Jones & Henry
ENGINEERS, LTD.

Village of Oak Harbor, Ohio
WWTP Improvements

ADDENDUM 3

May 28, 2026

Planholders on the Village of Oak Harbor, WWTP Improvements are hereby notified of the following amendments to the Contract Documents. This Addendum is hereby made a part of the Contract Documents.

QUESTIONS AND ANSWERS

All questions and answers can be found in the Pre-Bid Questions document.

SPECIFICATIONS

Replace the following specifications with the attached:

C-520 – Agreement
C-800 - Davis Bacon Wage Rates
C-800 - Exhibit 2 Funding Requirements
01043 - Coordination and Control of the Work
04200 - Unit Masonry
08310 - Overhead and Vertical Lift Doors
09900 - Painting
11233 - Ultraviolet Disinfection System
11238 - Rotary Lobe Blowers
11835 - Volute Dewatering Press
14551 - Shaftless Screw Conveyors

Delete the following specifications in its entirety:

9880 – Protective Coating for Concrete
15262 - Stop Plate

Planholders should update the Table of Contents to reflect the above sections.

An updated Table of Contents will be included in the Issued for Construction Project Manual.

DRAWINGS

Replace the following drawings with the attached:

S-10.3	40 of 309	A-10.11	70 of 309	S-10.3	140 of 309
A-0.1	45 of 309	A-10.13	72 of 309	PE-0.1	157 of 309
A-0.3	47 of 309	S-0.3	84 of 309	PE-6.2	178 of 39
A-2.8	57 of 309	S-4.1	111 of 309	PE-11.2	189 of 309
A-2.9	58 of 309	S-4.2	112 of 309	PE-11.3	190 of 309

3103 Executive Parkway, Suite 300, Toledo, Ohio 43606 - 419.473.9611

I-5 299 of 309

Planholders should update the Drawing Index to reflect the above changes.

An updated Drawing Index will be included in the Issued for Construction Project Manual.

RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON PAGE C-410-1 OF THE BID.

Oak Harbor, Ohio
Wastewater Treatment Plant
Pre-Bid Questions

1. Addendum 2, BABA – They inform us to review the latest updates to section C-800. It appears they have crossed out most of the BABA documentation, but still left in the BABA acknowledgement form. It is unclear to us what this is saying. Can we get a simple Yes/No for this question?

   Delete BABA acknowledgement form in C-800

2. Addendum 2, Question #23: They refer us to a section C-16239, which we cannot find. Is this possibly a typo, referring to section 16230, and indicating we should follow that section?

   Delete Answer to Question 29 in Addendum 2. And note as See Addendum 2 Revised Section 16230.

3. Addendum 2, Question #29: We do not see the referenced Revised Sheet E-2.3 in the file. Can this be provided? If not, can the hazardous ratings they want us to follow for each of the components be verified?

   See Sheet E-2.3 and E-3.1 (bid set)

4a. The gate with Tag ID: 100-FSG-1 is shown on plan C-0.3 (MH SA-1) However, there is a discrepancy in the dimensions. The schedule mentions 42” x 48” slide gate, while the plan shows 42” x 42” slide gate. Please confirm the actual requirement and provide the applicable design head for this gate.

   See Addendum 3, Revised Sheet C0.3

4b. Can flap gate be cast iron or stainless steel?

   See Addendum 3, Revised Sheet PE-0.1

5. Stop logs are shown on plan S-2.1. and S-2.6. If required, please provide their schedule.

   Per Drawings Sheets S-2.1 and S-2.6 Stop Log Frames are required

6. Please confirm the required material of construction per specification 15262 – Stop Plates (Stainless Steel or FRP). Both styles are specified.

   See Addendum 3, delete Specifications Section 15262

7. Please provide the schedule/details of stop plates including dimensions and design head.

   See Item 6 above

8. Structural drawings S-2.1. and S-2.6 reference “stop log frames”. Please confirm whether stop plates or stop logs are required.

   See Item 6 above

9. If stop logs are required, please provide the relevant specifications/details.

   See Item 6 above

10. What is the length of the shaftless screw conveyor?

See Addendum 3, Specification Section 14551

11. What is the loading rate for the shaftless screw conveyor?

    See Addendum 3, Specification Section 14551

12. Please revise the electrical supply for the water level sensor provided by the Level Control Panel.

    See Addendum 3, Specification Section Section11233

13. Spec 04200, part 1.03, C, 1, this states all cmu to be 2hr rated. Sheets A-2.0, A-10.0, and A-11.0 does not support this requirement. Clarify if all CMU for this project are required to be 2hr rated.

    See Addendum 3 Revised Specification Section 04200

14. Sheet A-2.1 the section cut A2.7/3, the west wall with enlarged detail A2.8/4 contradicts the structural detail on sheet S-2.5 detail WTC-2.02 showing the plank do not bear on this wall. Clarify this discrepancy.

    See Sheet S-2.5

15. Sheet A2.8, confirm if the extended insulation heights above the plank bearing is accurate.

    See Sheet A-2.9/A

16. Sheet A-0.7 under the typical masonry lintel schedule note #4 requiring the veneer angles to be a thermal support bracket system and also called out in spec 05500 part 2.04, A, calling out the Halfen anchoring system, which is similar to the Ferofast and TIBS system. I have a question for the engineer, from one of my suppliers, about the masonry opening head details as shown on S-0.16 having steel lintels at the CMU wythe. Typically, this is a built in place masonry lintel designed with the load it will be supporting. The 2x4 blocking will also inhibit the ability to install the thermal bracket system. Will the veneer thermal bracket system requirements be removed from this project saving excessive cost or will the masonry lintel head detail requirements be revised?

    See Sheet A-0.7

17. Sheet A-0.1 OHD 200B, will the head height be adjusted to work masonry? This requires a W16 at the CMU wythe and will have a half high course crossing the beam at the first course of the head.

    See Addendum 3, Revised Sheet A-0.7

18. Sheet S-0.7, does the typical masonry note #1 apply to non-bearing CMU walls?

    See Sheet S-0.7

19. Sheet S-10.3 at column line 4 at the west wall, clarify what is meant by concrete blocks at columns down to footer. Sheet A-10.2 cut A-10.12 does not reflect any CMU at this location.

    See Addendum 3, Revised Sheet S-10.3

20. Sheet A-10.7 shows brick 2 laid in running bond. Sheet S-10.11 indicates brick 2 to be laid as a corbeled soldier, and sheet A-0.03 detail WS-A1 indicated brick 2 to be corbeledlaid in running bond with a custom brick sill/water table, Clarify the bond requirements for brick 2, does brick 2 get corbeled for the entire building?

    See Addendum 3, Revised Sheet A-10.11.

21. Veneer material Brick 1 & 2, these units are not blended when they are manufactured, this will require blending them in the field adding additional cost. The manufacturer makes several other blended color types that will not require field blending. Will a preblended veneer brick 1&2 be selected? At the admin the window W2 requires a brick 1 water table brick, 9 units. The manufacturer will be required to make 3 full-colored runs to be able to provide these adding additional cost and waste to this project. Will the W2 below sill detail be modified?

    See Addendum 3, Revised Sheet A-10.11.

22. Sheet A-0.3, WA-A1, the depicted 1 1/2" rod epoxied in 4" deep, will a SS stone "Z" anchor attached to the face of the CMU at each end of the sill be acceptable. The sill will be manufactured in 4' lengths. Sheet S-0.16, Detail WS-S1 does not show any anchoring requirements.

    See Addendum 3, Revised Sheet A-0.3.

23. 11. Sheet A-0.3, WA-A1, clarify the veneer material at the sill. The top of the split faced veneer is 2' only allowing for 2 courses of brick under the precast sill.

    See Addendum 3, Revised Sheet A-0.3

24. Sheet A-10.3 the South wall depicted louver opening of 2'8" confirm it should be 4'8" per louvre schedule.

    See Addendum 3, Revised Sheet M-0.6 Louver Schedule

25. Are full vertical lifts required for sectional overhead door.

    No vertical lift doors required.

26. Are window panels required in the sectional overhead doors?

    See Addendum 3 Specification Section 08310.

27. Are any of the roll-up doors required to be explosion proof?

    See Sheet E- 2.3 Note regarding Door 200B

28. For the sectional doors they call for full Vertical lift according to the exterior elevations I don't think that's going to work would they like standard lift or roof pitch, Also the specs don't call for window panels but the exterior elevation drawings show windows so would they like vison panels in the doors or no, this is regarding doors-1010a,1010b,1010c,1010d,1010e, and 15-1-1? These are the 12' x 14' and 6' x 8' Sectional doors.

    See Response to Question 25 and 26.

29. For the Roll up doors it looks like they are interior mounted, so do you still want NEMA 4 Watertight/Oiltight operators or would they like NEMA7 Explosion Proof Operators.

    See Sheet E-2.3 for roll-up door 200B electrical.

30. Specification Section 01043 4.05 D.2 states new sludge dewatering building cannot be constructed until the existing laboratory building and primary tanks are demolished. Per the agreement between the owner and contractor section 4.02 B there is not enough time within Milestone 3 or 4 to start and finish the sludge dewatering building after PH 1 is complete. Please adjust milestone dates to take construction of sludge dewatering building into account.

See Addendum 3 Revised Contract Document C-520 Agreement Article 4. 4.02 A and 4.02 B.

See Addendum 3 Revised Specification Section 01043

31. Per specification section 11841-4.02 we are to install Ford Hall Company, Inc Algae Sweep Systems in both of the 60'-0" diameter Clarifiers. After reaching out to Ford Hall Company, they have indicated that the designed upper scum baffle bracket (as shown on Detail A on drawing PE-6.2) with a triangular bracket is NOT compatible with their Algae Sweep System. Ford Hall Company has indicated that their system requires an L-shaped bracket as shown on the attached document. Can you please update the upper scum baffle bracket to an L-shaped bracket in lieu of the triangular bracket to reflect the Ford Hall Company's requirements?

    See Addendum 3 Revised Sheet PE-6.2

32. Per specification section 11238-1.01.A the Contractor is to "relocate the existing Rotary Lobe Blower, Eurus Blower ZZ4L, used in the existing pre-aeration tank to the Service Build to serve as the post-aeration blower". Per specification section 11238-1.01.B, "The entire blower assembly including mounting base, isolators, silencers, guards and housing shall be relocated. Motor mounts and power belt(s) shall be modified as needed to accommodate the new motor". Per specification section 11238-1.01.C, "the existing 15 HP 230/460m Volt motor on the Blower shall be replaced with a 20HP, 480-volt/3-phase motor rated as inverter duty". Section 11238-1.04.B then elaborates and states, "the existing motor is a Baldor EM2333T 15 HP 230/460 volt, 3 phase, 1,765 rpm, 254Tframe".

    a. Can you please advise where the existing Blower is currently located? The bid documents do ***NOT*** indicate the location of a "Pre-Aeration Tank".

        See Addendum 3, Revised Specification Section 11238.

    b. Can you please provide direction on the scope of work required to remove the existing Blower from service?

        See Addendum 3, Revised Specification Section 11238

    c. Can you please provide as-builts/shop drawing of the existing Blower? Per specification section 11238-1.01.B, 1.01.C, and 1.04.B, it appears as though the existing blower assembly essentially needs to be rebuilt/majorly reconfigured to accommodate the new 20 HP motor. It is difficult to determine what needs to be modified with no information on the existing configuration of the Blower.

        See Addendum 3, Revised Specification Section 11238

    d. Drawings PE8.1, PE-8.3, and PE-15.1 seem to depict that the Blower and Motor are housed in some sort of enclosure that is to be pad mounted. Can you please provide detail on the Blower Enclosure?

        See Addendum 3, Revised Specification Section 11238

    e. What size of discharge piping is present on the existing Blower? The Contractor is to connect a 6" AA line to the Blower; however, there is no detail given on the existing discharge pipe of the blower.

        See Addendum 3, Revised Specification Section 11238

f. Can you please advise who was consulted during the design phase to determine the need to upsize the existing 15 HP motor to a 20 HP motor?

N/A

g. Can you please provide a desired manufacturer for the new 20 HP, 480-volt/-Phase motor rated as inverter duty?

See Addendum 3, Revised Specification Section 11238

h. The "Removals" drawings indicate that multiple structures and buried pipes are to be demo'd as part of the project. Per the bid documents, the cost for this work is to be submitted as a lump sum price under Bid Item No. 7 "Demolition of the Existing Plant". However, there are no drawings contained in the bid documents that contain any information on the size/configuration/etc. of the existing structures and pipelines.

i. Can you please provide structure specific drawings that indicate limits of demolition?

See Sheets R-100.2 and R-100.3 and Sheets R-101.2 and R-101.3.

j. Can a set of as-built drawings be provided that indicate what needs to be demo'd?

See Jones & Henry website 'Plan Room' – Reference Tab for reference documents.

33. After review of specification section 11835-1.01.B the following appurtenances are to be provided with the Volute Dewatering Press: 1 EA – VeloDyne Polymer Preparation System, 1 EA – Spill Containment System including one IBC Spill Pallet for the Polymer Tote (UltraTech Spill Pellet Plus 1158 with Drain or equal), 1 EA – Inline Sludge Grinder, 1 EA – Sludge Feed Pump , and 1 EA – 2in Magnetic Flow Meter (see section 11835-2.06 for 2" size confirmation).

a. The Volute Dewatering Press is to be located in the West Side of the Sludge Handling Building as shown on drawing PE-11.1.

See Sheet PE-11.1

b. Can you please confirm that the "VeloDyne Polymer Preparation [Unit]" is the "Polymer Blending Unit" shown on drawing PE-11.1 just west of the Volute Dewatering Press?

See Sheet PE-11.1

c. Can you please advise where the Inline Sludge Grinder is to be located? We are unable to find this in the bid set of drawings.

See Addendum 3, Revised Specification Section 11835

d. Can you please advise where the Sludge Feed Pump is to be located? We are unable to find this in the bid set of drawings.

See Sheet 14.1

e. Can you please advise where the 2" Magnetic Flow meter Rosemount Model 8750W described in spec section 11835-2.06 is to be located? There is a 4" Flow Meter shown in the Sludge Handling Building on drawing PE-11.2 and the "Polymer & Sludge Isometric" shown on drawing PE-11.3. Is this the same flow meter? If so, can you please confirm size of the flow meter? Is a 4" Flow Meter and an additional 2" Flow Meter required?

See Addendum 3, Revised Sheets PE-11.2 and PE-11.3

See Specification Section 11835.

34. Spec section "09880 – Protective Coating for Concrete" describes coating concrete surfaces with either Kop-Coat "Bitumastic Super Service Black", Tnemec "46-465 H.B. Tnemecol", or an "or equal" product. Section 09880-4.01 then states, "New concrete and concrete masonry surfaces of following structures which are immersed in sewage or exposed to sewage fumes shall receive protective coating:". Section 4.01 then concludes and does NOT list any structures that are to be coated.

    a. Can you please provide a list of the structures that are to be coated with the "Bitumastic Super Service Black", "46-465 H.B. Tnemecol" , or equal products on the project? Can you please advise on the extent of coating?

        See Addendum 3, Delete Specification Section 09880.

36. Spec section 09900-4.01 provides a table of the components that are to be painted on the project; however, the listed table is titled, "Painting of Existing Equipment and Structures". All of these structures are new and are to be constructed as part of the project. Can you please confirm if this table is accurate?

    a. The table has a column listed as "Previously Painted Interior Concrete". All structures listed are new structures that are to be installed as part of the project. Can you please advise on the extent of painting interior concrete surfaces on this project?

        See Addendum 3, Revised Specification Section 09900

37. The Civil drawings show some sort of concrete dump station/containment area on the North side of the proposed Headworks Building; however, there is no specific information on this dump station found throughout the plan set.

    a. Can you please provide a construction detail for the desired concrete dump station? Can you please provide dimensions, thickness, grating detail, etc. for this area?

        See Sheet C-0.4 Concrete Drive Detail.

38. Is the 30-inch FE line from UV to Headwall to be DIP or RCP.

    See Specification Section 02550

    Addendum 3, Revised Sheet S-03 added.

AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between Village of Oak Harbor, Ohio ("Owner") and

_____ ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

A. In general, the work consists of construction of a head works treatment process including screening, raw sewage pumping plant electrical and controls; new Orbal oxidation ditch treatment process including grit removal, two new secondary clarifiers, new ultraviolet disinfection treatment and meter flume with outfall to the Portage River. The solids handling of the plant include modifications to the existing blower building, existing digester building, installation of a new sludge feed pump and a new sludge dewatering building with truck loading. The improvements will also include support services such as heating ventilation, plumbing, electrical, instrumentation and controls and SCADA. The existing plant is planned to be demolished as a part of the work.

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: Village of Oak Harbor, Ohio; WWTP Improvements

ARTICLE 3 – ENGINEER

3.01 The part of the Project that pertains to the Work has been designed by

Jones & Henry Engineers, Ltd.
3103 Executive Parkway Suite 300
Toledo Ohio 43606.

3.02 The Owner has retained Jones & Henry Engineers, Ltd. ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

A. The Work will be substantially completed within ~~575~~670 **(Addendum 3, Issued 5/28/2026)** days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within ~~635~~700 **(Addendum 3, Issued 5/28/2026)** days after the date when the Contract Times commence to run.

B. Parts of the Work, listed below, shall be substantially completed on or before the following Milestone(s):

1. Milestone 1: Completion of the new treatment plant ready for operation shall be completed within ~~485~~610 **(Addendum 3, Issued 5/28/2026)** days after the date when the Contract Times commence.

2. Milestone 2: Completion of start-up, commissioning (including SCADA) and production of effluent quality meeting current permit limits shall be completed within ~~545~~640 **(Addendum 3, Issued 5/28/2026)** days after the date when the Contract Times commence.

3. Milestone 3: Completion of the wok required to demolition the existing plant shall be completed within ~~575~~670 **(Addendum 3, Issued 5/28/2026)** days after the date when the Contract Times commence.

4. Milestone 4: Completion of the site work and final paving work shall be completed within ~~605~~700 **(Addendum 3, Issued 5/28/2026)** days after the date when the Contract Times commence.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner $3,000 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.

2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment,

Contractor shall pay Owner $3,000 for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4. Milestones: Contractor shall pay Owner $3,000 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of Milestone 1, until Milestone 1 is achieved.

4.04 *Special Damages*

A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.

B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract

   a. 92 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

   b. 92 percent of cost of materials and equipment not incorporated in the Work.

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 2 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the prime rate per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (C-520, Pages 1 to 10, inclusive).
2. ~~Bid Guarantee & Contract Bond (C-430, Pages 1 to ___, inclusive).~~
3. Performance Bond (C-610, Pages 1 to 2, inclusive).
4. ~~Labor and Maintenance Bond (C-612, Pages ___ to ___, inclusive).~~
5. Maintenance and Guarantee Bond (C-614, Pages 1 to 2, inclusive).
6. General Conditions (C-700, Pages 1 to 73, inclusive).
7. Supplementary Conditions (C-800, Pages 1 to 18, inclusive).
8. Specifications as listed in the table of contents of the Project Manual.
9. Drawings (not attached but incorporated by reference) consisting of 309 sheets with each sheet bearing the following general title: Village of Oak Harbor, Ohio WWTP Improvements, 2026
10. Addenda (Numbers 1 to ___, inclusive).
11. Exhibits to this Agreement (enumerated as follows):

a. Contractor's Bid (C-410, Pages 1 to 10, inclusive). **(Addendum 2, Issued 5/18/2026)**

12. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:

a. Notice to Proceed.

b. Work Change Directives.

c. Change Orders.

d. Field Orders.

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 *Other Provisions*

A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

OWNER:	CONTRACTOR:
_____	_____
By: _____	By: _____
Title: _____	Title: _____
	(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)
Attest: _____	Attest: _____
Title: _____	Title: _____
Address for giving notices:	Address for giving notices:
_____	_____
_____	_____
_____	_____
	License No.: _____ *(where applicable)*
(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)	*NOTE TO USER: Use in those states or other jurisdictions where applicable or required.*

CERTIFICATION OF FISCAL OFFICER

The undersigned, as _____ of _____ hereby certifies that funds sufficient to meet the requirement of this Contract have been lawfully appropriated for such purpose and are in the treasury, or in the process of collection.

By: _____

Title: _____

APPROVAL BY OWNER'S LEGAL OFFICER

By: _____

Title:

Date: _____

This page was intentionally left blank.

"General Decision Number: OH20260001 05/20/2026

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Counties of Adams, Allen, Ashland, Ashtabula, Athens, Auglaize, Belmont, Brown, Butler, Carroll, Champaign, Clark, Clermont, Clinton, Columbiana, Coshocton, Crawford, Cuyahoga, Darke, Defiance, Delaware, Erie, Fairfield, Fayette, Franklin, Fulton, Gallia, Geauga, Greene, Guernsey, Hamilton, Hancock, Hardin, Harrison, Henry, Highland, Hocking, Holmes, Huron, Jackson, Jefferson, Knox, Lake, Lawrence, Licking, Logan, Lorain, Lucas, Madison, Mahoning, Marion, Medina, Meigs, Mercer, Miami, Monroe, Montgomery, Morgan, Morrow, Muskingum, Noble, Ottawa, Paulding, Perry, Pickaway, Pike, Portage, Preble, Putnam, Richland, Ross, Sandusky, Scioto, Seneca, Shelby, Stark, Summit, Trumbull, Tuscarawas, Union, Van Wert, Vinton, Warren, Washington, Wayne, Williams, Wood and Wyandot

Heavy Construction

Highway Construction

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026
2	05/20/2026

BROH0001-001 06/01/2024

	Rates	Fringes
BRICKLAYER, STONEMASON (DEFIANCE, FULTON (EXCLUDING FULTON, AMBOY & SWAN CREEK TOWNSHIPS), HENRY (EXCLUDING MONROE, BARTLOW, LIBERTY, WASHINGTON, RICHFIELD, MARION, DAMASCUS & TOWNSHIPS & THAT PART OF HARRISON TOWNSHIP OUTSIDE CORPORATE LIMITS OF CITY OF NAPOLEON), PAULDING, PUTNAM AND WILLIAMS COUNTIES)	$ 33.39	20.06

BROH0001-004 06/01/2023

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 32.40	19.30

BROH0003-002 06/01/2024

	Rates	Fringes
BRICKLAYER, STONEMASON (FULTON (TOWNSHIPS OF AMBOY, SWAN CREEK & FULTON), HENRY (TOWNSHIPS OF WASHINGTON, DAMASCUS, RICHFIELD, BARTLOW, LIBERTY, HARRISON, MONROE, & MARION), LUCAS AND WOOD (TOWNSHIPS OF PERRYSBURG, ROSS, LAKE, TROY, FREEDOM, MONTGOMERY, WEBSTER, CENTER, PORTAGE, MIDDLETON, PLAIN, LIBERTY, HENRY, WASHINGTON, WESTON, MILTON, JACKSON & GRAND RAPIDS) COUNTIES)...	$ 33.39	20.06

BROH0005-003 06/01/2020

	Rates	Fringes
BRICKLAYER: SWING SCAFFOLDS (CUYAHOGA, LORAIN & MEDINA (HINCKLEY, GRANGER, BRUNSWICK, LIVERPOOL, MONTVILLE, YORK, HOMER, HARRISVILLE, CHATHAM, LITCHFIELD & SPENCER TOWNSHIPS AND THE CITY OF MEDINA))	$ 37.14	17.13

BRICKLAYER: SEWER BRICKLAYERS & STACK BUILDERS (CUYAHOGA, LORAIN & MEDINA (HINCKLEY, GRANGER, BRUNSWICK, LIVERPOOL, MONTVILLE, YORK, HOMER, HARRISVILLE, CHATHAM, LITCHFIELD & SPENCER TOWNSHIPS AND THE CITY OF MEDINA))..... $ 36.64 17.13

BRICKLAYER: SANDBLASTERS (CUYAHOGA, LORAIN & MEDINA (HINCKLEY, GRANGER, BRUNSWICK, LIVERPOOL, MONTVILLE, YORK, HOMER, HARRISVILLE, CHATHAM, LITCHFIELD & SPENCER TOWNSHIPS AND THE CITY OF MEDINA))..... $ 36.39 17.13

BRICKLAYER: BRICKLAYERS; CAULKERS; CLEANERS; POINTERS; & STONEMASONS (CUYAHOGA, LORAIN & MEDINA (HINCKLEY, GRANGER, BRUNSWICK, LIVERPOOL, MONTVILLE, YORK, HOMER, HARRISVILLE, CHATHAM, LITCHFIELD & SPENCER TOWNSHIPS AND THE CITY OF MEDINA))..... $ 36.64 17.13

BROH0006-005 06/01/2024

	Rates	Fringes
BRICKLAYER, STONEMASON (CARROLL, COLUMBIANA (KNOX, BUTLER, WEST & HANOVER TOWNSHIPS), STARK & TUSCARAWAS).....	$ 33.39	20.06

BROH0007-002 06/01/2024

	Rates	Fringes
BRICKLAYER, STONEMASON (LAWRENCE).....	$ 33.39	20.06

BROH0007-005 06/01/2023

	Rates	Fringes
BRICKLAYER (PORTAGE & SUMMIT).....	$ 32.40	19.30

BROH0007-010 06/01/2024

	Rates	Fringes
MASON - STONE (PORTAGE & SUMMIT).....	$ 33.39	20.06

BROH0008-001 06/01/2024

	Rates	Fringes
BRICKLAYER (COLUMBIANA (SALEM, PERRY, FAIRFIELD, CENTER, ELK RUN, MIDDLETON, & UNITY TOWNSHIPS AND THE CITY OF NEW WATERFORD), MAHONING & TRUMBULL)....	$ 33.39	20.06

BROH0009-002 06/01/2016

	Rates	Fringes
REFRACTORY (BELMONT & MONROE COUNTIES AND THE TOWNSHIPS OF WARREN & MT. PLEASANT AND THE VILLAGE OF DILLONVALE IN JEFFERSON COUNTY).....	$ 31.45	19.01

BRICKLAYER, STONEMASON (BELMONT & MONROE COUNTIES AND THE TOWNSHIPS OF WARREN & MT. PLEASANT AND THE VILLAGE OF DILLONVALE IN JEFFERSON COUNTY)..... $ 33.39 20.06

BROH0009-002 06/01/2024

	Rates	Fringes

REFRACTORY (BELMONT & MONROE COUNTIES AND THE TOWNSHIPS OF WARREN & MT. PLEASANT AND THE VILLAGE OF DILLONVALE IN JEFFERSON COUNTY).....$ 31.45 19.01

BRICKLAYER, STONEMASON (BELMONT & MONROE COUNTIES AND THE TOWNSHIPS OF WARREN & MT. PLEASANT AND THE VILLAGE OF DILLONVALE IN JEFFERSON COUNTY).....$ 33.39 20.06

BROH0010-002 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (COLUMBIANA (ST. CLAIR, MADISON, WAYNE, FRANKLIN, WASHINGTON, YELLOW CREEK & LIVERPOOL TOWNSHIPS) & JEFFERSON (BRUSH CREEK & SALINE TOWNSHIPS)).....$ 33.39 20.06

BROH0014-002 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (HARRISON & JEFFERSON (EXCEPT MT. PLEASANT, WARREN, BRUSH CREEK, SALINE & SALINEVILLE TOWNSHIPS & THE VILLAGE OF DILLONVALE)).$ 33.39 20.06

BROH0016-002 06/01/2023

Rates Fringes

BRICKLAYER, STONEMASON (ASHTABULA, GEAUGA, AND LAKE COUNTIES)...$ 32.40 19.30

BROH0018-002 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (GASPER, DIXON, ISRAEL, LANIER, SOMERS & GRATIS TOWNSHIPS) & WARREN COUNTIES:).....$ 33.39 20.06

BROH0022-004 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN, MIAMI, MONTGOMERY, PREBLE (JACKSON, MONROE, HARRISON, TWIN, JEFFERSON & WASHINGTON TOWNSHIPS) AND SHELBY COUNTIES).....$ 33.39 20.06

BROH0032-001 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (GALLIA & MEIGS).....$ 33.39 20.06

BROH0035-002 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (ALLEN, AUGLAIZE, MERCER AND VAN WERT COUNTIES)... 33.39 20.06

BROH0039-002 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (ADAMS & SCIOTO).....$ 33.39 20.06

BROH0040-003 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND, WAYNE AND WYANDOT (EXCEPT CRAWFORD, RIDGE, RICHLAND & TYMOCHTEE TOWNSHIPS) COUNTIES) FOOTNOTE: LAYOUT MAN AND SAWMAN RATE: $1.00 PER HOUR ABOVE JOURNEYMAN RATE. FREE STANDING STACK WORK GROUND LEVEL TO TOP OF STACK; SANDBLASTING AND LAYING OF CARBON MASONRY MATERIAL IN SWING STAGE AND/OR SCAFFOLD; RAMMING AND SPADING OF PLASTICS AND GUNNITING: $1.50 PER HOUR ABOVE JOURNEYMAN RATE. ""HOT"" WORK: $2.50 ABOVE JOURNEYMAN RATE.....$ 33.39 20.06

BROH0044-002 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (COSHOCTON, FAIRFIELD, GUERNSEY, HOCKING, KNOX, KICKING, MORGAN, MUSKINGUM, NOBLE (BEAVER, BUFFALO, SENECA & WAYNE TOWNSHIPS) & PERRY COUNTIES:).....$ 33.39 20.06

BROH0045-002 06/01/2023

Rates Fringes

BRICKLAYER, STONEMASON (FAYETTE, JACKSON, PIKE, ROSS AND VINTON COUNTIES).....$ 35.39 17.47

BROH0046-002 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (PERRY & BLOOM TOWNSHIPS) AND WYANDOT (TYMOCHTEE, CRAWFORD, RIDGE & RICHLAND TOWNSHIPS) COUNTIES & THE ISLANDS OF LAKE ERIE NORTH OF SANDUSKY) FOOTNOTE: LAYOUT MAN AND SAWMAN RATE: $1.00 PER HOUR ABOVE JOURNEYMAN RATE. FREE STANDING STACK WORK GROUND LEVEL TO TOP OF STACK; SANDBLASTING AND LAYING OF CARBON MASONRY MATERIAL IN SWING STAGE AND/OR SCAFFOLD; RAMMING AND SPADING OF PLASTICS AND GUNNITING: $1.50 PER HOUR ABOVE JOURNEYMAN RATE. ""HOT"" WORK: $2.50 ABOVE JOURNEYMAN RATE.....$ 33.39 20.06

BROH0052-001 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (ATHENS COUNTY).....$ 33.39 20.06

BROH0052-003 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (NOBLE (BROOKFIELD, NOBLE, CENTER, SHARON, OLIVE, ENOCH, STOCK, JACKSON, JEFFERSON & ELK TOWNSHIPS) AND WASHINGTON COUNTIES).....$ 33.39 20.06

BROH0055-003 06/01/2024

Rates Fringes

BRICKLAYER, STONEMASON (DELAWARE, FRANKLIN, MADISON, PICKAWAY AND UNION COUNTIES)..$ 33.39 20.06

CARP0002-024 05/01/2009

Rates Fringes

DIVER (BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN).....$ 40.58 9.69

CARPENTER & PILEDRIVERMEN (BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN).....$ 35.94 23.59

CARP0002-024 05/01/2025

Rates Fringes

DIVER (BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN).....$ 40.58 9.69

CARPENTER & PILEDRIVERMEN (BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN).....$ 35.94 23.59

CARP0171-001 05/01/2025

Rates Fringes

CARPENTER (MAHONING & TRUMBULL).....$ 33.19 25.02

CARP0171-002 05/01/2025

Rates Fringes

CARPENTER (BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE).....$ 32.50 26.19

CARP0200-002 05/01/2009

Rates Fringes

DIVER (ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON AND WASHINGTON COUNTIES)... 39.41 10.40

PILEDRIVERMAN (ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON AND WASHINGTON COUNTIES)... 35.94 23.59

CARPENTER (ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON AND WASHINGTON COUNTIES).... 35.94 23.59

CARP0200-002 05/01/2025

Rates Fringes

DIVER (ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON AND WASHINGTON COUNTIES)..... 39.41 10.40

PILEDRIVERMAN (ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON AND WASHINGTON COUNTIES).. 35.94 23.59
CARPENTER (ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON AND WASHINGTON COUNTIES).....$ 35.94 23.59

CARP0285-001 05/01/2025

Rates Fringes
CARPENTER (CARROLL, STARK, TUSCARAWAS AND WAYNE)....$ 34.07 24.28

CARP0285-002 05/01/2025

Rates Fringes
CARPENTER (COSHOCTON, HOLMES, KNOX & MORROW).....$ 33.38 24.69

CARP0285-008 05/01/2025

Rates Fringes
CARPENTER (MEDINA, PORTAGE & SUMMIT).....$ 37.18 25.07

CARP0351-005 05/01/2025

Rates Fringes
CARPENTER (LUCAS & WOOD).....$ 35.44 27.56

CARP0351-006 05/01/2025

Rates Fringes
CARPENTER (DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES).. 32.05 26.13

CARP0372-002 05/01/2025

Rates Fringes
CARPENTER (ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT)..... 31.80 26.33

CARP0435-005 05/01/2025

Rates Fringes
CARPENTER (ASHTABULA, CUYAHOGA, GEAUGA & LAKE).....$ 38.57 24.64

CARP0735-001 05/01/2025

Rates Fringes
CARPENTER (ASHLAND, HURON & RICHLAND).....$ 34.67 23.57

CARP0735-002 05/01/2025

Rates Fringes
CARPENTER (LORAIN).....$ 38.42 24.01

CARP0735-004 05/01/2025

	Rates	Fringes
CARPENTER (ERIE)	$ 36.71	24.14

CARP0744-001 05/01/2025

	Rates	Fringes
CARPENTER (CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT)	$ 33.74	27.05

CARP1090-002 05/01/2025

	Rates	Fringes
PILEDRIVERMEN & DIVER'S TENDER (ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT) DIVERS - $250.00 PER DAY	$ 35.94	28.39

CARP1090-003 05/01/2025

	Rates	Fringes
PILEDRIVERMEN; DIVER, DRY (BELMONT, HARRISON, & MONROE)	$ 39.01	24.91
DIVER, WET (BELMONT, HARRISON, & MONROE)	$ 58.52	24.91

CARP1090-004 05/01/2025

	Rates	Fringes
PILEDRIVERMEN; DIVER, DRY (CARROLL, STARK, TUSCARAWAS & WAYNE)	$ 33.21	25.40
DIVER, WET (CARROLL, STARK, TUSCARAWAS & WAYNE)	$ 49.82	25.40

CARP1090-005 05/01/2025

	Rates	Fringes
PILEDRIVERMEN; DIVER, DRY (ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE, LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT)	$ 36.34	27.50
DIVER, WET (ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE, LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT)	$ 54.51	27.50

CARP1090-006 05/01/2025

	Rates	Fringes
PILEDRIVERMEN; DIVER, DRY (COSHOCTON, HOLMES, KNOX & MORROW)	36.24	22.54
DIVER, WET (COSHOCTON, HOLMES, KNOX & MORROW)	$ 54.36	22.54

CARP1090-007 05/01/2025

	Rates	Fringes
PILEDRIVERMEN; DIVER, DRY (MAHONING & TRUMBULL)	$ 33.90	24.82
DIVER, WET (MAHONING & TRUMBULL)	$ 50.85	24.82

CARP1090-008 05/01/2025

Rates Fringes
PILEDRIVERMAN (COLUMBIANA & JEFFERSON).....$ 39.01 24.91

CARP1090-009 05/01/2025
Rates Fringes
PILEDRIVERMEN & DIVER'S TENDER (CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD) DIVERS - $250.00 PER DAY..... 37.98 28.63

ELEC0008-002 05/25/2020
Rates Fringes
CABLE SPLICER (DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD).....$ 38.98 18.96

ELECTRICIAN (DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD).....$ 48.40 25.24

ELEC0008-002 05/27/2024
Rates Fringes
CABLE SPLICER (DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD).....$ 38.98 18.96

ELECTRICIAN (DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD).....$ 48.40 25.24

ELEC0032-003 06/01/2025
Rates Fringes
ELECTRICIAN (ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT & WYANDOT (CRAWFORD, JACKSON, MARSEILLES, MIFFLIN, RIDGELAND, RIDGE & SALEM TOWNSHIPS)).....$ 39.17 23.60

ELEC0038-002 04/28/2025
Rates Fringes
ELECTRICIAN, EXCLUDING SOUND & COMMUNICATIONS WORK. FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 46.63 24.92

ELEC0038-008 04/28/2025
Rates Fringes
SOUND & COMMUNICATION TECHNICIAN: INSTALLER
TECHNICIAN (CUYAHOGA, GEAUGA (BAINBRIDGE, CHESTER & RUSSELL TOWNSHIPS) & LORAIN (COLUMBIA TOWNSHIP)) FOOTNOTES; A. 6 PAID HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; JULY 4TH; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY B. 1 WEEK'S PAID VACATION FOR 1 YEAR'S SERVICE; 2 WEEKS' PAID VACATION FOR 2 OR MORE YEARS' SERVICE.....$ 33.05 14.91

SOUND & COMMUNICATION TECHNICIAN: COMMUNICATIONS TECHNICIAN (CUYAHOGA, GEAUGA (BAINBRIDGE, CHESTER & RUSSELL TOWNSHIPS) & LORAIN (COLUMBIA TOWNSHIP)) FOOTNOTES; A. 6 PAID HOLIDAYS: NEW YEAR'S

DAY; MEMORIAL DAY; JULY 4TH; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY B. 1 WEEK'S PAID VACATION FOR 1 YEAR'S SERVICE; 2 WEEKS' PAID VACATION FOR 2 OR MORE YEARS' SERVICE.....$ 34.30 14.95

