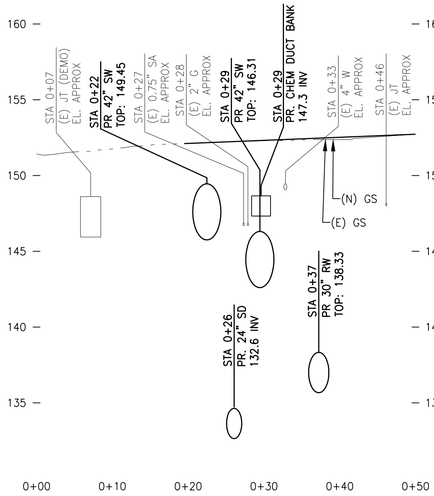


SECTION A C121

SCALE: H: 1"=10', V:1"=2"

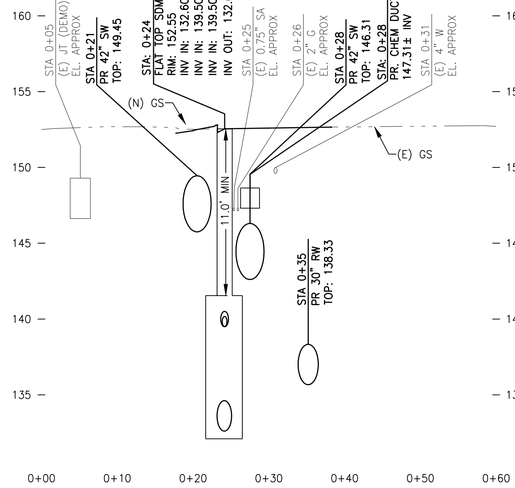
SECTION B C121

SCALE: H: 1"=10', V:1"=2"



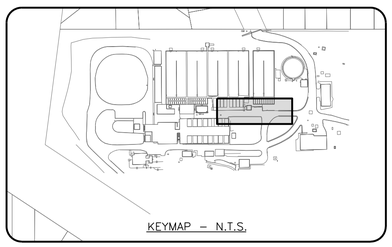
SECTION C C121

SCALE: H: 1"=10', V:1"=2"



SECTION D C121

SCALE: H: 1"=10', V:1"=2"



KEYMAP – N.T.S.

FACILITIES LEGEND:

(9X) HIGH LIFT PS2	(31) WTP OFFICES (TO REMAIN)	(60) CHEMICAL STORAGE 1 (EXISTING)
(14) CHLORINE DIOXIDE CONTACTOR	(40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)	(62) CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
(16) RAPID MIX	(41) FILTERED WATER PUMP STATION 2 (SOUTH)	(64) CHEMICAL STORAGE 3 (NEW)
(20) PRETREATMENT BASINS	(42) FILTERED WATER PUMP STATION 3 (NEW NORTH)	(66) CHLORINE AND CHLORINE DIOXIDE ROOM
(22) SETTLED SLUDGE PUMP STATION	(43) ABANDONED BUILDING	(68) CHEMICAL METERING ROOM
(24) SLUDGE THICKENER	(48) HIGH SERVICE BOOSTER STATION	(90) OPERATIONS BUILDING
(30) FILTERS	(50) REMOTE STORAGE	(92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

N

0 10 20
SCALE IN FEET

ORIGINAL PAGE SIZE: 22"X34"

PROFESSIONAL ENGINEER TIMOTHY R. BANYAI No. C60715 Exp. 12-31-24 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: Timothy R. Banyai 03/25/2024
TIMOTHY R. BANYAI, P.E. DATE:
License No. 60715, Exp: 12/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

YARD PIPING PLAN (ENLARGED)

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	AMS

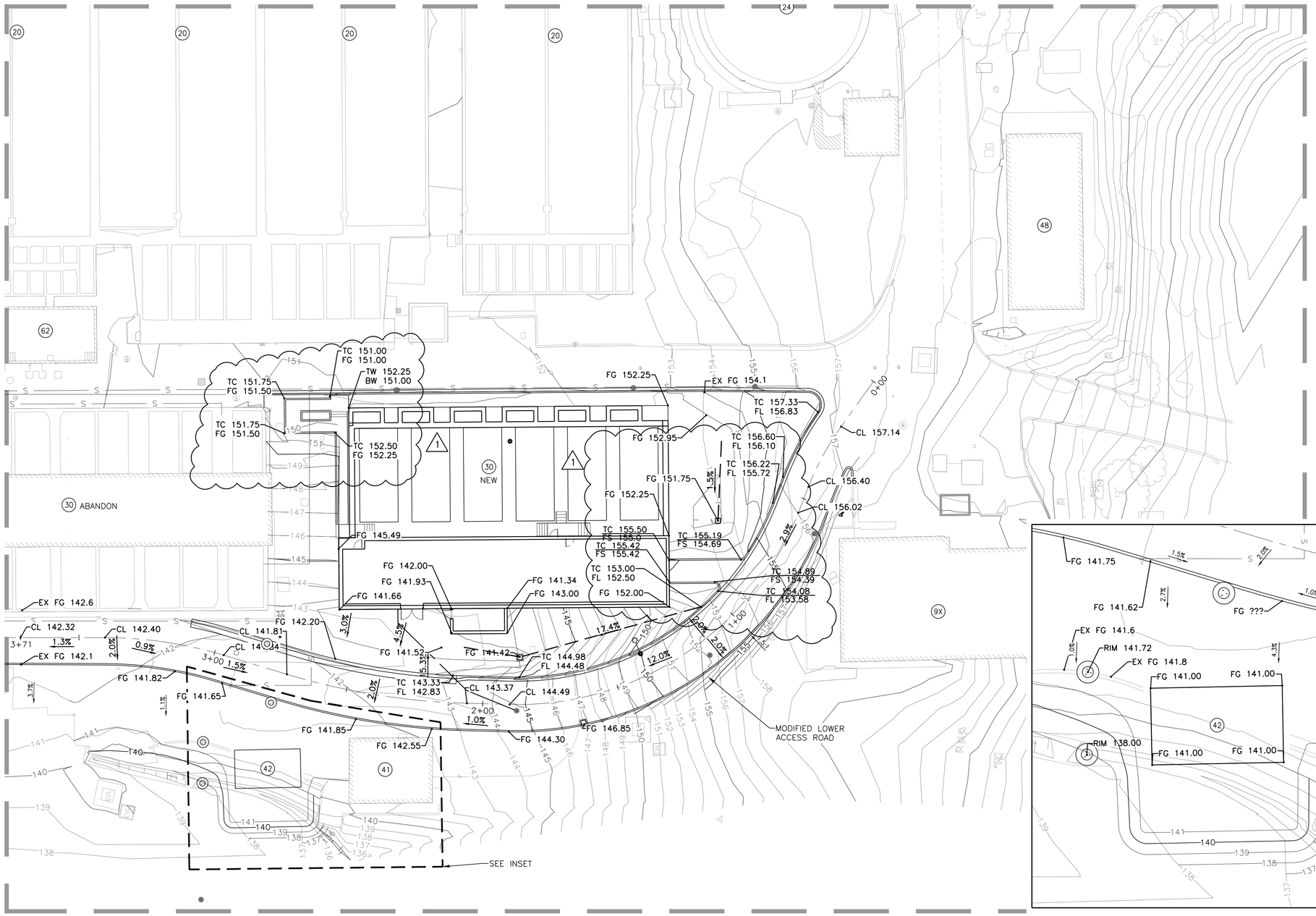
DRAWN: SMB
CHECKED: TRB
REVIEWED: AMS
DATE: 1/19/2024
SCALE: 1"=20'

SHEET NO.
30 OF 232

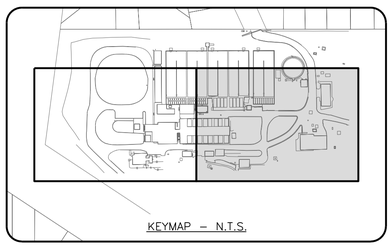
DWG. NO.
C121

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

W:\Clients\1040 City of Pittsburg\50-22-01 Filter & Cl2 Improvm\CAD\Production\1040-50-22-01-C121.dwg 3-25-24 11:32:38 AM kerkert



INSET
SCALE: 1" = 10'



KEYMAP – N.T.S.

FACILITIES LEGEND:

(9X)	HIGH LIFT PS2	(31)	WTP OFFICES (TO REMAIN)	(60)	CHEMICAL STORAGE 1 (EXISTING)
(14)	CHLORINE DIOXIDE CONTACTOR	(40)	FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)	(62)	CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
(16)	RAPID MIX	(41)	FILTERED WATER PUMP STATION 2 (SOUTH)	(64)	CHEMICAL STORAGE 3 (NEW)
(20)	PRETREATMENT BASINS	(42)	FILTERED WATER PUMP STATION 3 (NEW NORTH)	(66)	CHLORINE AND CHLORINE DIOXIDE ROOM
(22)	SETTLED SLUDGE PUMP STATION	(43)	ABANDONED BUILDING	(68)	CHEMICAL METERING ROOM
(24)	SLUDGE THICKENER	(48)	HIGH SERVICE BOOSTER STATION	(90)	OPERATIONS BUILDING
(30)	FILTERS	(50)	REMOTE STORAGE	(92)	EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

ORIGINAL PAGE SIZE: 22"X34"

N

0 20 40
SCALE IN FEET

PREPARED UNDER THE DIRECTION OF:
Timothy R. Banyai 03/25/2024
TIMOTHY R. BANYAI, P.E. DATE:
License No. 60715, Exp: 12/2024

PROFESSIONAL ENGINEER
TIMOTHY R. BANYAI
No. C60715
Exp. 12-31-24
STATE OF CALIFORNIA

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

GRADING SITE PLAN (AREA 1)

DESCRIPTION	BY	DATE
		REV

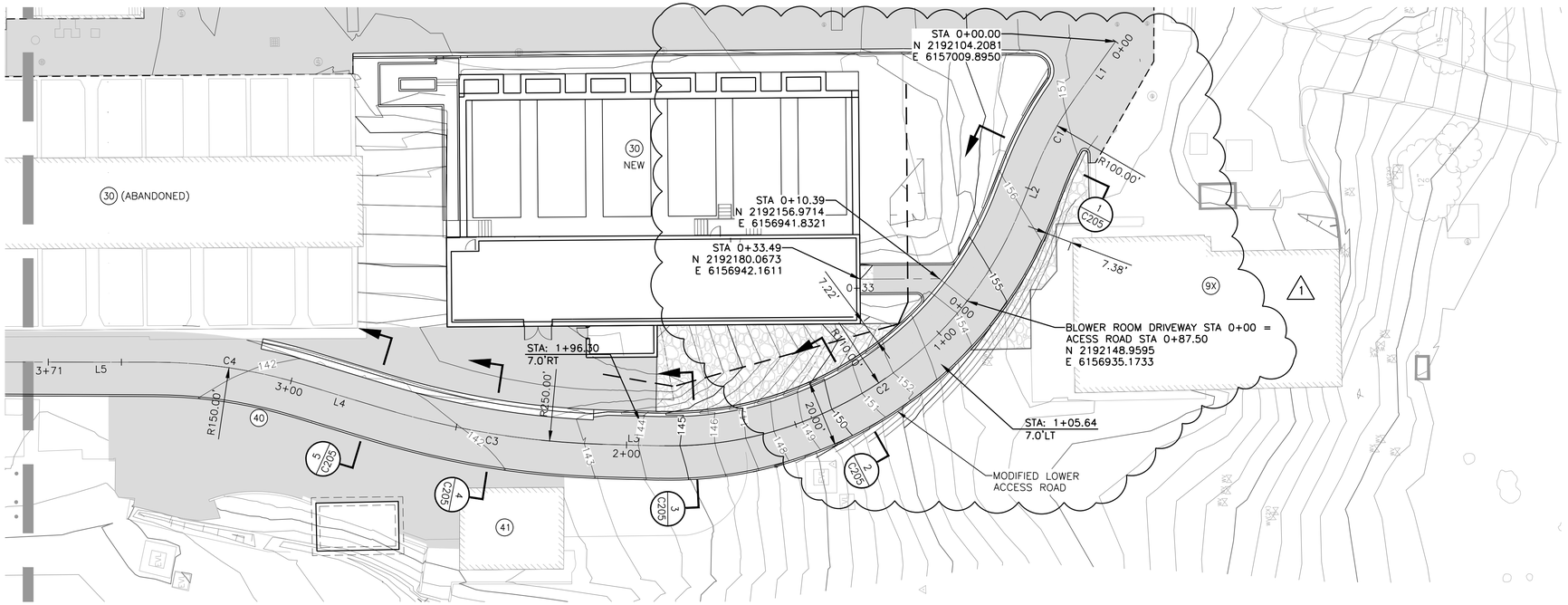
DRAWN: SMB
CHECKED: TRB
REVIEWED: AMS
DATE: 1/19/2024
SCALE: 1"=40'