ELEC0064-003 11/30/2025

Rates Fringes

ELECTRICIAN (COLUMBIANA (BUTLER, FAIRFIELD, PERRY, SALEM & UNITY TOWNSHIPS) MAHONING (AUSTINTOWN, BEAVER, BERLIN, BOARDMAN, CANFIELD, ELLSWORTH, COITSVILLE, GOSHEN, GREEN, JACKSON, POLAND, SPRINGFIELD & YOUNGSTOWN TOWNSHIPS), & TRUMBULL (HUBBARD & LIBERTY TOWNSHIPS)).....$ 41.49 21.81

ELEC0071-005 01/06/2025

Rates Fringes

LINE CONSTRUCTION: LINEMEN/CABLE SPLICER: MUNICIPAL POWER/TRANSIT PROJECTS (ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN).....$ 54.96 23.09

LINE CONSTRUCTION: LINEMEN/CABLE SPLICER: DOT/TRAFFIC SIGNAL & HIGHWAY LIGHTING PROJECTS (ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN).....$ 43.89 19.85

LINE CONSTRUCTION: GROUNDMAN: MUNICIPAL POWER/TRANSIT PROJECTS (ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN).....$ 38.47 18.64
LINE CONSTRUCTION: GROUNDMAN: DOT/TRAFFIC SIGNAL & HIGHWAY LIGHTING PROJECTS (ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN).....$ 31.10 16.40

LINE CONSTRUCTION: EQUIPMENT OPERATOR: MUNICIPAL POWER/TRANSIT PROJECTS (ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN).....$ 49.46 21.60

LINE CONSTRUCTION: EQUIPMENT OPERATOR: DOT/TRAFFIC SIGNAL & HIGHWAY LIGHTING PROJECTS (ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN).....$ 39.97 18.79

ELEC0071-010 01/06/2025

Rates Fringes

LINE CONSTRUCTION: LINEMAN & CABLE SPLICERS (STATEWIDE).....$ 46.02 19.04
LINE CONSTRUCTION: GROUNDMAN (STATEWIDE).....$ 29.07 14.97
LINE CONSTRUCTION: EQUIPMENT OPERATOR (STATEWIDE)...$ 40.44 17.71

ELEC0082-002 12/02/2024

Rates Fringes

ELECTRICIAN (CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (WAYNE, CLEAR CREEK & FRANKLIN TOWNSHIPS)).....$ 38.00 22.49

ELEC0082-006 11/25/2024

Rates Fringes

SOUND & COMMUNICATION TECHNICIAN: INSTALLER/TECHNICIAN (CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (WAYNE, CLEAR CREEK & FRANKLIN TOWNSHIPS)).....$ 27.70 15.71
SOUND & COMMUNICATION TECHNICIAN: CABLE PULLER (CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (WAYNE, CLEAR CREEK & FRANKLIN TOWNSHIPS)).$ 13.85 5.30

ELEC0129-003 02/24/2025

Rates Fringes

ELECTRICIAN (LORAIN (EXCEPT COLUMBIA TOWNSHIP) & MEDINA (LITCHFIELD & LIVERPOOL TOWNSHIPS)).$42.95; 18.81

ELEC0129-004 02/24/2025

Rates Fringes

ELECTRICIAN (ERIE & HURON (LYME, RIDGEFIELD, NORWALK, TOWNSEND, WAKEMAN, SHERMAN, PERU, BRONSON, HARTLAND, CLARKSFIELD, NORWICH, GREENFIELD, FAIRFIELD, FITCHVILLE & NEW LONDON TOWNSHIPS))......$ 42.95 18.81

ELEC0141-003 06/02/2024

Rates Fringes

CABLE SPLICER (BELMONT COUNTY).....$ 42.94 27.74
ELECTRICIAN (BELMONT COUNTY).....$ 39.25 31.23

ELEC0141-003 06/02/2025

Rates Fringes

CABLE SPLICER (BELMONT COUNTY).....$ 42.94 27.74
ELECTRICIAN (BELMONT COUNTY).....$ 39.25 31.23

ELEC0212-003 11/26/2018

Rates Fringes

SOUND & COMMUNICATION TECHNICIAN (BROWN, CLERMONT & HAMILTON).....$ 24.35 10.99

ELEC0212-005 06/02/2025

Rates Fringes

ELECTRICIAN (BROWN, CLERMONT, AND HAMILTON COUNTIES).....$ 38.05 22.97

ELEC0245-001 08/26/2024

Rates Fringes

LINE CONSTRUCTION: LINEMAN (ALLEN, HARDIN, VAN WERT & WYANDOT (CRAWFORD, JACKSON, MARSEILLES, MIFFLIN, RICHLAND, RIDGE & SALEM TOWNSHIPS)) FOOTNOTE: A. HALF DAY'S PAID HOLIDAY: THE LAST 4 HOURS OF THE WORKDAY PRIOR TO CHRISTMAS OR NEW YEAR'S DAY.....$ 47.07 21.03

LINE CONSTRUCTION: GROUNDMAN TRUCK DRIVER (ALLEN, HARDIN, VAN WERT & WYANDOT (CRAWFORD, JACKSON, MARSEILLES, MIFFLIN, RICHLAND, RIDGE & SALEM TOWNSHIPS)): FOOTNOTE: A. HALF DAY'S PAID HOLIDAY: THE LAST 4 HOURS OF THE WORKDAY PRIOR TO CHRISTMAS OR NEW YEAR'S DAY.....$ 20.59 13.62

LINE CONSTRUCTION: EQUIPMENT OPERATOR (ALLEN, HARDIN, VAN WERT & WYANDOT (CRAWFORD, JACKSON, MARSEILLES, MIFFLIN, RICHLAND, RIDGE & SALEM TOWNSHIPS)) FOOTNOTE: A. HALF DAY'S PAID HOLIDAY: THE LAST 4 HOURS OF THE WORKDAY PRIOR TO CHRISTMAS OR NEW YEAR'S DAY.....$ 32.95 17.08

ELEC0245-003 01/01/2025

Rates Fringes

LINE CONSTRUCTION: TRAFFIC SIGNAL & LIGHTING TECHNICIAN (DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, AND WOOD COUNTIES) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 42.18 19.91

LINE CONSTRUCTION: OPERATOR - CLASS 2 (DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, AND WOOD COUNTIES) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 32.81 17.29

LINE CONSTRUCTION: OPERATOR - CLASS 1 (DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, AND WOOD COUNTIES) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 37.50 18.60

LINE CONSTRUCTION: LINEMAN (DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, AND WOOD COUNTIES) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 46.87 21.22

LINE CONSTRUCTION: HELI-ARC WELDING (DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, AND WOOD COUNTIES) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 47.17 21.31

LINE CONSTRUCTION: GROUNDMAN/TRUCK DRIVER (DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, AND WOOD COUNTIES) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 20.51 13.84

LINE CONSTRUCTION: CABLE SPLICER (DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, AND WOOD COUNTIES) : FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 53.90 23.19

ELEC0245-004 01/01/2025

Rates Fringes

LINE CONSTRUCTION: OPERATOR - CLASS 2 (ERIE COUNTY) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 32.81 17.29

LINE CONSTRUCTION: OPERATOR - CLASS 1 (ERIE COUNTY) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON

A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 37.50 18.60

LINE CONSTRUCTION: LINEMAN (ERIE COUNTY) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 46.87 21.22

LINE CONSTRUCTION: GROUNDMAN/TRUCK DRIVER (ERIE COUNTY) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 20.51 13.84

LINE CONSTRUCTION: CABLE SPLICER (ERIE COUNTY) FOOTNOTE: A. 6 OBSERVED HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; INDEPENDENCE DAY; LABOR DAY; THANKSGIVING DAY; & CHRISTMAS DAY. EMPLOYEES WHO WORK ON A HOLIDAY SHALL BE PAID AT A RATE OF DOUBLE THEIR APPLICABLE CLASSIFIED STRAIGHT-TIME RATES FOR THE WORK PERFORMED ON SUCH HOLIDAY.....$ 53.90 23.19

ELEC0246-001 10/28/2024

Rates Fringes

ELECTRICIAN (CARROLL, COLUMBIANA, HARRISON AND JEFFERSON COUNTIES IN OHIO; BROOKE AND HANCOCK COUNTIES IN WEST VIRGINIA.) FOOTNOTE: A. 1 1/2 PAID HOLIDAYS: THE LAST SCHEDULED WORKDAY PRIOR TO CHRISTMAS & 4 HOURS ON GOOD FRIDAY.....$ 44.00 37.68

ELEC0306-005 05/27/2024

Rates Fringes

ELECTRICIAN (MEDINA (BRUNSWICK, CHATHAM, GRANGER, GUILFORD, HARRISVILLE, HINCKLEY, HOMER, LAFAYETTE, MEDINA, MONTVILLE, SHARON, SPENCER, WADSWORTH, WESTFIELD & YORK TOWNSHIPS), PORTAGE (ATWATER, AURORA, BRIMFIELD, DEERFIELD, FRANKLIN, MANTUA, RANDOLPH, RAVENNA, ROOTSTOWN, SHALERSVILLE, STREETSBORO & SUFFIELD TOWNSHIPS), SUMMIT & WAYNE (BAUGHMAN, CANAAN, CHESTER, CHIPPEWA, CONGRESS, GREEN, MILTON, & WAYNE TOWNSHIPS)).....$ 42.55 20.95
CABLE SPLICER (MEDINA (BRUNSWICK, CHATHAM, GRANGER, GUILFORD, HARRISVILLE, HINCKLEY, HOMER, LAFAYETTE, MEDINA, MONTVILLE, SHARON, SPENCER, WADSWORTH, WESTFIELD & YORK TOWNSHIPS), PORTAGE (ATWATER, AURORA, BRIMFIELD, DEERFIELD, FRANKLIN, MANTUA, RANDOLPH, RAVENNA, ROOTSTOWN, SHALERSVILLE, STREETSBORO & SUFFIELD TOWNSHIPS), SUMMIT & WAYNE (BAUGHMAN, CANAAN, CHESTER, CHIPPEWA, CONGRESS, GREEN, MILTON, & WAYNE TOWNSHIPS)).....$ 46.81 20.95

ELEC0317-002 06/01/2009

Rates Fringes

CABLE SPLICER (GALLIA & LAWRENCE).....$ 32.68 18.13
ELECTRICIAN (GALLIA & LAWRENCE).....$ 41.15 29.35

ELEC0317-002 06/02/2025

Rates Fringes

CABLE SPLICER (GALLIA & LAWRENCE).....$ 32.68 18.13
ELECTRICIAN (GALLIA & LAWRENCE).....$ 41.15 29.35

ELEC0540-005 06/30/2025

	Rates	Fringes
ELECTRICIAN (CARROLL (NORTHERN HALF, INCLUDING FOX, HARRISON, ROSE & WASHINGTON TOWNHSHIPS), COLUMBIANA (KNOX TOWNSHIP), HOLMES, MAHONING (SMITH TOWNSHIP), STARK, TUSCARAWAS (NORTH OF AUBURN, CLAY, RUSH & YORK TOWNSHIPS), AND WAYNE (SOUTH OF BAUGHMAN, CHESTER, GREEN & WAYNE TOWNSHIPS) COUNTIES)	$ 39.86	29.19

ELEC0573-003 06/01/2025

	Rates	Fringes
ELECTRICIAN (ASHTABULA (COLEBROOK, WAYNE, WILLIAMSFIELD, ORWELL & WINDSOR TOWNSHIPS), GEAUGA (AUBURN, MIDDLEFIELD, PARKMAN & TROY TOWNSHIPS), MAHONING (MILTON TOWNSHIP), PORTAGE (CHARLESTOWN, EDINBURG, FREEDOM, HIRAM, NELSON, PALMYRA, PARIS & WINDHAM TOWNSHIPS), AND TRUMBULL (EXCEPT LIBERTY & HUBBARD TOWNSHIPS))	$ 42.20	23.37

ELEC0575-001 05/29/2023

	Rates	Fringes
ELECTRICIAN (ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (BLOOMFIELD, FRANKLIN, HAMILTON, JEFFERSON, LICK, MADISON, SCIOTO, COAL, JACKSON, LIBERTY, MILTON & WASHINGTON TOWNSHIPS), PICKAWAY (DEER CREEK, PERRY, PICKAWAY, SALT CREEK & WAYNE TOWNSHIPS), PIKE (BEAVER, BENTON, JACKSON, MIFFLIN, PEBBLE, PEEPEE, PERRY, SEAL, CAMP CREEK, NEWTON, SCIOTO, SUNFISH, UNION & MARION TOWNSHIPS), ROSS, SCIOTO & VINTON (CLINTON, EAGLE, ELK, HARRISON, JACKSON, RICHLAND & SWAN TOWNSHIPS))	$ 37.00	22.26

ELEC0648-001 03/05/2018

	Rates	Fringes
CABLE SPLICER (BUTLER AND WARREN COUNTIES (DEERFIELD, HAMILTON, HARLAN, MASSIE, SALEM, TURTLE CREEK, UNION & WASHINGTON TOWNSHIPS))	$ 30.50	18.23
ELECTRICIAN (BUTLER AND WARREN COUNTIES (DEERFIELD, HAMILTON, HARLAN, MASSIE, SALEM, TURTLE CREEK, UNION & WASHINGTON TOWNSHIPS))	$ 38.00	24.16

ELEC0648-001 09/01/2025

	Rates	Fringes
CABLE SPLICER (BUTLER AND WARREN COUNTIES (DEERFIELD, HAMILTON, HARLAN, MASSIE, SALEM, TURTLE CREEK, UNION & WASHINGTON TOWNSHIPS))	$ 30.50	18.23
ELECTRICIAN (BUTLER AND WARREN COUNTIES (DEERFIELD, HAMILTON, HARLAN, MASSIE, SALEM, TURTLE CREEK, UNION & WASHINGTON TOWNSHIPS))	$ 38.00	24.16

ELEC0673-004 02/01/2020

	Rates	Fringes
CABLE SPLICER (ASHTABULA (EXCLUDING ORWELL, COLEBROOK, WILLIAMSFIELD, WAYNE & WINDSOR TOWNSHIPS), GEAUGA (BURTON, CHARDON, CLARIDON, HAMBDEN, HUNTSBURG, MONTVILLE, MUNSON, NEWBURY & THOMPSON TOWNSHIPS) AND LAKE COUNTIES)	$ 33.81	21.47
ELECTRICIAN (ASHTABULA (EXCLUDING ORWELL, COLEBROOK, WILLIAMSFIELD, WAYNE & WINDSOR TOWNSHIPS), GEAUGA (BURTON, CHARDON, CLARIDON, HAMBDEN, HUNTSBURG, MONTVILLE, MUNSON, NEWBURY & THOMPSON TOWNSHIPS) AND LAKE COUNTIES)	$ 41.17	24.58

ELEC0673-004 05/26/2025

Rates Fringes
CABLE SPLICER (ASHTABULA (EXCLUDING ORWELL, COLEBROOK, WILLIAMSFIELD, WAYNE & WINDSOR TOWNSHIPS), GEAUGA (BURTON, CHARDON, CLARIDON, HAMBDEN, HUNTSBURG, MONTVILLE, MUNSON, NEWBURY & THOMPSON TOWNSHIPS) AND LAKE COUNTIES).....$ 33.81 21.47
ELECTRICIAN (ASHTABULA (EXCLUDING ORWELL, COLEBROOK, WILLIAMSFIELD, WAYNE & WINDSOR TOWNSHIPS), GEAUGA (BURTON, CHARDON, CLARIDON, HAMBDEN, HUNTSBURG, MONTVILLE, MUNSON, NEWBURY & THOMPSON TOWNSHIPS) AND LAKE COUNTIES).....$ 41.17 24.58

ELEC0683-002 06/02/2025
Rates Fringes
ELECTRICIAN (CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY (CIRCLEVILLE, DARBY, HARRISON, JACKSON, MADISON, MONROE, MUHLENBERG, SCIOTO, WALNUT & WASHINGTON TOWNSHIPS), AND UNION COUNTIES).....$ 43.00 26.37
CABLE SPLICER (CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY (CIRCLEVILLE, DARBY, HARRISON, JACKSON, MADISON, MONROE, MUHLENBERG, SCIOTO, WALNUT & WASHINGTON TOWNSHIPS), AND UNION COUNTIES).....$ 44.00 26.40

ELEC0688-003 05/30/2022
Rates Fringes
ELECTRICIAN (ASHLAND, CRAWFORD, HURON (RICHMOND, NEW HAVEN, RIPLEY & GREENWICH TOWNSHIPS), KNOX (LIBERTY, CLINTON, UNION, HOWARD, MONROE, MIDDLEBERRY, MORRIS, WAYNE, BERLIN, PIKE, BROWN & JEFFERSON TOWNSHIPS), MARION, MORROW, RICHLAND AND WYANDOT (SYCAMORE, CRANE, EDEN, PITT, ANTRIM & TYMOCHTEE TOWNSHIPS) COUNTIES).....$ 32.30 21.83

ELEC0972-002 06/01/2024
Rates Fringes
ELECTRICIAN (ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (BROWN, KNOX, MADISON, VINTON & WILKESVILLE TOWNSHIPS), AND WASHINGTON COUNITES).....$ 40.00 33.32
CABLE SPLICER (ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (BROWN, KNOX, MADISON, VINTON & WILKESVILLE TOWNSHIPS), AND WASHINGTON COUNITES)...$ 40.25 33.33

ELEC1105-001 05/27/2024
Rates Fringes
ELECTRICIAN (COSHOCTON, GUERNSEY, KNOX (JACKSON, CLAY, MORGAN, MILLER, MILFORD, HILLIAR, BUTLER, HARRISON, PLEASANT & COLLEGE TOWNSHIPS), LICKING, MUSKINGUM, PERRY, AND TUSCARAWAS (AUBURN, YORK, CLAY, JEFFERSON, RUSH, OXFORD, WASHINGTON, SALEM, PERRY & BUCKS TOWNSHIPS) COUNTIES).....$ 39.60 24.41

ENGI0018-003 05/01/2024
Rates Fringes
POWER EQUIPMENT OPERATOR GROUP 7 BOOM FROM 180 AND OVER. (ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, AND SUMMIT COUNTIES).....$ 46.63 16.41

POWER EQUIPMENT OPERATOR GROUP 6 MASTER MECHANIC & BOOM FROM 150 TO 180. (ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, AND SUMMIT COUNTIES).. 46.63 16.41

POWER EQUIPMENT OPERATOR GROUP 5 COMPRESSO (PORTABLE, SEWER, HEAVY & HIGHWAY); DRUM FIREPERSON

(ASPHALT PLANT); GENERATOR; MASONRY FORK LIFT; INBOARD-OUTBOARD MOTOR BOAT LAUNCH; OIL HEATER (ASPHALT PLANT); OILER/HELPER; POWER DRIVEN HEATER; POWER SWEEPER & SCRUBBER; PUMP (UNDER 4"" DISCHARGE); SIGNALPERSON; TIRE REPAIRPERSON; VAC/ALLS; CRANES - COMPACT, TRACK OR RUBBER UNDER 4,000 POUND CAPACITY; FUELING AND GREASING; AND CHAINMEN. (ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, AND SUMMIT COUNTIES).$ 37.98 16.41

POWER EQUIPMENT OPERATOR GROUP 4 BACKFILLER; BALLAST RE-LOCATOR; BARS, JOINT & MESH INSTALLING MACHINE; BATCH PLANT; BORING MACHINE OPERATOR (48"" OR LESS); BULL FLOATS; BURLAP & CURING MACHINE; CONCRETE PLANT (CAPACITY 4 YD. & UNDER); CONCRETE SAW (MULTIPLE); CONVEYOR (HIGHWAY); CRUSHER; DECKHAND; FARM-TYPE TRACTOR WITH ATTACHMENTS (HIGHWAY); FINISHING MACHINE; FIREPERSON, FLOATING EQUIPMENT (ALL TYPES); FORKLIFT; FORM TRENCHER; HYDRO HAMMER EXPECT MASONARY; HYDRO SEEDER; PAVEMENT BREAKER; PLANT MIXER; POST DRIVER; POST HOLE DIGGER (POWER AUGER); POWER BRUSH BURNER; POWER FORM HANDLING EQUIPMENT; ROAD WIDENING TRENCHER; ROLLER (BRICK, GRADE & MACADAM); SELF-PROPELLED POWER SPREADER; SELF-PROPELLED POWER SUBGRADER; STEAM FIREPERSON; TRACTOR (PULLING SHEEPFOOT, ROLLER OR GRADER); AND VIBRATORY COMPACTOR WITH INTEGRAL POWER. (ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, AND SUMMIT COUNTIES).....$ 43.27 16.41

POWER EQUIPMENT OPERATOR GROUP 3 A-FRAME; AIR COMPRESSOR ON TUNNEL WORK (LOW PRESSURE); ASPHALT PLANT ENGINEER (PORTAGE AND SUMMIT COUNTIES ONLY); BOBCAT-TYPE AND/OR SKID STEER LOADER WITH OR WITHOUT ATTACHMENTS; HIGHWAY DRILLS (ALL TYPES); LOCOMOTIVE (NARROW GAUGE); MATERIAL HOIST/ELEVATOR; MIXER, CONCRETE (MORE THAN ONE BAG CAPACITY); MIXER, ONE BAG CAPACITY (SIDE LOADER); POWER BOILER (OVER 15 LBS. PRESSURE) PUMP OPERATOR INSTALLING & OPERATING WELL POINTS; PUMP (4"" & OVER DISCHARGE); ROLLER, ASPHALT; ROTOVATOR (LIME SOIL STABILIZER); SWITCH & TIE TAMPERS (WITHOUT LIFTING & ALIGNING DEVICE); UTILITY OPERATOR (SMALL EQUIPMENT); WELDING MACHINES; AND RAILROAD TIE INSERTER/REMOVER; ARTICULATING/STRAIGHT BED END DUMPS IF ASSIGNED (MINUS $4.00 PER HOUR. (ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, AND SUMMIT COUNTIES).....$ 44.49 16.41

POWER EQUIPMENT OPERATOR GROUP 2 ASPHALT PAVER; AUTOMATIC SUBGRADER MACHINE, SELF-PROPELLED (CMI TYPE); BOBCAT TYPE AND/OR SKID STEER LOADER WITH HOE ATTACHMENT GREATER THAN 7,000 LBS.; BORING MACHINE MORE THAN 48""; BULLDOZER; ENDLOADER; HORIZONTAL DIRECTIONAL DRILL (OVER 50,000 FT LBS THRUST); HYDRO MILLING MACHINE; KOLMAN-TYPE LOADER (PRODUCTION TYPE-DIRT); LEAD GREASEMAN; LIGHTING & TRAFFIC SIGNAL INSTALLATION EQUIPMENT (INCLUDES ALL GROUPS OR CLASSIFICATIONS); MATERIAL TRANSFER EQUIPMENT (SHUTTLE BUGGY) ASPHALT; PETTIBONE-RAIL EQUIPMENT; POWER GRADER; POWER SCRAPER; PUSH CAT; ROTOMILL (ALL), GRINDERS & PLANERS OF ALL TYPES; TRENCH MACHINE (24"" WIDE & UNDER); VERMEER TYPE CONCRETE SAW; AND MAINTENANCE OPERATORS (PORTAGE AND SUMMIT COUNTIES ONLY). (ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, AND SUMMIT COUNTIES).....$ 45.53 16.41

POWER EQUIPMENT OPERATOR GROUP 1 AIR COMPRESSOR ON STEEL ERECTION; BARRIER MOVING MACHINE; BOILER OPERATOR ON COMPRESSOR OR GENERATOR WHEN MOUNTED ON A RIG; CABLEWAY; COMBINATION CONCRETE MIXER & TOWER; CONCRETE PLANT (OVER 4 YD. CAPACITY); CONCRETE PUMP; CRANE (ALL TYPES, INCLUDING BOOM TRUCK, CHERRY PICKER); CRANE-COMPACT, TRACK OR RUBBER OVER 4,000 LBS. CAPACITY; CRANES-SELF ERECTING, STATIONARY, TRACK OR TRUCK (ALL CONFIGURATIONS); DERRICK; DRAGLINE; DREDGE (DIPPER, CLAM OR SUCTION); ELEVATING GRADER OR EUCLID LOADER; FLOATING EQUIPMENT (ALL TYPES); GRADALL; HELICOPTER CREW (OPERATOR-HOIST OR WINCH); HOE (ALL TYPES); HOISTING ENGINE ON SHAFT OR TUNNEL WORK; HYDRAULIC GANTRY (LIFTING SYSTEM); INDUSTRIAL-TYPE TRACTOR; JET ENGINE DRYER (D8 OR D9) DIESEL TRACTOR; LOCOMOTIVE (STANDARD GAUGE); MAINTENANCE OPERATOR CLASS A; MIXER, PAVING (SINGLE OR DOUBLE DRUM); MUCKING MACHINE; MULTIPLE SCRAPER; PILEDRIVING MACHINE (ALL TYPES); POWER SHOVEL; PRENTICE LOADER; QUAD 9 (DOUBLE PUSHER); RAIL TAMPER (WITH AUTO LIFTING & ALIGNING DEVICE); REFRIGERATING MACHINE (FREEZER OPERATION); ROTARY DRILL, ON CAISSON WORK; ROUGH TERRAIN FORK LIFT WITH WINCH/HOIST; SIDE-BOOM; SLIP-FORM PAVER; TOWER DERRICK; TREE SHREDDER; TRENCH MACHINE (OVER 24"" WIDE); TRUCK MOUNTED CONCRETE PUMP; TUG BOAT; TUNNEL MACHINE AND/OR MINING MACHINE; WHEEL EXCAVATOR; AND ASPHALT PLANT ENGINEER (CLEVELAND DISTRICT ONLY). (ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA, PORTAGE, & SUMMIT COUNTIES).45.63; 16.41

ENGI0018-004 05/01/2024

	Rates	Fringes

POWER EQUIPMENT OPERATOR GROUP 7 (ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PA.....$ 45.14 16.41

POWER EQUIPMENT OPERATOR GROUP 6 (ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PA.....$ 45.14 16.41

POWER EQUIPMENT OPERATOR GROUP 5 (ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PA.....$ 36.34 16.41

POWER EQUIPMENT OPERATOR GROUP 4 (ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PA.....$ 41.80 16.41

POWER EQUIPMENT OPERATOR GROUP 3 (ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PA.....$ 42.98 16.41

POWER EQUIPMENT OPERATOR GROUP 2 (ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PA.....$ 44.02 16.41

POWER EQUIPMENT OPERATOR GROUP 1 (ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS,

MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PA.....$ 44.14 16.41

ENGI0066-023 06/01/2023

Rates Fringes

POWER EQUIPMENT OPERATOR: HAZARDOUS/TOXIC WASTE PROJECTS GROUP 5 - C & D - BRAKEPERSON; FIREPERSON; & OILER. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 28.53 24.30

POWER EQUIPMENT OPERATOR: HAZARDOUS/TOXIC WASTE PROJECTS GROUP 4 - C & D - AIR CURTAIN DESTRUCTOR & SIMILAR TYPE; BATCH PLANT-JOB RELATED; BOILER OPERATOR; COMPRESSOR; CONVEYOR; CURB BUILDER, SELF-PROPELLED; DRILL WAGON; GENERATOR SET; GENERATOR-STEAM; HEATER-PORTABLE POWER; HYDRAULIC MANIUPLATOR CRANE; JACK-HYDRAULIC POWER DRIVEN; JACK-HYARAULIC (RAILROAD); LADAVATOR; MINOR MACHINE OPERATOR; MIXER-CONCRETE; MULCHING MACHINE; PIN PULLER; POWER BROOM; PULVERIZER; PUMP; ROAD FINISHING MAHINC (PULL TYPE); SAW-CONCRETE-SELF-PROPELLED (HIGHWAY WORK); SIGNAL PERSON; SPRAY CURE MACHINE-MOTOR POWERED; STUMP CUTTER; TRACTOR; TRENCHER FORM; WATER BLASTER; STEAM JENNY; SYPHON; VIBRATOR-GASOLINE; & WELDING MACHINE. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).. 31.65 24.30

POWER EQUIPMENT OPERATOR: HAZARDOUS/TOXIC WASTE PROJECTS GROUP 3 - C & D - ASPHALT PLANT; BENDING MACHINE (PIPELINE OR TYPE); BORING MACHINE, MOTOR DRIVEN; CHIP HARVESTER WITHOUT BOOM; CLEANING MACHINE, PIPELINE TYPE; COATING MACHINE, PIPELINE TYPE; COMPACTOR; CONCRETE BELT PLACER; CONCRETE FINISHER; CONCRETE PLANER OR ASPHALT; CONCRETE SPREADER; ELEVATOR; FORK LIFT (HOME BUILDING ONLY); FORK LIFT & LULLS; FORK LIFT WALK BEHIND (HOISTING OVER 1 BUCK HIGH); FORM LINE MACHINE; GREASE TRUCK OPERATOR; GROUT PUMP; GUNNITE MACHINE; HORIZONTAL DIRECTIONAL DRILL LOCATOR; SINGLE DRUM HOIST WITH OR WITHOUT TOWER; HUCK BOLTING MACHINE; HYDRAULIC SCAFFOLD (HOISTING BUILDING MATERIALS); PAVING BREAKER (SELF=PROPELLED OR RIDDEN); PIPE DREAM; POT FIREPERSON (POWER AGITATED); REFRIGERATION PLANT; ROAD WIDENER; ROLLER; SASGEN DERRICK; SEEDING MACHINE; SOIL STABILIZER (PUMP TYPE); SPRAY CURE MACHINE, SELF-PROPELLED; STRAW BLOWER MACHINE; SUB-GRADER; TUBE FINISHER OR BROOM C.M.I. OR SIMILAR TYPE; & TUGGER HOIST(COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 35.27 24.30

POWER EQUIPMENT OPERATOR: HAZARDOUS/TOXIC WASTE PROJECTS GROUP 2 - C & D - ASPHALT HEATER PLANER; BACKFILLER WITH DRAG ATTACHMENT; BACKHOE; BACKHOE WITH SHEAR ATTACHED; BACKHOE-REAR PIVOTAL SWING; BATCH PLANT-CENTRAL MIX CONCRETE; BATCH PLANT, PORTABLE CONCRETE; BERM BUILDER-AUTOMATIC; BOAT DERRICK; BOAT-TUG; BORING MACHINE ATTACHED TO TRACTOR; BULLCLAM; VULLDOZER; C.M.I. ROAD BUILDER & SIMILAR TYPE; CABLE PLACER &LATYER; CARRIER-STRADDLE; CARRYALL-SCRAPER OR SCOPP; CHICAGO BOOM; COMPACTOR WITH BLAD ATTACHED; CONCRETE SAW (VERMEER OR SIMILAR TYPE); CONCRETE SPREADER FINISHER; COMBINATION, BIDWELL MACHINE; CRANE; CRANE-ELECTRIC OVERHEAD; CRANE-ROUGH TERRAIN; CRANE-SIDE BOOM; CRANE-TRUCK; CRANE-TOWER; DERRICK-BOOM; DERRICK-CAR; DIGGER -WHEEL (NOT TRENCHER OR ROAD WIDENER); DOUBLE NINE; DRAG LINE; DREDGE; DRILL-KENNY OR SIMILAR TYPE; EASY POUR MEDIAN BARRIER MACHINE (OR SIMILAR TYPE); ELECTROMATIC; FRANKIE PILE; GRADALL; GRADER; GURRY; SELF-PROPELLED; HEAVY EQUIPMENT ROBOTICS OPERATOR/MECHANIC; HOIST-MONORAIL; HOIST-STATIONARY & MOBILE TRACTOR; HOIST, 2 OR 3 DRUM; HORIZONTAL DIRECTIONAL DRILL OPERATOR; JACKALL; JUMBO MACHINE; KOCAL & KUHLMAN; LAND-SEAGOING VEHICLE; LOADER, ELEVATING; LOADER, FRONT END; LOADER, SKID STEER; LOCOMOTIVE; MECHANIC/WELDER; METRO CHIP HARVESTER WITH BOO; MUCKING MACHINE; PAVER-ASPHALT FINISHING MACHINE; PAVER-ROAD CONCRETE; PAVER-SLIP FORM (C.M.I. OR SIMILAR); PLACE CRETE MACHINE WITH BOOM; POST DRIVER (CARRIER MOUNTED); POWER DRIVEN HYDRAULIC PUMP & JACK (WHEN USED IN SLIP FORM OR LIFT SLAB CONSTRUCTION); PUMP CRETE MACHINE; REGULATOR-BALLAST; HYRAULIC POWER UNIT NOT ATTACHED TO RIG FOR PILE DRILLINGS; RIGS-DRILLING; ROTO MILL OR SIMILAR FULL LANE (8' WIDE & OVER); ROTO MILL OR SIMILAR TYPE (UNDER 8'); SHOVEL; SLIP FORM CURB MACHINE; SPEEDWING; SPIKEMASTER; STONECRUSHER; TIE PULLER & LOADER; TIE TAMPER; TRACTOR-DOUBLE BOOM; TRACTOR WITH ATTACHMENTS; TRUCK-BOOM; TRUCK-TIRE; TRENCH MACHINE; TUNNEL MACHINE (MARK 21 JAVA OR SIMILAR) & WHIRLEY (OR SIMILAR TYPE) (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).40.61 24.30

POWER EQUIPMENT OPERATOR: HAZARDOUS/TOXIC WASTE PROJECTS GROUP 1 - C & D - RIG, PILE DRIVER OR CAISSON TYPE; & RIG, PILE HYDRAULIC UNIT ATTACHED. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).$40.91 24.30

POWER EQUIPMENT OPERATOR: ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS GROUP 5 - A & B - BRAKEPERSON; FIREPERSON; & OILER. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES)..... 31.13 24.30

POWER EQUIPMENT OPERATOR: ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS GROUP 4 - A & B - AIR CURTAIN DESTRUCTOR & SIMILAR TYPE; BATCH PLANT-JOB RELATED; BOILER OPERATOR; COMPRESSOR; CONVEYOR; CURB BUILDER, SELF-PROPELLED; DRILL WAGON; GENERATOR SET; GENERATOR-STEAM; HEATER-PORTABLE POWER; HYDRAULIC MANIUPLATOR CRANE; JACK-HYDRAULIC POWER DRIVEN; JACK-HYARAULIC (RAILROAD); LADAVATOR; MINOR MACHINE OPERATOR; MIXER-CONCRETE; MULCHING MACHINE; PIN PULLER; POWER BROOM; PULVERIZER; PUMP; ROAD FINISHING MAHINC (PULL TYPE); SAW-CONCRETE-SELF-PROPELLED (HIGHWAY WORK); SIGNAL PERSON; SPRAY CURE MACHINE-MOTOR POWERED; STUMP CUTTER; TRACTOR; TRENCHER FORM; WATER BLASTER; STEAM JENNY; SYPHON; VIBRATOR-GASOLINE; & WELDING MACHINE. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 34.52 24.30

POWER EQUIPMENT OPERATOR: ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS GROUP 3 - A & B - ASPHALT PLANT; BENDING MACHINE (PIPELINE OR TYPE); BORING MACHINE, MOTOR DRIVEN; CHIP HARVESTER WITHOUT BOOM; CLEANING MACHINE, PIPELINE TYPE; COATING MACHINE, PIPELINE TYPE; COMPACTOR; CONCRETE BELT PLACER; CONCRETE FINISHER; CONCRETE PLANER OR ASPHALT; CONCRETE SPREADER; ELEVATOR; FORK LIFT (HOME BUILDING ONLY); FORK LIFT & LULLS; FORK LIFT WALK BEHIND (HOISTING OVER 1 BUCK HIGH); FORM LINE MACHINE; GREASE TRUCK OPERATOR; GROUT PUMP; GUNNITE MACHINE; HORIZONTAL DIRECTIONAL DRILL LOCATOR; SINGLE DRUM HOIST WITH OR WITHOUT TOWER; HUCK BOLTING MACHINE; HYDRAULIC SCAFFOLD (HOISTING BUILDING MATERIALS); PAVING BREAKER (SELF=PROPELLED OR RIDDEN); PIPE DREAM; POT FIREPERSON (POWER AGITATED); REFRIGERATION PLANT; ROAD WIDENER; ROLLER; SASGEN DERRICK; SEEDING MACHINE; SOIL STABILIZER (PUMP TYPE); SPRAY CURE MACHINE, SELF-PROPELLED; STRAW BLOWER MACHINE; SUB-GRADER; TUBE FINISHER OR BROOM C.M.I. OR SIMILAR TYPE; & TUGGER HOIST(COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 38.47 24.30