SHEET NO.
33 OF 232

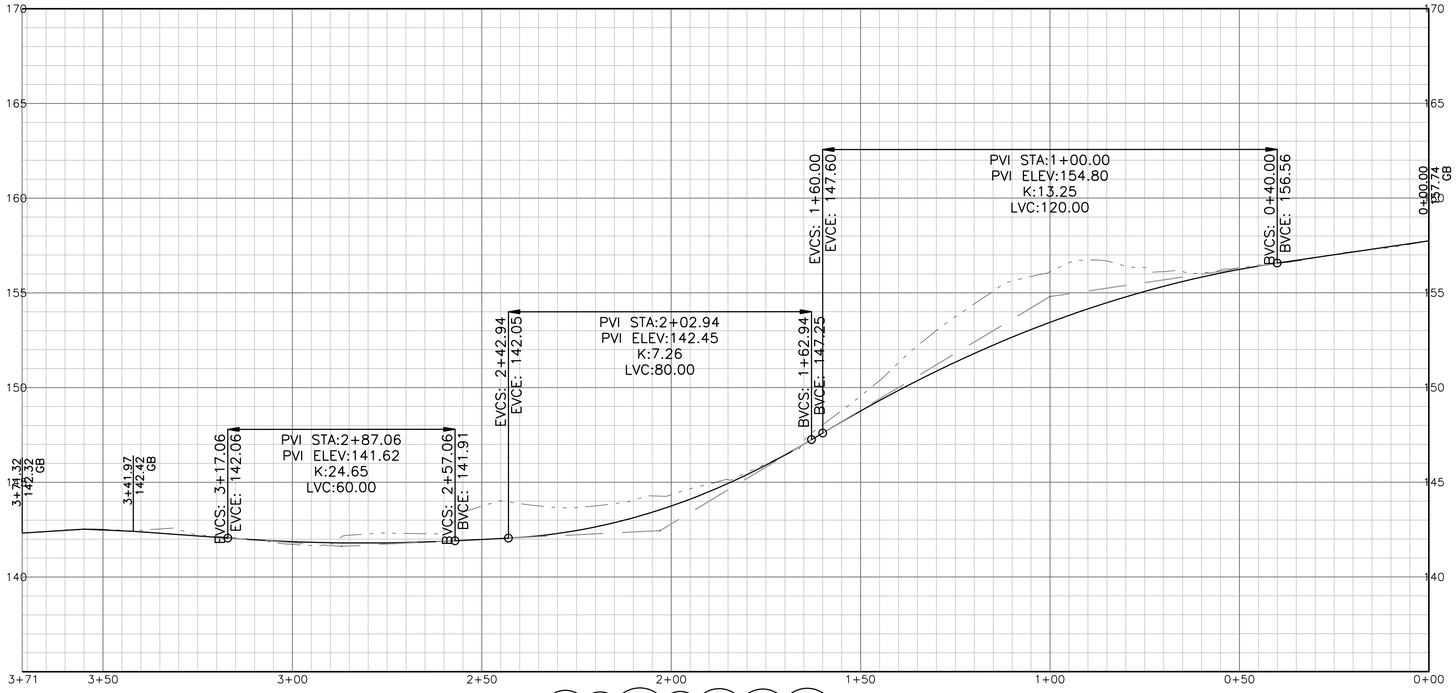
DWG. NO.
C202

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

W:\Clients\1040 City of Pittsburg\50-22-01 Filter & Cl2 Improvm\CAD\Production\1040-50-22-01-C202.dwg 3-21-24 04:45:15 PM kerkert



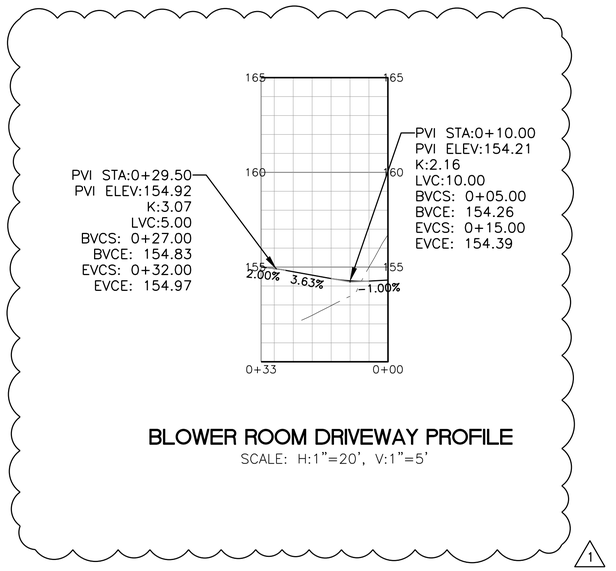
Lower Access Rood CL				
SEGMENT	BEARING	LENGTH	RADIUS	DELTA
C1		25.05'	100.000'	014°21'00"
C2		134.74'	110.000'	070°11'04"
C3		66.73'	250.000'	015°17'34"
C4		43.92'	150.000'	016°46'30"
L1	N53°10'17"W	20.265'		
L2	N67°31'17"W	10.127'		
L3	N02°39'47"E	15.562'		
L4	N17°57'21"E	24.122'		
L5	N01°10'51"E	30.814'		



ACCESS ROAD PROFILE

SCALE: H:1"=20', V:1"=5'

1



BLOWER ROOM DRIVEWAY PROFILE

SCALE: H:1"=20', V:1"=5'

1

FACILITIES LEGEND:

(9X) HIGH LIFT PS2	(31) WTP OFFICES (TO REMAIN)	(60) CHEMICAL STORAGE 1 (EXISTING)
(14) CHLORINE DIOXIDE CONTACTOR	(40) FILTERED WATER PUMP STATIONS 1 (NORTH) (DEMO)	(62) CHEMICAL STORAGE 2 (EXISTING – AMMONIA)
(16) RAPID MIX	(41) FILTERED WATER PUMP STATION 2 (SOUTH)	(64) CHEMICAL STORAGE 3 (NEW)
(20) PRETREATMENT BASINS	(42) FILTERED WATER PUMP STATION 3 (NEW NORTH)	(66) CHLORINE AND CHLORINE DIOXIDE ROOM
(22) SETTLED SLUDGE PUMP STATION	(43) ABANDONED BUILDING	(68) CHEMICAL METERING ROOM
(24) SLUDGE THICKENER	(48) HIGH SERVICE BOOSTER STATION	(90) OPERATIONS BUILDING
(30) FILTERS	(50) REMOTE STORAGE	(92) EQUIPMENT AND MATERIALS STORAGE BUILDINGS

WEST YOST
Water. Engineered.

ORIGINAL PAGE SIZE: 22"X34"

N

0 20 40
SCALE IN FEET

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp: 12/2024
DATE: 03/25/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp: 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

ACCESS ROAD PLAN AND PROFILE

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	KME

DRAWN: SMB
CHECKED: TRB
REVIEWED: AMS
DATE: 1/19/2024
SCALE: 1"=40'

SHEET NO.
35 OF 232

DWG. NO.
C204

W:\Clients\1040 City of Pittsburg\50-22-01 Filter & Cl2 Improvm\CAD\Production\1040-50-22-01-C204.dwg 3-22-24 12:09:48 PM kerkert

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
PX00010	3	PULL ROPE	MCC30A	HHP4		
PX00020	3	PULL ROPE	MCC30B	HHP4		
P30000A	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30000B	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30000C	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30000D	3	(3)#350KCMIL, (1)#3/0-G	PEAK PWR SWBD (EX)	MSB	VIA HH-P6 AND HH-P7	
P30001A	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001B	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001C	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001D	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001E	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
P30001F	3	(3)#350KCMIL, (1)#4/0-G	PEAK PWR SWBD (EX)	TAP BOX	FOR MCC30A & MCC30B; VIA HH-P6 AND HH-P7	
PX30001	3	PULL ROPE	HHP6	HHP7		
P30002A	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30A		
P30002B	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30A		
P30002C	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30A		
PX30002	3	PULL ROPE	HHP6	HHP7		
P30003A	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30B		
P30003B	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30B		
P30003C	3	(3)#350KCMIL, (1)#4/0-G	TAP BOX	MCC30B		
PX30003	3	PULL ROPE	HHP6	HHP7		
P30006	2	(3)#3/0, (1)#6-G	MSB	MCC-A DISCONNECT	CONDOUT ROUTED TO NEW SERVICE ENTRANCE RATED DISCONNECT BOX VIA HH-P2, HH-P3, HH-P4, HH-P7	
PX30006	2	PULL ROPE	HHP2	HHP4		
P30007A	2	(3)#250KCMIL, (1)#3-G	MSB	MCCB (EX)		
P30007B	2	(3)#250KCMIL, (1)#3-G	MSB	MCCB (EX)		
PX30007A	2	PULL ROPE	HHP2	ELEC RM (OPS BLDG)		
PX30007B	2	PULL ROPE	HHP2	ELEC RM (OPS BLDG)		
P30008A	3	(3)#350KCMIL, (1)#3/0-G	MSB	MCCC (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
P30008B	3	(3)#350KCMIL, (1)#3/0-G	MSB	MCCC (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
P30008C	3	(3)#350KCMIL, (1)#3/0-G	MSB	MCCC (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
PX30008	2	PULL ROPE	RW PUMP STATION	FILTER BLDG (EX)	VIA HHP1, HHP2, HHP3, HHP4, HHP7	
P30009	2	(3)#1, (1)#8-G	MSB	DP-E (EX)	VIA HHP5, HHP4, HHP7	
PX30109	3	PULL ROPE	MSB	CHEMICAL AND EQUIPMENT STORAGE BLDG	VIA HHP5, HHP4, HHP7	
P30010	2	(3)#1, (1)#8-G	MSB	DPF (EX)	VIA HHP5, HHP4, HHP7	
P30020	3/4	(3)#12, (1)#12-G	DP31A	CP3002		
P30020A	1 1/2	MFR CABLE	CP3002	P3002		
P30021	3/4	(3)#12, (1)#12-G	DP31B	CP3630		
P30021A	3/4	(3)#12, (1)#12-G	CP3630	P3630	SAMPLE PUMP	
P30022	3/4	(3)#12, (1)#12-G	DP31B	CP3610		
P30022A	3/4	(3)#12, (1)#12-G	CP3610	P3610	MIXING PUMP 1	
P30023	3/4	(3)#12, (1)#12-G	DP31B	CP3620		
P30023A	3/4	(3)#12, (1)#12-G	CP3620	P3620	MIXING PUMP 2	
P30030	3/4	(3)#12, (1)#12-G	DP31B	CP3003		
P30030A	1 1/2	MFR CABLE	CP3003	P3003		