POWER EQUIPMENT OPERATOR: ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS GROUP 2 - A & B - ASPHALT HEATER PLANER; BACKFILLER WITH DRAG ATTACHMENT; BACKHOE; BACKHOE WITH SHEAR ATTACHED; BACKHOE-REAR PIVOTAL SWING; BATCH PLANT-CENTRAL MIX CONCRETE; BATCH PLANT, PORTABLE CONCRETE; BERM BUILDER-AUTOMATIC; BOAT DERRICK; BOAT-TUG; BORING MACHINE ATTACHED TO TRACTOR; BULLCLAM; VULLDOZER; C.M.I. ROAD BUILDER & SIMILAR TYPE; CABLE PLACER &LATYER; CARRIER-STRADDLE; CARRYALL-SCRAPER OR SCOPP; CHICAGO BOOM; COMPACTOR WITH BLAD ATTACHED; CONCRETE SAW (VERMEER OR SIMILAR TYPE); CONCRETE SPREADER FINISHER; COMBINATION, BIDWELL MACHINE; CRANE; CRANE-ELECTRIC OVERHEAD; CRANE-ROUGH TERRAIN; CRANE-SIDE BOOM; CRANE-TRUCK; CRANE-TOWER; DERRICK-BOOM; DERRICK-CAR; DIGGER -WHEEL (NOT TRENCHER OR ROAD WIDENER); DOUBLE NINE; DRAG LINE; DREDGE; DRILL-KENNY OR SIMILAR TYPE; EASY POUR MEDIAN BARRIER MACHINE (OR SIMILAR TYPE); ELECTROMATIC; FRANKIE PILE; GRADALL; GRADER; GURRY; SELF-PROPELLED; HEAVY EQUIPMENT ROBOTICS OPERATOR/MECHANIC; HOIST-MONORAIL; HOIST-STATIONARY & MOBILE TRACTOR; HOIST, 2 OR 3 DRUM; HORIZONTAL DIRECTIONAL DRILL OPERATOR; JACKALL; JUMBO MACHINE; KOCAL & KUHLMAN; LAND-SEAGOING VEHICLE; LOADER, ELEVATING; LOADER, FRONT END; LOADER, SKID STEER; LOCOMOTIVE; MECHANIC/WELDER; METRO CHIP HARVESTER WITH BOO; MUCKING MACHINE; PAVER-ASPHALT FINISHING MACHINE; PAVER-ROAD CONCRETE; PAVER-SLIP FORM (C.M.I. OR SIMILAR); PLACE CRETE MACHINE WITH BOOM; POST DRIVER (CARRIER MOUNTED); POWER DRIVEN HYDRAULIC PUMP & JACK (WHEN USED IN SLIP FORM OR LIFT SLAB CONSTRUCTION); PUMP CRETE MACHINE; REGULATOR-BALLAST; HYRAULIC POWER UNIT NOT ATTACHED TO RIG FOR PILE DRILLINGS; RIGS-DRILLING; ROTO MILL OR SIMILAR FULL LANE (8' WIDE & OVER); ROTO MILL OR SIMILAR TYPE (UNDER 8'); SHOVEL; SLIP FORM CURB MACHINE; SPEEDWING; SPIKEMASTER; STONECRUSHER; TIE PULLER & LOADER; TIE TAMPER; TRACTOR-DOUBLE BOOM; TRACTOR WITH ATTACHMENTS; TRUCK-BOOM; TRUCK-TIRE; TRENCH MACHINE; TUNNEL MACHINE (MARK 21 JAVA OR SIMILAR) & WHIRLEY (OR SIMILAR TYPE) (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 44.30 24.30

POWER EQUIPMENT OPERATOR: ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS GROUP 1 - A & B- RIG, PILE DRIVER OR CAISSON TYPE; & RIG, PILE HYDRAULIC UNIT ATTACHED. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 44.63 24.30

POWER EQUIPMENT OPERATOR: ALL OTHER WORK GROUP 5 - BRAKEPERSON; FIREPERSON; & OILER. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 25.94 24.30

POWER EQUIPMENT OPERATOR: ALL OTHER WORK GROUP 4 - AIR CURTAIN DESTRUCTOR & SIMILAR TYPE; BATCH PLANT-JOB RELATED; BOILER OPERATOR; COMPRESSOR; CONVEYOR; CURB BUILDER, SELF-PROPELLED; DRILL WAGON; GENERATOR SET; GENERATOR-STEAM; HEATER-PORTABLE POWER; HYDRAULIC MANIUPLATOR CRANE; JACK-HYDRAULIC POWER DRIVEN; JACK-HYARAULIC (RAILROAD); LADAVATOR; MINOR MACHINE OPERATOR; MIXER-CONCRETE; MULCHING MACHINE; PIN PULLER; POWER BROOM; PULVERIZER; PUMP; ROAD FINISHING MAHINC (PULL TYPE); SAW-CONCRETE-SELF-PROPELLED (HIGHWAY WORK); SIGNAL PERSON; SPRAY CURE MACHINE-MOTOR POWERED; STUMP CUTTER; TRACTOR; TRENCHER FORM; WATER BLASTER; STEAM JENNY; SYPHON; VIBRATOR-GASOLINE; & WELDING MACHINE. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 28.77 24.30

POWER EQUIPMENT OPERATOR: ALL OTHER WORK GROUP 3 - ASPHALT PLANT; BENDING MACHINE (PIPELINE OR TYPE); BORING MACHINE, MOTOR DRIVEN; CHIP HARVESTER WITHOUT BOOM; CLEANING MACHINE, PIPELINE TYPE; COATING MACHINE, PIPELINE TYPE; COMPACTOR; CONCRETE BELT PLACER; CONCRETE FINISHER; CONCRETE PLANER OR ASPHALT; CONCRETE SPREADER; ELEVATOR; FORK LIFT (HOME BUILDING ONLY); FORK LIFT & LULLS; FORK LIFT WALK BEHIND (HOISTING OVER 1 BUCK HIGH); FORM LINE MACHINE; GREASE TRUCK OPERATOR; GROUT PUMP; GUNNITE MACHINE; HORIZONTAL DIRECTIONAL DRILL LOCATOR; SINGLE DRUM HOIST WITH OR WITHOUT TOWER; HUCK BOLTING MACHINE; HYDRAULIC SCAFFOLD (HOISTING BUILDING MATERIALS); PAVING BREAKER (SELF=PROPELLED OR RIDDEN); PIPE DREAM; POT FIREPERSON (POWER AGITATED); REFRIGERATION PLANT; ROAD WIDENER; ROLLER; SASGEN DERRICK; SEEDING MACHINE; SOIL STABILIZER (PUMP TYPE); SPRAY CURE MACHINE, SELF-PROPELLED; STRAW BLOWER MACHINE; SUB-GRADER; TUBE FINISHER OR BROOM C.M.I. OR SIMILAR TYPE; & TUGGER HOIST. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 32.06 24.30

POWER EQUIPMENT OPERATOR: ALL OTHER WORK GROUP 2 - ASPHALT HEATER PLANER; BACKFILLER WITH DRAG ATTACHMENT; BACKHOE; BACKHOE WITH SHEAR ATTACHED; BACKHOE-REAR PIVOTAL SWING; BATCH PLANT-CENTRAL MIX CONCRETE; BATCH PLANT, PORTABLE CONCRETE; BERM BUILDER-AUTOMATIC; BOAT DERRICK; BOAT-TUG; BORING MACHINE ATTACHED TO TRACTOR; BULLCLAM; VULLDOZER; C.M.I. ROAD BUILDER & SIMILAR TYPE; CABLE PLACER &LATYER; CARRIER-STRADDLE; CARRYALL-SCRAPER OR SCOPP; CHICAGO BOOM; COMPACTOR WITH BLAD ATTACHED; CONCRETE SAW (VERMEER OR SIMILAR TYPE); CONCRETE SPREADER FINISHER; COMBINATION, BIDWELL MACHINE; CRANE; CRANE-ELECTRIC OVERHEAD; CRANE-ROUGH TERRAIN; CRANE-SIDE BOOM; CRANE-TRUCK; CRANE-TOWER; DERRICK-BOOM; DERRICK-CAR; DIGGER -WHEEL (NOT TRENCHER OR ROAD WIDENER); DOUBLE NINE; DRAG LINE; DREDGE; DRILL-KENNY OR SIMILAR TYPE; EASY POUR MEDIAN BARRIER MACHINE (OR SIMILAR TYPE); ELECTROMATIC; FRANKIE PILE; GRADALL; GRADER; GURRY; SELF-PROPELLED; HEAVY EQUIPMENT ROBOTICS OPERATOR/MECHANIC; HOIST-MONORAIL; HOIST-STATIONARY & MOBILE TRACTOR; HOIST, 2 OR 3 DRUM; HORIZONTAL DIRECTIONAL DRILL OPERATOR; JACKALL; JUMBO MACHINE; KOCAL & KUHLMAN; LAND-SEAGOING VEHICLE; LOADER, ELEVATING; LOADER, FRONT END; LOADER, SKID STEER; LOCOMOTIVE; MECHANIC/WELDER; METRO CHIP HARVESTER WITH BOO; MUCKING MACHINE; PAVER-ASPHALT FINISHING MACHINE; PAVER-ROAD CONCRETE; PAVER-SLIP FORM (C.M.I. OR SIMILAR); PLACE CRETE MACHINE WITH BOOM; POST DRIVER (CARRIER MOUNTED); POWER DRIVEN HYDRAULIC PUMP & JACK (WHEN USED IN SLIP FORM OR LIFT SLAB CONSTRUCTION); PUMP CRETE MACHINE; REGULATOR-BALLAST; HYRAULIC POWER UNIT NOT ATTACHED TO RIG FOR PILE DRILLINGS; RIGS-DRILLING; ROTO MILL OR SIMILAR FULL LANE (8' WIDE & OVER); ROTO MILL OR SIMILAR TYPE (UNDER 8'); SHOVEL; SLIP FORM CURB MACHINE; SPEEDWING; SPIKEMASTER; STONECRUSHER; TIE PULLER & LOADER; TIE TAMPER; TRACTOR-DOUBLE BOOM; TRACTOR WITH ATTACHMENTS; TRUCK-BOOM; TRUCK-TIRE; TRENCH MACHINE; TUNNEL MACHINE (MARK 21 JAVA OR SIMILAR) & WHIRLEY (OR SIMILAR TYPE) (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).....$ 36.92 24.30

POWER EQUIPMENT OPERATOR: ALL OTHER WORK GROUP 1- RIG, PILE DRIVER OR CAISSON TYPE; & RIG, PILE HYDRAULIC UNIT ATTACHED. (COLUMBIANA, MAHONING & TRUMBULL COUNTIES).... 37.19 24.30

IRON0017-002 05/01/2024

Rates Fringes

IRONWORKER: ORNAMENTAL, REINFORCING, & STRUCTURAL (ASHTABULA (NORTH OF ROUTE 6, STARTING AT THE GEAUGA COUNTY LINE, PROCEEDING EAST TO STATE ROUTE 45), CUYAHOGA, ERIE (EASTERN 2/3), GEAUGA, HURON (EAST OF A LINE DRAWN FROM THE NORTH BORDER THROUGH MONROEVILLE & WILLARD), LAKE, LORAIN, MEDINA (NORTH OF OLD RTE. #224), PORTAGE (WEST OF A LINE FROM MIDDLEFIELD TO SHALERSVILLE TO DEERFIELD), AND SUMMIT (NORTH OF OLD RTE. #224, INCLUDING CITY LIMITS OF BARBERTON) COUNTIES).... 36.83 29.01

IRON0017-010 05/01/2024

Rates Fringes

IRONWORKER: STRUCTURAL, INCLUDING METAL BUILDING ERECTION & REINFORCING (ASHTABULA (EASTERN PART FROM LAKE ERIE ON THE NORTH TO ROUTE #322 ON THE SOUTH TO INCLUDE CONNEAUT, KINGSVILLE, SHEFFIELD, DENMARK, DORSET, CHERRY VALLEY, WAYNE, MONROE, PIERPONT, RICHMOND, ANDOVER & WILLIAMSFIELD TOWNSHIPS))....$ 36.83 29.01

IRON0044-001 06/01/2025

Rates Fringes

IRONWORKER, REINFORCING (ADAMS (WESTERN PART), BROWN, BUTLER (SOUTHERN PART), CLERMONT, CLINTON (SOUTH OF A LINE DRAWN FROM BLANCHESTER TO LYNCHBURG), HAMILTON, HIGHLAND (EXCLUDING EASTERN ONE-FIFTH & PORTION OF COUNTY INSIDE LINES DRAWN FROM MARSHALL TO LYNCHBURG FROM THE NORTHERN COUNTY LINE THROUGH E. MONROE TO MARSHALL) AND WARREN (SOUTH OF A LINE DRAWN FROM BLANCHESTER THROUGH MORROW TO THE WEST COUNTY LINE) COUNTIES).....$ 38.27 23.90

IRON0044-002 06/01/2025

Rates Fringes

IRONWORKER: ORNAMENTAL; STRUCTURAL (CLINTON (SOUTH OF A LINE DRAWN FROM BLANCHESTER TO LYNCHBURG), HAMILTON, HIGHLAND (EXCLUDING EASTERN ONE-FIFTH & PORTION OF COUNTY INSIDE LINES DRAWN FROM MARSHALL TO LYNCHBURG FROM THE NORTHERN COUNTY LINE THROUGH E. MONROE TO MARSHALL) & WARREN (SOUTH OF A LINE DRAWN FROM BLANCHESTER THROUGH MORROW TO THE WEST COUNTY LINE))....$ 37.77 23.90

IRONWORKER: FENCE ERECTOR (CLINTON (SOUTH OF A LINE DRAWN FROM BLANCHESTER TO LYNCHBURG), HAMILTON, HIGHLAND (EXCLUDING EASTERN ONE-FIFTH & PORTION OF COUNTY INSIDE LINES DRAWN FROM MARSHALL TO LYNCHBURG FROM THE NORTHERN COUNTY LINE THROUGH E. MONROE TO MARSHALL) & WARREN (SOUTH OF A LINE DRAWN FROM BLANCHESTER THROUGH MORROW TO THE WEST COUNTY LINE))..... 35.88 23.90

IRON0055-003 07/01/2024

Rates Fringes

IRONWORKER: FENCE ERECTOR (CRAWFORD (AREA BETWEEN LINES DRAWN FROM WHERE HWY #598 & #30 MEET THROUGH N. LIBERTY TO THE NORTHERN BORDER & FROM SAID HWY JUNCTION POINT DUE WEST TO THE BORDER), DEFIANCE (S. OF A LINE DRAWN FROM WHERE RTE. #66 MEETS THE NORTHERN LINE THROUGH INDEPENDENCE TO THE EASTERN COUNTY BORDER), ERIE (WESTERN 1/3), FULTON, HANCOCK, HARDIN (NORTH OF A LINE DRAWN FROM MAYSVILLE TO A POINT 4 MILES SOUTH OF THE NORTHERN LINE ON THE EASTERN LINE), HENRY, HURON (WEST OF A.....$ 29.77 21.30

IRONWORKER: ALL OTHER WORK (CRAWFORD (AREA BETWEEN LINES DRAWN FROM WHERE HWY #598 & #30 MEET THROUGH N. LIBERTY TO THE NORTHERN BORDER & FROM SAID HWY JUNCTION POINT DUE WEST TO THE BORDER), DEFIANCE (S. OF A LINE DRAWN FROM WHERE RTE. #66 MEETS THE NORTHERN LINE THROUGH INDEPENDENCE TO THE EASTERN COUNTY BORDER), ERIE (WESTERN 1/3), FULTON, HANCOCK, HARDIN (NORTH OF A LINE DRAWN FROM MAYSVILLE TO A POINT 4 MILES SOUTH OF THE NORTHERN LINE ON THE EASTERN LINE), HENRY, HURON (WEST OF A.....$ 29.77 21.30

IRONWORKER: FLAT ROAD MESH (CRAWFORD (AREA BETWEEN LINES DRAWN FROM WHERE HWY #598 & #30 MEET THROUGH N. LIBERTY TO THE NORTHERN BORDER & FROM SAID HWY JUNCTION POINT DUE WEST TO THE BORDER), DEFIANCE (S. OF A LINE DRAWN FROM WHERE RTE. #66 MEETS THE NORTHERN LINE THROUGH INDEPENDENCE TO THE EASTERN COUNTY BORDER), ERIE (WESTERN 1/3), FULTON, HANCOCK, HARDIN (NORTH OF A LINE DRAWN FROM MAYSVILLE TO A POINT 4 MILES SOUTH OF THE NORTHERN LINE ON THE EASTERN LINE), HENRY, HURON (WEST OF A.....$ 26.40 24.62

IRONWORKER: TUNNES & CAISSONS UNDER PRESSURE (CRAWFORD (AREA BETWEEN LINES DRAWN FROM WHERE HWY #598 & #30 MEET THROUGH N. LIBERTY TO THE NORTHERN BORDER & FROM SAID HWY JUNCTION POINT DUE WEST TO THE BORDER), DEFIANCE (S. OF A LINE DRAWN FROM WHERE RTE. #66 MEETS THE NORTHERN LINE THROUGH INDEPENDENCE TO THE EASTERN COUNTY BORDER), ERIE (WESTERN 1/3), FULTON, HANCOCK, HARDIN (NORTH OF A LINE DRAWN FROM MAYSVILLE TO A POINT 4 MILES SOUTH OF THE NORTHERN LINE ON THE EASTERN LINE), HENRY, HURON (WEST OF A.....$ 35.50 29.20

IRON0147-002 06/01/2025

Rates Fringes

IRONWORKER (ALLEN (NORTHERN HALF), DEFIANCE (NORTHERN PART, EXCLUDING SOUTH OF A LINE DRAWN FROM WHERE RTE. #66 MEETS THE NORTHERN LINE THROUGH INDEPENDENCE TO THE EASTERN COUNTY BORDER), MERCER (NORTHERN HALF), PAULDING, PUTNAM (WESTERN PART, EXCLUDING EAST OF A LINE DRAWN FROM THE NORTHERN BORDER DOWN THROUGH MILLER CITY TO WHERE #696 MEETS THE SOUTHERN BORDER), VAN WERT, AND WILLIAMS (WESTERN PART, EXCLUDING EAST OF A LINE DRAWN FROM PIONEER THROUGH STRYKER TO THE SOUTHERN BORDER) COUNTIES)..... 38.00 26.39

IRON0172-002 06/01/2025

Rates Fringes

IRONWORKER (CHAMPAIGN (EASTERN ONE-THIRD), CLARK (EASTERN ONE-FOURTH), COSHOCTON (WEST OF A LINE BEGINNING AT THE NORTHWESTERN COUNTY LINE GOING THROUGH WALHONDING & TUNNEL HILL TO THE SOUTHERN COUNTY LINE), CRAWFORD (SOUTH OF RTE. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (EXCLUDING A LINE DRAWN FROM ROUNDHEAD TO MAYSVILLE), HIGHLAND (EASTERN ONE-FIFTH), HOCKING, JACKSON (NORTHERN HALF), KNOX, LICKING, LOGAN (EASTERN ONE-THIRD), MADISON, MARION, MORROW, MUSKINGUM (WEST OF A LINE.....$ 40.87 23.15

IRON0207-004 06/01/2025

Rates Fringes

IRONWORKER: ORNAMENTAL; REINFORCING; STRUCTURAL (ASHTABULA (SOUTHERN PART STARTING AT THE GEAUGA COUNTY LINE), COLUMBIANA (E. OF A LINE FROM DAMASCUS TO HIGHLANDTOWN), MAHONING (N. OF OLD ROUTE #224), PORTAGE (E. OF A LINE FROM MIDDLEFIELD TO SHALERSVILLE TO DEERFIELD) & TRUMBULL).....$ 36.26 28.16
IRONWORKER: LAYOUT; SHEETER (ASHTABULA (SOUTHERN PART STARTING AT THE GEAUGA COUNTY LINE), COLUMBIANA (E. OF A LINE FROM DAMASCUS TO HIGHLANDTOWN), MAHONING (N. OF OLD ROUTE #224), PORTAGE (E. OF A LINE FROM MIDDLEFIELD TO SHALERSVILLE TO DEERFIELD) & TRUMBULL).....$ 37.26 28.16

IRON0290-002 06/01/2025

Rates Fringes

IRONWORKER (ALLEN (SOUTHERN HALF), AUGLAIZE, BUTLER (NORTH OF A LINE DRAWN FROM EAST TO THE WEST COUNTY LINE GOING THROUGH OXFORD, DARRTOWN & WOODSDALE), CHAMPAIGN (EXCLUDING EAST OF A LINE DRAWN FROM CATAWLA TO THE POINT WHERE #68 INTERSECTS THE NORTHERN COUNTY LINE), CLARK (WESTERN TWO-THIRDS), CLINTON (EXCLUDING SOUTH OF A LINE DRAWN FROM BLANCHESTER TO LYNCHBURG), DARKE, GREENE, HIGHLAND (INSIDE LINES DRAWN FROM MARSHALL TO LYNCHBURG & FROM THE NORTHERN COUNTY LINE THROUGH EA.....$ 37.39 25.35

IRON0549-003 12/01/2022

Rates Fringes

IRONWORKER (BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (EXCLUDING PORTION WEST OF A LINE STARTING AT ADAMS MILL GOING TO ADAMSVILLE AND GOING FROM ADAMSVILLE THROUGH BLUE ROCK TO THE SOUTH BORDER)).....$ 35.19 25.66

IRON0550-004 05/01/2024

Rates Fringes

IRONWORKERS: STRUCTURAL, ORNAMENTAL AND REINFORCING (ASHLAND, CARROLL, COLUMBIANA (W. OF A LINE FROM DAMASCUS TO HIGHLANDTOWN), COSHOCTON (E. OF A LINE BEGINNING AT NW CO. LINE GOING THROUGH WALHONDING & TUNNEL HILL TO THE SOUTH CO. LINE), HOLMES, HURON (S. OF OLD RTE. #224), MAHONING (S. OF OLD RTE. #224), MEDINA (S. OF OLD RTE. #224), PORTAGE (S. OF OLD RTE. #224), RICHLAND, STARK, SUMMIT (S. OF OLD RTE. #224, EXCLUDING CITY LIMITS OF BARBERTON), TUSCARAWAS, & WAYNE)..... 34.70 22.88

IRON0769-004 06/01/2025

Rates Fringes

IRONWORKER (ADAMS (EASTERN HALF), GALLIA, JACKSON (SOUTHERN HALF), LAWRENCE & SCIOTO)... 39.70 29.59

IRON0787-003 06/01/2025

Rates Fringes

IRONWORKER (ATHENS, MEIGS, MORGAN, NOBLE, AND WASHINGTON COUNTIES).... 36.10 24.65

LABO0265-008 05/01/2024

Rates Fringes

LABORER GROUP 4- MINER (WITH AIR-PRESSURIZED - $1.00 PREMIUM); & GUNITE NOZZLE PERSON (REMAINING COUNTIES OF OHIO) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 36.47 14.45

LABORER GROUP 4- MINER (WITH AIR-PRESSURIZED - $1.00 PREMIUM); & GUNITE NOZZLE PERSON (CUYAHOGA, GEAUGA & LAKE COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 38.13 14.45

LABORER GROUP 4- MINER (WITH AIR-PRESSURIZED - $1.00 PREMIUM); & GUNITE NOZZLE PERSON (ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD

COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 36.90 14.45

LABORER GROUP 3- BLASTER; MUCKER; POWDER PERSON; TOP LANDER; WRENCHER (MECHANICAL JOINTS & UTILITY PIPELINE); YARNER; HAZARDOUS WASTE (LEVEL A); CONCRETE SPECIALIST; CONCRETE CREW IN TUNNELS (WITH AIR-PRESSURIZED - $1.00 PREMIUM); CURB SETTER & CUTTER; GRADE CHECKER; UTILITY PIPELINE TAPPER; WATERLINE; AND CAULKER (REMAINING COUNTIES OF OHIO) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 36.02 14.45

LABORER GROUP 3- BLASTER; MUCKER; POWDER PERSON; TOP LANDER; WRENCHER (MECHANICAL JOINTS & UTILITY PIPELINE); YARNER; HAZARDOUS WASTE (LEVEL A); CONCRETE SPECIALIST; CONCRETE CREW IN TUNNELS (WITH AIR-PRESSURIZED - $1.00 PREMIUM); CURB SETTER & CUTTER; GRADE CHECKER; UTILITY PIPELINE TAPPER; WATERLINE; AND CAULKER (CUYAHOGA, GEAUGA & LAKE COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 37.68 14.45

LABORER GROUP 3- BLASTER; MUCKER; POWDER PERSON; TOP LANDER; WRENCHER (MECHANICAL JOINTS & UTILITY PIPELINE); YARNER; HAZARDOUS WASTE (LEVEL A); CONCRETE SPECIALIST; CONCRETE CREW IN TUNNELS (WITH AIR-PRESSURIZED - $1.00 PREMIUM); CURB SETTER & CUTTER; GRADE CHECKER; UTILITY PIPELINE TAPPER; WATERLINE; AND CAULKER (ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 36.45 14.45

LABORER GROUP 2- ASPHALT RAKER; CONCRETE PUDDLER; KETTLE MAN PIPELINE); MACHINE DRIVEN TOOLS (GAS, ELECTRIC, AIR); MASON TENDER; BRICK PAVER; MORTAR MIXER; POWER BUGGY OR POWER WHEELBARROW; PAINT STRIPER; SHEETING & SHORING MAN; SURFACE GRINDER MAN; PLASTIC FUSING MACHINE OPERATOR; PUG MILL OPERATOR; & VACUUM DEVICES (WET OR DRY); RODDING MACHINE OPERATOR; DIVER; SCREWMAN OR PAVER; SCREED PERSON; WATER BLAST, HAND HELD WAND; PUMPS 4"" & UNDER (GAS, AIR OR ELECTRIC) & HAZARDOUS WASTE (LEVEL C); AIR TRACK AND WAGON DRILL; BOTTOM PERSON; COFFERDAM (BELOW 25 FT. DEEP); CONCRETE SAW PERSON; CUTTING WITH BURNING TORCH; FORM SETTER; HAND SPIKER (RAILROAD); PIPELAYER; TUNNEL LABORER (WITHOUT AIR) & CAISSON; UNDERGROUND PERSON (WORKING IN SEWER AND WATERLINE, CLEANING, REPAIRING & RECONDITIONING); SANDBLASTER NOZZLE PERSON; & HAZARDOUS WASTE (LEVEL B) (REMAINING COUNTIES OF OHIO) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.... 35.69 14.45

LABORER GROUP 2- ASPHALT RAKER; CONCRETE PUDDLER; KETTLE MAN PIPELINE); MACHINE DRIVEN TOOLS (GAS, ELECTRIC, AIR); MASON TENDER; BRICK PAVER; MORTAR MIXER; POWER BUGGY OR POWER WHEELBARROW; PAINT STRIPER; SHEETING & SHORING MAN; SURFACE GRINDER MAN; PLASTIC FUSING MACHINE OPERATOR; PUG MILL OPERATOR; & VACUUM DEVICES (WET OR DRY); RODDING MACHINE OPERATOR; DIVER; SCREWMAN OR PAVER; SCREED PERSON; WATER BLAST, HAND HELD WAND; PUMPS 4"" & UNDER (GAS, AIR OR ELECTRIC) & HAZARDOUS WASTE (LEVEL C); AIR TRACK AND WAGON DRILL; BOTTOM PERSON; COFFERDAM (BELOW 25 FT. DEEP); CONCRETE SAW PERSON; CUTTING WITH BURNING TORCH; FORM SETTER; HAND SPIKER (RAILROAD); PIPELAYER; TUNNEL LABORER (WITHOUT AIR) & CAISSON; UNDERGROUND PERSON (WORKING IN SEWER AND WATERLINE, CLEANING, REPAIRING & RECONDITIONING); SANDBLASTER NOZZLE PERSON; & HAZARDOUS WASTE (LEVEL B) (CUYAHOGA, GEAUGA & LAKE COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.. 37.35 14.45

LABORER GROUP 2- ASPHALT RAKER; CONCRETE PUDDLER; KETTLE MAN PIPELINE); MACHINE DRIVEN TOOLS (GAS, ELECTRIC, AIR); MASON TENDER; BRICK PAVER; MORTAR MIXER; POWER BUGGY OR POWER WHEELBARROW; PAINT

STRIPER; SHEETING & SHORING MAN; SURFACE GRINDER MAN; PLASTIC FUSING MACHINE OPERATOR; PUG MILL OPERATOR; & VACUUM DEVICES (WET OR DRY); RODDING MACHINE OPERATOR; DIVER; SCREWMAN OR PAVER; SCREED PERSON; WATER BLAST, HAND HELD WAND; PUMPS 4"" & UNDER (GAS, AIR OR ELECTRIC) & HAZARDOUS WASTE (LEVEL C); AIR TRACK AND WAGON DRILL; BOTTOM PERSON; COFFERDAM (BELOW 25 FT. DEEP); CONCRETE SAW PERSON; CUTTING WITH BURNING TORCH; FORM SETTER; HAND SPIKER (RAILROAD); PIPELAYER; TUNNEL LABORER (WITHOUT AIR) & CAISSON; UNDERGROUND PERSON (WORKING IN SEWER AND WATERLINE, CLEANING, REPAIRING & RECONDITIONING); SANDBLASTER NOZZLE PERSON; & HAZARDOUS WASTE (LEVEL B) (ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.
.....$ 36.12 14.45

LABORER GROUP 1- ASPHALT LABORER; CARPENTER TENDER; CONCRETE CURING APPLICATOR; DUMP MAN (BATCH TRUCK); GUARDRAIL AND FENCE INSTALLER; JOINT SETTER; LABORER (CONSTRUCTION); LANDSCAPE LABORER; MESH HANDLERS & PLACER; RIGHT-OF-WAY LABORER; RIPRAP LABORER & GROUTER; SCAFFOLD ERECTOR; SEAL COATING; SURFACE TREATMENT OR ROAD MIX LABORER; SIGN INSTALLER; SLURRY SEAL; UTILITY MAN; BRIDGE MAN; HANDYMAN; WATERPROOFING LABORER; FLAGPERSON; HAZARDOUS WASTE (LEVEL D); DIVER TENDER; ZONE PERSON & TRAFFIC CONTROL (REMAINING COUNTIES OF OHIO) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 35.52 14.45

LABORER GROUP 1- ASPHALT LABORER; CARPENTER TENDER; CONCRETE CURING APPLICATOR; DUMP MAN (BATCH TRUCK); GUARDRAIL AND FENCE INSTALLER; JOINT SETTER; LABORER (CONSTRUCTION); LANDSCAPE LABORER; MESH HANDLERS & PLACER; RIGHT-OF-WAY LABORER; RIPRAP LABORER & GROUTER; SCAFFOLD ERECTOR; SEAL COATING; SURFACE TREATMENT OR ROAD MIX LABORER; SIGN INSTALLER; SLURRY SEAL; UTILITY MAN; BRIDGE MAN; HANDYMAN; WATERPROOFING LABORER; FLAGPERSON; HAZARDOUS WASTE (LEVEL D); DIVER TENDER; ZONE PERSON & TRAFFIC CONTROL (CUYAHOGA, GEAUGA & LAKE COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 37.18 14.45

LABORER GROUP 1- ASPHALT LABORER; CARPENTER TENDER; CONCRETE CURING APPLICATOR; DUMP MAN (BATCH TRUCK); GUARDRAIL AND FENCE INSTALLER; JOINT SETTER; LABORER (CONSTRUCTION); LANDSCAPE LABORER; MESH HANDLERS & PLACER; RIGHT-OF-WAY LABORER; RIPRAP LABORER & GROUTER; SCAFFOLD ERECTOR; SEAL COATING; SURFACE TREATMENT OR ROAD MIX LABORER; SIGN INSTALLER; SLURRY SEAL; UTILITY MAN; BRIDGE MAN; HANDYMAN; WATERPROOFING LABORER; FLAGPERSON; HAZARDOUS WASTE (LEVEL D); DIVER TENDER; ZONE PERSON & TRAFFIC CONTROL (ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES) TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.....$ 35.95 14.45

LABORER: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS CONSTRUCTION (CUYAHOGA AND GEAUGA COUNTIES ONLY).....$ 38.56 14.45

PAIN0006-002 05/01/2023

	Rates	Fringes
PAINTER COMMERCIAL REPAINT GROUP 3- SPRAY PAINTING..	$ 29.95	18.95

PAINTER COMMERCIAL REPAINT GROUP 2- SANDBLASTING & BUFFING (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. OF THE EAST-WEST TURNPIKE) & SUMMIT (N. OF THE EAST-WEST TURNPIKE))... 29.65 18.95

PAINTER COMMERCIAL REPAINT GROUP 1- BRUSH; & ROLLER (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. OF THE EAST-WEST TURNPIKE) & SUMMIT (N. OF THE EAST-WEST TURNPIKE)).. 29.25 18.95

PAINTER COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS: GROUP 4- BRIDGE BLASTER (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. OF THE EAST-WEST TURNPIKE) & SUMMIT (N. OF THE EAST-WEST TURNPIKE)) 37.01 18.95

PAINTER COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS: GROUP 3- SPRAY PAINTING; CLOSED STEEL ABOVE 55 FEET; BRIDGES & OPEN STRUCTURAL STEEL; TANKS - WATER TOWERS; BRIDGE PAINTERS; BRIDGE RIGGERS; CONTAINMENT BUILDERS (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. OF THE EAST-WEST TURNPIKE) & SUMMIT (N. OF THE EAST-WEST TURNPIKE))..... $ 31.45 18.95

PAINTER COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS: GROUP 2- SANDBLASTING & BUFFING (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. OF THE EAST-WEST TURNPIKE) & SUMMIT (N. OF THE EAST-WEST TURNPIKE))..... $ 31.15 18.95

PAINTER COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS: GROUP 1- BRUSH; & ROLLER (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. OF THE EAST-WEST TURNPIKE) & SUMMIT (N. OF THE EAST-WEST TURNPIKE))... 30.75 18.95

PAIN0007-002 07/01/2025

	Rates	Fringes
PAINTER: NEW COMMERCIAL WORK: GROUP 9- EPOXY SPRAY (EXCLUDING WATER BASED) (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE.....	$ 34.66	23.88
PAINTER: NEW COMMERCIAL WORK: GROUP 8- TOWERS; TANKS; BRIDGES; STACKS OVER 30 FEET (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE..	34.66	23.88
PAINTER: NEW COMMERCIAL WORK: GROUP 7- SPRAY SOLVENT BASED MATERIAL; SAND & ABRASIVE BLASTING (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE.....	$ 34.66	23.88
PAINTER: NEW COMMERCIAL WORK: GROUP 6- SOLVENT-BASED CATALIZED EPOXY MATERIALS OF 2 OR MORE COMPONENT MATERIALS, TO INCLUDE SOLVENT-BASED CONVERSION VARNISH (EXCLUDING WATER BASED) (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE.....	$ 34.66	23.88
PAINTER: NEW COMMERCIAL WORK: GROUP 5- ALL METHODS OF SPRAY (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE.....	$ 34.66	23.88
PAINTER: NEW COMMERCIAL WORK: GROUP 4- LEAD ABATEMENT (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE.....	$ 34.66	23.88

PAINTER: NEW COMMERCIAL WORK: GROUP 3- SWING STAGE & CHAIR (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE.....$ 34.66 23.88

PAINTER: NEW COMMERCIAL WORK: GROUP 2- REFINERIES & REFINERY TANKS; SURFACES 30 FT. OR OVER WHERE MATERIAL IS APPLIED TO OR LABOR PERFORMED ON ABOVE GROUND LEVEL (EXTERIOR), FLOOR LEVEL (INTERIOR) (FULTON, HENRY, LUCAS, OTTAWA (EXCLUDING ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOVA) & WOOD) REPAINT IS 90% OF GROUP RATE.....$ 34.66 23.88

PAINTER NEW COMMERCIAL WORK GROUP 1- BRUSH; SPRAY & SANDBLASTING POT TENDER. REPAINT IS 90% OF GROUP RATE. 33.66 23.88

PAIN0012-008 05/01/2019

Rates Fringes

PAINTER: GROUP 5- ELEVATED TANKS; STEEPLEJACK WORK; BRIDGE; & LEAD ABATEMENT (BUTLER COUNTY).$26.30; 10.20

PAINTER: GROUP 4- SANDBLASTING; & WATERBLASTING (BUTLER COUNTY)..... 26.05 10.20

PAINTER: GROUP 3- SPRAY (BUTLER COUNTY).....$ 25.80 10.20

PAINTER: GROUP 2- BRUSH & ROLLER (BUTLER COUNTY)....$ 25.30 10.20

PAINTER: GROUP 1- BRIDGE EQUIPMENT TENDER; BRIDGE/CONTAINMENT BUILDER (BUTLER COUNTY).. 21.95 10.20

PAIN0012-010 05/01/2019

Rates Fringes

PAINTER HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING SPRAY (BROWN, CLERMONT, HAMILTON & WARREN).....$ 25.80 10.20

PAINTER HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING SANDBLASTING & HOPPER TENDER; WATER BLASTING (BROWN, CLERMONT, HAMILTON & WARREN).....$ 26.05 10.20

PAINTER HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING BRUSH & ROLLER (BROWN, CLERMONT, HAMILTON & WARREN).....$ 25.30 10.20

PAINTER HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING BRIDGES WHEN HIGHEST POINT OF CLEARANCE IS 60 FEET OR MORE; & LEAD ABATEMENT PROJECTS (BROWN, CLERMONT, HAMILTON & WARREN).....$ 26.30 10.20

PAINTER HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING BRIDGE EQUIPMENT TENDER AND CONTAINMENT BUILDER (BROWN, CLERMONT, HAMILTON & WARREN).....$ 21.95 10.20

PAIN0093-001 12/01/2024

Rates Fringes

PAINTER: POWER GENERATING FACILITIES (ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE AND WASHINGTON COUNTIES).....$ 33.29 24.46

PAINTER: BRIDGES; LOCKS; DAMS; TENSION TOWERS; & ENERGIZED SUBSTATIONS (ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE AND WASHINGTON COUNTIES).....$ 36.44 24.46

PAIN0249-002 05/01/2025

	Rates	Fringes
PAINTER: GROUP 8: BRIDGE BLASTER, RIGGER (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE).	$40.86	13.97
PAINTER: GROUP 7: TANKS, STACKS & TOWERS (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE).	$33.86	13.97
PAINTER: GROUP 6: BRIDGE EQUIPMENT TENDER & OR CONTAINMENT BUILDER (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE).....	$ 37.86	13.97
PAINTER: GROUP 5: COAL TAR (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE)...	30.65	13.97
PAINTER: GROUP 4: STEEPLEJACK WORK (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE).	30.10;	13.97
PAINTER: GROUP 3: SPRAY; SANDBLAST; STEAMCLEAN; LEAD ABATEMENT (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE).....	$ 29.90	13.97
PAINTER: GROUP 2: SWING, SCAFFOLD BRIDGES; STRUCTURAL STEEL; OPEN ACID TANK; HIGH TENSION ELECTRICAL EQUIPMENT; & HOT PIPES (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE).....	$ 33.09	13.97
PAINTER: GROUP 1: BRUSH & ROLLER (CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE).....	$ 29.15	13.97

PAIN0356-002 09/01/2009

	Rates	Fringes
PAINTER: TANKS; STACKS; AND TOWERS (KNOX, LICKING, MUSKINGUM, AND PERRY)....	28.63	7.25
PAINTER: STRUCTURAL STEEL AND SWING STAGE (KNOX, LICKING, MUSKINGUM, AND PERRY).	25.42	7.25
PAINTER: SPRAY (KNOX, LICKING, MUSKINGUM, AND PERRY).....	21.40	7.25
PAINTER: SANDBLASTING; STEAM CLEANING; WATERBLASTING; AND HAZARDOUS WORK (KNOX, LICKING, MUSKINGUM, AND PERRY)..	25.82	7.25
PAINTER: BRUSH AND ROLLER (KNOX, LICKING, MUSKINGUM, AND PERRY).....	20.93	7.25
PAINTER: BRIDGES; BLASTERS; AND RIGGERS (KNOX, LICKING, MUSKINGUM, AND PERRY)..	34.60	7.25
PAINTER: BRIDGE EQUIPMENT TENDERS AND CONTAINMENT BUILDERS (KNOX, LICKING, MUSKINGUM, AND PERRY).	27.93;	7.25

PAIN0438-002 12/01/2023

	Rates	Fringes
PAINTER: POWER GENERATING FACILITIES (BELMONT, HARRISON AND JEFFERSON COUNTIES).	32.94 ;	19.49
PAINTER: BRIDGES, LOCKS, DAMS, TENSION TOWERS & ENERGIZED SUBSTATIONS (BELMONT, HARRISON AND JEFFERSON COUNTIES).	36.09	19.49

PAIN0476-001 06/01/2025

	Rates	Fringes
PAINTER: GROUP 7- TOWERS; STACKS (COLUMBIANA, MAHONING, AND TRUMBULL COUNITES)..	32.64	18.36
PAINTER: GROUP 6- TANKS; SANDBLASTING (COLUMBIANA, MAHONING, AND TRUMBULL COUNITES).	35.27	18.36
PAINTER: GROUP 5- EPOXY/MASTIC; SPRAY- BAR JOIST/DECK; WORKING ABOVE 50 FEET; AND SWINGSTAGES (COLUMBIANA, MAHONING, AND TRUMBULL COUNITES).....$	31.29	18.36
PAINTER: GROUP 4- SPRAY, EXCEPT BAR JOIST/DECK (COLUMBIANA, MAHONING, & TRUMBULL COUNITES)	31.14;	18.36
PAINTER: GROUP 3- STRUCTURAL STEEL (COLUMBIANA, MAHONING, AND TRUMBULL COUNITES).	40.27	18.36
PAINTER: GROUP 2- BRIDGES (COLUMBIANA, MAHONING, AND TRUMBULL COUNITES).	40.27	18.36
PAINTER: GROUP 1- PAINTERS, BRUSH & ROLLER (COLUMBIANA, MAHONING, AND TRUMBULL COUNITES).	30.64	18.36

PAIN0555-002 01/01/2025

	Rates	Fringes
PAINTER: GROUP 4- STACKS; BRIDGES (ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO).....$	40.03	21.54
PAINTER: GROUP 3- SAND BLASTING; SPRAY; STEAM CLEANING; PRESSURE WASHING; EPOXY & TWO COMPONENT MATERIALS; LEAD ABATEMENT; HAZARDOUS WASTE; TOXIC MATERIALS; BULK & STORAGE TANKS OF 25,000 GALLON CAPACITY OR MORE; ELEVATED TANKS (ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO)..	36.72	21.54
PAINTER: GROUP 2- BRUSH; ROLLER; POWER TOOLS, UNDER 40 FEET (ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO)..$	35.02;	21.54
PAINTER: GROUP 1- CONTAINMENT BUILDER (ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO)..	33.32	21.54

PAIN0639-001 05/01/2011

	Rates	Fringes
SIGN PAINTER & ERECTOR FOOTNOTES: A. 7 PAID HOLIDAYS: NEW YEAR'S DAY; MEMORIAL DAY; JULY 4TH; LABOR DAY; THANKSGIVING DAY; CHRISTMAS DAY & 1 FLOATING DAY B. VACATION PAY: AFTER 1 YEAR'S SERVICE - 5 DAYS' PAID VACATION; AFTER 2, BUT LESS THAN 10 YEARS' SERVICE - 10 DAYS' PAID VACATION; AFTER 10, BUT LESS THAN 20 YEARS' SERVICE - 15 DAYS' PAID VACATION; AFTER 20 YEARS' SERVICE - 20 DAYS' PAID VACATION C. FUNERAL LEAVE UP TO 3 DAYS MAXIMUM PAID LEAVE FOR DEATH OF MOTHER, FATHER, BROTHER, SISTER, SPOUSE, CHILD, MOTHER-IN-LAW, FATHER-IN-LAW, GRANDPARENT AND INLAW PROVIDED EMPLOYEE ATTENDS FUNERAL...	20.61	3.50

PAIN0788-002 06/01/2024

	Rates	Fringes
PAINTER: STRUCTURAL STEEL (ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA (ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOA), RICHLAND, SANDUSKY, SENECA & WYANDOT) WINTER REPAINT: BETWEEN DECEMBER 1 TO MARCH 31 - 90%JR $.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK: WHILE WORKING SWINGSTAGE, BOATSWAIN CHAIR, NEEDLE BEAM AND HORIZONTAL CABLE. WHILE OPERATING SPRAYGUNS, SANDBLASTING, COBBLASTING AND HIGH PRESSURE WATERBLASTING (4000PSI). $1.00 PER HOUR SHALL		

BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK: FOR THE APPLICATION OF CATALIZED EPOXY, INCLUDING LATEX EPOXY THAT IS DEEMED HAZARDOUS, LEAD ABATEMENT, OR FOR WORK OR MATERIAL WHERE SPECIAL PRECAUTIONS BEYOND NORMAL WORK DUTIES MUST BE TAKEN. FOR WORKING ON STACKS, TANKS, AND TOWERS OVER 40 FEET IN HEIGHT.....$ 30.73 17.52

PAINTER: BRUSH & ROLLER (ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA (ALLEN, BAY, BONO, CATAWBA ISLAND, CLAY CENTER, CURTICE, DANBURY, EAGLE BEACH, ELLISTON, ELMORE, ERIE, FISHBACK, GEM BEACH & GENOA), RICHLAND, SANDUSKY, SENECA & WYANDOT) WINTER REPAINT: BETWEEN DECEMBER 1 TO MARCH 31 - 90%JR $.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK: WHILE WORKING SWINGSTAGE, BOATSWAIN CHAIR, NEEDLE BEAM AND HORIZONTAL CABLE. WHILE OPERATING SPRAYGUNS, SANDBLASTING, COBBLASTING AND HIGH PRESSURE WATERBLASTING (4000PSI). $1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK: FOR THE APPLICATION OF CATALIZED EPOXY, INCLUDING LATEX EPOXY THAT IS DEEMED HAZARDOUS, LEAD ABATEMENT, OR FOR WORK OR MATERIAL WHERE SPECIAL PRECAUTIONS BEYOND NORMAL WORK DUTIES MUST BE TAKEN. FOR WORKING ON STACKS, TANKS, AND TOWERS OVER 40 FEET IN HEIGHT.....$ 29.13 17.52

PAIN0813-005 12/01/2008

	Rates	Fringes
PAINTER: BRIDGES, LOCKS, DAMS & TENSION TOWERS (GALLIA, LAWRENCE, MEIGS & VINTON)..	27.83	10.00
PAINTER: BASE RATE (GALLIA, LAWRENCE, MEIGS & VINTON)...	24.83	10.00

PAIN0841-001 07/01/2025

	Rates	Fringes
PAINTERS: GROUP 7- SYNTHETIC EXTERIOR, DRYWALL FINISHER AND/OR TAPER, DRYWALL FINISHER AND FOLLOW-UP MAN USING AUTOMATIC TOOLS (MEDINA, PORTAGE (SOUTH OF AND INCLUDING OHIO TURNPIKE), AND SUMMIT (SOUTH OF AND INCLUDING OHIO TURNPIKE) COUNTIES).....	$ 33.18	18.15
PAINTERS: GROUP 6- PUBLIC & COMMERCE TRANSPORTATION, STEEL OR GALVANIZED, BRIDGES, TUNNELS & RELATED SUPPORT ITEMS (CONCRETE) (MEDINA, PORTAGE (SOUTH OF AND INCLUDING OHIO TURNPIKE), AND SUMMIT (SOUTH OF AND INCLUDING OHIO TURNPIKE) COUNTIES).....	$ 38.60	18.15
PAINTERS: GROUP 5- SANDBLAST, PAINTING OF STANDPIPES, ETC. FROM SCAFFOLDS, BRIDGE WORK AND/OR OPEN STRUCTURAL STEEL, STANDPIPES AND/OR WATER TOWERS (MEDINA, PORTAGE (SOUTH OF AND INCLUDING OHIO TURNPIKE), AND SUMMIT (SOUTH OF AND INCLUDING OHIO TURNPIKE) COUNTIES)..	33.18	18.15
PAINTERS: GROUP 4- SPRAY GUN OPERATOR OF ANY & ALL COATINGS (MEDINA, PORTAGE (SOUTH OF AND INCLUDING OHIO TURNPIKE), AND SUMMIT (SOUTH OF AND INCLUDING OHIO TURNPIKE) COUNTIES)..	32.78	18.15
PAINTERS: GROUP 3- SWING SCAFFOLD, BOSUM CHAIR, & WINDOW JACK (MEDINA, PORTAGE (SOUTH OF AND INCLUDING OHIO TURNPIKE), AND SUMMIT (SOUTH OF AND INCLUDING OHIO TURNPIKE) COUNTIES)...	32.68	18.15
PAINTERS: GROUP 2- EPOXY APPLICATION (MEDINA, PORTAGE (SOUTH OF AND INCLUDING OHIO TURNPIKE), AND SUMMIT (SOUTH OF AND INCLUDING OHIO TURNPIKE) COUNTIES)....	32.58	18.15
PAINTERS: GROUP 1- BRUSH, ROLLER & PAPERHANGER (MEDINA, PORTAGE (SOUTH OF AND INCLUDING OHIO TURNPIKE), AND SUMMIT (SOUTH OF AND INCLUDING OHIO TURNPIKE) COUNTIES)...	31.93	18.15

PAIN0841-002 07/01/2025

Rates Fringes

PAINTER: SPRAY; TANK INTERIOR & EXTERIOR (CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE).$32.78; 18.15

PAINTER: BRUSH & ROLLER (CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE).. 31.93 18.15

PAINTER: BRIDGES; TOWERS, POLES & STACKS; SANDBLASTING STEEL; STRUCTURAL STEEL & METALIZING (CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE)... 33.18 18.15

PAIN1020-002 07/01/2025

Rates Fringes

PAINTER: WALLCOVERINGS (ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, AND WILLIAMS COUNTIES) ALL SURFACES 40 FT. OR OVER WHERE MATERIAL IS APPLIED TO OR LABOR PERFORMED ON, ABOVE GROUND LEVEL (EXTERIOR), FLOOR LEVEL (INTERIOR) - $.50 PREMIUM APPLYING COAL TAR PRODUCTS - $1.00 PREMIUM.....$ 28.34 18.54

PAINTER: SWING STAGE, CHAIR, SPIDERS, & CHERRY PICKERS (ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, AND WILLIAMS COUNTIES) ALL SURFACES 40 FT. OR OVER WHERE MATERIAL IS APPLIED TO OR LABOR PERFORMED ON, ABOVE GROUND LEVEL (EXTERIOR), FLOOR LEVEL (INTERIOR) - $.50 PREMIUM APPLYING COAL TAR PRODUCTS - $1.00 PREMIUM.....$ 27.84 18.54

PAINTER: SPRAY, SANDBLASTING PRESSURE CLEANING, & REFINERY (ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, AND WILLIAMS COUNTIES) ALL SURFACES 40 FT. OR OVER WHERE MATERIAL IS APPLIED TO OR LABOR PERFORMED ON, ABOVE GROUND LEVEL (EXTERIOR), FLOOR LEVEL (INTERIOR) - $.50 PREMIUM APPLYING COAL TAR PRODUCTS - $1.00 PREMIUM.....$ 28.34 18.54

PAINTER: LEAD ABATEMENT (ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, AND WILLIAMS COUNTIES) ALL SURFACES 40 FT. OR OVER WHERE MATERIAL IS APPLIED TO OR LABOR PERFORMED ON, ABOVE GROUND LEVEL (EXTERIOR), FLOOR LEVEL (INTERIOR) - $.50 PREMIUM APPLYING COAL TAR PRODUCTS - $1.00 PREMIUM.....$ 29.34 18.54

PAINTER: DRYWALL FINISHING & TAPING (ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, AND WILLIAMS COUNTIES): LL SURFACES 40 FT. OR OVER WHERE MATERIAL IS APPLIED TO OR LABOR PERFORMED ON, ABOVE GROUND LEVEL (EXTERIOR), FLOOR LEVEL (INTERIOR) - $.50 PREMIUM APPLYING COAL TAR PRODUCTS - $1.00 PREMIUM.....$ 28.34 18.54

PAINTER: BRUSH & ROLLER (ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, AND WILLIAMS COUNTIES) ALL SURFACES 40 FT. OR OVER WHERE MATERIAL IS APPLIED TO OR LABOR PERFORMED ON, ABOVE GROUND LEVEL (EXTERIOR), FLOOR LEVEL (INTERIOR) - $.50 PREMIUM APPLYING COAL TAR PRODUCTS - $1.00 PREMIUM.....$ 27.59 18.54

PAIN1275-002 05/01/2025

Rates Fringes

PAINTER: STRUCTURAL STEEL & SWING STAGE (DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION).....$ 30.50 15.16

PAINTER: STACKS; TANKS; & TOWERS (DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION).....$ 34.46 15.16

PAINTER: SPRAY (DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION).....$ 32.15 15.16

PAINTER: SANDBLASTING; STEAMCLEANING; WATERBLASTING (3500 PSI OR OVER)& HAZARDOUS WORK (DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION).....$ 32.35 15.16

PAINTER: BRUSH; ROLLER (DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION).....$ 30.20 15.16

PAINTER: BRIDGES (DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION).$37.26 $15.16

PLAS0109-001 06/01/2025

	Rates	Fringes
PLASTERER (MEDINA, PORTAGE, STARK, AND SUMMIT COUNTIES)..	33.00	23.83

PLAS0109-003 06/01/2025

	Rates	Fringes
PLASTERER (CARROLL, HOLMES, TUSCARAWAS, AND WAYNE COUNTIES)..	33.00	23.83

PLAS0132-002 07/01/2025

	Rates	Fringes
PLASTERER (BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN COUNTIES)...	31.35	17.65

PLAS0404-002 05/01/2018

	Rates	Fringes
PLASTERER (ASHTABULA, CUYAHOGA, GEAUGA, AND LAKE COUNTIES)...	29.63	17.11

PLAS0404-003 05/01/2018

	Rates	Fringes
PLASTERER (LORAIN COUNTY).....$	28.86	17.11

PLAS0526-022 05/01/2018

	Rates	Fringes
PLASTERER (COLUMBIANA, MAHONING, AND TRUMBULL COUNTIES).....	28.86	17.11

PLAS0526-023 05/01/2018

	Rates	Fringes
PLASTERER (BELMONT, HARRISON, AND JEFFERSON COUNTIES).....	28.21	17.11

PLAS0886-001 07/01/2025

	Rates	Fringes
PLASTERER (FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, AND WOOD COUNTIES)..	36.65	25.60

PLAS0886-003 07/01/2025

	Rates	Fringes
PLASTERER (DEFIANCE, ERIE, HURON, OTTAWA, PAULDING, SANDUSKY, AND SENECA)...	36.65	25.60

PLAS0886-004 07/01/2025

	Rates	Fringes
PLASTERER (ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, AND VAN WERT)...	35.29	23.07

PLUM0042-002 07/01/2025

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER (ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND & WYANDOT).....$	43.02	26.45

PLUM0050-002 06/30/2025

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER (DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD).....$	51.00	32.56

PLUM0055-003 05/05/2025

	Rates	Fringes
PLUMBER (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. OF RTE. #18 & SMITH ROAD) & SUMMIT (N. OF RTE. #303, INCLUDING THE CORPORATE LIMITS OF THE CITY OF HUDSON)).....$	44.86	30.03

PLUM0083-001 07/01/2023

	Rates	Fringes
PLUMBER AND STEAMFITTER (BELMONT & MONROE (NORTH OF RTE. #78)).	35.94	37.35

PLUM0094-002 05/01/2025

	Rates	Fringes
PLUMBER/PIPEFITTER (CARROLL (NORTHEN HALF), STARK, AND WAYNE COUNTIES).	47.48	27.14

PLUM0120-002 05/01/2025

	Rates	Fringes
PIPEFITTER (ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (THE C.E.I. POWER HOUSE IN AVON LAKE), MEDINA (N. OF RTE. #18) & SUMMIT (N. OF #303)).....$	49.17	28.55

PLUM0162-002 06/01/2024

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER (CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI, MONTGOMERY & PREBLE)..	43.05	27.18

PLUM0168-002 06/01/2025

	Rates	Fringes

PLUMBER/PIPEFITTER (MEIGS, MONROE (SOUTH OF RTE. #78), MORGAN (SOUTH OF RTE. #78) & WASHINGTON) .....$ 40.92 37.20

PLUM0189-002 06/01/2025

Rates Fringes

PLUMBER, PIPEFITTER, STEAMFITTER (DELAWARE, FAIRFIELD, FRANKLIN, HOCKING, LICKING, MADISON, MARION, PERRY, PICKAWAY, ROSS & UNION).....$ 53.00 27.59

PLUM0219-002 06/01/2025

Rates Fringes

PLUMBER AND STEAMFITTER (MEDINA (RTE. #18 FROM EASTERN EDGE OF MEDINA CO., WEST TO EASTERN CORPORATE LIMITS OF THE CITY OF MEDINA, & ON THE COUNTY ROAD FROM THE WEST CORPORATE LIMITS OF MEDINA RUNNING DUE WEST TO AND THROUGH COMMUNITY OF RISLEY TO THE WESTERN EDGE OF MEDINA COUNTY - ALL TERRITORY SOUTH OF THIS LINE), PORTAGE, AND SUMMIT (S. OF RTE. #303) COUNTIES).....$ 46.87 28.39

PLUM0392-002 06/01/2025

Rates Fringes

PLUMBER/PIPEFITTER (BROWN, BUTLER, CLERMONT, HAMILTON & WARREN).... 43.30 27.40

PLUM0396-001 06/01/2025

Rates Fringes

PLUMBER/PIPEFITTER (COLUMBIANA (EXCLUDING WASHINGTON & YELLOW CREEK TOWNSHIPS & LIVERPOOL TWP. - SECS. 35 & 36 - WEST OF COUNTY ROAD #427), MAHONING AND TRUMBULL COUNTIES).. 40.55 29.25

PLUM0495-002 06/01/2025

Rates Fringes

PLUMBER, PIPEFITTER, STEAMFITTER (CARROLL (ROSE, MONROE, UNION, LEE, ORANGE, PERRY & LOUDON TOWNSHIPS), COLUMBIANA (WASHINGTON & YELLOW CREEK TOWNSHIPS & LIVERPOOL TOWNSHIP, SECS. 35 & 36, WEST OF COUNTY RD. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (SOUTH TO STATE RTE. #78 & FROM MCCONNELSVILLE WEST ON STATE RTE. #37 TO THE PERRY COUNTY LINE), MUSKINGUM, NOBLE, AND TUSCARAWAS COUNTIES).....$ 39.32 37.60

PLUM0577-002 06/01/2025

Rates Fringes

PLUMBER, PIPEFITTER, STEAMFITTER (ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON)... 42.65 28.56

PLUM0776-002 07/01/2025

Rates Fringes

PLUMBER, PIPEFITTER, STEAMFITTER (ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY AND VAN WERT COUNTIES).... 42.76 30.81

TEAM0377-003 05/01/2025

Rates Fringes

TRUCK DRIVER: GROUP 2- TRACTOR-TRAILER COMBINATION: FUEL; POLE TRAILER; READY MIX; SEMI-TRACTOR; & ASPHALT OIL SPRAYBAR MAN WHEN OPERATED FROM CAB; 5 AXLES & OVER; BELLY DUMP; END DUMP; ARTICULATED DUMP; HEAVY DUTY EQUIPMENT; LOW BOY; & TRUCK MECHANIC (STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE)... 35.26 18.85

TRUCK DRIVER: GROUP 1- ASPHALT DISTRIBUTOR; BATCH; 4- WHEEL SERVICE; 4-WHEEL DUMP; OIL DISTRIBUTOR & TANDEM (STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE).. 34.26 18.85

TEAM0436-002 05/01/2025

	Rates	Fringes
TRUCK DRIVER: GROUP 2- SEMI FUEL, SEMI TRACTOR, EUCLIDS, DARTS, TANK, ASPHALT SPREADERS, LOW BOYS, CARRY-ALL, TOURNA-ROCKERS, HI-LIFTS, EXTRA LONG TRAILERS, SEMI-POLE TRAILERS, DOUBLE HOOK-UP TRACTOR TRAILERS INCLUDING TEAM TRACK & RAILROAD SIDING, SEMI-TRACTOR & TRI-AXLE TRAILER, TANDEM TRACTOR & TANDEM TRAILER, TAG ALONG TRAILER, EXPANDABLE TRAILER OR TOWING REQUIRING ROAD PERMITS, READY-MIX (AGITATOR OR NON-AGITATOR), BULK CONCRETE DRIVER, DRY BATCH TRUCK, ARTICULATED END DUMP (CUYAHOGA, GEAUGA & LAKE).....$	35.73	19.30
TRUCK DRIVER: GROUP 1- STRAIGHT & DUMP, STRAIGHT FUEL (CUYAHOGA, GEAUGA & LAKE)..	34.92	19.30

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

==========

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than """"SU"""", """"UAVG"""", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union
whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.
Survey Rate Identifiers

The """"SU"""" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

“SU” wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The """"SA"""" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This canbe:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via
email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

==========

END OF GENERAL DECISION"

WPCLF and WSRLA PROJECTS

Regulations and Forms to be Included with Contract Documents

CONTRACT DOCUMENT PROVISIONS

- The following contract requirements and forms are to be included in the construction contract documents. Completed copies of the forms are to be submitted to Ohio EPA within one week after bids are received, or sooner, dependent on your individual project schedule. Bid packages for WPCLF projects should be submitted to DEFA in the central office while bid packages for WSRLA projects should be submitted to the appropriate DDAGW district office.

Equal Employment Opportunity (EEO) Requirements

The Contractor's EEO Certification Form must be (1) included in the contract documents and (2) referenced in the Instructions to Bidders, informing bidders that the form must be completed and submitted with their bid.

NOTE: If the loan applicant has its own EEO requirements, local procedures and forms may be substituted for the EPA form.

Debarment

The Certification Regarding Debarment, Suspension, and Other Responsibility Matters must be (1) included in the contract documents and (2) referenced in the Instructions to Bidders, informing bidders that the form must be completed and submitted with their bid.

Disadvantaged Business Enterprises (DBE) Utilization

The DBE Specification language and instructions to the bidders and Forms 6100-3, 6100-4 and 6100-2 must be (1) included in the contract documents and (2) referenced in the Instructions to Bidders, informing bidders that the forms must be completed and submitted with their bid.

NOTE: If the loan applicant has its own DBE requirements or if other funding programs with potentially competing DBE requirements are participating in the project funding, please contact Ohio EPA – DEFA for specific instructions regarding the DBE requirements.

Davis-Bacon wage rate requirements

The contract documents must include language that requires contractors and subcontractors to pay wages at rates not less than those prevailing on similar projects within the area as determined by the US Secretary of Labor. In addition, the loan recipient will be required to conduct wage interviews and monitor payroll for compliance.

Build America, Buy America (Lead Service Line, Emerging Contaminant, Equivalency Projects)

Build America Buy America Act (BABA) requirements apply to Lead Service Line, Emerging Contaminants and equivalency projects funded by a WPCLF assistance agreement and/or a WSRLA assistance agreement. Equivalency projects are those receiving funding from federal

capitalization grants that support the WPCLF and WSRLA programs. The acknowledgement form must be included in the contract documents. The acknowledgement form should be signed by the contractor and submitted with the final bid package. It is recommended that the BABA guidance document and questions and answers document be included in the contract documents.

American Iron and Steel

All treatment works projects funded by a WPCLF assistance agreement and all public water system projects funded by a WSRLA assistance agreement are required to comply with American Iron and Steel (AIS) requirements. The acknowledgement form must be included in the contract documents. The acknowledgement form should be signed by the contractor and submitted with the final bid package. It is recommended that the AIS guidance document and questions and answers document be included in the contract documents.

- The following contract requirements are to be included in the construction contract documents but are not required to be submitted to Ohio EPA for contract endorsement.

Small Businesses in Rural Areas (SBRA)

Language encouraging the participation of small businesses in rural areas should be included in the contract documents.

Local Protest Procedure

Some statement as to when a valid protest must be filed, in what form it must be filed and who it must be filed with should be included. ORC 153.12 has some default procedures for handling disputes. If the owner wants more control than provided in ORC, a procedure needs to be spelled out in the Contract Documents.

Contractor Equal Employment Opportunity Certification

During the performance of this contract, the undersigned agrees as follows:

1. The undersigned will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The undersigned will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The undersigned agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this equal opportunity (federally assisted construction) clause.

2. The undersigned will, in all solicitations or advertisements for employees placed by or on behalf of the undersigned, state the all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

3. The undersigned will send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the undersigned's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The undersigned will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The undersigned will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and relevant orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency of the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the undersigned's non-compliance with the equal opportunity (federally assisted construction) clause of this contract of with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part, and the undersigned may be declared ineligible for further Government contracts of federally assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No 11246 of September 24, 1965, or by rules, regulations, or order of the Secretary of Labor, or as provided by law.

7. The undersigned will include this equal opportunity (federally assisted construction) clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No 11246 of September 24, 1965, so that such provision will be binding upon each subcontract or vender. The undersigned will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non compliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor, as a result of such direction by the administering agency the undersigned may request the United States to enter into such litigation to protect the interest of the United States.

_____

(Signature) (Date)

_____

(Name and Title of Signer, Please type)

_____

(Firm Name)

Certification Regarding Debarment, Suspension, and Other Responsibility Matters
INSTRUCTIONS

Under Executive Order 12549 an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a Federal program or a subagreement thereunder for $25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or subagreement participant thereunder must complete the attached certification provide an explanation why they cannot. For further details, see the regulation 40 CFR 32.510, Participants' responsibilities.

Go to https://sam.gov/content/exclusions to search for excluded parties. The record includes information regarding entities debarred, suspended, proposed for debarment, excluded or disqualified under the nonprocurement common rule, or otherwise declared ineligible from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits. This information may include names, addresses, DUNS numbers, Social Security Numbers, Employer Identification Numbers or other Taxpayer Identification Numbers, if available and deemed appropriate and permissible to publish by the agency taking the action.

Where To Submit

The prospective EPA grant, loan, or cooperative agreement recipient must return the signed certification or explanation with its application to Ohio EPA.

A prospective prime contractor must submit a complete certification or explanation to the individual or organization awarding the contract.

Each prospective subcontractor must submit a complete certification or explanation to the prime contractor for the project.

Applicants may reproduce these materials as needed and provide them to their prospective prime contractor, who, in turn, may reproduce and provide them to prospective subcontractors.

Additional copies / assistance may be requested from:

Ohio EPA
Division of Environmental and Financial Assistance
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2798
www.epa.ohio.gov/defa/

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal of State antitrust statues or commission if embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (b) of this certification;

(d) Have not within a three year period preceding this application / proposal had one or more public transactions (Federal, State, or local) terminated for cause or default; and

(e) Will not utilize a subcontractor or supplier who is unable to certify (a) through (d) above.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to 5 years, or both.

_____

Type Name & Title of Authorized Representative

_____

Signature of Authorized Representative

_____

Date

☐ I am unable to certify to the above statements. My explanation is attached.

Disadvantaged Business Enterprises (DBE) Utilization

(Required Contract Provision)

USEPA has a program to encourage the participation of disadvantaged businesses in the construction activities funded by the Clean Water and Drinking Water SRF's. "DBE" is an all-inclusive term that includes Minority Business Enterprises (MBE), Women Business Enterprises (WBE), Small Business Enterprises (SBE), Small Business in Rural Areas (SBRA), HUBZone Small Business, Labor Surplus Area Firms (LSAF), and other entities defined as socially and/or economically disadvantaged. While the WPCLF and WSRLA strongly encourage participation by all disadvantaged groups, specific participation goals are negotiated with USEPA only for Minority Business Enterprises and Women's Business Enterprises.

Goals

As a condition of receiving capitalization grants from U.S. EPA for the Water Pollution Control Loan Fund (WPCLF) and the Water Supply Revolving Loan Account (WSRLA), the Ohio EPA negotiates "fair share" Disadvantaged Business Enterprises (DBE) objectives with U.S. EPA. **The current negotiated goal for construction related activities is 5.4% (the total goal is based on 3.1% of MBEs and 2.3% of WBEs participation).**

DBE Certification

Under the DBE program, qualified DBE's are those that have been certified as an MBE or WBE. Certifications can be obtained from a federal agency such as the Small Business Administration or the Department of Transportation or by an approved State agency. The Unified Certification Program (UCP) administered by the Ohio Department of Transportation (ODOT) can provide the necessary DBE certifications. Information on the UCP can be found at www.ohioucp.org as well as the ODOT website https://www.transportation.ohio.gov/programs/business-economic-opportunity/dbe. The Department of Development operates the Encouraging Diversity Growth and Equity Program (EDGE), the other state approved DBE certification program. Information on EDGE can be found at https://development.ohio.gov/business/minority-business/business-certifications/encouraging-diversity-growth-and-equity-program.

DBE Qualifications

To qualify for MBE certification, businesses must be 51 percent owned and controlled by a U.S. citizen and Ohio resident belonging to an African American, Native American, Hispanic, or Asian American ethnic group. In addition, the business must be in operation for at least one year prior to submitting an application. For DBE status, a business must be at least 51 percent owned by a socially and economically disadvantaged person who participates in the daily operations of the business. This person must be a woman or of African-American, Hispanic, Native American, Asian American ethnicity.

Program Requirements

To comply with DBE program requirements the WPCLF/WSRLA loan recipient must do the following:

1. Create and maintain a bidder's list (see description below)

2. Include contract conditions applicable to the DBE program in all procurement contracts entered into by the Borrower for all WPCLF and WSRLA projects. These conditions are listed below.
3. Follow, document, and maintain documentation of good faith efforts on the part of prime contractors to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project.
4. Review the Form 6100-3 and 6100-4 submittals provided by bidders on the project for completeness and obtain any additional information necessary to verify the certification status of all proposed subcontractors.
5. Obtain documentation of the good faith efforts of the prime contractor if the prime contractor does not meet the MBE or WBE goal.
6. Obtain a written confirmation from any prime contractor states that they will not meet the MBE and WBE goals because they will not be entering into any agreements for goods or services with any company, firm, joint venture, or individual.
7. Submit the following to the Ohio EPA/DEFA as part of the bid package upon which the WPCLF/WSRLA loan amount is determined:
   - Form 6100-3 from each subcontractor
   - Form 6100-4 from each prime contractor
   - a copy of the Good Faith Efforts documentation from any prime contractors that will not meet the MBE and WBE goals,
   - if any of the prime contractors will not meet the MBE and WBE goals because they will not be entering into any agreements for goods or services with any company, firm, joint venture, or individual, a copy of the written confirmation from that prime contractor
8. Report MBE/WBE accomplishments on Form 5700-52A annually (within 15 days after October 1st).

NOTE: It is up to the WPCLF/WSRLA loan recipient whether or not to require completion and submission of Forms 6100-3 and 6100-4 from all bidders with the bid proposal or to accept completion and submission from the successful bidder(s) only at some time after bids are received. Regardless of whether the forms are completed and submitted with the bids or at some later time once the successful bidders are identified, completed forms are to be submitted to Ohio EPA with the bid package.

To comply with DBE program requirements all prime contractors must do the following:

1. Follow, document, and maintain documentation of their good faith efforts.
2. Complete and submit **Form 6100-4 DBE Subcontractor Utilization Summary** as part of the bid proposal package to the loan recipient.
3. Have its Disadvantaged Business Enterprise subcontractors complete **Form 6100-3 DBE Subcontractor Proposed Performance Form** and submit those as part of the bid proposal package to the loan recipient.
4. Provide **Form 6100-2 DBE Subcontractor Actual Participation Form** to all of its Disadvantaged Business Enterprise subcontractors for completion at the end of the work.
5. During construction, provide the data necessary so that the loan recipient can report MBE/WBE accomplishments on Form 5700-52A annually (within 15 days after October 1st).

Bidders List

The Borrower must create, maintain, and use a bidders list for purposes of soliciting both MBE/WBEs and non-MBE/WBEs during procurement of construction, equipment, supplies, and services. This list shall include:

1. Entity's name with point of contact;
2. Entity's mailing address, telephone number, and e-mail address;
3. The procurement on which the entity bid or quoted, and when; and
4. Entity's status as an MBE/WBE or non-MBE/WBE.

Borrowers that receive less than $250,000 or less in any one fiscal year can be exempt from maintaining a Bidders List.

The Bidders List shall be maintained until the project period has expired and the Borrower is no longer receiving EPA funding. The Bidders List must include all firms that bid on the prime contracts, or bid or gave a quote on subcontracts, including both MBE/WBEs and non-MBE/WBEs.

Required Contract Conditions

The DBE Specification language and instructions to the bidders and Forms 6100-2, 6100-3 and 6100-4 must be included in the contract documents and referenced in the Instructions to Bidders, informing bidders that the forms must be completed and submitted with their bid for all WPCLF and WSRLA projects:

1. The prime contractor must pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the owner.
2. The prime contractor must notify the owner in writing prior to the termination of any Disadvantage Business Enterprise subcontractor for convenience by the prime contractor.
3. If a Disadvantage Business Enterprise contractor fails to complete work under the subcontract for any reason, the prime contractor must employ the six Good Faith Efforts (listed below) if soliciting a replacement contractor.
4. The prime contractor must employ the six Good Faith Efforts even if the prime contractor has achieved its fair share objectives.
5. An owner must ensure that each procurement contract it awards contains the following terms and conditions:

   The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

Good Faith Efforts

Borrowers and their prime contractors must follow, document, and maintain documentation of their good faith efforts as listed below to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project by increasing DBE awareness of procurement efforts and outreach.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities; including DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could be subcontracted with DBEs. This will include dividing total requirements when economically feasible into smaller tasks or quantities to permit participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the steps in numbers 1 through 5 above.

DBE Forms

Form 6100-3 – Each prime contractor must have its DBE subcontractors complete **Form 6100-3 DBE Subcontractor Proposed Performance Form**. This form gives the DBE subcontractor the opportunity to report the scope and cost of the subcontract and it should be forwarded to the Prime Contractor along with the DBE's quote. Each subcontractor completes one Form 6100-3. The Borrower must submit all Form 6100-3 forms to the Ohio EPA/DEFA as part of the bid package upon which the WPCLF/WSRLA loan amount is determined.

Form 6100-4 – Each prime contractor must complete and submit **Form 6100-4 DBE Subcontractor Utilization Summary** as part of the prime contractor's bid proposal package to the Borrower. This form summarizes the Prime Contractor's intended use of identified DBE(s) and the estimated dollar amount of each subcontract. Only one Form 6100-4 form is required from each Prime Contractor. The Borrower must submit this form to the Ohio EPA/DEFA as part of the bid package upon which the WPCLF/WSRLA loan amount is determined.

Form 6100-2 - The prime contractor must provide **Form 6100-2 DBE Subcontractor Actual Participation Form** to all of its Disadvantaged Business Enterprise subcontractors.

This form gives the DBE subcontractor the opportunity to describe the work the DBE received from the Prime Contractor, how much the DBE was paid and any other concerns the DBE might have. Disadvantaged Business Enterprise subcontractors must send completed Form 6100-2 directly to the Region 5 DBE Coordinator after the work by the subcontractor is done and is NOT submitted with the bid package to Ohio EPA.

Region 5 MBE/WBE Coordinator
USEPA, Acquisition and Assistance Branch
77 West Jackson Boulevard (MC-10J)
Chicago, IL 60604

Reporting During Construction – Form 5700-52A

The purpose of MBE/WBE reporting is to monitor the grant recipient's accomplishments in utilizing MBEs and WBEs; and adherence to the good faith efforts (i.e., outreach to MBEs, WBEs, and other DBEs); and progress in achieving MBE and WBE Goals. During the progress of the construction project, the loan recipient must complete & submit Form 5700-52A annually (**within 15 days after October 1st**). If there were no MBEs or WBEs utilized, or no procurement expenditures of any kind were made during the reporting period, a "negative report" is still required.

Reports are to be sent to:

Florel Fraser, Ohio EPA – DEFA
P.O. Box 1049
Columbus, OH 43216-1049
E-mail address: Florel.Fraser@epa.ohio.gov
Phone: (614) 644-3636

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE[1] subcontractor's[2] description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name	Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact
Address		
Telephone No.	Email Address	
Prime Contractor Name	Issuing/Funding Entity:	

Contract Item Number	**Description of Work Submitted to the Prime Contractor Involving Construction, Services , Equipment or Supplies**	**Price of Work Submitted to the Prime Contractor**
DBE Certified By: ◯ ODOT ◯ DAS/EDGE ◯ Other: _____	Meets/ exceeds EPA certification standards? ◯ YES ◯ NO ◯ Unknown	

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 I.