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
P30040	3/4	(3)#12, (1)#12-G	DP31A	CP3004		
P30040A	1 1/2	MFR CABLE	CP3004	P3004		
P30050	3/4	(3)#12, (1)#12-G	DP31B	CP3005		
P30050A	1 1/2	MFR CABLE	CP3005	P3005		
P30100	3/4	(3)#10, (1)#10-G	DP31A	TERMINAL BOX	FILTER 1 VALVES	
P30110	3/4	(3)#10, (1)#10-G	DP30A	V3010		
PX30110	3	PULL ROPE	PUMP REPAIR SHOP	MSB	VIA HHP5, HHP4, HHP7	
P30111	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3011	P30100	
P30112	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3012	P30100	
P30113	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3013	P30100	
P30114	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3014	P30100	
P30115	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3015	P30100	
PX30117	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30120	3/4	(3)#10, (1)#10-G	DP30A	V3020		
P30121	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3021	P30200	
P30122	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3022	P30200	
P30123	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3023	P30200	
P30124	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3024	P30200	
P30125	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3025	P30200	
PX30127	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30130	3/4	(3)#10, (1)#10-G	DP30A	V3030		
P30131	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3031	P30300	
P30132	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3032	P30300	
P30133	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3033	P30300	
P30134	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3034	P30300	
P30135	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3035	P30300	
PX30137	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30140	3/4	(3)#10, (1)#10-G	DP30A	V3040		
P30141	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3041	P30400	
P30142	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3042	P30400	
P30143	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3043	P30400	
P30144	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3044	P30400	
P30145	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3045	P30400	
PX30147	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30150	3/4	(3)#10, (1)#10-G	DP30A	V3050		
P30151	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3051	P30500	
P30152	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3052	P30500	
P30153	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3053	P30500	
P30154	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3054	P30500	
P30155	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3055	P30500	
PX30157	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30160	3/4	(3)#10, (1)#10-G	DP30A	V3060		Wires - Additive Bid Item No. 1
P30161	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3061	P30600	Wires - Additive Bid Item No. 1
P30162	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3062	P30600	Wires - Additive Bid Item No. 1
P30163	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3063	P30600	Wires - Additive Bid Item No. 1
P30164	3/4	(3)#10, (1)#10-G	TERMINAL BOX	FCV3064	P30600	Wires - Additive Bid Item No. 1
P30165	3/4	(3)#10, (1)#10-G	TERMINAL BOX	V3065	P30600	Wires - Additive Bid Item No. 1

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
PX30167	3/4	PULL ROPE	DP30A	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
P30200	3/4	(3)#10, (1)#10-G	DP31A	TERMINAL BOX	FILTER 2 VALVES	
P30210	3	(3)#250KCMIL, (1)#4-G	MCC30A	B3210	VIA CP-3210	
P30220	3	(3)#250KCMIL, (1)#4-G	MCC30B	B3220	VIA CP-3220	
P30300	3/4	(3)#10, (1)#10-G	DP31A	TERMINAL BOX	FILTER 3 VALVES	
P30330A	3/4	(3)#6, (1)#10-G	MCC30A	DP30A		
P30331A	3/4	(3)#6, (1)#10-G	MCC30A	DP31A		
P30331B	3/4	(3)#6, (1)#10-G	MCC30B	DP31B		
P30400	3/4	(3)#10, (1)#10-G	DP31B	TERMINAL BOX	FILTER 4 VALVES	
P30430A	3/4	(3)#6, (1)#10-G	MCC30A	XFMR30A		
P30430B	3/4	(3)#6, (1)#10-G	MCC30B	XFMR30B		
P30431A	3/4	(3)#6, (1)#10-G	MCC30A	XFMR31A		
P30431B	3/4	(3)#6, (1)#10-G	MCC30B	XFMR31B		
P30500	3/4	(3)#10, (1)#10-G	DP31B	TERMINAL BOX	FILTER 5 VALVES	
P30600	3/4	(3)#12, (1)#12-G	DP31B	TERMINAL BOX	FILTER 6 VALVES	Wires - Additive Bid Item No. 1
P30701	3/4	(3)#10, (1)#10-G	DP30A	ACU1		
P30702	3/4	(3)#10, (1)#10-G	DP30A	ACU2		
P30702	3/4	(3)#10, (1)#10-G	DP30A	ACU2		
P30710	3/4	(3)#10, (1)#10-G	DP30A	WH1		
P30720	3/4	(3)#10, (1)#10-G	DP31A	BRIDGE CRANE DISCONNECT		
P30720A	3/4	(3)#10, (1)#10-G	BRIDGE CRANE DISCONNECT	BRIDGE CRANE POWER FEEDS		
P30801	3/4	(3)#12, (1)#12-G	DP30A	EF1		
P30802	3/4	(3)#12, (1)#12-G	DP31B	EF2		
PX30010	3	PULL ROPE	MCC30A	HH-P4	VIA HH-P7	
PX30020	3	PULL ROPE	MCC30B	HH-P4	VIA HH-P7	
L30007	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3660		
L30009	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP4090		
L30019	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3019	AIT3019	
L30029	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3029	AIT3029	
L30039	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3039	AIT3039	
L30049	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3049	AIT3049	
L30059	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3059	AIT3059	
L30060	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	ESCP3		
L30061	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	CP2		
L30062	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	CP3		
L30069	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	CP3069	AIT3069	Wires - Additive Bid Item No. 1
L30100	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	FCP		
L30101	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	FCP2		
L30102	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31B	FCP3		

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
L30103	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30A	FECP		
L30311	3/4	(1)#12, (1)#12-N, (1)#12-G	LP31A	CP3101		
L30430A	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR30A	LP30A		
L30430B	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR30B	LP30B		
L30431A	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR31A	LP31A		
L30431B	1 1/2	(3)#1, (1)#1-N, (1)#8-G	XFMR31B	LP31B		
LX30500	3/4	PULL ROPE	LP30A	HH-P4		
L30600	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30B	ROADWAY EXTERIOR LIGHTS		
L30601	3/4	(1)#12, (1)#12-N, (1)#12-G	LP30B	ROADWAY EXTERIOR LIGHTS		
L30803	3/4	(2)#12, (1)#12-G	LP30A	EF3		
C30006	3/4	(2)#14-C, (1)#14-G, (2)#14-S	FCP	LSH3006		
C30020	3/4	(6)#14-C, (2)#14-S	FCP2	CP3002		
C30020A	2	MFR CABLES	CP3002	J-BOX		
C30020B	1	MFR CABLE	J-BOX	LSHH3002		
C30020C	1	MFR CABLE	J-BOX	LSH3002		
C30020D	1	MFR CABLE	J-BOX	LSL3002		
C30021	3/4	(4)#14-C, (2)#14-S	FCP3	CP3630		
C30022	3/4	(4)#14-C, (2)#14-S	FCP3	CP3610		
C30023	3/4	(4)#14-C, (2)#14-S	FCP3	CP3620		
C30030	3/4	(6)#14-C, (2)#14-S	FCP3	CP3003		
C30030A	2	MFR CABLES	CP3003	J-BOX		
C30030B	1	MFR CABLE	J-BOX	LSHH3003		
C30030C	1	MFR CABLE	J-BOX	LSH3003		
C30030D	1	MFR CABLE	J-BOX	LSL3003		
C30040	3/4	(6)#14-C, (2)#14-S	FCP2	CP3004		
C30040A	2	MFR CABLES	CP3004	J-BOX		
C30040B	1	MFR CABLE	J-BOX	LSHH3004		
C30040C	1	MFR CABLE	J-BOX	LSH3004		
C30040D	1	MFR CABLE	J-BOX	LSL3004		
C30050	3/4	(6)#14-C, (2)#14-S	FCP3	CP3005		
C30050A	2	MFR CABLES	CP3005	J-BOX		
C30050B	1	MFR CABLE	J-BOX	LSHH3005		
C30050C	1	MFR CABLE	J-BOX	LSH3005		
C30050D	1	MFR CABLE	J-BOX	LSL3005		
C30060	3/4	(2)#14-C, (2)#14-S	ESCP3	FSH3001		
C30061	3/4	(2)#14-C, (2)#14-S	ESCP3	FCP3		
C30100	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP2	J-BOX	BECOMES C30112 , C30113 & C30116	
C30101	1 1/4	(30)#14-C, (6)#14-S	FCP2	J-BOX	BECOMES C30111, C30114, C30115	
C30110	3/4	(10)#14-C, (2)#14-S	FCP	V3010		
C30111	3/4	(10)#14-C, (2)#14-S	J-BOX	V3011	C30101	

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
C30112	3/4	(10)#14-C, (2)#14-S	J-BOX	V3012	C30100	
C30113	3/4	(10)#14-C, (2)#14-S	J-BOX	V3013	C30100	
C30112A	3/4	(1)DEVICENET CABLE	V3012	CS		
C30113A	3/4	(1)DEVICENET CABLE	V3013	CS		
C30114	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3014	C30101	
C30115	3/4	(10)#14-C, (2)#14-S	J-BOX	V3015	C30101	
C30116	3/4	(2)#14, (1)#14-G	J-BOX	SV3016	C30100.	
CX30117	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30120	3/4	(10)#14-C, (2)#14-S	FCP	V3020		
C30121	3/4	(10)#14-C, (2)#14-S	J-BOX	V3021	C30201	
C30122	3/4	(10)#14-C, (2)#14-S	J-BOX	V3022	C30200	
C30122A	3/4	(1)DEVICENET CABLE	V3022	CS		
C30123A	3/4	(1)DEVICENET CABLE	V3023	CS		
C30123	3/4	(10)#14-C, (2)#14-S	J-BOX	V3023	C30200	
C30124	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3024	C30201	
C30125	3/4	(10)#14-C, (2)#14-S	J-BOX	V3025	C30201	
C30126	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3026	C30200. PWR & CNTRL.	
CX30127	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30130	3/4	(10)#14-C, (2)#14-S	FCP	V3030		
C30131	3/4	(10)#14-C, (2)#14-S	J-BOX	V3031	C30301	
C30132	3/4	(10)#14-C, (2)#14-S	J-BOX	V3032	C30300	
C30133	3/4	(10)#14-C, (2)#14-S	J-BOX	V3033	C30300	
C30132A	3/4	(1)DEVICENET CABLE	V3032	CS		
C30133A	3/4	(1)DEVICENET CABLE	V3033	CS		
C30134	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3034	C30301	
C30135	3/4	(10)#14-C, (2)#14-S	J-BOX	V3035	C30301	
C30136	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3036	C30300. PWR & CNTRL.	
CX30137	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30140	3/4	(10)#14-C, (2)#14-S	FCP	V3040		
C30141	3/4	(10)#14-C, (2)#14-S	J-BOX	V3041	C30401	
C30142	3/4	(10)#14-C, (2)#14-S	J-BOX	V3042	C30400	
C30142A	3/4	(1)DEVICENET CABLE	V3042	CS		
C30143A	3/4	(1)DEVICENET CABLE	V3043	CS		
C30143	3/4	(10)#14-C, (2)#14-S	J-BOX	V3043	C30400	
C30144	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3044	C30401	
C30145	3/4	(10)#14-C, (2)#14-S	J-BOX	V3045	C30401	
C30146	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3046	C30400. PWR & CNTRL.	
CX30147	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30150	3/4	(10)#14-C, (2)#14-S	FCP	V3050		
C30151	3/4	(10)#14-C, (2)#14-S	J-BOX	V3051	C30501	
C30152	3/4	(10)#14-C, (2)#14-S	J-BOX	V3052	C30500	
C30153	3/4	(10)#14-C, (2)#14-S	J-BOX	V3053	C30500	
C30152A	3/4	(1)DEVICENET CABLE	V3052	CS		
C30153A	3/4	(1)DEVICENET CABLE	V3053	CS		
C30154	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3054	C30501	