Prime Contractor Signature	**Print Name**
Title	**Date**

Subcontractor Signature	**Print Name**
Title	**Date**

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE[1] subcontractors[2] and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact
Address		
Telephone No.	Email Address	
Issuing/Funding Entity:		

I have identified potential DBE certified subcontractors	___YES	___NO
If yes, please complete the table below. If no, please explain:		

Subcontractor Name/ Company Name	**Company Address/ Phone/ Email**	**Est. Dollar Amt.**	**Currently DBE Certified?**

Continue on back if needed

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 I.

Prime Contractor Signature	Print Name
Title	**Date**

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE[1] subcontractor[2] the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name	Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact
Address		
Telephone No.	Email Address	
Prime Contractor Name	Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

Please use the space below to report any concerns regarding the above EPA-funded project:

Subcontractor Signature	Print Name
Title	**Date**

ALERT

"Total Procurement" fields and "MBE/WBE Combined Procurement" fields located in section 4B of this form should include Federal funds provided under the assistance agreement, recipient matching funds, and funds from other sources that are included in the assistance agreement.

Due to process time of Paperwork Reduction Act procedures, EPA is not able to update the EPA Form 5700-52A immediately to reflect this clarification.

If EPA grant recipients have questions about EPA Form 5700-52A, please work with your respective Grants Specialist or DBE Coordinator.

OMB CONTROL NO. 2030-0020
APPROVAL EXPIRES 06/30/2024

U.S. ENVIRONMENTAL PROTECTION AGENCY MBE/WBE UTILIZATION UNDER FEDERAL GRANTS AND COOPERATIVE AGREEMENTS

1A. REPORTING PERIOD October 1, – September 30,	1B. REPORT TYPE ☐ Annual ☐ Final Report (Project completed)
1C: Revision of a Prior Year Report? ◯ No ◯ Yes If yes, what reporting period is being revised and briefly describe the changes made. **Note:** The revised report will replace the associated original report in its entirety.	
2A. RECIPIENT UNIQUE ENTITY IDENTIFIER	
2B. RECIPENT REPORTING CONTACT Name: Email: Phone:	
3. FEDERAL AWARD IDENTIFICATION NUMBER (FAIN) (For SRF state recipients, please include all numbers for all open assistance agreements being reported on this form.	
4A. If NO procurements were made this reporting period (by the recipient, sub-recipient(s), loan recipient(s), and prime contractor(s)), **CHECK and SKIP to Block No. 6**. (Procurements are all expenditures through contract, order, purchase, lease or barter of supplies, equipment, construction, or services needed to complete Federal assistance programs.) ☐	

4B. Total Procurements & MBE/WBE Accomplishments This Reporting Period (in dollars)

	Construction	Non-Construction	Total
Total Procurement:	$ _____	$ _____	$ _____
MBE/WBE Combined Procurement:	$ _____	$ _____	$ _____

5A. Good Faith Efforts: If procurements were made, indicate whether your organization has followed the six Good Faith efforts found in 40 CFR Part 33, Subpart C, 40 CFR 33.501 and 2 CFR 200.321. ☐ Yes, my organization has implemented and documented each of the six Good Faith Efforts on the procurements made during this reporting period. ☐ No, my organization has not implemented and documented each of the six Good Faith Efforts on the procurements made during this reporting period.	5B. If procurements were made, but no MBE/WBE procurements are being reported, then check the applicable box(es) for the reason(s) why no MBE/WBE procurements were made. ☐ No MBE/WBE(s) applied ☐ No MBE/WBE(s) were qualified ☐ Other:
6. NAME OF RECIPIENT'S AUTHORIZED REPRESENTATIVE	TITLE
7. SIGNATURE OF RECIPIENT'S AUTHORIZED REPRESENTATIVE	DATE

EPA FORM 5700-52A available electronically at: https://www.epa.gov/grants/epa-form-5700-52a-united-states-environmental-protection-agency-minority-business

Instructions:

A. General Instructions:

MBE/WBE utilization is based on 40 CFR Part 33 and 2 CFR Parts 200 and 1500. The reporting requirement reflects the change in the reporting threshold described in Recipient/ Applicant Information Notice-2018-G04 issued by EPA's Office of Grants and Debarment on September 7, 2018 (https://www.epa.gov/grants/rain-2018-g04). EPA Form 5700-52A must be completed annually by recipients of financial assistance agreements where the combined total of funds budgeted for procuring supplies, equipment, construction and services exceeds the current Simplified Acquisition Threshold as set by the Federal Acquisition Regulation at 48 CFR Subpart 2.1. This reporting requirement applies to all new and existing awards and voids all previous reporting requirements.

In determining whether the threshold is exceeded for a particular assistance agreement, the analysis must focus on funds budgeted for procurement under the supplies, equipment, construction, services or "other" categories, and include funds budgeted for procurement under sub- awards or loans.

Reporting will also be required in cases where the details of the budgets of sub-awards/loans are not clear at the time of the grant awards and the combined total of the procurement and sub-awards and/or loans exceeds the Simplified Acquisition Threshold.

For example, if the Simplified Acquisition Threshold is $250,000, then if a recipient has $300,000 budgeted under procurement, then completion of this report is required.

When reporting is required, all procurement actions are reportable, not just the portion which exceeds the Simplified Acquisition Threshold.

If at the time of award the budgeted funds exceed the Simplified Acquisition Threshold but actual expenditures fall below, a report is still required.

If at the time of award, the combined total of funds budgeted for procurements in any category is less than or equal to the Simplified Acquisition Threshold and is maintained below the threshold, no DBE report is required to be submitted.

Recipients are required to report 30 days after the end of each federal fiscal year (i.e. October 30th), per the terms and conditions of the financial assistance agreement.

Final reports are due October 30th or 120 days after the end of the project period, whichever comes first.

MBE/WBE program requirements, including reporting, are material terms and conditions of the financial assistance agreement. Failure to comply may lead to termination of the financial assistance agreement which is then reported to the OMB-designated integrity and performance system accessible through SAM (currently FAPIIS) pursuant to 2 CFR 200.339(b).

B. Submission:

Recipients must submit completed forms to the point of contact associated with the awarding office for the applicable assistance agreement.
Information on specific points of contact for EPA's Headquarters and ten Regional Offices is located at:

https://www.epa.gov/grants/frequently-asked-questions-disadvantaged-business-enterprises

Questions regarding the completion of this form should be directed to the DBE Coordinator associated with the awarding office for the applicable assistance agreement. A list of the DBE Coordinators for each awarding office can be located here:

https://www.epa.gov/grants/epa-dbe-program-coordinators

C. Instructions:

1A. Specify Federal fiscal year this report covers. The Federal fiscal year runs from October 1st through September 30th (**e.g. November 29, 2020 falls within Federal fiscal year 2021**)

1B. Specify report type. Check the annual reporting box if this is an annual report. If it is a final report, check the final report box to indicate if the project is completed.

1C. Indicate if this is a revision to a previous year and provide a brief description of the revision you are making including what reporting period is being revised. The revised report will replace the associated original report in its entirety.

2A. Provide your organization's Unique Entity Identifier. More information about Unique Entity Identifier, including its meaning, can be found in 2 CFR Part 25.

2B. Identify the name and contact information for the person located within the recipient organization that can be contacted if questions arise from this report.

3. Provide the Federal Award Identification Number (FAIN) assigned by EPA. A separate report must be submitted for each Assistance Agreement.

*For SRF recipients: In box 3 list numbers for ALL OPEN Assistance Agreements being reported on this form.

4A. Self-explanatory. **Note:** Procurement means expenditures under the supplies, equipment, construction, services or "other" categories, and include funds expended for procurement under sub-awards or loans.

4B. Provide the total dollar amount (in dollars) of **ALL** procurements awarded this reporting period by construction, non-construction, and grand total by the recipient, sub-recipients, and SRF loan recipients, **including** MBE/WBE expenditures, not just the portion which exceeds the threshold. For example: Actual dollars for procurement from the procuring office; actual contracts let from the contracts office; actual goods, services, supplies, etc., from other sources including the central purchasing/ procurement centers).

Provide the total dollar amount (in dollars) of MBE/ WBE procurements **ONLY** awarded this reporting period by construction, non-construction, and grand total by the recipient, sub-recipients, SRF loan recipients, and prime contractors not just the portion which exceeds the threshold.

***For SRF recipients only**: In 4B, please enter the total annual procurement amount under all of your SRF Assistance Agreements. The figure reported in this section is **not** directly tied to an individual Assistance Agreement identification number. **(SRF state recipients report state procurements in this section)**

5A. Self-explanatory.

5B. If procurements were made during this reporting period, but no procurements with MBE(s) or WBE(s) are being reported, then select the reason why. If "Other" is chosen, please fill in with the reason.

6. Self-explanatory.

7. Self-explanatory.

**This data is requested to comply with provisions mandated by: statute or regulations (40 CFR Part 33 and/or 2 CFR Parts 200 and 1500); OMB Circulars; or added by EPA to ensure sound and effective assistance management. Accurate, complete data are required to obtain funding, while no pledge of confidentiality is provided.

Davis-Bacon Wage Rate Requirements

(required contract provision)

Background and Applicability

On October 30, 2009, P.L. 111-88, "Making appropriations for the Department of the Interior, environment, and related agencies for the fiscal year ending September 30, 2010, and for other purposes," was enacted. This law provides appropriations for both the Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF) for Fiscal Year 2010, while adding new requirements to these already existing programs. One new requirement requires the application of Davis-Bacon Act requirements.

Application of the Davis-Bacon Act requirements extend not only to assistance agreements funded with Fiscal Year 2010 appropriations, but to all assistance agreements executed on or after October 30, 2009, whether the source of the funding is prior year's appropriations, state match, bond proceeds, interest earnings, principal repayments, or any other source of funding so long as the project is financed by an SRF assistance agreement. If a project began construction prior to October 30, 2009 but is financed or refinanced through an assistance agreement executed on or after October 30, 2009, Davis-Bacon Act requirements will apply to all construction that occurs on or after October 30, 2009, through completion of construction.

Ohio EPA Responsibilities

With respect to the Water Pollution Control Loan Fund (WPCLF) and Water Supply Revolving Loan Account (WSRLA) revolving funds, EPA provides capitalization grants to each State which in turn provides funding assistance to eligible recipients within the State. Typically, the assistance recipients are municipal or other local governmental entities that manage the funds. Occasionally, the assistance recipients may be a private for profit or not for profit entity. Although EPA and the State are responsible for ensuring assistance recipients incorporate the wage rate requirements set forth herein as part of contracts for WPCLF and WSRLA funding, the assistance recipient has the primary responsibility to maintain payroll records and for compliance with Davis-Bacon Act requirements as described below.

Municipal Or Other Local Governmental Entities Recipient's Responsibilities

The following is intended to help assistance recipients understand and meet their obligations related to Davis-Bacon (DB). Each assistance recipients should, however, review the contract/subcontract requirements that are set forth later in this document for a more full understanding of DB obligations.

Prior to advertising for bids:

> Obtain the wage determination for the locality in which a covered activity subject to DB will take place from the Department of Labor (DOL) at www.wdol.gov.

> Incorporate these wage determinations into the request for bids.

> Include the required contract provisions (see below) into the contract documents.

> Require prime contracts to include provisions that subcontractors follow the wage determination incorporated into the prime contract.

During the advertisement period:

> Monitor www.wdol.gov on a weekly basis to ensure that the wage determination contained in the request for bids remains current.

> If DOL modifies the DB wage determination more than 10 days prior to the bid opening, issue an addendum reflecting the modification.

> If DOL modifies or supersedes the DB wage determination less than 10 days prior to bid opening and you cannot issue an addendum for the change, you must request a finding from Ohio EPA that there is not reasonable time to notify interested contractors of the modification of the wage determination. The Ohio EPA will give you a report of its findings.

After opening bids:

> If the contract(s) aren't awarded within 90 days of the bid opening you must monitor www.wdol.gov on a weekly basis to ensure that wage determinations used in the bids remain current.

> If the contract(s) aren't awarded within 90 days of the bid opening, any modifications or supersedes that DOL makes to the wage determination must be incorporated into the contract unless (1) you request an extension from Ohio EPA AND (2) Ohio EPA obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv).

After contracts are signed and during construction:

> Review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

> DOL may issue a revised wage determination applicable to one or all of your contracts after the award of the contract or execution of the change order which incorporated DB requirements into the contract if DOL determines that you have failed to incorporate a wage determination or have used a wage determination that clearly does not apply to the contract. If this occurs, you shall either terminate the contract or change order and rebid the contract OR incorporate DOL's wage determination retroactive to the beginning of the contract by change order. The contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

> Periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. You must use Standard Form 1445 or equivalent documentation to memorialize the interviews.

> Establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, you must:

- conduct all interviews in confidence.
- conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract.
- conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB.
- immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements.

> Periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. You must:

- establish and follow a spot check schedule based on your assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract.
- spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract at a minimum.
- conduct more frequent spot checks if the initial spot check or other information indicates that there

is a risk that the contractor or subcontractor is not complying with DB.

• during the examinations, verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

> Periodically review contractors' and subcontractors' use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the DOL or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews.

> Immediately report potential violations of the DB prevailing wage requirements to Andrew Lausted at EPA Region V at 312-886-0189 and to the appropriate DOL Wage and Hour District Office listed at http://www.dol.gov/esa/contacts/whd/america2.htm.

If contracts have already been signed and DB requirements need to be incorporated:

> If contracts have already been signed prior to WPCLF/WSRLA funding being provided, you must issue a change order, task order, work assignment or similar legally binding instrument and incorporate the appropriate DOL wage determination from www.wdol.gov as well as the required contract provisions into the contract(s).

> Initiate the contractor and subcontractor review and wage interview requirements as described above and provided in the **Contract And Subcontract Provisions**.

Private For Profit Or Not For Profit (Non-Governmental) Entities Recipient's Responsibilities

The requirements, responsibilities and contract provisions for Private For Profit or Not For Profit Entities (Non-Governmental Entities) is exactly the same as for Municipal Or Other Local Governmental Entities EXCEPT for the following:

Prior to advertising for bids:

> Obtain the proposed wage determinations for specific localities from www.wdol.gov.

> Submit the wage determination to Ohio EPA for approval prior to inserting the wage determination into the solicitation unless subsequently directed otherwise by Ohio EPA.

Contract And Subcontract Provisions For Contracts In Excess Of $2,000

The following language must be included in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part with WPCLF or WSRLA funds and which is subject to the labor standards provisions of any of the acts listed in §5.1:

NOTE: Modify the first sentence to include the name of the WPCLF/WSRLA funding recipient prior to including these provisions in the contract documents.

Wage Rate Requirements

As used in these provisions "subrecipient" means_____(fill in WPCLF/WSRLA funding recipient name here).

(a) The following applies to any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public

work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1.

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.wdol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The EPA award official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department

of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the questions, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account asset for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the

plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the subgrant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees --

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe

benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

Contract Provision For Contracts In Excess Of $100,000 And Subject To The Overtime Provisions Of The Contract Work Hours And Safety Standards Act

The following language must be included in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These provisions are to be included in addition to the provisions for contracts in excess of $2,000. As used in these paragraphs, the terms laborers and mechanics include watchmen and guards.

(b) Contract Work Hours and Safety Standards Act. The following applies to any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. As used in these paragraphs, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

Contract Provision For Contracts In Excess Of $100,000 Subject ONLY To The Contract Work Hours And Safety Standards Act

In addition to the provisions for contracts in excess of $2,000, for any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, you must insert clauses requiring:

(c) The following applies to any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1.

The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

The records shall be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Ohio EPA, EPA and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

BUILD AMERICA, BUY AMERICA (BABA) ACKNOWLEDGEMENT

The Contractor acknowledges to and for the benefit of the _____ ("Owner") and the State of Ohio (State) that it understands the goods and services under this Agreement are being funded with federal monies and have statutory requirements commonly known as "Build America, Buy America;" that requires all of the iron and steel, manufactured products, and construction materials used in the project to be produced in the United States ("Build America, Buy America Requirements") including iron and steel, manufactured products, and construction materials provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Owner and Funding Authority (a) the Contractor has reviewed and understands the Build America, Buy America Requirements, (b) all of the iron and steel, manufactured products, and construction materials used in the project will be and/or have been produced in the United States in a manner that complies with the Build America, Buy America Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America Requirements, as may be requested by the Owner or the Funding Authority. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Owner or Funding Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Owner or Funding Authority resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the Funding Authority or any damages owed to the Funding Authority by the Owner). If the Contractor has no direct contractual privity with the Funding Authority, as a lender or awardee to the Owner for the funding of its project, the Owner and the Contractor agree that the Funding Authority is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the Funding Authority.

This page is deleted (Addendum 3, Issued 5/28/2026)

_____ _____

Signature Date

_____

Name and Title of Authorized Signatory, Please Print or Type

_____

Bidder's Firm

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

November 3, 2022

MEMORANDUM

SUBJECT: Build America, Buy America Act Implementation Procedures for EPA Office of Water Federal Financial Assistance Programs

FROM: Radhika Fox
Assistant Administrator

TO: EPA Regional Water Division Directors, Regions I – X
EPA Office of Water Office Directors

OVERVIEW

The Biden-Harris Administration recognized the Nation's critical need for infrastructure investment, championing the Bipartisan Infrastructure Law (BIL), which Congress passed on November 15, 2021 (also known as the Infrastructure Investment and Jobs Act (IIJA)). The BIL will provide an unprecedented level of federal investment in water and wastewater infrastructure in communities across America.

In Title IX of the IIJA, Congress passed the Build America, Buy America (BABA) Act, which establishes strong and permanent domestic sourcing requirements across all Federal financial assistance programs for infrastructure. The U.S. Environmental Protection Agency (EPA) Office of Water is honored to help lead the implementation of these provisions and is proud of its near decade of successful implementation of the American Iron and Steel (AIS) provisions for its flagship water infrastructure programs.

This is a transformational opportunity to build a resilient supply chain and manufacturing base for critical products here in the United States that will spur investment in good-paying American manufacturing jobs and businesses. EPA's efforts to implement BABA will help cultivate the domestic manufacturing base for a wide range of products commonly used across the water sector but not currently made domestically. This will take time, and flexibility will be important to ensure that EPA can leverage critical water investments on time and on budget to protect public health and improve water quality.

IMPLEMENTATION

Recognizing the opportunity and need for BABA implementation guidance, the Made in America Office (MIAO) of the Office of Management and Budget (OMB) published Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure (OMB Guidance M-22-11) on April 18, 2022. The guidance provides government-wide implementation direction for all Federal financial assistance programs for infrastructure. Despite the extensive guidance developed by MIAO, EPA's Office of Water infrastructure investment programs have received many questions that were not addressed in OMB Guidance M-22-11 or that require further clarification for EPA water infrastructure programs. The following questions and answers serve to supplement OMB Guidance M-22-11 with implementation procedures specific to EPA's relevant water infrastructure programs.

Section 70914(a) of the IIJA states when a Buy America preference under BABA applies: "Not later than… [May 14, 2022], the head of each Federal agency shall ensure that none of the funds made available for a Federal financial assistance program for infrastructure…may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States." Therefore, Federal financial infrastructure investments obligated on or after May 14, 2022, must comply with the BABA requirements. Absent a waiver, all iron, steel, manufactured products, and construction materials permanently incorporated into an infrastructure project subject to the BABA requirements must be produced in the United States. For many of EPA's Office of Water infrastructure investment programs, the vast majority of products permanently incorporated into construction, maintenance, or repair projects must comply with the BABA requirements, with the exception of select construction materials (cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives), which are specifically excepted by the BABA statute.

EPA's Office of Water implements many infrastructure investment programs subject to BABA requirements, including the following:

- Alaska Native Villages and Rural Communities Water Grant Program (ANV) (and any associated Interagency Agreements with the Indian Health Service)
- Clean Water and Drinking Water State Revolving Fund Programs (CW and DWSRF)
- Clean Water and Drinking Water Grants to U.S. Territories and the District of Columbia
- Clean Water Indian and Drinking Water Tribal Infrastructure Grant Set-aside (and any associated Interagency Agreements with the Indian Health Service)
- Coastal Wetlands Planning, Protection and Restoration Act, (CWPPRA) Programs
- Congressionally Directed Spending/Community Project Funding (also known as Community Grants)
- Geographic Programs[1]
- Gulf Hypoxia Program
- National Estuaries Program (CWA Section 320)

[1] Geographic Programs include: Great Lakes Restoration Initiative, Chesapeake Bay, San Francisco Bay, Puget Sound, Long Island Sound, Gulf of Mexico, South Florida, Lake Champlain, Lake Pontchartrain, Southern New England Estuaries, Columbia River Basin, Pacific Northwest

- 319 Nonpoint Source Management Program Implementation
- Reducing Lead in Drinking Water Grant Program (SDWA §1459B)
- Assistance for Small and Disadvantaged Communities Grants: Small, Underserved, and Disadvantaged Community Grant Program (SUDC), Emerging Contaminants in Small or Disadvantaged Communities (EC-SDC) and Drinking Water Infrastructure Resilience & Sustainability (SDWA §1459A)
- Sewer Overflow and Stormwater Reuse Municipal Grants (OSG)
- USMCA Implementing Legislation (Section 821 and Title IX, USMCA Supplemental Appropriations, 2020)
- U.S.-Mexico Border Water Infrastructure Program
- Voluntary School and Child Care Program Lead Testing and Remediation Grant Program (SDWA 1464(d))
- Water Infrastructure Finance and Innovation Act (WIFIA)

The questions and answers in this document apply to the implementation of BABA requirements for the Office of Water infrastructure programs listed above unless superseded by regulation, statute, or other applicable guidance. For many of the programs listed above which did not have domestic preference requirements prior to BABA, additional implementation details are pending or may be developed after the issuance of these procedures. In addition, EPA notes that more direction will be helpful to inform the determination and definition of domestic content in manufactured goods. Supplemental guidance on these and other issues, from either OMB or EPA, may be forthcoming. These implementation procedures may also apply to additional, unlisted EPA programs which may be required to apply BABA subsequent to publication of this memorandum (e.g., future funding programs which have been authorized, but not yet appropriated).

For more information on the BABA requirements, visit the EPA Office of Water's dedicated website – https://www.epa.gov/cwsrf/build-america-buy-america-baba – or contact your funding authority (such as your grants officer, portfolio manager, or state contact). For information on approved waivers, visit https://www.epa.gov/cwsrf/build-america-buy-america-baba-approved-waivers. You may also email questions to BABA-OW@epa.gov.

This Implementation Procedures document is organized to provide responses to questions in the following topic areas:

QUESTIONS AND ANSWERS

SECTION 1: GENERAL

- Q1.1: Will EPA provide documentation for BABA for bid solicitations and suggested contract language? Will EPA provide suggested language for Assistance Agreements?

    - A1.1: See Appendix 1, which includes suggested language for construction contracts which addresses the BABA requirements. In addition to the language suggested in Appendix 1, EPA also recommends that assistance recipients prepare contract bid solicitation documents with a statement for the consulting engineers and construction firms as follows: "By signing payment application and recommending payment, Contractor certifies they have reviewed documentation for all products and materials submitted for payment, and the certifications are sufficient to demonstrate compliance with Build America, Buy America Act requirements." In most cases, the assistance recipient's representatives assume the responsibility for their clients to conduct due diligence on compliance with applicable domestic preference requirements.

      All Federal Financial infrastructure assistance agreements subject to BABA must have a clause requiring compliance with the requirements. See Appendix 2 for example assistance agreement language.

- Q1.2: Would federally-financed infrastructure projects outside of the United States need to comply with the BABA requirements?

    - A1.2: No. According to the OMB Guidance (M-22-11), a "project" is defined as "…any activity related to the construction, alteration, maintenance, or repair of infrastructure in the United States." Therefore, the BABA requirements are not implicated for infrastructure projects occurring outside of the United States, such as projects funded through the United States-Mexico-Canada Agreement with infrastructure activities occurring in Mexico or Canada (that is, outside the United States).
    -

- Q1.3: If most of the project is BABA compliant, and a small portion is not, can an assistance recipient self-fund (i.e., paying with non-federal dollars) the non-compliant products?

    - A1.3: Any project that is funded in whole or in part with federal assistance must comply with the BABA requirements, unless the requirements are otherwise waived. All iron, steel, manufactured products, and construction materials used in a project must meet the BABA requirements unless waived. Absent a waiver, there is no "small portion" or product that does not need to satisfy the BABA requirements unless the requirements are waived (or specifically excluded as is the case for cement and cementitious materials; aggregates such as stone, sand, or gravel; aggregate binding agents or additives; or non-permanent products). An assistance recipient may request a waiver or inquire as to whether a broad waiver, such as a *de minimis* waiver, might apply.

- Q1.4: How do international trade agreements affect the implementation of the BABA requirements?

    - A1.4: The BABA requirements apply in a manner consistent with United States obligations under international trade agreements. Typically, these obligations only apply to direct procurement by the entities that are signatories to these trade agreements. In general, assistance recipients are not signatories to such agreements, so these trade agreements have no impact on BABA implementation. In the few instances where such an agreement applies to a municipality, that municipality is responsible for determining its applicability and requirements and communicating with the funding authority (such as EPA and/or a state) on the actions taken to comply with BABA.

SECTION 2: PRODUCT COVERAGE

- Q2.1: For products made of iron and steel, what is the difference between predominantly and primarily iron and steel?

    - A2.1: EPA considers the terms "predominantly" and "primarily" to be interchangeable, such that a product is considered predominantly (or primarily) iron and steel if it contains greater than 50 percent iron and steel by material cost.

- Q2.2: What is the definition of construction materials (with examples)?

    - A2.2: From OMB Guidance M-22-11: "construction materials" include an article, material, or supply (other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; aggregate binding agents or additives; or non-permanent products) that is or consists primarily of:
        - non-ferrous metals,
        - plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables), (including optic glass),
        - lumber, and
        - drywall.

      For example, a plate of glass would be a construction material under BABA, but a framed window that incorporates the glass into a frame would be a manufactured product. Another common construction material for water infrastructure projects would be polyvinyl chloride (PVC) pipe and fittings. However, if PVC components are incorporated into a more complex product such as instrumentation and control equipment or a water treatment unit, those items would be manufactured products.

- Q2.3: What are manufactured products (with examples)?

    - A2.3: From OMB Guidance M-22-11: "…all manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of

the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation…"

The manufactured products category would cover the majority of potential water infrastructure products, including complex products made up of a variety of material types and components. For water infrastructure projects, common manufactured products would include, but not be limited to, pumps, motors, blowers, aerators, generators, instrumentation and control systems, gauges, meters, measurement equipment, treatment equipment, dewatering equipment, actuators, and many other mechanical and electrical items.

- Q2.4: Which category will valves fall under for BABA? Will it differ from the American Iron and Steel (AIS) requirements?

    - A2.4: For programs that are subject to BABA and AIS (SRF, WIFIA, and Community Project Funding), projects using valves should classify them as iron and steel products under BABA as long as their material cost is made up of more than 50 percent iron and/or steel. Valves with 50 percent or less iron and/or steel by material cost would be considered manufactured products under the BABA requirements.

      In accordance with OMB Guidance M-22-11, an article, material, or supply should be classified into only one of the three categories: iron and steel, manufactured products, or construction materials. Under the AIS requirements, all valves made primarily of iron and steel (that is, those with iron and/or steel material cost greater than 50 percent) must comply with the AIS requirements. For BABA, EPA interprets Section IV of OMB Guidance M-22-11 to mean that iron and steel products are those items that are primarily iron and steel, the same as for the AIS requirements.

- Q2.5: Does EPA have a list of products to be classified as "Iron and Steel" under BABA?

    - A2.5: Although this list is not comprehensive, the following products were classified as AIS products if made primarily (more than 50 percent) of iron and/or steel by materials cost (for programs subject to both AIS and BABA, this list would be equivalent for "iron and steel" items or products under either requirement):

Products likely made "primarily" of iron and steel to be classified as Iron and Steel under BABA		
Lined and Unlined Pipe	Lined and Unlined Fittings	Tanks
Flanges	Pipe Clamps and Restraints	Structural Steel
Valves	Hydrants	Pre-Cast, Iron/Steel Reinforced Concrete (of all types, regardless of iron/steel content percentage)
Manhole Covers and other Municipal Castings	Access Hatches	Ballast Screens
Iron or Steel Benches	Bollards	Cast Bases
Cast Iron Hinged Hatches	Cast Iron Riser Rings	Catch Basin Inlets

Cleanout/Monument Boxes	Construction Covers and Frames	Curb and Corner Guards

Products likely made “primarily” of iron and steel to be classified as Iron and Steel under BABA		
Curb Boxes	Curb Openings	Curb Stops
Detectable Warning Plates	Downspout Shoes	Drainage Grates
Drainage Grate Frames and Curb Inlets	Inlets	Junction Boxes
Manhole Rings and Frames	Manhole Risers	Meter Boxes
Service Boxes	Steel Hinged Hatches	Steel Riser Rings
Trash Receptacles	Tree Grates	Tree Guards
Trench Grates	Valve Boxes	Valve Box Covers and Risers
Access Ramps	Aeration Pipes and Fittings (separate from aeration/blowers)	Angles
Backflow Preventers/Double Check Valves	Baffle Curtains	Iron or Steel Bar
Bathroom Stalls	Beam Clamps	Cable Hanging Systems
Clarifier Tanks	Coiled Steel	Column Piping
Concrete Reinforcing Bar, Wire, and Fibers	Condensate Sediment Traps	Corrugated Pipe
Couplings	Decking	Digestor Covers
Dome Structures	Door Hardware	Doors
Ductwork	Expansion Joints	Expansion Tanks (diaphragm, surge, and hydropneumatics)
Fasteners	Fencing and Fence Tubing	Fire Escapes
Flanged Pipe	Flap Gates	Framing
Gate Valves	Generic Hanging Brackets	Grating
Ground Testing Boxes	Ground Test Wells	Guardrails
HVAC Registers, Diffusers, and Grilles	Joists	Knife Gates
Ladders	Lifting Hooks, J-bar, Connectors within, and Anchors for Concrete	Lockers
Man Baskets and Material Platforms	Manhole Steps	Mud Valves
Municipal Casting Junctions	Non-mechanical (aka stationary) Louvers and Dampers	Overhead Rolling Doors/ Uplifting Doors (manual open, no motor)
Pipe Connectors	Pipe Hangers	Pipe Pilings (any type of steel piling)
Pipe Spool (pipe, flanges, connectors, etc.)	Pipe Supports	Pitless Adaptors
Pre-fab Steel Buildings/Sheds (simple structure, unfurnished)	Pre-stressed Concrete Cylinder Pipe (PCCP)	Railings
Reduced Pressure Zone (RPZ) Valves	Roofing	Service Saddles
Sheet Piling	Sinks (not part of eyewash systems)	Solenoid Valves
Stairs	Static Mixers	Stationary Screens
Surface Drains	Tapping Sleeves	Telescoping Valves
Tipping Buckets	Trusses	Tubing
Valve Stem Extensions	Valve Stems (excluding handwheels and actuators)	

Wall Panels	Wall Sleeves/Floor Sleeves	Welding Rods
Well Casing	Well Screens	Wire
Wire Cloth	Wire Rod	Wire Rope and Cables

Q2.6: Does EPA have a list of products that could be made "primarily" of iron and steel but would be classified as "manufactured products" under BABA?

A2.6: Although this list is not comprehensive, the following products would be considered "manufactured products" under the BABA requirements, even if the item might be composed primarily of iron and steel by materials cost (Note: These items are not subject to the AIS requirements.):

Products likely made "primarily" of iron and steel to be classified as Manufactured Products under BABA		
Actuator Superstructures/ Support Structures	Aeration Nozzles and Injectors	Aerators
Analytical Instrumentation	Analyzers (e.g., ozone, oxygen)	Automated Water Fill Stations
Blowers/Aeration Equipment	Boilers, Boiler Systems	Chemical Feed Systems (e.g., polymer, coagulant, treatment chemicals)
Chemical Injection Quills	Chemical Injectors	Clarifier Mechanisms/Arms
Compressors	Controls and Switches	Conveyors
Cranes	Desiccant Air Dryer Tanks	Dewatering Equipment
Dewatering Roll-offs	Disinfection Systems	Drives (e.g., variable frequency drives)
Electric/Pneumatic/Manual Accessories Used to Operate Valves (such as electric valve actuators)	Electrical Cabinetry and Housings (such as electrical boxes/enclosures)	Electrical Conduit
Electrical Junction Boxes	Electronic Door Locks	Elevator Systems (hydraulic, etc.,)
Emergency Life Systems (including eyewash stations, emergency safety showers, fire extinguishers, fire suppression systems including sprinklers /piping/valves, first aid, etc.)	Exhaust Fans	Fall Protection Anchor Points
Fiberglass Tank w/Appurtenances	Filters (and appurtenances, including underdrains, backwash systems)	Flocculators
Fluidized Bed Incinerators	Galvanized Anodes/Cathodic Protection	Gear Reducers
Generators	Geothermal Systems	Grinders
Heat Exchangers	HVAC (excluding ductwork)	HVAC Dampers (if appurtenances to aerators/blowers)
HVAC Louvers (mechanical)	Intake and Exhaust Grates (if appurtenances to aerators/blowers)	Instrumentation
Laboratory Equipment	Ladder Fall Prevention Systems	Ladder Safety Posts
Lighting Fixtures	Lightning and Grounding Rods	Mechanical or Actuated Louvers/Dampers
Membrane Bioreactor Systems	Membrane Filtration Systems	Metal Office Furniture (fixed)

Meters (including flow, wholesale, water, and service connection)	Motorized Doors (unit)	Motorized Mixers
Motorized Screens (such as traveling screens)	Motors	Pelton Wheels
Pipeline Flash Reactors (similar to injectors)	Plate Settlers	Precast Concrete without Iron/Steel Reinforcement

Products likely made "primarily" of iron and steel to be classified as Manufactured Products under BABA		
Furnished Pre-fab Buildings (such as furnished with pumps, mechanics inside)	Presses (including belt presses)	Pressure Gauges
Pump Cans/Barrels and Strainers	Pumps	Mechanical Rakes
Safety Climb Cable	Sampling Stations (unless also act as hydrant)	Scrubbers
Sensors	Sequencing Batch Reactors (SBR)	Steel Shelving (fixed)
Slide and Sluice Gates	Spray Header Units	Steel Cabinets (fixed interior/furniture)
Supervisory Control and Data Acquisition (SCADA) Systems	Tracer Wire	Valve Manual Gears, Actuators, Handles
Voltage Transformer	Water Electrostatic Precipitators (WESP)	Water Heaters
Weir Gates		

- Q2.7: Is asphalt paving a covered product under BABA?

    - A2.7: No. EPA interprets Section 70917(c) of the IIJA to exclude asphalt from BABA requirements. Asphalt paving is a type of concrete composed of an aggregate material mixed with a binder (bitumen). EPA considers asphalt concrete to be excluded by section 70917(c) due to its similarities with cement and cementitious materials.

SECTION 3: CO-FUNDING

- Q3.1: If projects are co-funded with funding mechanisms that don't require BABA, must the entire project comply with BABA?

    - A3.1: Yes. Any project that is funded in whole or in part with federal assistance must comply with the BABA requirements, unless the requirements are otherwise waived. A "project" consists of all construction necessary to complete the building or work regardless of the number of contracts or assistance agreements involved so long as all the contracts and assistance agreements awarded are closely related in purpose, time, and place. This precludes the intentional splitting of projects into separate and smaller contracts or assistance agreements to avoid BABA's applicability on some portions of a larger project, particularly where the activities are integrally and proximately related to the whole. However, there are many situations in which major construction activities are clearly undertaken in separate phases that are distinct in purpose, time, or place, in which case, separate contracts or assistance agreements would carry separate requirements.

- Q3.2: How will project requirements be determined for co-funded projects subject to potentially different general applicability/programmatic waiver conditions (such as different adjustment period waivers)?

    - A3.2: OMB Guidance M-22-11 addresses cases with project co-funding from separate programs. EPA would apply the guidance's "cognizant" program determination to projects that are co-funded with different general applicability/programmatic waivers. For instance, if a project were co-funded between WIFIA and SRF and the majority of the Federal funding for the project is from WIFIA, then WIFIA would be the "cognizant" program for application and determination of waivers. In that case, any conditions from an applicable WIFIA waiver would apply.

SECTION 4: WAIVERS

- Q4.1: Who may apply for a waiver and how do you apply?

    - A4.1: Assistance recipients and their authorized representatives may apply for a project-specific waiver. EPA does not accept waiver requests from suppliers, distributors, or manufacturers unless the assistance recipient endorses and submits the request on its own behalf to the funding authority. In the case where multiple programs are providing federal funds to the project, the assistance recipient should submit the waiver request to the cognizant program, the one providing the greatest amount of federal funds for the project. For information on applying for cost waivers, see questions 4.4 and 4.5. For information on the SRF program roles and responsibilities, see question 7.6.

      Project-specific waiver requests should generally include: (1) a brief summary of the project, (2) a description and explanation of the need for the waiver for the product(s) in question, (3) a brief summary of the due diligence conducted in search of domestic alternatives (which could include correspondence between assistance recipient and supplier/distributors), (4) the quantity and materials of the product(s) in question, (5) all engineering specifications and project design considerations relevant to the product(s) in question, (6) the approximate unit cost of items (both foreign and domestic) in addition to an estimated cost of the materials and overall project, (7) the date any products will be needed on site in order to avoid significant project schedule disruptions, and (8) any other pertinent information relevant to EPA's consideration of the waiver (e.g., if relevant for SRF projects: whether the project is designated as an equivalency project, the date the plans and specifications were submitted to the state, the date of construction initiation, expected date of project completion, any special considerations such as local zoning and building ordinances, seismic requirements, or noise or odor control requirements).

      In the case of indirect federal assistance, such as the SRF programs, the state authority reviews and conveys the waiver request to EPA. States should submit waiver requests to the appropriate program waiver request inbox. For SRF projects, please use CWSRFWaiver@epa.gov or DWSRFWaiver@epa.gov.

- Q4.2: Can an assistance recipient request a waiver based on a specification written for a specific brand or model of product (that is, a specification that names a branded item or model)?

    - A4.2: In most cases, performance-based specifications are expected and required for the majority of infrastructure projects funded by EPA's financial assistance programs. In rare cases where "branded" or product-specific sourcing may be included in project specifications, it is suggested that the specifications include the item in question (that is, not simply a catalog page, but also materials of construction, sizing, quantities, and applicable engineering performance design characteristics for the project, etc.) in addition to the standard phrase "or equal." For the purposes of product alternative market research, EPA will evaluate the BABA requirements based on performance-based engineering specifications for the product(s) in question. If the project specifications do not include performance-based specifications, or at least an "or equal" designation, EPA will base its research on an "or equal" designation using best professional judgment to the extent practicable.

- Q4.3: If a manufactured product is not readily available domestically, will EPA provide short-term "limited availability" product waivers?

    - A4.3: EPA will address the unavailability of domestic products through the waiver process, including potential national short-term waivers for specific products, if appropriate. To the extent practicable and with the intent to maximize domestic market and supply chain development, EPA intends to address issues of broad product unavailability with targeted, time-limited, and conditional waivers, as prescribed in OMB Guidance M-22-11. EPA will follow its robust and thorough product research processes (those put into place for the AIS requirements for the SRF and WIFIA programs and expanded for the new BABA requirements) to identify and determine those products for which proposed national/general applicability waivers may be appropriate.

- Q4.4: What information is needed when applying for a cost waiver under BABA?

    - A4.4: As part of the cost waiver request, the assistance recipient must demonstrate that implementation of the BABA requirements will increase the overall project cost more than 25 percent. Depending on the circumstances of the overall project cost increases, documentation to justify the cost waiver can vary but may include itemized cost estimates or bid tabulations comparing project costs with and without BABA implementation. Assistance recipients should begin assessing the potential cost impacts of the BABA requirements during the design phase of a project.

- Q4.5: Can administrative costs associated with tracking and verification of certifications be considered when determining if the cost of a project increases by 25 percent or more?

    - A4.5: Yes. Section 70914(b)(3) of the IIJA states that a waiver may be provided if the overall

cost of the project increases by more than 25 percent due to the "inclusion of iron, steel, manufactured products, or construction materials produced in the United States." EPA interprets this to mean that the "inclusion" of the BABA-covered products could encompass reasonable administrative costs associated with complying with the BABA requirements, such as staff, contractor, and technological resources to collect and track BABA compliance documentation.

- Q4.6: How can assistance recipients and construction contractors address product delivery delays?
    - A4.6: Assistance recipients should reasonably plan for material procurement to account for known potential supply chain issues or extended lead times and shall notify the funding authority well in advance of the issues so that prompt attention can be given to explore options. Where extended lead times for compliant products are impacting project schedules and may significantly impact construction progress, timely communication with the funding agency is important. For products that are unavailable within a reasonable timeframe to meet the objectives and schedule of a project, EPA may consider a non-availability waiver with adequate justification. An assistance recipient would need to apply for the waiver and contact its funding authority (such as EPA and/or a state) to initiate the waiver process.

SECTION 5: DOCUMENTING COMPLIANCE

- Q5.1: Who will be responsible for BABA enforcement?
    - A5.1: Responsibility for BABA implementation applies at all levels, from manufacturers to suppliers and distributors, construction contractors, assistance recipients, and funding authorities.

      The manufacturers have responsibility to provide adequate and accurate documentation of the products manufactured. If suppliers and distributors are involved, they are responsible for passing along compliance documentation for products supplied to projects that are subject to the BABA requirements.

      The assistance recipient and their representatives are primarily responsible for ensuring the documentation collected for products used on the project is sufficient to document compliance with the BABA requirements.

      The funding authority is responsible for providing oversight and guidance as needed to ensure the proper implementation of the requirements. The Uniform Grants Guidance (UGG) (Title 2 of the Code of Federal Regulations (CFR) Part 200) applies to many Federal financial assistance agreements that will include BABA requirements. The general provisions of 2 CFR Part 200 determine the responsible party for the grant funding authority.

      For information on SRF program roles and responsibilities, see question 7.6.At all levels, where fraud, waste, abuse, or any violation of the law is suspected, the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-888- 546-8740

or OIG_Hotline@epa.gov. More information can be found at this website: http://www.epa.gov/oig/hotline.htm.

- Q5.2: When will the BABA requirements be assessed for compliance? Do assistance recipients need to have waivers for potential non-domestic products before assistance agreements are in place, at the time products are procured or products are incorporated into the project (i.e., used)?
    - A5.2: Compliance is assessed where the domestic product is used (or installed) at the project site. Proper compliance documentation, whether it is a BABA certification letter or a waiver, should accompany a product prior to its "use", in accordance with Section 70914(a) of IIJA. This may occur prior to assistance agreements being in place but is not necessary. Additionally, communication of BABA requirements through appropriate Terms and Conditions in financial assistance agreements and in project solicitation and contract documents is key in ensuring all parties involved are informed of the requirements for the project before construction is underway.

- Q5.3: How can product compliance with the BABA requirements be demonstrated?
    - A5.3: Assistance recipients and their representatives should ensure that the products delivered to the construction site are accompanied by proper documentation that demonstrate compliance with the law and be made available to the funding authority upon request. The documentation may be received and maintained in hard copy, electronically, or could be embedded in construction management software. The use of a signed certification letter for the project is the most direct and effective form of compliance documentation for ensuring products used on site are BABA-compliant prior to their installation; however, other forms of documentation are also acceptable as long as collectively, the following can be demonstrated:

        (1) Documentation linked to the project. For example, this can be in the form of the project name, project location, contract number, or project number.
        (2) Documentation linked to the product used on the project. For example, description of product(s) (simple explanation sufficient to identify the product(s)), or an attached (or electronic link to) purchase order, invoice, or bill of lading.
        (3) Documentation includes statement attesting that the products supplied to the assistance recipient are compliant with BABA requirement. Reference to the Infrastructure Investment and Jobs Act ("IIJA") or the Bipartisan Infrastructure Law (BIL) are also acceptable. For iron and steel items under BABA, references to the American Iron and Steel (AIS) requirements are also acceptable and reciprocal with BABA for such items.
        (4) Documentation that manufacturing occurred in the United States, which could include, for example, the location(s) of manufacturing for each manufacturing step that is being certified. It is acceptable for manufactured products to note a single point of manufacturing, documenting that the final point of manufacturing is in the United States. Note that each BABA category may require different determinations for

compliance.

(5) Signature of company representative (on company letterhead and signature can be electronic). The signatory of the certifying statement affirms their knowledge of the manufacturing processes for the referenced product(s) and attests that the product meets the BABA requirements.

In addition to compliance documentation, assistance recipients or their representatives should also conduct a visual inspection of the product when it arrives to the project site, especially for iron and steel products which are often stamped with the country of origin. (Note: A country of origin stamp alone is not sufficient verification of compliance with BABA and assistance receipts should not rely on it to ensure compliance.)

EPA may develop alternative procedures for demonstrating compliance. Additional project- or program-specific instructions may be developed on a case-by-case basis in order to meet individual circumstances.

- Q5.4: Will EPA provide a form or template for tracking and documenting compliance?

- A5.4: EPA does not require a specified format for tracking or documenting compliance. Assistance recipients are free to develop any system (from simple to complex software) for tracking items used on the project and the accompanying compliance documentation (e.g., certification letters, applicable waivers, if it helps with implementation and compliance. Elements that may help with keeping track of compliance may include: product description, quantity required/used, product category (i.e., iron and steel, manufactured product, or construction material), status of obtaining certification letter, product cost, and whether the item might qualify as *de minimis*, or qualify under another applicable waiver.

- Q5.5: If a manufacturer claims to comply with the Buy American Act, does it also comply with BABA?

    - A5.5: No. With the exception of the AIS requirements – which EPA interprets to be equivalent to the "iron and steel" requirements under BABA – EPA does not have an interpretation about the comparability of other domestic preference requirements relative to BABA. Any products that are to be certified as compliant with BABA should include a specific reference to the BABA requirements and appropriate attestation from a responsible manufacturing company official. See Question 5.3 for EPA's recommendations for BABA certification letters.

- Q5.6: How will assistance recipients manage certification letters for hundreds, possibly thousands of products?

    A5.6: EPA recognizes that the new BABA requirements will cover most products used in typical water and wastewater infrastructure projects, and that the number of items which may require certification at large and/or complex projects may reach several hundred. EPA is concerned about the potential administrative burden that this would place on assistance recipients. EPA recommends that projects with a high number of potentially covered

products meet with their funding authority about potential compliance strategies to minimize burden and streamline compliance activity. Assistance recipients should prepare contract bid solicitation documents with a statement for the consulting engineers and construction firms as follows: "By signing payment application and recommending payment, Contractor certifies they have reviewed documentation for all products and materials submitted for payment, and the documentation is sufficient to demonstrate compliance with Build America, Buy America Act requirements." In most cases, the assistance recipient's representatives may assume the responsibility for their clients to conduct due diligence on compliance with applicable domestic preference requirements.

- Q5.7: Who is responsible for documenting the 55 percent content requirement for manufactured products under BABA? What if the final manufacturer cannot trace or verify domestic origin for all components?

    - A5.7: The manufacturer who signs a certification letter is responsible for documenting compliance with any of the three categories of products (iron and steel, manufactured products, or construction materials). For manufactured products, BABA requires that greater than 55 percent of the total cost of all components of the manufactured product be from domestic sources. EPA recommends that the certification letter for manufactured products document whether the item passes the content test in the final product along with a statement attesting to compliance with the BABA requirements for manufactured products.

- Q5.8: How do final product fabricators document compliance when the final step of manufacturing may be simply assembling components?

    - A5.8: It is acceptable, in many cases, especially for highly complex manufactured products that utilize many sub-components, for the final point of assembly to certify without using a "step certification" process. Multiple certifications (i.e., step certifications) or a singular certification can be used for a product, as long as the certifying official is willing to attest to the product's compliance with BABA requirements at all stages of manufacturing.

- Q5.9: Will Material Test Reports be acceptable in lieu of a BABA certification for iron and steel?

    - A5.9: Material Test Reports (MTRs, commonly referred to as "Mill Certifications" or "Mill Certs") provide the chemical composition of steel and iron from a mill or foundry. If an MTR accompanies the delivery of steel or iron to a project site with an invoice or bill of lading, EPA will consider it sufficient to demonstrate compliance (equivalent to a certification letter) as long as the MTR includes a manufacturer representative's signature in addition to the location (city and state) of the mill/foundry. It is common for MTRs to be the first letter in a "step certification" if the product is further fabricated or painted, etc., by another manufacturer.

- Q5.10: Can a manufacturer use a fillable certification letter for products?

- A5.10: EPA recommends that certifications be signed by representatives of the manufacturing entity. EPA does not oppose manufacturers using forms to internally develop letters within their company, thereby providing signed, non-manipulable certification letters to suppliers, distributors, and/or assistance recipients. A fillable form that can be changed by someone outside of the manufacturer after signature does not demonstrate compliance and may create compliance concerns for the manufacturer or assistance recipient.

- Q5.11: Are product certifications from suppliers and distributors allowed?
    - A5.11: EPA recommends that representatives of product manufacturers certify compliance and discourages suppliers and distributors from creating certification letters. EPA does not rule out the possibility that a third-party certification process, such as a certification by a distributor, may be viable. However, EPA is currently not aware of a system or proposed system that meets the EPA's recommendations for documentation of product certification.

- Q5.12: How long should assistance recipients keep compliance documentation?
    - A5.12: Assistance recipients should apply recordkeeping requirements for the project according to the procedures dictated by the funding authority. For most EPA grant programs, this is prescribed in the UGG at 2 CFR 200.334-200.338; e.g., the SRF programs require a minimum of three years. Other funding programs may require longer documentation retention periods.

SECTION 6: PROGRAMS WITH AMERICAN IRON AND STEEL REQUIREMENTS

- Q6.1: Does BABA supersede the American Iron and Steel (AIS) Requirements?
    - A6.1: The BABA requirements for items considered "iron and steel" are equivalent to those for covered iron and steel products under the AIS requirements in the Clean Water Act and the Safe Drinking Water Act. These requirements apply to the CWSRF, DWSRF, WIFIA, and Water infrastructure Community Grants. BABA includes a "Savings Provision" (Section 70917(b)) that states that BABA does not affect existing domestic content procurement preferences for infrastructure projects funded by Federal financial assistance programs that meet the requirements of section 70914. EPA views the AIS requirements as meeting the "iron and steel" product requirements of BABA Section 70914, as they both include the key requirement that items made of iron and steel be wholly manufactured in the United States from the point of melting and/or pouring the iron or steel components through final manufacturing step. Because of the "Savings Provision" of Section 70917, the AIS requirements satisfy the "iron and steel" requirements of BABA. For the programs that have AIS requirements, EPA intends to implement BABA requirements the same way for iron and steel items as it has done for AIS products.

- Q6.2: For iron and steel products, does a manufacturer need to demonstrate compliance from initial melting through the finished product?

    - A6.2: For iron and steel products, the BABA requirements are the same as the existing AIS requirements, in that all of the iron and steel in a covered product (that is, the product is comprised of more than 50 percent iron and steel by material cost) must be melted and poured in the United States and all subsequent manufacturing processes (such as grinding, rolling, bending, reheating, and casting) must occur in the United States.

Q6.3: Will EPA apply the same manufacturing standards for BABA iron and steel products as for the American Iron and Steel (AIS) requirements?

    - A6.3: Yes. For AIS, EPA did not require raw materials used in the production of steel or iron to be domestically sourced. For BABA, EPA interprets the requirements to be the same. Hence, like AIS, raw materials in the production of iron and steel subject to BABA requirements would not need to be domestically sourced. The key step for both AIS and BABA domestic iron and/or steel production is the melting/pouring (that is, the location of the furnace), which must be in the United States.

- Q6.4: Will the certification process be similar to the process established for the American Iron and Steel requirements?

    - A6.4: EPA expects the certification process for the BABA requirements to be very similar to that established for the AIS requirements. For iron and steel products, the process should remain the same for AIS and BABA. EPA recommends for manufactured products and for construction materials that certification letters include direct reference to the product/material content requirements under BABA, in addition to an affirmative statement verifying that the product meets the BABA requirements.

- Q6.5: Will duplicate certification letters be required for AIS and BABA for iron/steel products?

    - A6.5: No. Compliance with BABA requirements will be sufficient to demonstrate compliance with AIS requirements for iron and steel products. If a project is subject to BABA, the only demonstration of compliance necessary is with the BABA requirements, of which the iron and steel requirements are equivalent to those of the AIS statutory requirements: the iron or steel in a product made primarily or predominantly of iron and steel (comprising more than 50 percent iron and steel by material cost) must be melted and/or poured in the United States and all subsequent manufacturing processes must occur in the United States.

SECTION 7: PROGRAM-SPECIFIC ISSUES

- Q7.1.: How do the BABA requirements apply to Community Grants?

    - A7.1: The Community Project Funding/Congressionally Directed Spending grants for the construction of drinking water, wastewater, and stormwater infrastructure and for water

quality protection are subject to the requirements specified in the explanatory statement accompanying the Consolidated Appropriations Act (Explanatory Statement for Division G of P.L. 117-13, the Consolidated Appropriations Act of 2022). The explanatory statement asserts: "Applicable Federal requirements that would apply to a Clean Water State Revolving Fund or Drinking Water State Revolving Fund project grant recipient shall apply to a grantee receiving a CPF grant under this section." Therefore, the federally funded Community Project Funding/Congressionally Directed Spending grants are subject to the same requirements that apply to CWSRF or DWSRF projects, including BABA and AIS requirements. See also A1.2.

- Q7.2: Should SRF projects covered by the BABA SRF Projects Design Planning Adjustment Period Waiver follow the same procedures for demonstrating compliance as outlined for American Iron and Steel requirements?

    - A7.2: Yes. The SRF Design Planning Adjustment Period waiver does not waive the iron and steel requirements under BABA. The SRF programs have existing domestic preference requirements for SRF projects under CWA Section 608 and SDWA Section 1452(a)(4) (AIS requirements) to use iron and steel products that are produced in the United States. Sections 70917(a) and (b) of BIL explain the application of BABA to existing domestic preference requirements. Specifically, the savings provision in Section 70917 (b) states that existing domestic preference requirements that meet BABA requirements are not affected by BABA. The statutory AIS requirements were existing at the time BABA became law and satisfy the BABA iron and steel requirements. Therefore, the statutory AIS requirements that have previously applied to SRF-funded projects will continue to do so, and compliance with AIS requirements will satisfy the BABA iron and steel requirements. Demonstration of compliance for iron and steel products will follow the AIS implementation policies for projects subject to the waiver.

- Q7.3: For SRF programs, is BABA considered a federal cross-cutting authority? (i.e., do "equivalency" rules apply?)

    - A7.3: Yes, BABA is considered a federal cross-cutting requirement that applies to SRF assistance equivalent to the federal capitalization grant (i.e., "equivalency" projects). EPA's SRF regulations at 40 CFR 35.3145 and 35.3575 require states and recipients of SRF funds equivalent to the amount of the federal capitalization grant to comply with federal cross-cutting requirements. Section 70914 of the IIJA, which states when a Buy America preference applies, explains that "none of the funds made available for a Federal financial assistance program for infrastructure…may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States." Therefore, BABA only applies to projects funded in an amount equivalent to the federal capitalization grant and not to those projects receiving funds in excess of the capitalization grant (i.e., "non-equivalency" projects). (Note: The AIS requirements continue to apply for all SRF projects, including non-equivalency projects, and all WIFIA and Community Grant projects, because equivalency does not apply.)

- Q7.4: Do the BABA requirements apply to Drinking Water State Revolving Fund set-asides?

    - A7.4: Due to requirements related to the deposit of funds in the DWSRF program, almost all of the funds used to conduct set-aside activities are Federal dollars. Therefore, Federal cross- cutting requirements must be applied to all set-aside activities. However, in the case of most set-aside activities, the cross-cutting requirements will not be implicated because of the nature of the activities conducted under the set-asides. Because the BABA requirements only apply to infrastructure, and infrastructure typically is not an eligible set-aside expenditure (with one potential exception being loans for incentive-based source water protection measures under the Local Assistance and Other State Programs Set-Aside), the BABA requirements will not apply to most set-aside activities.

- Q7.5: What if an SRF project is refinanced using Federal financial assistance on or after May 14, 2022?

    - A7.5: If an SRF project began construction, financed from another funding source, prior to May 14, 2022, but is refinanced through an assistance agreement executed on or after that date, BABA requirements will apply to all construction that occurs on or after May 14, 2022, through completion of construction, unless a waiver applies. There is no retroactive application of the BABA requirements where a refinancing occurs for an SRF project that has completed construction prior to May 14, 2022. (Note: If SRF funding is used for the refinancing, the AIS requirements may still apply depending on the timing of construction.)

- Q7.6: What are the roles and responsibilities for SRF programs for BABA implementation?

    - A7.6: Implementation of the BABA requirements for the State Revolving Fund programs will continue the roles and responsibilities from the successful AIS implementation process.

      As with AIS, it is both the assistance recipient's and the state's responsibility to ensure compliance with the BABA requirements. The state is the recipient of a federal capitalization grant and must comply with all grant conditions, including a condition requiring adherence to BABA requirements.

      Consequently, states are strongly advised to conduct site visits of projects during construction and review documentation demonstrating the assistance recipient's proof of compliance. In EPA's experience, most states conduct periodic site visits and arrange timely meetings with funded projects. Observed best practices typically include a meeting early in the process (sometimes before bid and usually prior to commencing construction) and at least one project site visit during the construction process. Assistance recipients must maintain documentation of compliance with the BABA requirements, as explained in question 5.3. The documents must be kept by the assistance recipient and should be reviewed by the state during project reviews.

      The state's role in the waiver process is to review any waiver requests submitted to the state to ensure that all necessary information has been provided by the assistance recipient prior to forwarding the request to EPA. If a state finds the request lacking, the state should work with

the assistance recipient to help obtain complete information. Question 4.1 explains the information needed by EPA to expediently review a waiver request.

In order to implement the BABA requirements, EPA has developed an approach for effective and efficient implementation of the waiver process to allow projects to proceed in a timely manner. The framework described below will allow states, on behalf of the assistance recipients, to apply for waivers of the BABA requirements directly to EPA Headquarters. Only waiver requests received and/or endorsed from states will be considered. Pursuant to BABA, EPA has the responsibility to make findings as to the issuance of waivers to the BABA requirements.

Step-by-step SRF Waiver Process

The waiver process begins with the assistance recipient. To fulfill the BABA requirements, the assistance recipient must in good faith design the project (where applicable) and solicit bids for construction with American-made iron and steel, manufactured goods, and construction materials. It is essential that the assistance recipient include the BABA terms in any request for proposals or solicitations for bids, and in all contracts (see Appendix 2 for sample construction contract language). The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three statutory conditions is demonstrated to EPA and approved.

To apply for a project-specific waiver, the assistance recipient should email the request in the form of a Word document (.doc) or editable PDF (.pdf) to the funding program. It is strongly recommended that each state identify a person or persons for BABA communications. The state designee(s) will review the application for the waiver and determine whether the necessary information has been included (Note: More information may be provided in the future regarding what information is required to be included in waiver requests). Once the waiver application is complete, the designee (State) will forward the application to the EPA for review.

Evaluation by EPA

After receiving an application for waiver of the BABA requirements and ensuring sufficient information was provided, EPA will publish the request on its website for 15 days and receive public comment. EPA will then determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver.

In the event that EPA finds that adequate documentation and justification has been submitted, the Administrator may grant a waiver to the assistance recipient. EPA will notify the state designee whether a waiver request has been approved or not approved as soon as such a decision has been made. Granting such a waiver is a four-step process:

1. Research – After receiving an application for a waiver, EPA will perform market research to determine whether the iron, steel, manufactured goods, or construction materials are available domestically.

2. Posting – After research, if no domestic product has been identified, EPA is required to

publish the application and all material submitted with the application on EPA's website for 15 days. During that period, the public will have the opportunity to review the request and provide informal comment to EPA. The website can be found at: https://www.epa.gov/cwsrf/build-america-buy-america-baba-waivers-open-public-comment.

3. Evaluation – After receiving an application for waiver of the BABA requirements, EPA will determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver to determine whether or not to grant the waiver.

4. Signature of waiver approval by the Administrator or another agency official with delegated authority – As soon as the waiver is signed and dated, EPA will notify the State SRF program and post the signed waiver on the Agency's website. The assistance recipient should keep a copy of the signed waiver in its project files.

(Note: Additional steps may be required in the future regarding the waiver process depending on additional guidance from OBM) APPENDIX 1

AMERICAN IRON AND STEEL ACKNOWLEDGEMENT

The Contractor acknowledges to and for the benefit of the City of _____ ("Purchaser") and the State of Ohio (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

_____ _____

Signature Date

_____

Name and Title of Authorized Signatory, Please Print or Type

_____

Bidder's Firm

☐ Check here if the WPCLF or WSRLA applicant will be requesting an individual waiver for non-American made iron and steel products. Please note that the waiver box does not need to be marked for nationwide waivers.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 20 2014

OFFICE OF WATER

MEMORANDUM

SUBJECT: Implementation of American Iron and Steel provisions of P.L. 113-76, Consolidated Appropriations Act, 2014

FROM: Andrew D. Sawyers, Director
Office of Wastewater Management (4201M)

Peter C. Grevatt, Director
Office of Ground Water and Drinking Water (4601M)

TO: Water Management Division Directors
Regions I - X

P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), includes an "American Iron and Steel (AIS)" requirement in section 436 that requires Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) assistance recipients to use iron and steel products that are produced in the United States for projects for the construction, alteration, maintenance, or repair of a public water system or treatment works if the project is funded through an assistance agreement executed beginning January 17, 2014 (enactment of the Act), through the end of Federal Fiscal Year 2014.

Section 436 also sets forth certain circumstances under which EPA may waive the AIS requirement. Furthermore, the Act specifically exempts projects where engineering plans and specifications were approved by a State agency prior to January 17, 2014.

The approach described below explains how EPA will implement the AIS requirement. The first section is in the form of questions and answers that address the types of projects that must comply with the AIS requirement, the types of products covered by the AIS requirement, and compliance. The second section is a step-by-step process for requesting waivers and the circumstances under which waivers may be granted.

Implementation

The Act states:

Sec. 436. (a)(1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States.

(2) In this section, the term ''iron and steel products'' means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(b) Subsection (a) shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency (in this section referred to as the ''Administrator'') finds that—

(1) applying subsection (a) would be inconsistent with the public interest;

(2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

(c) If the Administrator receives a request for a waiver under this section, the Administrator shall make available to the public on an informal basis a copy of the request and information available to the Administrator concerning the request, and shall allow for informal public input on the request for at least 15 days prior to making a finding based on the request. The Administrator shall make the request and accompanying information available by electronic means, including on the official public Internet Web site of the Environmental Protection Agency.

(d) This section shall be applied in a manner consistent with United States obligations under international agreements.

(e) The Administrator may retain up to 0.25 percent of the funds appropriated in this Act for the Clean and Drinking Water State Revolving Funds for carrying out

the provisions described in subsection (a)(1) for management and oversight of the requirements of this section.

(f) This section does not apply with respect to a project if a State agency approves the engineering plans and specifications for the project, in that agency's capacity to approve such plans and specifications prior to a project requesting bids, prior to the date of the enactment of this Act.

The following questions and answers provide guidance for implementing and complying with the AIS requirements:

Project Coverage

1) What classes of projects are covered by the AIS requirement?

All treatment works projects funded by a CWSRF assistance agreement, and all public water system projects funded by a DWSRF assistance agreement, from the date of enactment through the end of Federal Fiscal Year 2014, are covered. The AIS requirements apply to the entirety of the project, no matter when construction begins or ends. Additionally, the AIS requirements apply to all parts of the project, no matter the source of funding.

2) Does the AIS requirement apply to nonpoint source projects or national estuary projects?

No. Congress did not include an AIS requirement for nonpoint source and national estuary projects unless the project can also be classified as a 'treatment works' as defined by section 212 of the Clean Water Act.

3) Are any projects for the construction, alteration, maintenance, or repair of a public water system or treatment works excluded from the AIS requirement?

Any project, whether a treatment works project or a public water system project, for which engineering plans and specifications were approved by the responsible state agency prior to January 17, 2014, is excluded from the AIS requirements.

4) What if the project does not have approved engineering plans and specifications but has signed an assistance agreement with a CWSRF or DWSRF program prior to January 17, 2014?

The AIS requirements do not apply to any project for which an assistance agreement was signed prior to January 17, 2014.

5) What if the project does not have approved engineering plans and specifications, but bids were advertised prior to January 17, 2014 and an assistance agreement was signed after January 17, 2014?

If the project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the approval date for purposes of the exemption in section 436(f).

6) What if the assistance agreement that was signed prior to January 17, 2014, only funded a part of the overall project, where the remainder of the project will be funded later with another SRF loan?

If the original assistance agreement funded any construction of the project, the date of the original assistance agreement counts for purposes of the exemption. If the original assistance agreement was only for planning and design, the date of that assistance agreement will count for purposes of the exemption only if there is a written commitment or expectation on the part of the assistance recipient to fund the remainder of the project with SRF funds.

7) What if the assistance agreement that was signed prior to January 17, 2014, funded the first phase of a multi-phase project, where the remaining phases will be funded by SRF assistance in the future?

In such a case, the phases of the project will be considered a single project if all construction necessary to complete the building or work, regardless of the number of contracts or assistance agreements involved, are closely related in purpose, time and place. However, there are many situations in which major construction activities are clearly undertaken in phases that are distinct in purpose, time, or place. In the case of distinct phases, projects with engineering plans and specifications approval or assistance agreements signed prior to January 17, 2014 would be excluded from AIS requirements while those approved/signed on January 17, 2014, or later would be covered by the AIS requirements.

8) What if a project has split funding from a non-SRF source?

Many States intend to fund projects with "split" funding, from the SRF program and from State or other programs. Based on the Act language in section 436, which requires that American iron and steel products be used in any project for the construction, alteration, maintenance, or repair of a public water system or treatment works receiving SRF funding between and including January 17, 2014 and September 30, 2014, any project that is funded in whole or in part with such funds must comply with the AIS requirement. A "project" consists of all construction necessary to complete the building or work regardless of the number of contracts or assistance agreements involved so long as all contracts and assistance agreements awarded are closely related in purpose, time and place. This precludes the intentional splitting of SRF projects into separate and smaller contracts or assistance agreements to avoid AIS coverage on some portion of a larger project, particularly where the activities are integrally and proximately related to the whole. However, there are many situations in which major construction activities are clearly undertaken in separate phases that are distinct in purpose, time, or place, in which

case, separate contracts or assistance agreement for SRF and State or other funding would carry separate requirements.

9) What about refinancing?

If a project began construction, financed from a non-SRF source, prior to January 17, 2014, but is refinanced through an SRF assistance agreement executed on or after January 17, 2014 and prior to October 1, 2014, AIS requirements will apply to all construction that occurs on or after January 17, 2014, through completion of construction, unless, as is likely, engineering plans and specifications were approved by a responsible state agency prior to January 17, 2014. There is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to January 17, 2014.

10) Do the AIS requirements apply to any other EPA programs, besides the SRF program, such as the Tribal Set-aside grants or grants to the Territories and DC?

No, the AIS requirement only applies to funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12)

Covered Iron and Steel Products

11) What is an iron or steel product?

For purposes of the CWSRF and DWSRF projects that must comply with the AIS requirement, an iron or steel product is one of the following made primarily of iron or steel that is permanently incorporated into the public water system or treatment works:

Lined or unlined pipes or fittings;
Manhole Covers;
Municipal Castings (defined in more detail below);
Hydrants;
Tanks;
Flanges;
Pipe clamps and restraints;
Valves;
Structural steel (defined in more detail below);
Reinforced precast concrete; and
Construction materials (defined in more detail below).

12) What does the term 'primarily iron or steel' mean?

'Primarily iron or steel' places constraints on the list of products above. For one of the listed products to be considered subject to the AIS requirements, it must be made of greater than 50% iron or steel, measured by cost. The cost should be based on the material costs.

13) Can you provide an example of how to perform a cost determination?

For example, the iron portion of a fire hydrant would likely be the bonnet, body and shoe, and the cost then would include the pouring and casting to create those components. The other material costs would include non-iron and steel internal workings of the fire hydrant (i.e., stem, coupling, valve, seals, etc). However, the assembly of the internal workings into the hydrant body would not be included in this cost calculation. If one of the listed products is not made primarily of iron or steel, United States (US) provenance is not required. An exception to this definition is reinforced precast concrete, which is addressed in a later question.

14) If a product is composed of more than 50% iron or steel, but is not listed in the above list of items, must the item be produced in the US? Alternatively, must the iron or steel in such a product be produced in the US?

The answer to both question is no. Only items on the above list must be produced in the US. Additionally, the iron or steel in a non-listed item can be sourced from outside the US.

15) What is the definition of steel?

Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of steel covers carbon steel, alloy steel, stainless steel, tool steel and other specialty steels.

16) What does 'produced in the United States' mean?

Production in the United States of the iron or steel products used in the project requires that all manufacturing processes, including application of coatings, must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives. All manufacturing processes includes processes such as melting, refining, forming, rolling, drawing, finishing, fabricating and coating. Further, if a domestic iron and steel product is taken out of the US for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the material(s), if any, being applied as a coating are similarly not covered. Non-iron or steel components of an iron and steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-iron and steel components

do not have to be of domestic origin.

17) Are the raw materials used in the production of iron or steel required to come from US sources?

No. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-US sources.

18) If an above listed item is primarily made of iron or steel, but is only at the construction site temporarily, must such an item be produced in the US?

No. Only the above listed products made primarily of iron or steel, permanently incorporated into the project must be produced in the US. For example trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. Iron or Steel.

19) What is the definition of 'municipal castings'?

Municipal castings are cast iron or steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and surface infrastructure. They are typically made of grey or ductile iron, or steel. Examples of municipal castings are:

Access Hatches;
Ballast Screen;
Benches (Iron or Steel);
Bollards;
Cast Bases;
Cast Iron Hinged Hatches, Square and Rectangular;
Cast Iron Riser Rings;
Catch Basin Inlet;
Cleanout/Monument Boxes;
Construction Covers and Frames;
Curb and Corner Guards;
Curb Openings;
Detectable Warning Plates;
Downspout Shoes (Boot, Inlet);
Drainage Grates, Frames and Curb Inlets;
Inlets;
Junction Boxes;
Lampposts;
Manhole Covers, Rings and Frames, Risers;

Meter Boxes;
Service Boxes;
Steel Hinged Hatches, Square and Rectangular;
Steel Riser Rings;
Trash receptacles;
Tree Grates;
Tree Guards;
Trench Grates; and
Valve Boxes, Covers and Risers.

20) What is 'structural steel'?

Structural steel is rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees and zees. Other shapes include H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

21) What is a 'construction material' for purposes of the AIS requirement?

Construction materials are those articles, materials, or supplies made primarily of iron and steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered "structural steel". This includes, but is not limited to, the following products: wire rod, bar, angles, concrete reinforcing bar, wire, wire cloth, wire rope and cables, tubing, framing, joists, trusses, fasteners (i.e., nuts and bolts), welding rods, decking, grating, railings, stairs, access ramps, fire escapes, ladders, wall panels, dome structures, roofing, ductwork, surface drains, cable hanging systems, manhole steps, fencing and fence tubing, guardrails, doors, and stationary screens.

22) What is not considered a 'construction material' for purposes of the AIS requirement?

Mechanical and electrical components, equipment and systems are not considered construction materials. Mechanical equipment is typically that which has motorized parts and/or is powered by a motor. Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

The following examples (including their appurtenances necessary for their intended use and operation) are NOT considered construction materials: pumps, motors, gear reducers, drives (including variable frequency drives (VFDs)), electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators), mixers, gates, motorized screens (such as traveling screens), blowers/aeration equipment, compressors, meters, sensors, controls and switches, supervisory control and data acquisition (SCADA), membrane bioreactor systems, membrane filtration systems, filters, clarifiers and clarifier mechanisms, rakes, grinders, disinfection systems, presses (including belt presses), conveyors, cranes, HVAC (excluding ductwork), water heaters,

heat exchangers, generators, cabinetry and housings (such as electrical boxes/enclosures), lighting fixtures, electrical conduit, emergency life systems, metal office furniture, shelving, laboratory equipment, analytical instrumentation, and dewatering equipment.

23) If the iron or steel is produced in the US, may other steps in the manufacturing process take place outside of the US, such as assembly?

No. Production in the US of the iron or steel used in a listed product requires that all manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.

24) What processes must occur in the US to be compliant with the AIS requirement for reinforced precast concrete?

While reinforced precast concrete may not be at least 50% iron or steel, in this particular case, the reinforcing bar and wire must be produced in the US and meet the same standards as for any other iron or steel product. Additionally, the casting of the concrete product must take place in the US. The cement and other raw materials used in concrete production are not required to be of domestic origin.

If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered to be a construction material and must be produced in the US.

Compliance

25) How should an assistance recipient document compliance with the AIS requirement?

In order to ensure compliance with the AIS requirement, specific AIS contract language must be included in each contract, starting with the assistance agreement, all the way down to the purchase agreements. Sample language for assistance agreements and contracts can be found in Appendix 3 and 4.

EPA recommends the use of a step certification process, similar to one used by the Federal Highway Administration. The step certification process is a method to ensure that producers adhere to the AIS requirement and assistance recipients can verify that products comply with the AIS requirement. The process also establishes accountability and better enables States to take enforcement actions against violators.

Step certification creates a paper trail which documents the location of the manufacturing process involved with the production of steel and iron materials. A step certification is a process under which each handler (supplier, fabricator, manufacturer,

processor, etc) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. A certification can be quite simple. Typically, it includes the name of the manufacturer, the location of the manufacturing facility where the product or process took place (not its headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. Attached, as Appendix 5, are sample certifications. These certifications should be collected and maintained by assistance recipients.

Alternatively, the final manufacturer that delivers the iron or steel product to the worksite, vendor, or contractor, may provide a certification asserting that all manufacturing processes occurred in the US. While this type of certification may be acceptable, it may not provide the same degree of assurance. Additional documentation may be needed if the certification is lacking important information. Step certification is the best practice.

26) How should a State ensure assistance recipients are complying with the AIS requirement?

In order to ensure compliance with the AIS requirement, States SRF programs must include specific AIS contract language in the assistance agreement. Sample language for assistance agreements can be found in Appendix 3.

States should also, as a best practice, conduct site visits of projects during construction and review documentation demonstrating proof of compliance which the assistance recipient has gathered.

27) What happens if a State or EPA finds a non-compliant iron and/or steel product permanently incorporated in the project?

If a potentially non-compliant product is identified, the State should notify the assistance recipient of the apparent unauthorized use of the non-domestic component, including a proposed corrective action, and should be given the opportunity to reply. If unauthorized use is confirmed, the State can take one or more of the following actions: request a waiver where appropriate; require the removal of the non-domestic item; or withhold payment for all or part of the project. Only EPA can issue waivers to authorize the use of a non-domestic item. EPA may use remedies available to it under the Clean Water Act, the Safe Drinking Water Act, and 40 CFR part 31 grant regulations, in the event of a violation of a grant term and condition.