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
C30155	3/4	(10)#14-C, (2)#14-S	J-BOX	V3055	C30501	
C30156	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3056	C30500. PWR & CNTRL.	
CX30157	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30160	3/4	(10)#14-C, (2)#14-S	FCP	V3060		Wires - Additive Bid Item No. 1
C30161	3/4	(10)#14-C, (2)#14-S	J-BOX	V3061	C30601	Wires - Additive Bid Item No. 1
C30162	3/4	(10)#14-C, (2)#14-S	J-BOX	V3062	C30600	Wires - Additive Bid Item No. 1
C30163	3/4	(10)#14-C, (2)#14-S	J-BOX	V3063	C30600	Wires - Additive Bid Item No. 1
C30162A	3/4	(1)DEVICENET CABLE	V3062	CS		
C30163A	3/4	(1)DEVICENET CABLE	V3063	CS		
C30164	3/4	(10)#14-C, (2)#14-S	J-BOX	FCV3064	C30601	Wires - Additive Bid Item No. 1
C30165	3/4	(10)#14-C, (2)#14-S	J-BOX	V3065	C30601	Wires - Additive Bid Item No. 1
C30166	3/4	(2)#12, (2)#14-C, (1)#12-G, (2)#14-S	J-BOX	SV3066	C30600. PWR & CNTRL.	Wires - Additive Bid Item No. 1
CX30167	3/4	PULL ROPE	FCP	PIPE SPOOL	CAP CONDUIT. FOR FUTURE VALVE.	
C30200	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP2	J-BOX	BECOMES C30122, C30123 & C30126	
C30201	1 1/4	(30)#14-C, (6)#14-S	FCP2	J-BOX	BECOMES C30121, C30124, C30125	
C30210	3/4	(10)#14-C, (2)#14-S	FCP	CP3210	BLOWER PACKAGE NO. 1	
C30220	3/4	(10)#14-C, (2)#14-S	FCP	CP3220	BLOWER PACKAGE NO. 2	
C30300	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP2	J-BOX	BECOMES C30132 , C30133, C30136	
C30301	1 1/4	(30)#14-C, (6)#14-S	FCP2	J-BOX	BECOMES C30131, C30134, C30135	
C30311	3/4	(8)#14-C, (2)#14-S	CP3101	FCP		
C30400	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP3	J-BOX	BECOMES C30142, C30143, C30146	
C30401	1 1/4	(30)#14-C, (6)#14-S	FCP3	J-BOX	BECOMES C30141, C30144, C30145	
C30500	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP3	J-BOX	BECOMES C30152, C30153, C30156	
C30501	1 1/4	(30)#14-C, (6)#14-S	FCP3	J-BOX	BECOMES C30151, C30154, C30155	
C30600	1 1/4	(22)#14-C, (1)#14-G, (6)#14-S	FCP3	J-BOX	BECOMES C30162, C30163, C30166	Wires - Additive Bid Item No. 1
C30601	1 1/4	(30)#14-C, (6)#14-S	FCP3	J-BOX	BECOMES C30161, C30164, C30165	Wires - Additive Bid Item No. 1
C30701	3/4	(2)#14-C, (1)#14-G, (2)#14-S	ACU1	THERMOSTAT		
C30702	3/4	(2)#14-C, (1)#14-G, (2)#14-S	ACU2	THERMOSTAT		
SX00010	1	PULL ROPE	HHS2	HHS3		
SX00020	1	PULL ROPE	HHS2	HHS3		
SX30001	1	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30002	1	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30003	3/4	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30004	1 1/4	PULL ROPE	HHS2	HHS4	DUCT BANK SECTION 3	
SX30005	1 1/4	PULL ROPE	HHS2	HHS3	DUCT BANK SECTION 4	
SX30006	1 1/4	PULL ROPE	HHS2	HHS3	DUCT BANK SECTION 4	
SX30007	1 1/4	PULL ROPE	HHS2	HHS3	DUCT BANK SECTION 4	
S30007	1 1/4	(2)TSP-C, (1)TSP-S	FCP3	CP3660	CHEMICAL INJECTION VAULT SAMPLE	
S30008	2	(5)TSP-C, (1)TSP-S	FCP3	CP4090	AMMONIA INJECTION VAULT SAMPLE	
S30014	3/4	(1)TSP-C	J-BOX	FIT3014	S30100	
S30017	3/4	(1)TSP-C	FCP2	LT3017		
S30018	3/4	(1)TSP-C	J-BOX	PDIT3018	S30100	

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
S30019	3/4	(1)TSP-C	J-BOX	CP3019	S30100	
S30024	3/4	(1)TSP-C	J-BOX	FIT3024	S30200	
S30027	3/4	(1)TSP-C	FCP2	LT3027		
S30028	3/4	(1)TSP-C	J-BOX	PDIT3028	S30200	
S30029	3/4	(1)TSP-C	J-BOX	CP3029	S30200	
S30034	3/4	(1)TSP-C	J-BOX	FIT3034	S30300	
S30037	3/4	(1)TSP-C	FCP2	LT3037		
S30038	3/4	(1)TSP-C	J-BOX	PDIT3038	S30300	
S30039	3/4	(1)TSP-C	J-BOX	CP3039	S30300	
S30044	3/4	(1)TSP-C	J-BOX	FIT3044	S30400	
S30047	3/4	(1)TSP-C	FCP3	LT3047		
S30048	3/4	(1)TSP-C	J-BOX	PDIT3048	S30400	
S30049	3/4	(1)TSP-C	J-BOX	CP3049	S30400	
S30054	3/4	(1)TSP-C	J-BOX	FIT3054	S30500	
S30057	3/4	(1)TSP-C	FCP3	LT3057		
S30058	3/4	(1)TSP-C	J-BOX	PDIT3058	S30500	
S30059	3/4	(1)TSP-C	J-BOX	CP3059	S30500	
S30064	3/4	(1)TSP-C	J-BOX	FIT3064	S30600	Wires - Additive Bid Item No. 1
S30067	3/4	(1)TSP-C	FCP3	LT3067		Wires - Additive Bid Item No. 1
S30068	3/4	(1)TSP-C	J-BOX	PDIT3068	S30600	Wires - Additive Bid Item No. 1
S30069	3/4	(1)TSP-C	J-BOX	CP3069	S30600	Wires - Additive Bid Item No. 1
S30100	2	(6)TSP-C, (1)TSP-S	FCP2	J-BOX	BECOMES S30014, S30018, S30019, S30114	
S30110	3/4	(1)TSP-C	FCP	V3010		
S30114	1 1/4	(2)TSP-C	J-BOX	FCV3014	S30100	
S30120	3/4	(1)TSP-C	FCP	V3020		
S30124	1 1/4	(2)TSP-C	J-BOX	FCV3024	S30200	
S30130	3/4	(1)TSP-C	FCP	V3030		
S30134	1 1/4	(2)TSP-C	J-BOX	FCV3034	S30300	
S30140	3/4	(1)TSP-C	FCP	V3040		
S30144	1 1/4	(2)TSP-C	J-BOX	FCV3044	S30400	
S30150	3/4	(1)TSP-C	FCP	V3050		
S30154	1 1/4	(2)TSP-C	J-BOX	FCV3054	S30500	
S30160	3/4	(1)TSP-C	FCP	V3060		
S30164	1 1/4	(2)TSP-C	J-BOX	FCV3064	S30600	Wires - Additive Bid Item No. 1
S30200	2	(6)TSP-C, (1)TSP-S	FCP2	J-BOX	BECOMES S30024, S30028, S30029, S30124	
S30210	1 1/4	(3)TSP-C, (1)TSP-S	CP3210	FCP	BLOWER PACKAGE NO. 1	
S30220	1 1/4	(3)TSP-C, (1)TSP-S	CP3220	FCP	BLOWER PACKAGE NO. 2	
S30300	2	(6)TSP-C, (1)TSP-S	FCP2	J-BOX	BECOMES S30034, S30038, S30039, S30134	
S30311	1 1/4	(3)TSP-C, (1)TSP-S	CP3101	FCP		
S30400	2	(6)TSP-C, (1)TSP-S	FCP3	J-BOX	BECOMES S30044, S30048, S30049, S30144	
S30500	2	(6)TSP-C, (1)TSP-S	FCP3	J-BOX	BECOMES S30054, S30058, S30059, S30154	
S30600	2	(6)TSP-C, (1)TSP-S	FCP3	J-BOX	BECOMES S30064, S30068, S30069, S30164	Wires - Additive Bid Item No. 1
SX30010	1	PULL ROPE	FCP	OPS BLDG		
SX30020	1	PULL ROPE	FCP	OPS BLDG		
N30000	1	(2)Cat6-C	FCP	MSB		Refer to I011
N30002	1	(2)Cat6-C	FCP	MCC30A		Refer to I011
N30003	1	(2)Cat6-C	FCP	MCC30B		Refer to I011

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
N30101	1	(2)Cat6-C	FCP	FCP2		Refer to I011
N30102	1	(2)Cat6-C	FCP	FCP3		Refer to I011
N30103	1	(2)Cat6-C	FCP	FECP		Refer to I011
N30104	1	(1)MMF	FCP	FILTER BLDG (EX)	FILTER BLDG (EX) CLOSET OFFICE	
N30105	1	(1)MMF	FCP	MCPA	OPS BLDG	
NX30003	1 1/4	PULL ROPE	FCP	OPS BLDG		
NX30004	1 1/4	PULL ROPE	FCP	OPS BLDG		
C31001	3/4	(8)#14-C, (2)#14-S	CP3101	BACKWASH VALVE VAULT		
CX31001	3/4	PULL ROPE	HHS5	BACKWASH VALVE VAULT		
S31001	1 1/4	(3)TSP-C, (1)TSP-S	CP3101	BACKWASH VALVE VAULT		
SX31001	1 1/4	PULL ROPE	HHS5	BACKWASH VALVE VAULT		
S31001A	1 1/4	(2)TSP-C	BACKWASH VALVE VAULT	FCV3101		
S31001B	3/4	(1)TSP-C	BACKWASH VALVE VAULT	PDE/FIT3101		
P40501	2	(3)#1, (1)#6-G	MCC30A	VFD4010		
P40502	2	(3)#1, (1)#6-G	MCC30A	VFD4020		
P40503	2	(3)#1, (1)#6-G	MCC30B	VFD4030	CONNECT TO EXISTING MOTOR	
P40504	3	(3)#250KCMIL, (1)#4-G	MCC30A	VFD4040	CONNECT TO EXISTING MOTOR	
P40505	3	(3)#250KCMIL, (1)#4-G	MCC30B	VFD4050	CONNECT TO EXISTING MOTOR	
P40506	2	(3)#2/0, (1)#6-G	MCC30B	VFD4060		
P40501A	2	(3)#1, (4)#14-C, (2)#12-C, (1)#6-G, (2)#14-S	VFD4010	P4010		
P40502A	2	(3)#1, (4)#14-C, (2)#12-C, (1)#6-G, (2)#14-S	VFD4020	P4020		
P40503A	2	(3)#1, (4)#14-C, (2)#12-C, (1)#6-G, (2)#14-S	VFD4030	P4030		
P40504A	3	(3)#250KCMIL, (4)#14-C, (2)#12-C, (1)#4-G, (2)#14-S	VFD4040	P4040	CONNECT TO EXISTING MOTOR	
P40505A	3	(3)#250KCMIL, (4)#14-C, (2)#12-C, (1)#4-G, (2)#14-S	VFD4050	P4050	CONNECT TO EXISTING MOTOR	
P40506A	2 1/2	(3)#2/0, (4)#14-C, (1)#6-G, (2)#14-S, (2)#12-S	VFD4060	P4060	CONNECT TO EXISTING MOTOR	
C40001	3/4	(10)#14-C, (2)#14-S	G4001	FECP	VIA HANDHOLE	
C40002	3/4	(10)#14-C, (2)#14-S	G4002	FECP	VIA HANDHOLE	
CX40009A	3/4	PULL ROPE	NORTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHP4		
CX40009B	3/4	PULL ROPE	SOUTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHP4		
C40501	3/4	(8)#14-C, (2)#14-S	VFD4010	FECP		
C40502	3/4	(8)#14-C, (2)#14-S	VFD4020	FECP		
C40503	3/4	(8)#14-C, (2)#14-S	VFD4030	FECP		
C40504	3/4	(8)#14-C, (2)#14-S	VFD4040	FECP		
C40505	3/4	(8)#14-C, (2)#14-S	VFD4050	FECP		
C40506	3/4	(8)#14-C, (2)#14-S	VFD4060	FECP		
L40005	3/4	(2)#12, (1)#12-G	LP30B	FIT4005		
L40006	3/4	(4)#12, (1)#12-G	LP30A	N CLEARWELL PS LTG AND REC		
S40003A	1 1/4	(1)TSP-C, (1)TSP-S	LIT4003A	FECP	VIA HANDHOLE	
S40003B	1 1/4	(1)TSP-C, (1)TSP-S	LIT4003B	FECP	VIA HANDHOLE	

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
SX40004A	1 1/4	PULL ROPE	NORTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHS2		
S40004	1 1/4	(1)TSP-C, (1)TSP-S	PIT4004	FECP	VIA HANDHOLE	
SX40005A	1 1/4	PULL ROPE	NORTH CLEARWELL FILTERED WATER EFFLUENT PUMP STATION	HHS2		
S40005	1 1/4	(1)TSP-C, (2)TSP-S	FIT4005	FECP	VIA HANDHOLE	
SX40100	1 1/4	PULL ROPE	HHS3	HHP7	DUCT BANK SECTION 4	
S40501	1 1/4	(2)TSP-C, (1)TSP-S	VFD4010	FECP		
S40502	1 1/4	(2)TSP-C, (1)TSP-S	VFD4020	FECP		
S40503	1 1/4	(2)TSP-C, (1)TSP-S	VFD4030	FECP		
S40504	1 1/4	(2)TSP-C, (1)TSP-S	VFD4040	FECP		
S40505	1 1/4	(2)TSP-C, (1)TSP-S	VFD4050	FECP		
S40506	1 1/4	(2)TSP-C, (1)TSP-S	VFD4060	FECP		
P60100	3/4	(3)#6, (1)#10-G	MCC-B	XFMR600		
L60100	1 1/2	(3)#1, (1)#1-N, (1)#6-G	XFMR600	LP600		
L60101A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	FOR PMP6610 & PMP6620	
L60101B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR PMP6610 & PMP6620	
L60101C	3/4	(2)#10, (2)#10-N, (2)#10-G	JB	JB	FOR PMP6610 & PMP6620	
L60101D	3/4	(2)#10, (2)#10-N, (2)#10-G	JB	JB	FOR PMP6610 & PMP6620	
L60102A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	COMBINES TO L60110. FOR PMP6630 & PMP6640.	
L60102B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR PMP6630 & PMP6640	
L60102C	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	JB	FOR PMP6630	
L60103A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	COMBINES TO L60110. BECOMES L60103B, L60103C.	
L60103B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	PULLBOX		
L60103C	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	VIA CONCRETE TRENCH. BECOMES L64030A & L60440A.	
L60104A	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	COMBINES TO L60110. BECOMES L60104B, L60104C.	
L60104B	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	PULLBOX		
L60104C	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	VIA CONCRETE TRENCH. BECOMES L60410A & L60420A.	
L60105A	1	(3)#8, (3)#8-N, (3)#10-G	LP600	PULLBOX	COMBINES TO L60110. BECOMES L60105B, L60105C. LP600 CKT. #1, #3, #5	
L60105B	1	(3)#8, (3)#8-N, (3)#10-G	PULLBOX	PULLBOX		
L60105C	1	(3)#8, (3)#8-N, (3)#10-G	PULLBOX	WIREWAY	VIA CONCRETE TRENCH.	
L60106A	1 1/4	(4)#8, (4)#8-N, (4)#10-G	LP600	PULLBOX	BECOMES L60106B, L60106C. LP600 CKT. #10, #12, #14, #16	
L60106B	1 1/4	(4)#8, (4)#8-N, (4)#10-G	PULLBOX	PULLBOX		
L60106C	1 1/4	(4)#8, (4)#8-N, (4)#10-G	PULLBOX	WIREWAY	VIA CONCRETE TRENCH.	
L60107	3/4	(1)#10, (1)#10-N, (1)#10-G	LP4 (EX)	CP-1		
L60108	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	JB	SPLITS TO L60108A, L60108B	
L60108A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	CHLORINE DIOXIDE GEN 1 PANEL		
L60108B	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	CHLORINE DIOXIDE GEN 2 PANEL		
L60109	3/4	(1)#10, (1)#10-N, (1)#10-G	LP600	CSCP		
L60110	1 1/2	(8)#10, (3)#8, (8)#10-N, (3)#8-N, (11)#10-G	PULLBOX	PULLBOX	SPLITS TO L60103B, L60104B, L60105B, L60106B, L60601A, AND L60602A.	

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
L60111	3/4	(1)#10, (1)#10-N, (1)#10-G	LP600	ESCP1	LP600 CKT. #21.	
LX60401	1	PULL ROPE	WIREWAY	JB	FOR FUTURE RECIRCULATION PUMP P6408. BECOMES LX60408.	
LX60408	1	PULL ROPE	JB	P6408	FOR FUTURE RECIRCULATION PUMP P6408	
L60410A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6410 RECEPT		
L60410B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6410		
L60420A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6420 RECEPT		
L60420B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6420		
L60430A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6430 RECEPT		
L60430B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6430		
L60440A	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	SUMP-6440 RECEPT		
L60440B	3/4	(1)#8, (1)#8-N, (1)#10-G	WIREWAY	CP6440		
LX60500	2	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
LX60501	2	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
LX60502	1	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
L60601	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	FOR TEMPORARY METERING PUMP PMP6611, PMP6621 RECEPTACLE	
L60602	3/4	(2)#10, (2)#10-N, (2)#10-G	LP600	PULLBOX	FOR TEMPORARY METERING PUMP PMP6631, PMP6641 RECEPTACLE	
L60601A	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR TEMPORARY METERING PUMP PMP6611, PMP6621 RECEPTACLE. BECOMES L60611, L60621	
L60602A	3/4	(2)#10, (2)#10-N, (2)#10-G	PULLBOX	JB	FOR TEMPORARY METERING PUMP PMP6631, PMP6641 RECEPTACLE. BECOMES L60631, L60641	
L60610	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6610		
L60611	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6611	FOR TEMPORARY METERING PUMP PMP6611 RECEPTACLE	
L60620	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6620		
L60621	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6621	FOR TEMPORARY METERING PUMP PMP6621 RECEPTACLE	
L60630	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6630		
L60631	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6631	FOR TEMPORARY METERING PUMP PMP6631 RECEPTACLE	
L60640	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6640		
L60641	3/4	(1)#10, (1)#10-N, (1)#10-G	JB	PMP6641	FOR TEMPORARY METERING PUMP PMP6641 RECEPTACLE	
C60100	2	(70)#14-C, (16)#14-S	MCP	CSCP		
C60101A	2	(72)#14-C, (16)#14-S	CSCP	PULLBOX	BECOMES C60101B & C60102A	
C60101B	1 1/4	(56)#14-C	PULLBOX	JB	SPLITS TO C60101C, C60640, & C60640A	
C60101C	1 1/4	(42)#14-C	JB	JB	SPLITS TO C60101D, C60630, & C60630A	
C60101D	1	(28)#14-C	JB	JB	SPLITS TO C60620, C60620A, C60610, C60610A, & C60601	
C60102A	1	(14)#14-C, (16)#14-S	PULLBOX	PULLBOX	SPLITS TO C60103 & C60104	
C60103	3/4	(6)#14-C	PULLBOX	JB	VIA CONCRETE TRENCH. SPLITS TO C60103A & C60403	
C60103A	3/4	(4)#14-C	JB	JB	BECOMES C60405 & C60407	
C60104	3/4	(14)#14-C, (8)#14-S	PULLBOX	WIREWAY	VIA CONCRETE TRENCH. SPLITS TO C60410A, C60420A, C60430A, C60440A, AND C60402.	
C60105	1 1/4	(40)#14-C	CSCP	PULLBOX	CONTROL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621, PMP6631, PMP6641. SPLITS TO C60105A AND C60105B.	

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
C60105A	3/4	(20)#14-C	PULLBOX	JB	CONTROL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621. BECOMES C60611, AND C60621.	
C60105B	3/4	(20)#14-C	PULLBOX	JB	CONTROL CABLES FOR TEMPORARY METERING PUMPS PMP6631, PMP6641. BECOMES C60631, AND C60641.	
C60106	3/4	(2)#14-C	CSCP	TEE	CONTROL WIRES FROM CSCP TO ESCP1. BECOMES C60106A.	
C60106A	3/4	(4)#14-C	TEE	TEE	CONTROL WIRES FOR ESCP1 AND EYEWASH SHOWER FSH6601. SPLITS TO C60106 AND C60601.	
C60106B	3/4	(10)#14-C	ESCP1	TEE	CONTROL WIRES FOR ESCP1, EYEWASH SHOWERS FSH6601, FSH6404, FSH6405, FSH6407. SPLITS TO C60106A, AND C60106C.	
C60106C	3/4	(6)#14-C	TEE	PULLBOX	CONTROL WIRES FOR EYEWASH SHOWERS FSH6404, FSH6405, FSH6407. SPLITS TO C60103 & C60104.	
C60110	1 1/2	(56)#14-C, (16)#14-S	PULLBOX	PULLBOX	SPLITS TO C60102A, C60105A, AND C60105B.	
CX60401	1	PULL ROPE	WIREWAY	JB	FOR FUTURE RECIRCULATION PUMP P6408. BECOMES CX60408.	
CX60408	1	PULL ROPE	JB	P6408	FOR FUTURE RECIRCULATION PUMP P6408	
C60402	3/4	(2)#14-C	WIREWAY	LSH6402		
C60403	3/4	(2)#14-C	JB	LSH6403		
C60404	3/4	(2)#14-C	WIREWAY	FSH6404		
C60405	3/4	(2)#14-C	JB	FSH6405		
C60406	3/4	(2)#14-C	WIREWAY	LSH6406		
C60407	3/4	(2)#14-C	JB	FSH6407		
C60410A	3/4	(2)#14-C	WIREWAY	CP6410		
C60420A	3/4	(2)#14-C	WIREWAY	CP6420		
C60430A	3/4	(2)#14-C	WIREWAY	CP6430		
C60440A	3/4	(2)#14-C	WIREWAY	CP6440		
CX60500	1	PULL ROPE	PULLBOX	STUB-UP	VIA HHP1	
CX60501	1	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
CX60502	1	PULL ROPE	PULLBOX	WIREWAY	VIA HHP1	
C60601	3/4	(2)#14-C	PULLBOX	FSH6601		
C60610	3/4	(14)#14-C	JB	PMP6610		
C60610A	3/4	(2)#14-C	JB	PSH6610		
C60611	3/4	(10)#14-C	JB	PMP6611	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6611	
C60620	3/4	(14)#14-C	JB	PMP6620		
C60620A	3/4	(2)#14-C	JB	PSH6620		
C60621	3/4	(10)#14-C	JB	PMP6621	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6621	
C60630	3/4	(14)#14-C	JB	PMP6630		
C60630A	3/4	(2)#14-C	JB	PSH6630		
C60631	3/4	(10)#14-C	JB	PMP6631	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6631	
C60640	3/4	(14)#14-C	JB	PMP6640		
C60640A	3/4	(2)#14-C	JB	PSH6640		
C60641	3/4	(10)#14-C	JB	PMP6641	CONTROL CABLES FOR TEMPORARY METERING PUMP PMP6641	
S60100	3 1/2	(24)TSP-C, (4)TSP-S	MCP	CSCP		