It is recommended that the State work collaboratively with EPA to determine the appropriate corrective action, especially in cases where the State is the one who identifies the item in noncompliance or there is a disagreement with the assistance recipient.

If fraud, waste, abuse, or any violation of the law is suspected, the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-888-546-8740 or OIG_Hotline@epa.gov. More information can be found at this website: http://www.epa.gov/oig/hotline.htm.

28) How do international trade agreements affect the implementation of the AIS requirements?

The AIS provision applies in a manner consistent with United States obligations under international agreements. Typically, these obligations only apply to direct procurement by the entities that are signatories to such agreements. In general, SRF assistance recipients are not signatories to such agreements, so these agreements have no impact on this AIS provision. In the few instances where such an agreement applies to a municipality, that municipality is under the obligation to determine its applicability and requirements and document the actions taken to comply for the State.

Waiver Process

The statute permits EPA to issue waivers for a case or category of cases where EPA finds (1) that applying these requirements would be inconsistent with the public interest; (2) iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron and steel products produced in the US will increase the cost of the overall project by more than 25 percent.

In order to implement the AIS requirements, EPA has developed an approach to allow for effective and efficient implementation of the waiver process to allow projects to proceed in a timely manner. The framework described below will allow States, on behalf of the assistance recipients, to apply for waivers of the AIS requirement directly to EPA Headquarters. Only waiver requests received from states will be considered. Pursuant to the Act, EPA has the responsibility to make findings as to the issuance of waivers to the AIS requirements.

Definitions

The following terms are critical to the interpretation and implementation of the AIS requirements and apply to the process described in this memorandum:

Reasonably Available Quantity: The quantity of iron or steel products is available or will be available at the time needed and place needed, and in the proper form or specification as specified in the project plans and design.

Satisfactory Quality: The quality of iron or steel products, as specified in the project plans and designs.

Assistance Recipient: A borrower or grantee that receives funding from a State CWSRF or DWSRF program.

Step-By-Step Waiver Process

Application by Assistance Recipient

Each local entity that receives SRF water infrastructure financial assistance is required by section 436 of the Act to use American made iron and steel products in the construction of its project. However, the recipient may request a waiver. Until a waiver is granted by EPA, the AIS requirement stands, except as noted above with respect to municipalities covered by international agreements.

The waiver process begins with the SRF assistance recipient. In order to fulfill the AIS requirement, the assistance recipient must in good faith design the project (where applicable) and solicit bids for construction with American made iron and steel products. It is essential that the assistance recipient include the AIS terms in any request for proposals or solicitations for bids, and in all contracts (see Appendix 3 for sample construction contract language). The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three conditions is met:

1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;
2. Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
3. Inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Proper and sufficient documentation must be provided by the assistance recipient. A checklist detailing the types of information required for a waiver to be processed is attached as Appendix 1.

Additionally, it is strongly encouraged that assistance recipients hold pre-bid conferences with potential bidders. A pre-bid conference can help to identify iron and steel products needed to complete the project as described in the plans and specifications that may not be available from domestic sources. It may also identify the need to seek a waiver prior to bid, and can help inform the recipient on compliance options.

In order to apply for a project waiver, the assistance recipient should email the request in the form of a Word document (.doc) to the State SRF program. It is strongly recommended that the State designate a single person for all AIS communications. The State SRF designee will review the application for the waiver and determine whether the necessary information has been included. Once the waiver application is complete, the State designee will forward the application to the EPA for review.

Evaluation by EPA

After receiving an application for waiver of the AIS requirements, EPA Headquarters will publish the request on its website for 15 days and receive informal comment. EPA Headquarters will then use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to

determine whether or not to grant the waiver.

In the event that EPA finds that adequate documentation and justification has been submitted, the Administrator may grant a waiver to the assistance recipient. EPA will notify the State designee that a waiver request has been approved or denied as soon as such a decision has been made. Granting such a waiver is a three-step process:

1. Posting – After receiving an application for a waiver, EPA is required to publish the application and all material submitted with the application on EPA's website for 15 days. During that period, the public will have the opportunity to review the request and provide informal comment to EPA. The website can be found at: http://water.epa.gov/grants_funding/aisrequirement.cfm

2. Evaluation – After receiving an application for waiver of the AIS requirements, EPA Headquarters will use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.

3. Signature of waiver approval by the Administrator or another agency official with delegated authority – As soon as the waiver is signed and dated, EPA will notify the State SRF program, and post the signed waiver on our website. The assistance recipient should keep a copy of the signed waiver in its project files.

Public Interest Waivers

EPA has the authority to issue public interest waivers. Evaluation of a public interest waiver request may be more complicated than that of other waiver requests so they may take more time than other waiver requests for a decision to be made. An example of a public interest waiver that might be issued could be for a community that has standardized on a particular type or manufacturer of a valve because of its performance to meet their specifications. Switching to an alternative valve may require staff to be trained on the new equipment and additional spare parts would need to be purchased and stocked, existing valves may need to be unnecessarily replaced, and portions of the system may need to be redesigned. Therefore, requiring the community to install an alternative valve would be inconsistent with public interest.

EPA also has the authority to issue a public interest waiver that covers categories of products that might apply to all projects.

EPA reserves the right to issue national waivers that may apply to particular classes of assistance recipients, particular classes of projects, or particular categories of iron or steel products. EPA may develop national or (US geographic) regional categorical waivers through the identification of similar circumstances in the detailed justifications presented to EPA in a waiver request or requests. EPA may issue a national waiver based on policy decisions regarding the public's interest or a determination that a particular item is not produced domestically in reasonably available quantities or of a sufficient quality. In such cases, EPA may determine it is necessary to issue a national waiver.

If you have any questions concerning the contents of this memorandum, you may contact us, or have your staff contact Jordan Dorfman, Attorney-Advisor, State Revolving Fund Branch, Municipal Support Division, at dorfman.jordan@epa.gov or (202) 564-0614 or Kiri Anderer, Environmental Engineer, Infrastructure Branch, Drinking Water Protection Division, at anderer.kirsten@epa.gov or (202) 564-3134.

Attachments

Appendix 1: Information Checklist for Waiver Request

The purpose of this checklist is to help ensure that all appropriate and necessary information is submitted to EPA. EPA recommends that States review this checklist carefully and provide all appropriate information to EPA. This checklist is for informational purposes only and does not need to be included as part of a waiver application.

Items	✓	Notes
General • Waiver request includes the following information: — Description of the foreign and domestic construction materials — Unit of measure — Quantity — Price — Time of delivery or availability — Location of the construction project — Name and address of the proposed supplier — A detailed justification for the use of foreign construction materials • Waiver request was submitted according to the instructions in the memorandum • Assistance recipient made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in requests for proposals, contracts, and communications with the prime contractor		
Cost Waiver Requests • Waiver request includes the following information: — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers		
Availability Waiver Requests • Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of the materials for which the waiver is requested: — Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials — Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers. — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials • Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of the domestic construction materials for which the waiver is sought • Has the State received other waiver requests for the materials described in this waiver request, for comparable projects?		

Appendix 2: HQ Review Checklist for Waiver Request

Instructions: To be completed by EPA. Review all waiver requests using the questions in the checklist, and mark the appropriate box as Yes, No or N/A. Marks that fall inside the shaded boxes may be grounds for denying the waiver. If none of your review markings fall into a shaded box, the waiver is eligible for approval if it indicates that one or more of the following conditions applies to the domestic product for which the waiver is sought:

1. The iron and/or steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
2. The inclusion of iron and/or steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Review Items	Yes	No	N/A	Comments
Cost Waiver Requests • Does the waiver request include the following information? — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — A sufficient number of bid documents or pricing information from domestic sources to constitute a reasonable survey of the market • Does the Total Domestic Project exceed the Total Foreign Project Cost by more than 25%?				
Availability Waiver Requests • Does the waiver request include supporting documentation sufficient to show the availability, quantity, and/or quality of the iron and/or steel product for which the waiver is requested? — Supplier information or other documentation indicating availability/delivery date for materials — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of materials • Does supporting documentation provide sufficient evidence that the contractors made a reasonable effort to locate domestic suppliers of materials, such as a description of the process for identifying suppliers and a list of contacted suppliers? • Based on the materials delivery/availability date indicated in the supporting documentation, will the materials be unavailable when they are needed according to the project schedule? (By item, list schedule date and domestic delivery quote date or other relevant information) • Is EPA aware of any other evidence indicating the non-availability of the materials for which the waiver is requested? Examples include: — Multiple waiver requests for the materials described in this waiver request, for comparable projects in the same State — Multiple waiver requests for the materials described in this waiver request, for comparable projects in other States — Correspondence with construction trade associations indicating the non-availability of the materials • Are the available domestic materials indicated in the bid documents of inadequate quality compared those required by the project plans, specifications, and/or permits?				

Appendix 5: Sample Certifications

The following information is provided as a sample letter of **step** certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:

_____

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:

_____

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

American Iron & Steel (AIS) Requirement of the Consolidated Appropriations Act of 2014
(Public Law 113-76)

Q&A Part 2

PRODUCT QUESTIONS

1. **Q: Do all fasteners qualify for de minimis exemption?**

   A: No. There is no broad exemption for fasteners from the American Iron and Steel (AIS) requirements. Significant fasteners used in SRF projects are not subject to the de minimis waiver for projects and must comply with the AIS requirements. Significant fasteners include fasteners produced to industry standards (e.g., ASTM standards) and/or project specifications, special ordered or those of high value. When bulk purchase of unknown-origin fasteners that are of incidental use and small value are used on a project, they may fall under the national de minimis waiver for projects. The list of potential items could be varied, such as big-box/hardware-store-variety screws, nails, and staples. The key characteristics of the items that may qualify for the de minimis waiver would be items that are incidental to the project purpose (such as drywall screws) and not significant in value or purpose (such as common nails or brads).

   EPA also clarifies that minor components of two listed products – valves and hydrants -- may not need to meet the AIS requirements if the minor components compromise a very small quantity of minor, low-cost fasteners that are of unknown origin.

2. **Q: Does PCCP pipe have to be domestically produced?**

   A: Yes. Pre-stressed concrete cylinder pipe (PCCP) or other similar concrete cylinder pipes would be comparable to pre-cast concrete which is specifically listed in the Consolidated Appropriations Act of 2014 as a product subject to the AIS requirement.

3. **Q: If the iron or steel is made from recycled metals will the vendor/supplier have to provide a certification document certifying that the recycled metals are domestically produced?**

   A: No. Recycled source materials used in the production of iron and steel products do not have to come from the U.S. Iron or steel scrap, for instance, are considered raw materials that may come from anywhere. While certification is not required for the raw material, EPA does recommend that additional final processing of iron and steel be certified to have occurred in the U.S.

4. **Q: Do tanks used for filtration systems, if delivered to the construction site separately and then filled with filtration media onsite, have to be domestically produced?**

A: No. Tanks that are specifically designed to be filters, or as parts of a filtration system, do not have to be domestically produced because these parts are no longer simply tanks, even if the filter media has not been installed and will be installed at the project site, as is customary to do for shipping purposes. These parts have only one purpose which is to be housing for filters and cannot be used in another fashion.

5. **Q: Can a recipient use non-domestic flanged pipe?**

   A: No. While the Consolidated Appropriations Act of 2014 does not specifically mention flanged pipe, since it does mention both pipe and flanges, both products would need to be domestically produced. Therefore, flanged pipe would also need to be domestically produced.

6. **Q: Can a recipient use non-domestic couplings, expansion joints, and other similar pipe connectors?**

   A: No. These products would be considered specialty fittings, due to their additional functionality, but still categorized under the larger "fitting" categorization. Fittings are defined as a material that joins pipes together or connects to a pipe (AWWA, The Drinking Water Dictionary, 2000). Therefore, these products must comply with the AIS requirements and be produced domestically.

7. **Q: Can a recipient use non-domestic service saddles and tapping sleeves?**

   A: No. These products are necessary for pipe repair, to tap a water main, or to install a service or house connection. Therefore, they are included under the larger "pipe restraint" category which is a specifically identified product subject to the domestic preference in the Consolidated Appropriations Act of 2014.

8. **Q: The AIS guidance does not appear to cover reused items (i.e., existing pipe fittings, used storage tanks, reusing existing valves). How should reused items be addressed?**

   A: The AIS guidance does not address reuse of items. Reuse of items that would otherwise be covered by AIS is acceptable provided that the item(s) was originally purchased prior to January 17, 2014, the reused item(s) is not substantially altered from original form/function, and any restoration work that may be required does not include the replacement or addition of foreign iron or steel replacement parts. EPA recommends keeping a log of these reused items by including them on the assistance recipient's de minimis list, and stating therein that these items are reused products. The donation of new items (such as a manufacturer waiving cost for certain delivered items because of concerns regarding the origin of a new product) is not, however, considered reuse.

9. **Q: What does "time needed" mean in the AIS guidance, in reference to the definition of "Reasonably Available Quantity"?**

A: For considering whether a product would meet reasonably available quantity, "time needed" is based on the construction schedule. If the item is delayed and there is substantial impact on the overall construction schedule, this would not be according to the "time needed."

10. **Q: If a product is not specifically included on the list of AIS covered products, must it comply with AIS?**

    A: Possibly. The AIS requirements include a list of specifically covered products, one of which is construction materials, a broad category of potential products. For construction materials, EPA's AIS guidance includes a set of example items that it considers construction materials composed primarily of iron and steel and covered by the Act. This example list in the guidance is not an all-inclusive list of potential construction materials. However, the guidance also includes a list of items that EPA specifically does not consider construction materials, generally those of electrical or complex-mechanical nature. If a product is similar to the ones in the non-construction material list (and it is also not specifically listed by the Act), it is not a construction material. For all other items specifically included in the Act, coverage is generally self-evident.

11. **Q: If a listed iron and steel product is used as a part for an assembled product that is non-domestic, do the AIS requirements apply?**

    A: AIS requirements only apply to the final product as delivered to the work site and incorporated into the project. Other assemblies, such as a pumping assembly or a reverse osmosis package plant, are distinct products not listed and do not need to be made in the U.S. or composed of all U.S. parts. Therefore, for the case of a non-covered product used in a larger non-domestic assembly, the components, even if specifically listed in the Consolidated Appropriations Act, do not have to be domestically produced.

12. **Q: Is cast iron excluded from the AIS requirements?**

    A: No. Cast iron products that fall under the definition of iron and steel products must comply with the AIS requirements.

13. **Q: The guidance states that "construction materials" do not include mechanical equipment, but then identifies ductwork as a construction material. Please clarify.**

    A: Ductwork is not mechanical equipment, therefore it is considered a "construction material" and must comply with the AIS requirements.

14. **Q: Do "meters" mentioned in EPA's guidance as non-construction materials include both flow meters and water meters?**

    A: Yes. "Meters" includes any type of meter, including: flow meters, wholesale meters, and water meters/service connections.

15. **Q: Must coiled steel be domestic?**

    A: Yes. Coiled steel is an intermediate product used in the production of steel pipe and must come from a U.S. source or subject to a waiver in order to comply with the AIS requirements.

16. **Q: Are pig iron, direct reduced iron (DRI), and ingot considered raw materials?**

    A: No. These are considered intermediate products used in the production of iron or steel and must come from a U.S. source or subject to a waiver in order to comply with the AIS requirements.

17. **Q: Can assistance recipients rely on a marking that reads, "Made in the USA," as evidence that all processes took place in the U.S.?**

    A: No. This designation is not consistent with our requirements that all manufacturing processes of iron and steel products must take place in the U.S.

18. **Q: When determining what constitutes a product made "primarily" of iron or steel, who makes this determination?**

    A: The manufacturer will show if its product qualifies as primarily made of iron or steel. The recipient should expect the manufacturer to provide documentation/ certification that its product is AIS compliant.

19. **Q: Do aerators need to be produced domestically in order to comply with AIS?**

    A: No. Aerators, similar to pumps, are mechanical equipment that do not need to meet the AIS requirements. "Blowers/aeration equipment, compressors" are listed in EPA's guidance as non-construction materials.

20. **Q: Are Sluice and Slide Gates considered valves?**

    A: No. Valves are products that are generally encased / enclosed with a body, bonnet, and stem. Examples include enclosed butterfly, ball, globe, piston, check, wedge, and gate valves. Furthermore, "gates" (meaning sluice, slide or weir gates) are listed in EPA's guidance as non-construction materials.

AIS PROCESS QUESTIONS

21. **Q: Will notices of waiver applications be published in the federal register?**

    A: No. Applications for waivers will be published on EPA's website (http://water.epa.gov/grants_funding/aisrequirement.cfm**).** EPA will provide 15 days for open public comment, as noted on the website.

22. **Q: Will states be collecting the step certification paper trail, as presented in the AIS guidance?**

    A. No. Assistance recipients must maintain documentation of compliance with AIS. EPA recommends use of the step certification process. This process is a best practice and traces all manufacturing of iron and steel products to the U.S. If the process is used, the state does not have to collect the documentation. The documents must be kept by the assistance recipient and reviewed by the state during project reviews.

23. **Q: Why is it considered a best practice for states to conduct site visits, when it is the assistance recipient's responsibility to meet the AIS requirements?**

    A: It is both the assistance recipient's and the state's responsibility to ensure compliance with the AIS requirements. The state is the recipient of a federal grant and must comply with all grant conditions, including a condition requiring that the AIS requirements be adhered to. Therefore, it is recommended that states conduct site visits of projects during construction and review documentation demonstrating the assistance recipient's proof of compliance.

24. **Q: Please further define the state's role in the waiver process.**

    A: The state's role in the waiver process is to review any waiver requests submitted to the state in order to ensure that all necessary information has been provided by the assistance recipient prior to forwarding the request to EPA. If a state finds the request lacking, the state should work with the assistance recipient to help obtain complete information.

25. **Q: How much time does EPA have to evaluate the waiver during the evaluation step?**

    A: At a minimum, EPA is required to provide 15 days for open public comment. There is no specific deadline or time limit for EPA to review waiver requests. Each waiver request will come with its own specific details and circumstances and may require a different amount of time for review and analysis. For example, public interest waivers in general may take longer to review than availability waivers which are typically more straightforward. However, EPA understands that construction may be delayed while waiting for a waiver and will make every effort to review and issue decisions on waiver requests in a timely manner.

<u>PROJECT QUESTIONS</u>

26. **Q: What if a project is funded by another funding entity (i.e., United States Department of Agriculture – Rural Development) where AIS is not required and begins construction after January 17, 2014 but then applies to the SRF to refinance the project? Are they ineligible?**

A: The project is not ineligible. AIS requirements will apply to any construction that occurs after the assistance agreement is signed, through the end of construction. If construction is complete, there is no retroactive application of the AIS requirements.

27. **Q: If the assistance recipient can demonstrate through market research that the AIS requirement will exceed the 25 percent cost threshold, is the entire project exempt from the AIS requirement?**

    A: If the waiver application shows that the inclusion of American iron and steel products causes the entire cost of the project to increase by more the 25 percent, a waiver may be granted for the entirety of the project.

28. **Q: Can the recipient use non-SRF funds to pay for the non-compliant item.**

    A: No. It is not an acceptable to use non-SRF funds to pay for a non-compliant item. The Consolidated Appropriations Act of 2014 requires that all iron and steel products, no matter the source of funding, must be made in the U.S. if SRF funds are used in the project.

29. **Q: What constitutes "satisfactory quality" as defined in the AIS guidance, in reference to the availability waiver process.**

    A: "Satisfactory quality" means the product meets the project design specifications. A waiver may be granted if a recipient determines that the project plans and design would be compromised because there are no American made products available that meet the project design specifications.

30. **Q: The guidance states that the AIS requirement applies to any project "funded in whole or in part" by an SRF. Where is this in the Act?**

    A: The Act states that, "None of the funds made available by a … [State SRF program] … shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States." This sentence clearly states that no SRF program may use its funds for a project unless all of the iron and steel products used in the project are made in the U.S. This is true even if only $1 of SRF funding is used in the project.

31. **Q: There is always an expectation on the part of an assistance recipient that the construction phase of a planning and/or design only loan will be funded through the SRF. If the original planning and/or design only loan was executed prior to a January 17, 2014, does this mean the entire project will be exempt from the AIS requirement?**

    A: If the original loan includes construction, and was executed prior to January 17, 2014, then the AIS provision does not apply to the project. If the original loan was only for planning and/or design, then a written commitment or documented "expectation" is needed to show exemption from the

requirements. Appearance on a priority list in an Intended Use Plan along with written reasonable assurance from the state that the recipient will receive SRF funding for project construction could provide sufficient evidence of "expectation of funding".

32. **Q: What if there has been a change order or redesign requiring new plans and specifications to be approved and they were approved after January 17, 2014: does the project now have to comply with AIS?**

    A: In most cases, no. Change orders are typically small enough changes that the original plan and specification date will still hold true. For example, if a pipe alignment has to be changed for a block or two due to unforeseen conditions, but new plans and specifications had to be submitted for this section of the project, then that could be considered a minor change. However, if there has been a major redesign, perhaps the whole project had to be redesigned starting from scratch, then the new plans and specification approval date would apply.

33. **Q: What if the bids on a project with plans and specifications approved before January 17, 2014 but the loan is signed after January 17, 2014 come in low, and there is significant funding remaining in the loan agreement, so the community designs a second project with the remaining funds: does that project have to comply with the AIS requirements?**

    A: If the second project is closely related in purpose, place and time to the first project, then the second project would be exempt from the AIS requirements. It is the assistance recipient's responsibility (with state oversight) to show that a project is closely related, or not, in purpose, place and time.

34. **Q: What if the assistance agreement was signed after January 17, 2014, state approval of plans for the first phase of the project was in place prior to January 17, 2014, but state approval of the plans for the second phase of the project was received after January 17, 2014?**

    A: In such a case, the AIS provision would not apply to the first phase of the project. If the second phase of the project is considered the same project as the first phase, due to its close relation in purpose, place and time, the entire project may be exempt. It is the assistance recipient's responsibility (with state oversight) to show that phases of a project is closely related, or not, in purpose, place and time.

35. **Q: Do products purchased through procurement-only contracts have to be comply with AIS?**

    A: Yes. For projects funded by SRF, the products procured under any form of contract must comply with AIS. A procurement-only contract generally involves the bulk purchase of common items (such as pipe, concrete, and/or pumps) of independent timing from a set of planned projects. If products which are purchased through a procurement-only contract are being installed under another contract, the procurement-only contract would probably not be considered a separate project in purpose, place and time; and therefore, would have to comply with the AIS requirements.

March 2015

American Iron & Steel Requirement for the Clean Water and Drinking Water State Revolving Funds

Q&A Part 3

*For CWSRF and DWSRF: On **January 17, 2014**, Public Law 113-76, the "Consolidated Appropriations Act, 2014," was enacted and included an American Iron and Steel requirement for the Clean Water and Drinking Water State Revolving Fund programs through the end of fiscal year 2014. Since then, the AIS requirement has continued for both programs, but through different statutes, with a few changes as described in the questions and answers provided below.*

*For CWSRF: On **June 10, 2014**, the Water Resources Reform and Development Act amended the Clean Water Act to include permanent requirements for the use of AIS products in CWSRF assistance agreements. Section 608 of the CWA now contains requirements for AIS that repeat those of the Consolidated Appropriations Act, 2014. All CWSRF assistance agreements must comply with Section 608 of the CWA for implementation of the permanent AIS requirement.*

*For DWSRF: On **December 16, 2014**, the President signed Public Law 113- 235, the "Consolidated and Further Continuing Appropriations Act, 2015," which provides fiscal year 2015 full-year appropriations through September 30, 2015. This law continues the requirement for the use of AIS products in DWSRF assistance agreements through September 30, 2015.*

CWSRF PROGRAM

1. **Q: The Water Resources Reform and Development Act amended the Clean Water Act to include permanent requirements for the use of AIS for CWSRF funded assistance agreements. Does the CWA include an exemption for plans and specifications approved prior to the enactment of the legislation similar to the exemption included in the Consolidated Appropriations Act (CAA) 2014?**

   A: Yes. The WRRDA amendment to the CWA, which included AIS requirements, included a similar exemption as the CAA 2014. For any CWSRF assistance agreement signed on or after October 1, 2014, if the plans and specifications were approved prior to June 10, 2014 (the enactment of WRRDA), then the project is exempt from AIS requirements. For assistance agreements signed prior to October 1, 2014, the previous dates in the CAA 2014 apply (see March 20, 2014, AIS guidance document).

   If a project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the plans and specifications approval date for purposes of this exemption in Section 608 (f).

   The following table summarizes AIS exemptions based on the plans and specifications approval date for CWSRF funded projects.

CWSRF AIS Project Exemption Based on Plans and Specifications Approval Date		
Assistance Agreement Signed:	Exempt from AIS if Plans and Specifications Were Approved Before:	Basis for Exemption:
1/17/2014 through 9/30/2014	4/15/2014	• Consolidated Appropriations Act 2014 • National waiver signed 4/15/2014*
On or after 10/1/2014	6/10/2014	• Clean Water Act Section 608

** To be covered by the national waiver, the plans and specifications had to be submitted to the state prior to 1/17/2014*

2. **Q: Does the AIS requirement apply to refinanced CWSRF projects?**

   A: Yes, in some cases. If a project began construction, financed from a non-CWSRF source prior to June 10, 2014, but is refinanced through a CWSRF assistance agreement executed on or after October 1, 2014, AIS requirements will apply to all construction that occurs on or after June 10, 2014, through completion of construction, unless engineering plans and specifications were approved by the responsible state agency prior to June 10, 2014. For CWSRF projects funded on or after October 1, 2014, there is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to June 10, 2014.

DWSRF PROGRAM

3. **Q: The Consolidated and Further Continuing Appropriations Act 2015 continues the AIS requirements for DWSRF funded assistance agreements. Does the Act include an exemption for plans and specifications approved prior to the enactment of the legislation, similar to the exemption included in the Consolidated Appropriations Act (CAA) 2014?**

   A: Yes. The Consolidated and Further Continuing Appropriations Act 2015 includes a similar exemption as the CAA 2014. For any assistance agreement signed on or after December 16, 2014 (the enactment of the Act), if the plans and specifications were approved prior to December 16, 2014, then the project is exempt from the AIS requirements. For assistance agreements signed prior to December 16, 2014, the previous dates in the CAA 2014 apply (see March 20, 2014 AIS guidance document).

   If a project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the plans and specifications approval date for purposes of the exemption in Section 424(f).

4. **Q: Do DWSRF assistance agreements signed during the time period between September 30, 2014, and December 16, 2014, still have to comply with the AIS requirements?**

A: Yes. The Continuing Appropriations Resolution 2015 was signed on September 19, 2014, which extended funding for the DWSRF with the same conditions that were made applicable by the language in the Fiscal Year 2014 appropriations, including the requirement for the use of American Iron and Steel products in projects receiving financial assistance from the DWSRF. Therefore, all assistance agreements starting October 1, 2014, through the enactment of the Consolidated and Further Continuing Appropriations Act 2015 (signed December 16, 2014), must include the AIS requirements. However, if the plans and specifications for any of these projects were approved prior to April 15, 2014 (the date the national waiver was signed), then the project is exempt from the AIS requirements.

The following table summarizes AIS exemptions based on the plans and specifications approval date for DWSRF funded projects.

DWSRF AIS Project Exemption Based on Plans and Specifications Approval Date		
Assistance Agreement Signed:	Exempt from AIS if Plans and Specifications Were Approved Before:	Basis for Exemption:
1/17/2014 through 9/30/2014	4/15/2014	• Consolidated Appropriations Act 2014 • National waiver signed 4/15/2014*
10/1/2014 through 12/15/2014	4/15/2014	• Continuing Appropriations Resolution 2015 (continued CAA 2014 requirements)** • National waiver signed 4/15/2014*
12/16/2014 through 9/30/2015	12/16/2014	• Consolidated and Further Continuing Appropriations Act 2015

** To be covered by the national waiver, the plans and specifications had to be submitted to the state prior to 1/17/2014*

*** Following the first continuing resolution, there were two additional CRs to fill the gap between 12/11/2014 and 12/16/2014*

5. **Q: Does the AIS requirement apply to refinanced DWSRF projects?**

A: Yes, in some cases. If a project began construction, financed from a non-DWSRF source prior to December 16, 2014, but is refinanced through a DWSRF assistance agreement executed on or after December 16, 2014, AIS requirements will apply to all construction that occurs on or after December 16, 2014, through completion of construction, unless engineering plans and

specifications were approved by the responsible state agency prior to December 16, 2014. For DWSRF projects funded on or after December 16, 2014, there is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to December 16, 2014.

BOTH CWSRF AND DWSRF PROGRAMS

6. **Q: If a coating is applied to the external surface of a domestic iron or steel component, and the application takes place outside of the United States, would the product be compliant under the AIS requirements?**

   A: Yes. The product would still be considered a compliant product under AIS requirements. Any coating processes that are applied to the external surface of iron and steel components that would otherwise be AIS compliant would not disqualify the product from meeting the AIS requirements regardless of where the coating processes occur, provided that final assembly of the product occurs in the United States.

   The exemption above only applies to coatings on the *external surface* of iron and steel components. It does not apply to coatings or linings on internal surfaces of iron and steel products, such as the lining of lined pipes. All manufacturing processes for lined pipes, including the application of pipe lining, must occur in the United States for the product to be compliant with AIS requirements.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

DECISION MEMORANDUM

SUBJECT: De Minimis Waiver of Section 436 of P.L. 113-76, Consolidated Appropriations Act (CAA), 2014

FROM: Nancy K. Stoner
Acting Assistant Administrator

The EPA is hereby granting a nationwide waiver pursuant to the "American Iron and Steel (AIS)" requirements of P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), section 436 under the authority of Section 436(b)(**1**) (public interest waiver) for de minimis incidental components of eligible water infrastructure projects. This action permits the use of products when they occur in de minimis incidental components of such projects funded by the Act that may otherwise be prohibited under section 436(a). Funds used for such de minimis incidental components cumulatively may comprise no more than a total of 5 percent of the total cost of the materials used in and incorporated into a project; the cost of an individual item may not exceed **1** percent of the total cost of the materials used in and incorporated into a project.

P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), includes an "American Iron and Steel" (AIS) requirement in section 436 that requires Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) assistance recipients to use specific domestic iron and steel products that are produced in the United States if the project is funded through an assistance agreement executed beginning January 17, 2014 (enactment of the Act), through the end of Fiscal Year 2014, unless the agency determines it necessary to waive this requirement based on findings set forth in Section 436(b). The Act states, "[the requirements] shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency...finds that- (1) applying subsection (a) would be inconsistent with the public interest" 436(b)**(1)**.

In implementing section 436 of the Act, the EPA must ensure that the section's requirements are applied consistent with congressional intent in adopting this section and in the broader context of the purposes, objectives, and other provisions applicable to projects funded under the SRF. Water infrastructure projects typically contain a relatively small number of high-cost components incorporated into the project. In bid solicitations for a project, these high-cost components are generally described in detail via project specific technical specifications. For these major components, utility owners and their contractors are generally familiar with the conditions of availability, the potential alternatives for each detailed specification, the approximate cost, and the country of manufacture of the available components.

Every water infrastructure project also involves the use of thousands of miscellaneous, generally low-cost components that are essential for, but incidental to, the construction and are incorporated into the physical structure of the project. For many of these incidental components, the country of manufacture and the availability of alternatives is not always readily or reasonably identifiable prior to procurement in the normal course of business; for other incidental components, the country of manufacture may be known but the miscellaneous character in conjunction with the low cost, individually and (in total) as typically procured in bulk, mark them as properly incidental. Examples of incidental components could include small washers, screws, fasteners (i.e., nuts and bolts), miscellaneous wire, comer bead, ancillary tube, etc. Examples of items that are clearly not incidental include significant process fittings (i.e., tees, elbows, flanges, and brackets), distribution system fittings and valves, force main valves, pipes for sewer collection and/or water distribution, treatment and storage tanks, large structural support structures, etc.

The EPA undertook multiple inquiries to identify the approximate scope of de minimis incidental components within water infrastructure projects during the implementation of the American Reinvestment and Recovery Act (ARRA) and its requirements (Buy American provisions, specifically). The inquiries and research conducted in 2009 applies suitably for the case today. In 2009, the EPA consulted informally with many major associations representing equipment manufacturers and suppliers, construction contractors, consulting engineers, and water and wastewater utilities, and performed targeted interviews with several well-established water infrastructure contractors and firms who work in a variety of project sizes, and regional and demographic settings to ask the following questions:

- What percentage of total project costs were consumables or incidental costs?

- What percentage of materials costs were consumables or incidental costs?

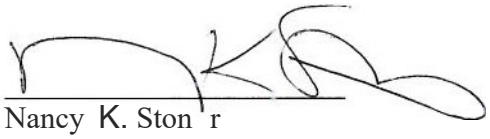
- Did these percentages vary by type of project (drinking water vs. wastewater treatment plant vs. pipe)?

The responses were consistent across the variety of settings and project types, and indicated that the percentage of total costs for drinking water or wastewater infrastructure projects represented by these incidental components is generally not in excess of 5 percent of the total cost of the materials used in and incorporated into a project. In drafting this waiver, the EPA has considered the de minimis proportion of project costs generally represented by each individual type of these incidental components within the many types of such components comprising those percentages, the fact that these types of incidental components are obtained by contractors in many different ways from many different sources, and the disproportionate cost and delay that would be imposed on projects if the EPA did not issue this waiver.

Assistance recipients who wish to use this waiver should in consultation with their contractors determine the items to be covered by this waiver and must retain relevant documentation (i.e., invoices) as to those items in their project files.

If you have any questions concerning the contents of this memorandum, please contact Timothy Connor, Chemical Engineer, Municipal Support Division, at connor.timothy@epa.gov or (202) 566-1059 or Kirsten Anderer, Environmental Engineer, Drinking Water Protection Division, at anderer.kirsten@epa.gov or (202) 564-3134.

Issued on: APR 15 2014

Approved by: 

Nancy K. Stoner
Acting Assistant Administrator

Ohio Water Pollution Control Loan Fund
Use of American Iron and Steel - De Minimis Final Utilization and Certification Form

The Consolidated Appropriations Act of 2014 (P.L. 113-76) Section 436 requires the use of American & Steel in SRF-funded projects. Under the authority of Section 436(b)(1), the EPA has issued a public interest waiver for De Minimis incidental components. The assistance recipient wishing to use this waiver should consult with their contractor(s) to maintain an itemized list of components covered under De Minimis. At the conclusion of the project, this form must be completed and retained in the assistance recipient's project files and a copy provided to DEFA. Please print clearly or type.

Project Name:_____ Loan Agrmt #: _____

NOTE: The De Minimis waiver is only applicable to the cost of materials for the entire project. Do not include other project costs (labor, installation costs, etc.) in the "Total Cost of Materials". The cost of a material must include delivery to the site and any applicable tax. Must have sufficient documentation to support all costs included in this calculation.

Funds used for de minimis incidental components cumulatively may comprise no more than a total of 5 percent of the total cost of the materials used in and incorporated into a project; the cost of an individual item may not exceed 1 percent of the total cost of the materials used in and incorporated into a project.

Total Cost of Materials: | 5% Limit: | 1% limit:

Manufacturer & Component Description	Part/Model #	Quantity (if applicable)	Cost per Unit (if applicable)	Component's Total Cost	How is Cost Documented?*

Use additional sheets as necessary

Total De Minimis Cost of Components:

If approaching the 5% or 1% limits, contact DEFA immediately

* Documentation must demonstrate confirmation of the components' actual costs (invoice, etc.).

Completed by:

Name: _____ Title: _____

Signature: _____ Date: _____

Violating Facilities Clause

(Required Contract Provision)

Language prohibiting this use of equipment or services from anyone on the EPA List of Violating Facilities must be included in the contract documents.

Violating Facilities:

The Contractor agrees to comply with all applicable standards, orders or requirements under Section 306 of the Clean Air Act, 42 USC 1857 (h), Section 508 of the Clean Water Act, 33 USC 1368, Executive Order 11738, and EPA regulations, 40 CFR Part 32, which prohibits the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities.

NOTE: THE CONTRACT LANGUAGE SAMPLES PROVIDED HEREIN ARE EXAMPLES OF WHAT COULD BE INCLUDED IN ALL CONTRACTS THAT USE WPCLF OR WSRLA FUNDS. OHIO EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THESE CLAUSES WITH RESPECT TO STATE OR LOCAL LAW. IT IS IMPERATIVE THAT ANY PARTY INSERTING THESE CLAUSES INTO A CONTRACT VERIFY THAT THEY ARE LEGAL AND ENFORCEABLE ACCORDING TO STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES.

Requirement For Utilization Of Small Businesses In Rural Areas (SBRA)

(Required Contract Provision)

The following policy should be added to the "Instructions to Bidders" section and referenced in the Table of Contents for the contract documents:

> This procurement is subject to the EPA policy of encouraging the participation of small businesses in rural areas. It is EPA policy that recipients of EPA financial assistance awards utilize the services of small businesses in rural areas (SBRAs), to the maximum extent practicable. The objective is to assure that such small business entities are afforded the maximum practicable opportunity to participate as subcontractors, suppliers and otherwise in EPA-awarded financial assistance programs. This policy applies to all contracts and subcontracts for supplies, construction, and services under EPA grants or cooperative agreements. Small purchases are also subject to this policy.

If possible, also add the following language to the "Advertisement for Bids":

> This procurement is subject to the EPA policy of encouraging the participation of small business in rural areas (SBRAs).