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
S60101A	3	(16)TSP-C, (4)TSP-S	CSCP	PULLBOX	SIGNAL CABLES FOR METERING PUMPS PMP6610, PMP6620, PMP6630, PMP6640, AND CONTROL PANELS CP6410, CP6420, CP6430, CP6440. BECOMES S60101B & S60110.	
S60101B	2 1/2	(12)TSP-C	PULLBOX	JB		
S60101C	2	(9)TSP-C	JB	JB		
S60101D	2	(6)TSP-C	JB	JB		
S60102A	2	(4)TSP-C, (2)TSP-S	PULLBOX	PULLBOX	BECOMES S60102B	
S60102B	2	(4)TSP-C, (2)TSP-S	PULLBOX	JB	VIA CONCRETE TRENCH. SPLITS TO S60410, S60420, S60430, AND S60440.	
S60102C	1 1/4	(4)TSP-C	JB	JB	SPLITS TO S60102D, AND S60420B	
S60102D	1 1/4	(3)TSP-C	JB	JB	SPLITS TO S60102E, AND S60410B	
S60102E	1 1/4	(2)TSP-C	JB	JB	BECOMES S60102F	
S60102F	1 1/4	(2)TSP-C	JB	JB	SPLITS TO S60430B, AND S60440B	
S60103	2	(8)TSP-C	CSCP	PULLBOX	SIGNAL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621, PMP6631, AND PMP6641. COMBINES TO S60110.	
S60103A	1 1/4	(4)TSP-C	PULLBOX	JB	SIGNAL CABLES FOR TEMPORARY METERING PUMPS PMP6611 AND PMP6621. BECOMES S60611 AND S60621.	
S60103B	1 1/4	(4)TSP-C	PULLBOX	JB	SIGNAL CABLES FOR TEMPORARY METERING PUMPS PMP6611, PMP6621, PMP6631, AND PMP6641. BECOMES S60631 AND S60641.	
S60110	3	(12)TSP-C, (2)TSP-S	PULLBOX	PULLBOX	SIGNAL CABLES FOR TEMPORARY METERING PUMPS AND CP6410, CP6420, CP6430, AND CP6440. SPLITS TO S60102A, S60103A, AND S60103B.	
S60410	3/4	(1)TSP-C	JB	CP6410		
S60410A	3/4	(1)TSP-C	CP6410	JB	COMBINES TO S60102C	
S60410B	3/4	(1)TSP-C	JB	LT6410		
S60420	3/4	(1)TSP-C	JB	CP6420		
S60420A	3/4	(1)TSP-C	CP6420	JB	COMBINES TO S60102C	
S60420B	3/4	(1)TSP-C	JB	LT6420		
S60430	3/4	(1)TSP-C	JB	CP6430		
S60430A	3/4	(1)TSP-C	CP6430	JB	COMBINES TO S60102C	
S60430B	3/4	(1)TSP-C	JB	LT6430		
S60440	3/4	(1)TSP-C	JB	CP6440		
S60440A	3/4	(1)TSP-C	CP6440	JB	COMBINES TO S60102C	
S60440B	3/4	(1)TSP-C	JB	LT6440		
SX60500	1 1/4	PULL ROPE	PULLBOX	STUB-UP	VIA HH-S1	
SX60501	2	PULL ROPE	PULLBOX	STUB-UP	VIA HH-S1	
S60610	1 1/4	(2)TSP-C	JB	PMP6610		
S60610A	3/4	(1)TSP-C	JB	FE/FIT6610		
S60611	1 1/4	(2)TSP-C	JB	PMP6611	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6611	

CONDUIT SCHEDULE						
Conduit Tag	**Size [in.]**	**Fill**	**From**	**To**	**Comments**	**Bid Item Number**
S60620	1 1/4	(2)TSP-C	JB	PMP6620		
S60620A	3/4	(1)TSP-C	JB	FE/FIT6620		
S60621	1 1/4	(2)TSP-C	JB	PMP6621	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6621	
S60630	1 1/4	(2)TSP-C	JB	PMP6630		
S60630A	3/4	(1)TSP-C	JB	FE/FIT6630		
S60631	1 1/4	(2)TSP-C	JB	PMP6631	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6631	
S60640	1 1/4	(2)TSP-C	JB	PMP6640		
S60640A	3/4	(1)TSP-C	JB	FE/FIT6640		
S60641	1 1/4	(2)TSP-C	JB	PMP6641	SIGNAL CABLES FOR TEMPORARY METERING PUMP PMP6641	
N60100	3/4	(1)Cat6-C	MCP	CSCP		

SE EXTERIOR OF BUILDLING 43

PHOTO 1

W EXTERIOR OF BUILDLING 43

PHOTO 2

INTERIOR ENTRANCE OF BUILDLING 43

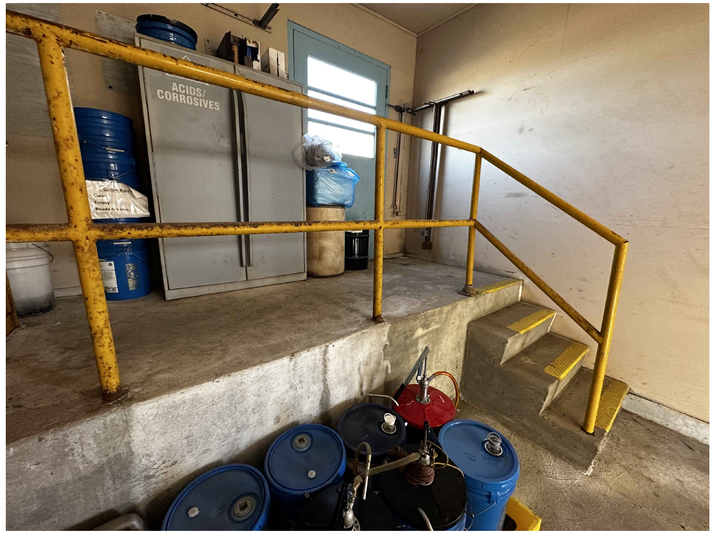
PHOTO 3

INTERIOR OF BUILDLING 43

PHOTO 4

INTERIOR OF BUILDLING 43

PHOTO 5



INTERIOR STAIRS OF BUILDLING 43

PHOTO 6

GENERAL NOTES:

1. DEMOLITION SHALL INCLUDE THE BUILDING STRUCTURE INCLUDING FOUNDATION, WALLS AND ROOF, DOORS, WINDOWS, FANS, SINK AND CABINETS, PIPING AND ELECTRICAL EQUIPMENT. ALL HAZARDOUS MATERIALS SHALL BE REMOVED FROM BUILDING 43 BY THE OWNER.

1

WEST YOST
Water. Engineered.

ORIGINAL PAGE SIZE: 22"X34"

PREPARED UNDER THE DIRECTION OF:
TIMOTHY R. BANYAI, P.E.
License No. 60715, Exp. 12/2024
DATE: 03/25/2024

ACCEPTED FOR USE:
JOHN SAMUELSON, P.E.
City Engineer
License No. 67734, Exp. 06/2025
Date:

City of Pittsburg

WATER TREATMENT PLANT
FILTER IMPROVEMENTS AND
HYPOCHLORITE CONVERSION
DEMOLITION ABANDONED BUILDING 43

DRAWN: SMB	CHECKED: TRB	REVIEWED: AMS	DATE: 1/19/2024	SCALE: AS SHOWN

DATE	REV	DESCRIPTION	BY
03/24	01	ADDENDUM NO. 3	AMS

SHEET NO.
47A OF 232

DWG. NO.
D403

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY
0 1/2" 1"
SCALE IN INCHES

W:\Clients\1040 City of Pittsburg\50-22-01 Filter & Cl2 Improvm\CAD\Production\1040-50-22-01-D403.dwg 3-25-24 11:28:04 AM kerkert

SECTION 26 50 00
LIGHTING

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. Furnish all labor, materials, equipment, and incidentals required and install a complete lighting system ready for operation as shown on the Drawings and as specified herein.

1.2 RELATED WORK

A. Section 26 05 00 – Common Work Results for Electrical

B. Lighting fixture types referenced on the Drawings and associated descriptions are included under Appendix 26 50 00-A – Lighting Fixtures.

1.3 SUBMITTALS

A. Submittals shall include those set forth in Section 26 05 00 and shall be in accordance with Section 01 33 00.

B. The submittals shall contain the following product information as a minimum:

1. Fixtures: Manufacturer, model number, materials of construction, finish type and color, total fixture wattage, mounting hardware.

2. Drivers: operational and control features, total harmonic distortion, power factor.

3. Lamps: Manufacturer, model number, wattage, color temperature, color rendition index, mean lumen output, rated life.

4. Fixture photometric data in ANSI/IESNA LM-63-02 standard format.

C. All light-emitting diode (LED) shall be provided with certification from the manufacturer that they are bear the Environmental Protection Agency (EPA) and the Department of Energy (DOE) ENERGY STAR® label and California Code of Regulations (CCR) Title 20 self-certification.

D. LED fixture submittals shall include the manufacturer's standard LED Lighting Facts label.

E. Submit lighting control panel interior and exterior elevation drawings to scale, schematic control diagrams, and bill of materials indicating the details of the panels and application for controlling the associated lighting fixtures and ventilation equipment where shown on the Drawings. Submit cut sheets for panel components and control devices (photocell, occupancy sensor, control relays, etc.)

1.4 REFERENCE STANDARDS

A. American National Standards Institute (ANSI)

1. C78.377 – Specifications for the Chromaticity of Solid-State Lighting Products

2. ESD S20.20 – Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)

3. C78.23 – Incandescent Lamps – Miscellaneous Types

B. California Code of Regulations (CCR)

1. Title 20 – Public Utilities and Energy

2. Title 24 – California Building Standards Code

   a. Part 1 – California Administrative Code

   b. Part 6 – California Energy Code

C. California Energy Commission (CEC)

1. Building Energy Efficiency Standards – Title 24 Parts 1 and 6

2. Department of Energy (DOE) Determination: The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1

D. DesignLights Consortium (DLC)

1. Product Qualifications Criteria

2. Qualified Products List

E. Environmental Protection Agency (EPA)

1. Energy Star for Luminaires Version 2.0

F. Federal Communications Commission (FCC)

1. Code of Federal Regulations (CFR), Title 47- Telecommunication, Part 15 – Radio Frequency Devices

G. Illuminating Engineering Society of North America (IESNA)

1. ANSI/IESNA LM-63-02 – ANSI Approved Standard File Format for the Electronic Transfer of Photometric Data and Related Information

2. National Electrical Contractors Association (NECA)/IESNA 500 – Standard for Installing Indoor Lighting Systems

H. Institute of Electrical and Electronics Engineers (IEEE)

1. IEEE C62.41.2 – IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and less) AC Power Circuits

2. IEEE 1789 – IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers

I. International Electrotechnical Commission (IEC)

1. IEC 61000-4-2 – Electromagnetic Compatibility (EMC) – Part 4-2: Testing and Measurement Techniques – Electrostatic Discharge Immunity Test

J. National Electrical Manufacturers Association (NEMA)

1. 410 – Performance Testing for Lighting Controls and Switching Devices with Electronic Drivers and Discharge Ballasts

2. LE 4 – Recessed Luminaires, Ceiling Compatibility

3. SSL 1 – Electronic Drivers for LED Devices, Arrays, or Systems

K. National Fire Protection Association (NFPA)

1. NFPA 70® – National Electrical Code®

2. NFPA 101® – Life Safety Code®

L. Underwriters Laboratories Inc. (UL)

1. UL 508A – Standard for Industrial Control Panels

2. UL 916 – Standard for Energy Management Equipment

3. UL 924 – Standard for Emergency Lighting and Power Equipment

4. UL 1310 – Standard for Class 2 Power Units

5. UL 1598 – Luminaires

6. UL 1598C – Standard for Light-Emitting Diode (LED) Retrofit Luminaire Conversion Kits

7. UL 8750 – Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Company with not less than ten years of experience manufacturing luminaires, dimming drivers, and lighting control systems.

2. ISO 9001 certification, including in-house engineering for product design activities.

3. Manufacturing facility employing electrostatic discharge reduction practices in compliance with ANSI/ESD S20.20 or equivalent.

1.6 DELIVERY, STORAGE, AND PROTECTION

A. Receive, handle, and store products according to NECA/IESNA 500 and manufacturer's written instructions.

B. Keep products in original manufacturer's packaging and protect from damage until ready for installation.

1.7 SPARE PARTS AND MAINTENANCE

A. All spares shall be delivered in the manufacturer’s packaging suitable for protection from damage during long-term storage.

B. Lenses and Louvers: 5% of total quantity but not less than one of each type provided.

C. Extra Lamps: 10% of total quantity but not less than one of each type provided.

D. External Drivers: 5% of total quantity but not less than one of each type provided.

PART 2 - PRODUCTS

2.1 GENERAL

A. All lighting fixtures shall be in accordance with the National Electrical Code (NEC) and shall be constructed in accordance with the latest edition of the applicable Underwriters Laboratories Inc. (UL) standards. All lighting fixtures shall be UL labeled.

B. Drivers, and lamps shall comply with the requirements of the National Energy Policy Act of 2005.

C. Provide products listed and classified by UL as suitable for the purpose specified and indicated.

1. Provide products that are listed and labeled as complying with UL 1598, where applicable.

2. LED Luminaire Components: UL 8750 recognized or listed as applicable.

D. All devices shall comply with FCC requirements as listed in CFR, Title 47, Part 15 for commercial applications.

E. All LED products shall bear the LED Lighting Facts label.

F. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, drivers, reflectors, lenses, housings, and other components required to position, energize, and protect the lamp and distribute the light.

G. Provide all ancillary hardware required including conduit, boxes, wiring, connectors, hardware, supports, trims, accessories, etc. as necessary for a complete operating system.

H. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc. for the location and service specified and shown on the Drawings.

I. Recessed Luminaires:

1. Ceiling Compatibility: Comply with NEMA LE 4.

2. Luminaires Recessed in Insulated Ceilings: Listed and labeled as IC rated, suitable for direct contact with insulation and combustible materials.

J. Emergency Power Supply Units: Suitable for use with indicated luminaires, complying with NFPA 101 and applicable state and local codes, listed and labeled as complying with UL 924.

K. Drivers, lamps, and controls shall comply with applicable portions of the California Code of Regulations (CCR) Titles 20 and 24.

L. All lighting control panels shall utilize UL-listed components and shall be manufactured and assembled in accordance with UL Standard 508A.

2.2 MATERIALS

A. Lighting Fixtures

1. Lighting fixture types shall be furnished as required by the Lighting Fixtures descriptions in Appendix 26 50 00-A. The catalog numbers are given as a guide to the design and quality of fixture desired. Equivalent designs proven with reviewed and approved calculations and equal quality fixtures of other manufacturers will be acceptable upon approval by the Engineer.

2. All LED fixtures and luminaires shall be listed on the DesignLights Consortium (DLC) Qualified Products List.

3. Where fixtures are to be installed recessed, verify the type of ceiling or wall construction, and provide the appropriate frames, mounting devices, and hardware.

B. Lamps

1. Light-Emitting Diode (LED) Lamps

a. Lamps shall meet ANSI C78.377.

b. Initial LED Lumen Output: 100% rated lumen output as specified on the Drawings

c. Light Output Depreciation Category: Category 1, Initial at 90%, 25% rated life

d. Failure Fraction: F10 (10%)

e. Color Temperature:

Correlated Color Temperature (CCT)
Per ANSI C78.377

Nominal CCT (K)	Allowable Tolerance (K)
2700	2725±145
3000	3045±175
3500	3465±245
4000	3985±275
4500	4503±243
5000	5028±283
5700	5665±355
6500	6530±510

f. Minimum Color Rendering Index Value: 80

g. Maximum Color Rendering Index Value Shift: 10%

h. Power Factor: 85% minimum

i. Indoor Fixture Ambient Operating Temperature Rating/Range: 25 ˚C / 0 ˚C to 40 ˚C

j. Outdoor Fixture Ambient Operating Temperature Rating / Range: 15˚C / -15 ˚C to 40 ˚C

k. LED lamps shall be manufactured by Cree, Samsung, Nichia Corporation, or equal.

C. LED Fixture Drivers

1. Provide constant-current or constant-voltage drivers compatible with the selected fixture rated for operations for a minimum of 50,000 hours at maximum case temperature and 90% non-condensing relative humidity.

2. Provide thermal protection with automatic power output reduction to protect LED driver and LED light engine/fixture from damage due to over-temperature conditions. Reduction shall be applied when temperatures approach or exceed the LED driver's maximum operating temperature at calibration point.

3. Protective Features

a. Designed and tested to withstand electrostatic discharges without impairment when tested according to IEC 61000-4-2 or equivalent.

b. Designed and tested to withstand Category A surges of 4,000 V according to IEEE C62.41.2 without impairment of performance.

c. Meet NEMA 410 inrush requirements for mitigating inrush currents with solid-state lighting sources.

d. Employ integral fault protection and overvoltage protection up to 277 V for constant-voltage type; provide short-circuit, open-circuit, and overload protection for constant-current type.

4. UL Type TL-rated or UL Class P listed where specified. Suitable for field replacement as applicable; listed in accordance with UL 1598C or UL 8750; Class P where specified.

5. Class A Sound Rating: Inaudible in a 27 decibels (dBA) maximum ambient.

6. No visible change in light output under a variation of plus or minus 10% change in line-voltage input.

7. Provide LED drivers designed to evenly track across multiple fixtures of the same family or series at all light levels. UL Class 2 output suitable for hot swap of LED lamps.

8. 3-Wire Control: Provide integral control circuitry where specified. Control operation shall be from input voltage of 120 V through 277 V at 50/60 Hz.

9. Dimming type where specified in the Lighting Fixtures descriptions. Provide dimming range 100% to 1% measured output current unless otherwise specified. Provide pulse width modulation (PWM) output dimming frequency meeting IEEE 1789 requirements or constant-current reduction method.

10. Paired with LEDs and rated at least 20% greater than the maximum wattage rating of the driven fixture.

11. Meet requirements for solid-state devices for power factor, transient protection, power consumption, start time, and operating frequency per Energy Star Luminaires. Total harmonic distortion less than 20% at maximum power.

D. Flexible Fixture Hangers: Flexible fixture hangers used in non-hazardous areas shall be type ARB and flexible fixture supports used in hazardous areas shall be type ECHF as manufactured by Crouse-Hinds (Eaton), Appleton (Emerson), Killark (Hubbell), or approved equal.

E. Emergency Lighting Battery Units

1. Emergency lighting units and remote lighting heads shall be as specified in the Lighting Fixtures descriptions and as shown on the Drawings.

2. Provide units conforming to UL 924.

3. Battery units shall be of the self-contained, full- automatic type with sealed lead-acid batteries, voltmeters and time delay relays where used in high-intensity discharge (HID) lighted areas. Batteries shall be sized to provide 90 minutes minimum of lighting.

4. Unit enclosures shall be compatible with their environment.

5. All necessary mounting hardware shall be provided.

F. Emergency Exit Lighting and Signage

1. Emergency exit lighting and signage shall be installed at designated locations shown on Drawings.

2. Emergency lighting fixtures in process and industrial areas shall be self-powered units with corrosion-resistant enclosures rated NEMA 4X, temperature compensated, sealed 12-volt maintenance-free nickel-cadmium (NiCad) batteries, high-intensity incandescent light source, battery charger with LED indicator light, sealed push-to-test switch, and time delay.

3. Emergency exit signs for non-process or non-industrial areas shall be similar, except with NEMA 1 enclosures.

4. Provide units conforming to UL 924.

5. Emergency exit signs shall utilize LED-style lights for illumination.

2.3 LIGHTING CONTROL DEVICES

A. Photocells

1. The photocells shall be suitable for power duty with individual fixtures or for pilot duty with contactors as detailed on the Drawings. Enclosures shall be NEMA 3R or 4. Contacts shall be rated for 1800 VA continuous at 120 volts. On-off light levels shall be adjustable with an adjustable delay of up to two minutes. Orient eye to the north. Adjust the unit to turn on at 1.5 footcandles and off at 5.5 footcandles with a 30-second delay.

2. Photocell shall operate on 120-volt power input.

3. Photocells shall be TORK Photocontrols (NSi Industries, LLC) or approved equal.

B. Motion Sensors

1. Provide interior motion sensors for office spaces or other locations as shown on the Drawings. Provide exterior motion sensors as shown on the Drawings and per the Lighting Fixtures descriptions for installation as part of the pole-mounted fixtures.

2. Provide UL listed switch rated for 120 V ac with mounting box and hardware as required. Provide sensor compatible with relay pilot operation for control of groups of fixtures and ventilation equipment either directly or from a common control panel.

3. Control scheme shall control lighting and ventilation equipment using a motion sensor timer adjustable from 5 to 30 minutes.

4. If required for ventilation loads, provide additional auxiliary relay and controls as required under the HVAC Drawings as part of a UL 508 panel.

5. Motion sensor shall have 360-degree detection pattern with selectable option for 180-degreee coverage. Provide load flicker warning, nominally 2 minutes before lights turn off.

6. Provide motion sensors as manufactured by Tork WOS; Honeywell; or approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Each fixture shall be a finished unit with all components, mounting and/or hanging devices necessary for the proper installation of the specific fixture in its designated location and shall be completely wired ready for connection to the branch circuit wires at the outlet.

B. Interior installations shall be in accordance with IESNA 500.

C. Coordinate the installation of luminaires with mounting surfaces as shown on the Drawings. Coordinate the work with placement of supports, anchors, etc. required for mounting. Coordinate compatibility of luminaires and associated trims with mounting surfaces at installed locations.

D. Coordinate the placement of luminaires with structural members, ductwork, piping, equipment, diffusers, fire suppression system components, and other potential conflicts provided under other sections.

E. All flush-mounted fixtures shall be supported from the structure and shall not be dependent on the hung ceilings for their support.

F. Install luminaires plumb and square, aligned with building lines and with adjacent luminaires. Provide extension rings to bring outlet boxes flush with finished services.

G. Fixtures noted to be installed flush in suspended ceilings shall be of mounting types suited for the type of ceiling involved. It shall be the responsibility of the Contractor to verify the ceiling types prior to ordering fixtures. In addition to ceiling support wires, provide two dedicated galvanized fixture safety wires connecting the opposing corner of each recessed luminaire to the building structure.

H. Flexible fixture hangers shall be used for all pendant-mounted fixtures. Fixtures two feet long and larger shall be supported with a minimum of two fixture hangers. Pendant fixtures shall be supported from rigid conduit. The use of threaded rods is not acceptable. Provide separate grounding conductor connected to a ground bushing or lug in the outlet box.

I. Conduit run in areas with hung ceilings shall be installed in the space above the hung ceiling as close to the structure as possible. Conduits shall be supported from the structure.

J. Fixture locations are shown on the Drawings in approximate locations; however exact locations shall be coordinated to avoid conflicts with heating ventilation and air conditioning (HVAC) ducts, HVAC equipment, piping, and any other obstacles or obstructions.

K. Fixture mounting heights shown on the Drawings shall be as measured from the referenced finished surface to the bottom of the luminaire.

L. Photocells shall be mounted facing north and in a location that is unaffected by light fixture sources.

M. Motion sensors shall be mounted and configured to track motion in main egress locations or in areas as necessary for ensuring site security.

3.2 ADJUSTMENT

A. Aim and position adjustable luminaires to achieve desired illumination as indicated or as directed by the Engineer. Adjust luminaires to avoid glare and light leakage to areas outside of the facility property lines.

B. Configure motion sensors to operate upon personnel egress and adjustable timing to maximize convenience for operating personnel.

3.3 STARTUP

A. Operate each luminaire after installation to verify proper operation.

B. Test emergency power supply units to verify proper operation upon loss of power. Replace drivers that exceed the manufacturer’s rated noise levels or that exceed project-specified noise limits.

C. Protect installed luminaires from subsequent construction. Replace any damaged or failed lamps prior to substantial completion.

D. All lamps used during construction, except for LED and high-intensity discharge (HID) lamps, shall be removed and replaced with new lamps two weeks from completion of the work.

3.4 CLEANING UP

A. Plastic dust cover bags that are provided with new parabolic reflector lighting fixtures shall be removed after all construction activity that may cause dust formation on reflector surfaces has been completed.

B. Clean surfaces according to IESNA 500 and manufacturer’s instructions to remove dirt, fingerprints, paint, foreign spatter, or materials. Restore finishes to match original factory

finish. All fixtures shall be left in a clean condition, free of dirt and defects, before acceptance by the Engineer.

END OF SECTION

APPENDIX 26 50 00-A
LIGHTING FIXTURES

Note: Fixture letter designations used in this Appendix are referenced on the Drawings. The manufacturer and part numbers listed are intended as a guide to the Contractor and are not intended to preclude selection and use of equivalent fixtures made by an alternative manufacturer.

APPENDIX 26 50 00 - A

Fixture Type: A

Industrial LED Stanchion Mounted

General: Industrial low bay LED fixture, UL listed, NEMA 4X. Super durable TGIC thermoset powder coat finish, 5000 hours salt fog rating, corrosion resistant. Robust cast aluminum housing with low copper content withstands harsh or hostile environments. Universal mount, high profile top cover (ceiling/pendant), with optional universal arm available for wall/stanchion/angle mounted.

Description:

Manufacturer and model number:

Holophane: PXLW 5000LM MD0 120 40K 80CRI UNM CR P3US DGXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine.

Mounting Arrangement:

Stanchion mounted

Input:

Max Wattage (including ballast):

35 W

Voltage:

120 VAC

Notes:

Provide F7-M2 floor mounted stanchion swivelpole or approved equal.

APPENDIX 26 50 00 - A

Fixture Type: B

Industrial LED Column Mounted

General: Industrial low bay LED fixture, UL listed, NEMA 4X. Super durable TGIC thermoset powder coat finish, 5000 hours salt fog rating, corrosion resistant. Robust cast aluminum housing with low copper content withstands harsh or hostile environments. Universal mount, high profile top cover (ceiling/pendant), with optional universal arm available for wall/stanchion/angle mounted.

Description:

Manufacturer and model number:

Holophane: PXLW 3000LM MD0 120 40K 80CRI UNM CR P3US DGXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine.

Mounting Arrangement:

Column mounted

Input:

Max Wattage (including ballast):

21 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: C

Industrial LED Stanchion Mounted

General: Industrial high bay LED fixture, UL listed, NEMA 4X. Super durable TGIC thermoset powder coat finish, 5000 hours salt fog rating, corrosion resistant. Robust cast aluminum housing with low copper content withstands harsh or hostile environments. Universal mount, high profile top cover (ceiling/pendant), with optional universal arm available for wall/stanchion/angle mounted.

Description:

Manufacturer and model number:

Holophane: PXHW 12000LM MD0 120 40K 80CRI PM CR DGXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine.

Mounting Arrangement:

Pendant mounted

Input:

Max Wattage (including ballast):

83 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: D

Industrial LED Stanchion Mounted

General: Industrial low bay LED fixture, UL listed, NEMA 4X. Super durable TGIC thermoset powder coat finish, 5000 hours salt fog rating, corrosion resistant. Robust cast aluminum housing with low copper content withstands harsh or hostile environments. Universal mount, high profile top cover (ceiling/pendant), with optional universal arm available for wall/stanchion/angle mounted.

Description:

Manufacturer and model number:

Holophane: PXLW 3000LM MD0 120 40K 80CRI UNM CR P3US DGXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine.

Mounting Arrangement:

Stanchion mounted

Input:

Max Wattage (including ballast):

21 W

Voltage:

120 VAC

Notes:

Provide F7-M2 floor mounted stanchion swivelpole or approved equal.

APPENDIX 26 50 00 - A

Fixture Type: E

Exit Sign

General: 20-gauge steel housing, white powder coat finish. Universal mounting. UL damp location listed. Nickel Metal Hydride battery (9.6V) delivers minimum of 90 minutes capacity.

Description:

Manufacturer and model number:

Lithonia (Titan): TCE RG EL; or approved equal.

Lamp Type:

LED.

Ballast Type:

-

Mounting Arrangement:

Universal mounting

Input:

Max Wattage (including ballast):

6 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: F

LED Floodlight

General: Rugged die-cast aluminum construction with integral heat sink fins. Housing and lens frame are completely sealed against moisture and environmental contaminants. Suitable for wet locations.

Description:

Manufacturer and model number:

Lithonia: DSXF2 LED P1 40K 70CRI FL MVOLT YKC62 DBLXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine

Mounting Arrangement:

Wall mounted (Yoke)

Input:

Max Wattage (including ballast):

52 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: G

Industrial Linear LED

General: Fully gasketed fixture, stainless steel latches, with flame and weather resistant fiberglass outer housing. Surface or suspended mounting, suitable for wet locations.

Description:

Manufacturer and model number:

Williams: 96 4 L110 8 50 DCL DRV 120; or approved equal.

Lamp Type:

5000K LED.

Ballast Type:

-

Mounting Arrangement:

Surface/Ceiling Mounted

Input:

Max Wattage (including ballast):

88 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: GE

Industrial Linear LED

General: Same as Type 'G' but with emergency battery pack.

Description:

Manufacturer and model number:

Williams: 96 4 L110 8 50 DCL DRV 120 EM/10W; or approved equal.

Lamp Type:

5000K LED.

Ballast Type:

-

Mounting Arrangement:

Surface/Ceiling Mounted

Input:

Max Wattage (including ballast):

88 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: H

LED Emergency Light

General: Engineering-grade thermoplastic, impact-resistant, scratch resistant, and corrosion proof housing. Adjustable lamp heads with glass lens. Emergency unit is provided with test switch, status indicator and rechargeable battery. Sealed, maintenance-free nickel-cadmium battery delivers 90-minute emergency illumination. UL listed; wet location listed.

Description:

Manufacturer and model number:

Lithonia: WLTU LED; or approved equal.

Lamp Type:

LED

Ballast Type:

-

Mounting Arrangement:

Wall Mounted

Input:

Max Wattage (including ballast):

2.7 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: I

LED Wall Luminaire

General: 4 feet length LED with wall stem mount, emergency battery pack, bi-level dimming, with integral occupancy sensor. Aluminum housing acting as the heat sink to maximize life. Suitable for dry and damp locations.

Description:

Manufacturer and model number:

Axis Lighting: ARWBTLED 1000 80 40 S 4 AP 120 BI 1 B(1) OS(W,U,1,BI); or approved equal.

Lamp Type:

4000K LED

Ballast Type:

LED light engine

Mounting Arrangement:

Wall Mounted

Input:

Max Wattage (including ballast):

31.9 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: J

LED Wall Pack

General: Low maintenance LED wall pack with rugged cast-aluminum housing, rated for outdoor installations. Designed for wall mounting with adjustable lumen output, switchable CCT. UL listed for wet location.

Description:

Manufacturer and model number:

Lithonia: TWR1 LED ALO SWW2 UVOLT DDBTXD; or approved equal.

Lamp Type:

4000K LED

Ballast Type:

LED light engine

Mounting Arrangement:

Wall Mounted

Input:

Max Wattage (including ballast):

16 W

Voltage:

120 VAC

Notes:

Adjust lumen output to 2,300 lumens, CCT to 4000K.

APPENDIX 26 50 00 - A

Fixture Type: K

Low Bay Linear LED

General: Linear LED. 20-gauge steel housing, high-gloss, baked white enamel finish, rust resistant. UL listed, for use in damp and dry locations.

Description:

Manufacturer and model number:

Lithonia: MSL 4000LM L/LV 120 40K 80CRI WH THMSHB J2; or approved equal.

Lamp Type:

4000K LED

Ballast Type:

-

Mounting Arrangement:

Surface Mounted or Suspended

Input:

Max Wattage (including ballast):

29 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: KE

Low Bay Linear LED

General: Same as Type 'K' but with emergency battery pack.

Description:

Manufacturer and model number:

Lithonia: MSL 4000LM L/LV 120 40K 80CRI E10WLCP WH THMSHB J2; or approved equal.

Lamp Type:

4000K LED

Ballast Type:

-

Mounting Arrangement:

Surface Mounted or Suspended

Input:

Max Wattage (including ballast):

29 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: L

LED Troffer

General: Precision die-formed 22-gauge cold rolled steel housing/reflector, frosted acrylic shielding, with highly reflective non-glare matte white polyester powder coat finish. Suitable for dry or damp locations.

Description:

Manufacturer and model number:

Williams: LT 2 2 L39 8 50 AF DIM 120; or approved equal.

Lamp Type:

5000K LED

Ballast Type:

-

Mounting Arrangement:

Recessed

Input:

Max Wattage (including ballast):

33.1 W

Voltage:

120 VAC

Notes:

Provide with EQCLIPS.

APPENDIX 26 50 00 - A

Fixture Type: LE

LED Troffer

General: Same as Type 'L' but with emergency battery pack.

Description:

Manufacturer and model number:

Williams: LT 2 2 L39 8 50 AF DIM 120 EM/10W; or approved equal.

Lamp Type:

5000K LED

Ballast Type:

-

Mounting Arrangement:

Recessed

Input:

Max Wattage (including ballast):

33.1 W

Voltage:

120 VAC

Notes:

Provide with EQCLIPS.

APPENDIX 26 50 00 - A

Fixture Type: M

Industrial LED Wall Mounted

General: Industrial low bay LED fixture, UL listed, NEMA 4X. Super durable TGIC thermoset powder coat finish, 5000 hours salt fog rating, corrosion resistant. Robust cast aluminum housing with low copper content withstands harsh or hostile environments. Universal mount, high profile top cover (ceiling/pendant), with optional universal arm available for wall/stanchion/angle mounted.

Description:

Manufacturer and model number:

Holophane: PXLW 3000LM MD0 120 40K 80CRI UNM CR P3US DGXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine.

Mounting Arrangement:

Wall mounted

Input:

Max Wattage (including ballast):

21 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: N

Industrial LED Stanchion Mounted

General: Industrial low bay LED fixture, UL listed, NEMA 4X. Super durable TGIC thermoset powder coat finish, 5000 hours salt fog rating, corrosion resistant. Robust cast aluminum housing with low copper content withstands harsh or hostile environments. Universal mount, high profile top cover (ceiling/pendant), with optional universal arm available for wall/stanchion/angle mounted.

Description:

Manufacturer and model number:

Holophane: PXLW 3000LM MD0 120 40K 80CRI UNM CR P3US DGXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine.

Mounting Arrangement:

Stanchion mounted

Input:

Max Wattage (including ballast):

21 W

Voltage:

120 VAC

Notes:

Provide F7-M2 floor mounted stanchion swivelpole or approved equal.

APPENDIX 26 50 00 - A

Fixture Type: O

LED Wall Mounted

General: Energy- efficient, low maintenance LED wall pack lighting fixture. Two-piece die-cast aluminum housing, completely sealed against moisture and environmental contaminants, corrosion and weathering resistant.

Description:

Manufacturer and model number:

Holophane: TWX2 P3 40K MVOLT DNAXD; or approved equal.

Lamp Type:

4000K LED.

Ballast Type:

LED light engine.

Mounting Arrangement:

Wall mounted

Input:

Max Wattage (including ballast):

39 W

Voltage:

120 VAC

Notes:

None.

APPENDIX 26 50 00 - A

Fixture Type: P

LED Troffer

General: Precision die-formed 22-gauge cold rolled steel housing/reflector, frosted acrylic shielding, with highly reflective non-glare matte white polyester powder coat finish. Suitable for dry or damp locations.

Description:

Manufacturer and model number:

Williams: LT 2 2 L27 8 50 AF DIM 120; or approved equal.

Lamp Type:

5000K LED

Ballast Type:

-

Mounting Arrangement:

Recessed

Input:

Max Wattage (including ballast):

21.3 W

Voltage:

120 VAC

Notes:

Provide with EQCLIPS.

APPENDIX 26 50 00 - A

Fixture Type: PE

LED Troffer

General: Same as Type 'P' but with emergency battery pack.

Description:

Manufacturer and model number:

Williams: LT 2 2 L27 8 50 AF DIM 120 EM/10W; or approved equal.

Lamp Type:

5000K LED

Ballast Type:

-

Mounting Arrangement:

Recessed

Input:

Max Wattage (including ballast):

21.3 W

Voltage:

120 VAC

Notes:

Provide with EQCLIPS.

Fixture Type: Q

LED Roadway Lighting

General: Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance, mounted on anchor base pole/mounting arm combo, with photocell.

Description:

Manufacturer and model number:

American Electric Lighting (Acuity Brands): ATB0 P201 MVOLT R4 PCSS; or approved equal.

Lamp Type:

4000K LED

Ballast Type:

-

Mounting Arrangement:

Pole-mounted, 20 feet mounting height

Input:

Max Wattage (including ballast):

36 W

Voltage:

277 VAC

Notes:

Provide FRTSU 20 59B SMP US4 GR AB anchor base pole/mounting arm combo or approved equal.

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