NOTE: THE CONTRACT LANGUAGE SAMPLES PROVIDED HEREIN ARE EXAMPLES OF WHAT COULD BE INCLUDED IN ALL CONTRACTS THAT USE WPCLF OR WSRLA FUNDS. OHIO EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THESE CLAUSES WITH RESPECT TO STATE OR LOCAL LAW. IT IS IMPERATIVE THAT ANY PARTY INSERTING THESE CLAUSES INTO A CONTRACT VERIFY THAT THEY ARE LEGAL AND ENFORCEABLE ACCORDING TO STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES.

Insurance Provisions
(Required Contract Provision)

Section 3.5 of the WPCLF/WSRLA Loan Agreement contains specific requirements regarding insurance for all contractors and all subcontractors for the life of the contract. These insurance requirements must be reflected in the contract documents. Adjust the following language as needed to meet the specifics of the construction project and local requirements while still meeting the provisions of the Loan Agreement.

The Contractor shall, at his expense, furnish and maintain insurance in the form and amounts specified in subparagraphs 1 through 7 inclusive, of this section. Policies shall be with acceptable insurance companies authorized to do business in the State of Ohio.

The Contractor shall not commence Work nor shall he permit any of his Sub-contractors to commence Work until the insurance policies specified hereinafter, if otherwise required, have been submitted to, and approved by the Owner. Such insurance policies shall be kept in force until the Contractor receives final payment.

Insurance shall be endorsed so that it cannot be changed or canceled in less than ten (10) days after receipt by the Contractor and the Owner of written notice of such proposed action from the Insurer.

The insurance specified in Subparagraphs 1, 2, 3 and 4 shall be written under the comprehensive general form of liability insurance contracts.

The Contractor shall furnish three (3) certificates or, whenever specifically requested by the Owner, three (3) certified copies of the insurance policies themselves and a receipt evidencing full payment of the premiums.

In addition to the insurance described hereinafter, the Contractor shall secure and maintain such other insurance as may be designated elsewhere in the Contract document.

If the Contractor is required to repair or perform Work after the completion of the Work involved under this Contract or obtain new policies in accordance with the requirements in this section.

1. *Builders Risk*: In addition to such fire and other physical damage insurance as the Contractor elects to carry for his own protection, he shall also secure and maintain in the name of the Owner, the government agency sponsoring the Project, Subcontractors, the Consulting Engineer and any other parties having an interest in the Project, as named insured as their interest may appear; a builders' risk policy for fire, extended coverage, vandalism and malicious mischief in the amount of one hundred (100) percent of the value of the complete parts of the Project and Materials in storage, except that such coverage shall not be required in connection with sewer, water main or paving construction. Pump or lift station construction shall not be considered sewer or water main construction for purposes of this paragraph.

2. *Workers Compensation*: The Contractor shall provide Workers Compensation Insurance for all employees engaged in Work who may come within the protection of the workers compensation law, and, where applicable, employer's General Liability Insurances for employees not so protected and shall require all Subcontractors to provide corresponding insurance.

The Contractor shall indemnify the Owner and the Consulting Engineer against any and all liabilities, cost and expenses due to accidents or other occurrences covered by the workers compensation law.

3. *Contractor's Motor Vehicle Bodily Injury and Property Damage Liability Insurance*: Insurance to cover liability arising from the use and operation of motor vehicles in connection with the performance of the Contract (as customarily defined in liability insurance policies), whether they be owned, hired or non-owned by the Contractor, as follows:
a. Bodily Injury Liability: $500,000 for each person; limit of $1,000,000 for each occurrence.
b. Property Damage Liability: $500,000 for each occurrence.

4. *Contractor's Public Liability and Property Damage Liability Insurance*: Contractor's Public Liability Insurance providing a limit of not less than $500,000 for all damages arising out of bodily injuries, including accidental death to one person, and a total limit of $1,000,000 for all damages arising out of bodily injuries, including accidental death, to two or more persons in any one occurrence. Contractor's Property Damage Liability Insurance providing for a limit of not less than $500,000 for all damages to or destruction of property.

Coverage under this policy shall include, to the limits indicated above, the collapse or damage to any structure, building or its contents, public or private utility, or pavement during construction and for two (2) years thereafter.

Whenever Work under the Contract is to be done in the vicinity of existing underground utilities or structures, coverage under the policy shall also include, to the limits indicated, all damages to said underground utilities or structures during construction and for a period of two (2) years thereafter. Whenever Work under the Contract is to be done by blasting, coverage under the policy shall also include, to the limits indicated above, all damages of any kind whatsoever caused by blasting.

5. *Contractor's Protective Public Liability and Property Damage Liability Insurance*: Contractor's Protective Public Liability and Property Damage Liability Insurance for operations performed by Subcontractors providing for coverage and limits corresponding to those described in subparagraph 4.

6. *Owner's Protective Public Liability and Property Damage Liability Insurance*: Regular Owner's Protective Public Liability and Property Damage Liability Insurance for operations performed by the Contractor or any Sub-contractor providing for coverage and limits corresponding to those described in subparagraph 4.

This policy shall be written in the name of the Owner as a separate policy from those specified elsewhere herein.

7. *Railroad Protective Liability Insurance*: In any of the Work under this Contract is on railroad R/W, the Contractor shall at its sole cost and expense, procure and provide, for and in behalf of each railroad company. Protective Liability Insurance (AARAASHO form) with minimum limits per occurrence of not less than $2,000,000 for bodily injury, death and/or property damage, subject to an aggregate limit of $6,000,000 per annum. The policy shall name each railroad company as the insured and be issued to the Contractor. Each railroad company shall be provided with a copy of each policy of insurance prior to commencement of any work.

NOTE: THE CONTRACT LANGUAGE SAMPLES PROVIDED HEREIN ARE EXAMPLES OF WHAT COULD BE INCLUDED IN ALL CONTRACTS THAT USE WPCLF OR WSRLA FUNDS. OHIO EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THESE CLAUSES WITH RESPECT TO STATE OR LOCAL LAW. IT IS IMPERATIVE THAT ANY PARTY INSERTING THESE CLAUSES INTO A CONTRACT VERIFY THAT THEY ARE LEGAL AND ENFORCEABLE ACCORDING TO STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES.

Materials Testing

(Required Contract Provision)

In addition to the details included with specific equipment testing in the specifications, include an overall statement regarding testing for the project. Adjust the following language as needed to meet the specifics of the construction project

Testing Services

1. Contractor shall appoint, employ, and pay for specified services of an independent firm to perform testing.

2. The independent firm will perform tests and other services specified in individual specification sections and as required by the Architect/Engineer.

3. Testing and source quality control may occur on or off the project site. Perform offsite testing as required by the Architect/Engineer or the Owner.

4. Reports will be submitted by the independent firm to the Architect/Engineer and Contractor, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.

5. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

   a. Notify Architect/Engineer and independent firm 24 hours prior to expected time for operations requiring services.

   b. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.

6. Testing does not relieve Contractor to perform Work to contract requirements.

7. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Architect/Engineer. Payment for re-testing will be charged to the Contractor by deducting testing charges from the Contract Sum/Price.

Continuous Treatment Provisions

(Required Contract Provision)

It is important that construction activities not result in any temporary violations of NPDES permit requirements (for permitted facilities) and construction activities should interrupt wastewater service to the individual residents as little as possible. For drinking water projects, it is important that construction activities not result in any disruption of service. Any disruption of service must be immediately reported to the Ohio EPA, Drinking Water Section or the appropriate district office.

The following example language is a sample of what might be appropriate for construction work occurring at an existing wastewater treatment plant. The language actually incorporated into the contract documents must be adjusted to meet the specifics of the construction project.

Continuous Treatment (wastewater projects)

Federal regulations prohibit by-passing of any sewage during construction operations. The Contractor will be responsible for providing any required temporary pumping facilities, piping, etc., necessary to complete the project without any plant by-passing and continuous treatment must be provided at the same level during construction as existed prior to construction.

Unless otherwise previously or subsequently specified, the Contractor shall procure and pay for all permits, licenses, and approvals necessary for the execution of his Contract.

The Contractor shall comply with all laws, ordinances, rules, orders, and regulations relating to the performance of the work required to complete their Contract.

The following example language is a sample of what might be appropriate for construction work occurring at an existing drinking water treatment plant. The language actually incorporated into the contract documents must be adjusted to meet the specifics of the construction project.

Continuous Treatment (drinking water projects)

The Contractor will be responsible for obtaining approval from Ohio EPA for use of temporary pumping facilities, piping and other items in order to complete the project without any plant by-passing. Continuous treatment must be provided at the same level during construction as existed prior to construction.

Unless otherwise previously or subsequently specified, the Contractor shall procure and pay for all permits, licenses, and approvals necessary for the execution of his Contract.

The Contractor shall comply with all laws, ordinances, rules, orders, and regulations relating to the performance of the work required to complete their Contract.

NOTE: THE CONTRACT LANGUAGE SAMPLES PROVIDED HEREIN ARE EXAMPLES OF WHAT COULD BE INCLUDED IN ALL CONTRACTS THAT USE WPCLF OR WSRLA FUNDS. OHIO EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THESE CLAUSES WITH RESPECT TO STATE OR LOCAL LAW. IT IS IMPERATIVE THAT ANY PARTY INSERTING THESE CLAUSES INTO A CONTRACT VERIFY THAT THEY ARE LEGAL AND ENFORCEABLE ACCORDING TO STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES.

State of Ohio

WATER POLLUTION CONTROL LOAN FUND (WPCLF) /
WATER SUPPLY REVOLVING LOAN ACCOUNT (WSRLA)

CONTRACT CHANGE ORDER

RECIPIENT_____ CHANGE ORDER NBR _____

LOAN NUMBER_____ CONTRACT _____

OWDA PROJECT No. _____ DATE _____

Description of Change:

The time provided for completion in the contract for the above items is (increased/decreased) by ____ calendar days.

RECOMMENDED BY: _____ DATE: _____
(Engineer)

APPROVED BY: _____ DATE: _____
(Recipient)

ACCEPTED BY: _____ DATE: _____
(Contractor)

_____
(Company)

Original Contract Amt		
Previous Changes (+ / --)		
This Change (+ / --)		
Adjusted Contract Amt		

OWDA APPROVAL

The above proposal is hereby accepted and I recommend that it be approved and made a part of the contract noted above. The approval does not constitute an increase in the total loan amount, but represents approval for the work.

Ohio EPA Acceptance

Date

Chief Engineer

Date

CHANGE ORDER INSTRUCTIONS:

All Change Orders for this work, regardless of costs and whether Water Pollution Control Loan Fund (WPCLF) or Water Supply Revolving Loan Account (WSRLA) funding will be used to finance the changes, must be submitted to Ohio EPA for review.

Changes Requiring Prior Approval

Any change which substantially modifies the Project Facilities as specified in the Ohio EPA approved Facilities Plan and Final Permit to Install or Final Plan Approval (when applicable) or alters the direct or indirect impact of the Project Facilities upon the environment must be incorporated into a Change Order. One copy of the Change Order prior to execution is to be submitted to Ohio EPA for review and prior approval of the acceptability of the change. "Prior to execution" means before the Change Order is signed by the Owner.

Ohio EPA will review the Change Order and inform the Owner of the technical, environmental and operational acceptability of the change, and give the Owner permission to proceed with the proposed work.

All Other Changes

Change Orders not requiring prior approval as described above must be submitted to Ohio EPA within one (1) month of the time at which they are approved by the Owner. All change orders must be submitted electronically to dedicated change order email addresses for WPCLF and WSRLA projects.

Change Order Approval Process

After the Change Order is executed, one (1) copy of the Change Order, including the supporting documentation, is to be sent electronically to Ohio EPA for final review.

> The dedicated e-mail address for the electronic submittal of WPCLF Change Orders is EPAWPCLFCO@epa.ohio.gov.
>
> The dedicated e-mail address for the electronic submittal of WSRLA Change Orders is EPAWSRLACO@epa.ohio.gov.

After the Change Order is accepted and eligible costs determined, Ohio EPA will issue a letter informing the Owner and authorizing OWDA to disburse funds from Project Contingency for the work. The OEPA letter will be sent electronically along with a PDF of the WPCLF/WSRLA Change Order form which will be signed by all parties including Ohio EPA and OWDA.

Payments for Change Order Work

The Owner is precluded from submitting to the OWDA payment requests for Eligible Project Costs associated with the Change Orders until such time as the Ohio EPA's approval of the Change Orders has been obtained.

Local Protest Procedure

(suggested contract provision)

Some statement as to when a valid protest must be filed, in what form it must be filed and who it must be filed with should be included. ORC 153.12 has some default procedures for handling WPCLF and disputes. If the owner wants more control than provided in ORC, a procedure needs to be spelled out in the Contract Documents.

The following example language is a sample of language that could be included. Review all local procedures and requirements and adjust the language to meet the specifics of the project.

Protests

A protest based upon an alleged violation of the procurement requirement may be filed against the OWNER's procurement action by a party with an adversely affected direct financial interest. The protest shall be filed with the Mayor. The OWNER shall determine the protest. The OWNER may request additional information or a hearing in order to resolve the protest.

A protest shall be filed as early as possible during the procurement process, but must be received by the OWNER no later than one week after the basis of the protest is known or should have been known, whichever is earlier. If the protest is mailed, the protester bears the risk of nondelivery with in the required time period.

A protest must clearly present the procurement requirement being protested, the facts which support the protest, and any other information necessary to support the protest.

Basis And Method For Award

(suggested contract provision)

The contract documents should include some language that clearly states what the Owner will consider when determining the successful bidder and to provide a clear basis for the Owner when they have a need to reject the low bidder and go with a different bidder.

The following example language is a sample of language that could be included. Review all local procedures and requirements and adjust the language to meet the specifics of the project.

Basis for Award

1. Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the successful Bidder, and the right to disregard all nonconforming, nonresponsive or conditional bids. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

2. In evaluating Bids, Owners shall consider the qualifications of the Bidder, whether or not the Bids comply with the prescribed requirements and alternates and unit prices if requested in the Bid forms. The Owner intends to accept alternates (if any are accepted) in the order in which they are listed in the Bid Form but Owner may accept them in any order or combination.

3. Owner may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principle items of material or equipment) proposed for those portions of the work as to which the identity of Subcontractors and other persons and organizations must submitted as provided in the Supplementary Conditions. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by Owner.

4. Owner may conduct investigations he deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors, and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

5. Owner reserves the right to reject the Bid of any Bidder who does not pass investigation of evaluation to Owner's satisfaction. Owner may reject any Proposal where the unit price or individual lump sum prices are unbalanced and/or unfavorable to the Owner's interest.

6. Owner will not make any award or permit any award at any tier to any party which is debarred or suspended or is otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549 "Debarment and Suspension." Each Contractor and supplier (over $25,000) shall complete the Certification Regarding Debarment, Suspension, and Other Responsibility Matters.

7. If Contract is awarded, it will be awarded to the lowest responsive responsible Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interest of the Project.

8. If the contract is awarded, Owner will give the Successful Bidder a Notice of Award within the time stated in the Advertisement after the day of the Bid opening.

9. When owner gives a Notice of Award to the Successful Bidder, it will be accompanied by at least three unsigned counterparts of the Agreement and three copies of all other Contract Documents. Within ten days thereafter, Contractor shall sign and deliver at least three counterparts of the Agreement to Owner with three copies of all other Contract Documents attached. Within fifteen days thereafter, Owner will deliver one copy of all fully signed counterparts to Contractor.

NOTE: THE CONTRACT LANGUAGE SAMPLES PROVIDED HEREIN ARE EXAMPLES OF WHAT COULD BE INCLUDED IN ALL CONTRACTS THAT USE WPCLF OR WSRLA FUNDS. OHIO EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THESE CLAUSES WITH RESPECT TO STATE OR LOCAL LAW. IT IS IMPERATIVE THAT ANY PARTY INSERTING THESE CLAUSES INTO A CONTRACT VERIFY THAT THEY ARE LEGAL AND ENFORCEABLE ACCORDING TO STATE AND LOCAL LAWS, REGULATIONS, AND ORDINANCES.

Payment Methods

(suggested contract provision)

To minimize uncertainty and arguments that can slow down the progress of construction it is useful to provide language stating how and when the Contractor will get paid. In addition to ORC and other local requirements, the involvement of public funding Agencies such as the WPCLF, Ohio Public Works Commission and Community Development Block Grant impact the process and timing for payments.

The following example language is a sample of language that could be included. Review all local procedures and requirements and adjust the language to meet the specifics of the project.

1. At least ten (10) days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Engineer a partial payment estimated filled out and signed by the Contractor covering the work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitable stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the Owner as will establish the Owner's title to the material and equipment and protect his interest therein, including applicable insurance. The Engineer will, with ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the Owner, or return the partial payment estimate to the Contractor indicating in writing his reason for refusing to approve payment.

   In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate. The Owner will, within 30 days of presentation to him of an approved partial payment estimate, pay Contractor for labor performed and material incorporated in the Work, at the rate of 92 percent of the amount of the estimate as approved by the Engineer until 50 percent of the Work is completed. All labor performed and material incorporated in the Work after the job is 50 percent of completed shall be paid for at the rate of 100 percent of the amount of additional labor and material furnished and approved and the amount labor and material furnished and approved the amount previously retained shall be deposited in an escrow account. The funds in the escrow account with accumulated interest are to be paid the Contractor at the same time and in the same manner as specified for payment of the of the retained amount in Section 5.

   Payment for material and equipment delivered and not incorporated shall be based on the scheduled of quantities and cost submitted. Any money due from Owner shall, on the day that it is due, be paid to Contractor, or deposited in an escrow account, whichever is applicable, with one or mare banks or building and loan associations in the state selected by mutual agreement between the Contractor and the Owner. The agreement shall contain the following provisions:

   A. The money shall be deposited in a savings account or the escrow agent shall property invest the entire escrow principal in obligations selected by the escrow agent, as stipulated in the agreement.

   B. The escrow agent shall hold the escrow principal and income until receipt of notice from the Owner and the Contractor, of until receipt of an arbitration order specifying the amount of escrow principal to be released and the person to whom it is to be released. Upon receipt of the notice or order, the agent shall properly pay such amount of principal and the portion of amount of the escrow income to the person indicated.

C. The escrow agent shall be compensated for its services as agreed to by the Owner and the Contractor from the income from the escrow account.

2. The request for payment may also include an allowance for the cost of such major material and equipment which are suitably stored either at the site or the near the site.

Prohibition on Telecommunications and Video Surveillance

§ 200.216 Prohibition on certain telecommunications and video surveillance services or equipment.

(a) Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115–232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

(b) In implementing the prohibition under Public Law 115–232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

(c) See Public Law 115–232, section 889 for additional information.

(d) See also § 200.471.

Resources:

2 CRF 200.216

FAQ's: Sec. 889 of 2019 NDAA_FAQ_20201124.pdf (performance.gov)

Public Law 115-232, Section 889

§ 200.471

WPCLF/WSRLA CONTRACT DOCUMENTS REVIEW

Funding Applicant:	
Project Name:	**Project Number:**
Date Bid Advertisement will start:	**Date Bids will be opened:**
Engineer's estimate of construction cost:	
Time of completion for work (e.g., 9 months):	

Please provide the Section/PDF Page number from the contract documents that corresponds with each item below.

Program Requirements: -Any item checked as "No" must be explained on a separate sheet

☐ Yes ☐ No EEO Certification *Section/Page #*_____
☐ Yes ☐ No Certification Regarding Debarment & Suspension *Section/Page #*_____
☐ Yes ☐ No Prohibition on telecommunications and video surveillance equipment *Section/Page #*_____
☐ Yes ☐ No Contract provisions describing DBE requirements *Section/Page #*_____
☐ Yes ☐ No DBE Forms 6100-3, 6100-4 and 6100- 2 *Section/Page #*_____
☐ Yes ☐ No Davis-Bacon wage rate requirements *Section/Page #*_____
☐ Yes ☐ No Build America, Buy America Acknowledgement Form *Section/Page #*_____
☐ Yes ☐ No American Iron and Steel Acknowledgement Form *Section/Page #*_____
☐ Yes ☐ No Violating Facilities clause *Section/Page #*_____
☐ Yes ☐ No Small Businesses in Rural Areas (SBRA) *Section/Page #*_____
☐ Yes ☐ No Insurance for both the contractor and all subcontractors: *Section/Page #*_____
- ☐ Yes ☐ No Workers' Compensation
- ☐ Yes ☐ No Public Liability
- ☐ Yes ☐ No Property Damage
- ☐ Yes ☐ No Vehicle Liability
- ☐ Yes ☐ No Flood (if appropriate)
- ☐ Yes ☐ No Builders Risk (can be held by owner instead)

☐ Yes ☐ No Material Testing (statement regarding testing for specifications) *Section/Page #*_____
☐ Yes ☐ No Project-specific continuous service/treatment provisions *Section/Page #*_____
☐ Yes ☐ No WPCLF/WSRLA Change Order form & instructions *Section/Page #*_____
☐ Yes ☐ No Bid proposal forms (necessary for determining loan eligibility) *Section/Page #*_____

Other Contract Requirements

☐ N/A - superseded by local requirements
☐ Yes ☐ No Text of the bid advertisement *Section/Page #*_____
☐ Yes ☐ No Engineer's estimate of cost for construction *Section/Page #*_____
☐ Yes ☐ No Description of how the bid price, including any alternates, is determined *Section/Page #*_____
☐ Yes ☐ No Notice to Proceed form *Section/Page #*_____
☐ Yes ☐ No Any material or equipment designated from a "sole source?" *Section/Page #*_____
If yes, attach a description and justification for each item.
☐ Yes ☐ No Bid includes a dedicated contract contingency/allowance amount *Section/Page #*_____
Contract contingency is ☐ a fixed dollar amount ☐ a fixed percentage of the contract total

Ohio Revised Code Requirements - The following are required for municipalities (cities, villages, counties, sewer districts) but may be superseded by local charter or other local requirements.

☐ N/A - superseded by local requirements ☐ N/A - not a municipality
☐ Yes ☐ No Bid Guarantee in the form required by ORC *Section/Page #*
☐ Yes ☐ No Payment and Performance Bonds in the form required by ORC *Section/Page #*
☐ Yes ☐ No Provisions for payment retention in conformance with ORC *Section/Page #*
☐ Yes ☐ No A specific time for completion of the work *Section/Page #*

Checklist Prepared by:_____ Phone or E-mail _____

Bid Package Submittals

The following documents must be submitted to Ohio EPA – DEFA within one week after bids are received, or sooner dependent on your individual project schedule.

1. One copy of all addenda when they are issued.
2. A complete copy of the successful bidder's proposal(s).
3. A bid tabulation (a list of all bidders and their line item amounts) in the same format as the proposal.
4. The engineer's bid evaluation and recommendation.
5. A signed copy of the Contractor's EEO Certification Form.
6. A signed copy of the Certification Regarding Debarment, Suspension, and Other Responsibility Matters.
7. Completed copies of Form 6100-3 Individual DBE Subcontractor Proposed Performance Form and Form 6100-4 DBE Subcontractor Utilization Summary that were provided by the successful bidder(s), as well as any alternate "good faith efforts" documentation.
8. A resolution from the loan recipient's governing body tentatively awarding the contract to the successful bidder.
9. A copy of the site title opinion stating that all sites, easements and / or right-of-way necessary to construct the project have been acquired.
10. Signed Build America, Buy America Acknowledgement Form, if applicable.
11. Signed American Iron and Steel Acknowledgement Form.
12. Useful Life Worksheet (must be completed for loan requests greater than 20 years)
    - WPCLF Useful Life Worksheet: https://epa.ohio.gov/static/Portals/29/documents/ofa/CW-Useful-Life-Worksheet.xlsx?ver=2019-10-31-153519-907
    - WSRLA Useful Life Worksheet: https://epa.ohio.gov/static/Portals/29/documents/ofa/DW-Useful-Life-Worksheet.xlsx?ver=2019-10-31-153519-907

SECTION 01043
COORDINATION AND CONTROL OF THE WORK

PART 1 GENERAL

1.01 SCOPE

A. This section includes coordination and control of the Work.

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. Information for the Record:

a. Bypass Pumping plan and procedures.

b. Haul routes to and from Site.

c. Plan and procedures for any shutdowns and bypass pumping.

d. Coordination drawings shall include, but not be limited to, all process piping including, but not limited to, bill of material, laying length, embedded conduit runs, and embedded plumbing lines.

1.03 LINES AND GRADES

A. All Work under this Contract shall be built in accordance with the lines and grades shown on the Drawings or as altered or modified by authority of the Owner and Engineer.

1.04 EXISTING CONDITIONS SHOWN ON DRAWINGS

A. Where underground and surface structures are shown on the Drawings, the location, depth, and dimensions of such structures are believed to be reasonably correct but are not guaranteed.

B. Such structures are shown for the information of the Contractor, but information so given is not to be construed as a representation that such structures will in all cases be found or encountered just where shown, or that they represent all the structures which may be encountered.

1.05 COOPERATION OF CONTRACTOR

A. The Contractor shall conduct his operations so as to interfere as little as possible with those of the Owner, other contractors, utilities, or any public authority on or near the Work.

B. The Owner reserves the right to perform other Work by contract or otherwise, and to permit other public bodies, public utility companies, and others to do Work on or near the project during progress of the Work. If a conflict arises, the Owner will determine when and how the Work shall proceed.

C. Claims for delay or inconvenience due to operations of such other parties on Work specified, shown on the Drawings, as directed or which can be reasonably expected to be encountered by the nature and location of the Work will not be considered.

D. Operations entailing the use of construction equipment and lights outside the hours or 8:00 am and 5:00 pm or outside the hours allowed for construction by local ordinances or regulations are prohibited unless otherwise authorized by the Owner or Engineer.

E. Closing off clear access to any public alley, street, road, avenue or boulevard without the prior consent of municipal officials and the Engineer is prohibited.

F. Contractor and subcontractors are required under Ohio Revised Code Section 149.53 to Notify the Ohio Historical society and the Ohio Historic Site Preservation Board of archeological discoveries located in the project area and to cooperate with these entities in archeological and historical surveys.

1. State Historical Preservation Phone number 614-298-2000.

1.06 MAINTENANCE OF SANITARY SYSTEM DURING CONSTRUCTION

A. All construction which requires interruption of treatment plant flow shall be executed during periods designated by the Owner. Bypassing of untreated or partially-treated wastewater to the receiving stream is prohibited.

B. The Contractor shall be responsible for adverse environmental effects, or compliance violations at the existing treatment facilities which occur as a result of the Contractor's noncompliance with the requirements and constraints included in the Contract Documents.

C. The Contractor shall be responsible for sampling and testing, and penalties resulting from the non-performance of the Contractor's work.

1.07 PERMANENT PAVEMENT AND FINAL RESTORATION

A. Permanent pavement and final restoration shall be completed prior to the close of the last paving season prior to the Contract's final completion.

1.08 TEMPORARY PAVEMENT RESTORATION

A. The Contractor shall maintain the treatment plant access roads for operating personnel, deliveries of operating supplies, normal plant maintenance vehicles, and other equipment incidental to the operation and maintenance of the treatment facility.

1.09 TEMPORARY PARKING FACILITIES

A. Parking spaces for the Contractor's personnel shall be provided and maintained in usable condition by the Contractor at all times. Provisions shall be made so that sediment is not tracked onto paved roadways from the vehicles operated by the Contractor's personnel. The parking areas shall consist of temporary parking areas or new permanent parking areas shown on the Drawings. Temporary parking areas are to be located in the area designated by the Owner and Engineer. At the completion of the project, temporary parking areas shall be removed and the surface restored as specified, shown on the Drawings, as directed or to its original condition.

B. The Contractor's personnel shall not utilize existing permanent parking areas unless specifically noted otherwise on the Drawings.

1.10 TEMPORARY WATER, HEATING, LIGHTING AND POWER

A. The Contractor shall provide all water, heat, lighting, and power required to construct and protect the Work until Final Completion.

B. The source for temporary power shall be from the electric utility or portable power source.

C. The source for temporary water can be from the water utility if available. The Contractor shall furnish all backflow prevention devices, flow meter and appurtenances as may be required by the water utility. Should the water utility impose a charge for furnishing, to the Contractor, the meter or appurtenances the Contractor shall pay all the fees. The Contractor shall pay all charges for the water metered.

1. If a water utility is not available, the Contractor shall be responsible for furnishing water and all cost associated including, but not limited to, procurement, hauling, pumping equipment, and appurtenances.

D. The Contractor shall pay for all significant amounts of electric power utilized by the Contractor in the construction of the facility. All electric power used for such significant uses as pumping groundwater and heating shall be separately metered and paid for by the Contractor.

E. The installation for electric power shall meet the requirements of federal, state, and local authorities and regulatory agencies.

1.11 DISPOSAL OF DEBRIS

A. All debris resulting from construction operations, i.e., packaging, waste materials, damaged equipment, etc., shall be trucked from the Site by the Contractor and disposed of at spoil sites.

B. The Contractor shall police the hauling of debris to ensure that all spillage from haul trucks is promptly and completely removed from public or private rights-of-way.

C. All debris shall be disposed of in accordance with federal, state, and local laws and regulations.

1.12 CONTROL OF NOISE

A. The Contractor shall eliminate noise to as great an extent as possible at all times. Air compressors shall be equipped with silencers and the exhaust of all gasoline motors and other power equipment shall be provided with mufflers. In the vicinity of hospitals, libraries, and schools, precautions shall be taken to avoid noise and other nuisance, and the Contractor shall require strict observances of all pertinent ordinances and regulations. Any blasting permitted in such locations shall be done with reduced charges.

1.13 SMOKE PREVENTION

A. Strict compliance with all ordinances regulating the production and emission of smoke will be required, and the Contractor shall accept full responsibility for all damage that may occur to property as a result of negligence in providing required control.

1.14 DEBRIS AND DUST CONTROL

A. The Contractor shall apply water, dust palliative, or both, for the alleviation or prevention of dust nuisance caused by his operations. Dust control operations shall be performed by the Contractor as site conditions dictate or as order by the Owner and Engineer.

B. The Contractor shall utilize mechanical equipment to remove all debris from all streets, drives and walks to the satisfaction of the Owner and Engineer. Cleaning shall be performed at a minimum of daily and as directed by the Owner and Engineer.

C. The cost of the debris and dust control methods shall be the responsibility of the Contractor.

1.15 RESERVED

1.16 USE OF EXPLOSIVES

A. When the use of explosives is authorized for the prosecution of the Work, the Contractor shall use the highest degree of care so as not to endanger life or property. The Contractor shall be responsible for any and all damage resulting from use of explosives.

B. The Contractor agrees and warrants that he will observe state laws and local ordinances and regulations relative to the use and storing of such explosives as may be kept on the job and all such storage places shall be marked clearly, “DANGER -- EXPLOSIVES”.

1.17 EMERGENCY MAINTENANCE SUPERVISOR

A. The Contractor shall submit to the Engineer the names, addresses, and telephone numbers of two employees responsible for performing emergency maintenance and repairs when the Contractor is not working. These employees shall be designated in writing by the Contractor to act as his representative and shall have full authority to act on his behalf as specified in GC 6.2 of the General Conditions.

B. Contractor shall post at job Site, in a conspicuous location, the emergency numbers for the project.

C. Contractor shall be responsible for contacting the local fire, police, and emergency response personnel and organizations in advance of the Work. The Contractor shall be responsible for the coordination and compliance with emergency response plans, whether developed by the governing agency, laws, or the Contractor for the project.

D. At least one of the designated employees shall be available for a telephone call any time an emergency arises.

1.18 PUBLIC SERVICE STRUCTURES

A. Public service structures shall be understood to include all poles, tracks, pipes, wires, conduits, house-service connections, vaults, manholes, and other appurtenances, whether owned or controlled by the Owner or other public bodies or by privately-owned corporations, used to supply the public with transportation, heating, electric, telephone, gas, water, sewer, or other services.

B. At least a week in advance of breaking ground, the Contractor shall notify the registered underground protection service, all public bodies, and other owners of such facilities of the proposed location of his operations, advising them that their property may be affected and that such measures as they may deem necessary should be promptly taken to protect, adjust, remove, or build them.

C. In developed residential and commercial areas, the Contractor shall assume each building and dwelling has water and sewer services and that they shall be protected and repaired as needed as part of the pipeline installation. No additional payment will be made for Work associated with supporting or repairs of such services.

D. Three conditions which may be encountered will be dealt with as follows:

1. Structures which are adjacent to but not included within the limits of an excavation required for performance of the Work shall be protected, supported, and maintained in service by the Contractor at his expense.

2. Structures within the limits of the Work which can be satisfactorily supported and maintained in service and which do not require removal and rebuilding in the judgment of the Engineer shall be thus supported by the Contractor at his expense, including cost of repair of damage incident to his operations.

a. Supports for water and gas mains, sewers, conduits, and similar structures shall be constructed of timber or other acceptable materials; shall be supported from undisturbed foundations, and shall be sufficiently substantial to ensure against settlement when pipe trenches or other excavations are backfilled. In all cases where permits or inspection fees are required by utilities in connection with changes to or temporary support of their conduits, the Contractor shall secure such permits and pay all permit and inspection fees.

b. The Contractor shall assume full responsibility for maintaining all public service structures in service and shall support and protect, or remove and rebuild them at his own expense. Such services shall not be interrupted without permission of the owner of the public service structure.

3. In case relocation of pipelines or other utility structures is required because of direct interference, as determined jointly by the Owner, Engineer, and Contractor, with the installation of the Work, the Contractor shall notify the Owners of the utility structure involved.

a. The Contractor will not be reimbursed for the cost of the relocation if the interference is shown on the Drawings, described in the Specifications, apparent on visual inspection, or specifically included in the Work to be performed by the Contractor.

b. The Contractor will not be paid for time lost because of such direct interference. Where it is the policy of any utility owner to perform such Work with his own forces, the Contractor shall cooperate to the fullest extent with such utility owner.

1.19 UNAUTHORIZED OR PROHIBITED WORK

A. Work done beyond the lines shown on the Drawings or ordered, Work done without required inspection, except as herein provided, or any extra work done without authority will be considered as unauthorized and will not be paid for under the provisions of the Contract. Work so done may be ordered removed at the Contractor's expense. Work done without lines and grades being given shall be considered as unauthorized and subject to rejection.

B. Disposing of excess or unsuitable materials, including but not limited to excavated material, demolition debris, clearing and grubbing debris, in wetlands or flood plains.

C. Locating stockpiles in environmentally sensitive areas.

D. Pumping of sediment-laden water from trenches or excavations directly into any surface waters, stream, wetlands, or sewers. Pumped water shall be properly filtered and desilted prior to discharge.

E. Open burning without a permit.

F. Discharging injurious silica dust concentrations into the atmosphere within 200 feet of any residential or commercial, or public or private places of human occupancy.

1.20 DRAINING OF TANKS AND PIPELINES

A. Unless otherwise indicated, tanks, pipelines, and other similar structures that are to be removed from service, to complete the Work will be initially drained by the Owner.

B. Draining will be by gravity or by a permanently installed pump, if available.

C. After the tank has been drained by the Owner to the lowest level possible with existing means for drainage, the Contractor shall remove and dispose of remaining liquid and accumulated solids, as required to complete the Work.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

PART 4 SPECIAL PROVISIONS

4.01 MAINTAINING FLOW IN EXISTING SEWERS

A. Flow in existing storm, sanitary and private sewers shall be maintained at all times during construction of this project. The Contractor shall furnish and install all necessary temporary facilities required to maintain the flow in existing sewers including bulkheads, plugs, stop planks, flumes, coffer dams, pumping equipment, valves, etc.

4.02 POTENTIALLY HAZARDOUS ENVIRONMENT

A. The environment in portions of the Site is rated as Class I Division 1 or 2 or some areas of the Site are designated as permitted Confined Spaces. As a minimum, whenever the Contractor is performing Work in these areas, the Contractor shall provide Factory Mutual- and UL-approved continuous monitoring of the atmosphere for the presence of hydrogen sulfides, of low oxygen concentration, and of explosive gases (both lighter and heavier than air). The Contractor shall evacuate all personnel from the areas whenever the detection system registers hydrogen sulfide levels of greater than 20 ppm, oxygen levels less than 19.5% or combustible gas levels of greater than 10% of the LEL. In addition, whenever the Contractor is using tools producing open flames or sparks, such as cutting torches, saws, and grinders, the Contractor shall provide for the forced air exhaust ducted from the immediate area of the Work.

4.03 REQUIRED SAFETY DOCUMENTATION TO BE SUBMITTED

A. On all projects that require the Contractor’s or subcontractor’s personnel to occupy permitted confined spaces and/or hazardous atmospheres on the Site, the Contractor

shall submit to the Owner, a written proposed safety program. The safety program shall comply with all Federal, State, and local requirements. If the Owner has a safety plan that is more stringent than the Federal and State requirements, it will be made available to the Contractor for review. The submittal of the proposed safety program to the Owner shall be made well in advance of the start of construction at the Site. The submittal shall include a written Safety Management Plan including Confined Space Entry procedures. The Contractor shall be responsible to maintain documentation that anyone employed by the Contractor, subcontractors, or suppliers of any tier to the Contractor occupying such hazardous locations has received the appropriate confined space entry training and other applicable training. The Contractor is also responsible to maintain completed confined space entry permits.

4.04 MAINTAINING CRITICAL OPERATIONS

A. All Work requiring any portion of the existing UV disinfection systems to be out of service must be performed between November 1st and the following February 25th. From any March 1st through the following October 31st, either the existing disinfection system shall be in full operation or the new UV disinfection system shall be fully operational, including the required supplier representative installation certification and training.

B. The Contractor shall closely coordinate any needed equipment shutdowns with the Owner. Except for the disinfection system which is addressed above, the Contractor shall not take out of service more than one piece of process equipment at a time.

C. The existing plant effluent sample line is located in the UV Building and is planned to be abandoned. From the time this sample line is taken out of service and until the new sampler in the Service Building is fully operational, the Contractor shall take measures for the temporary sampling of the plant effluent. Such possible measures include furnishing and installing temporary bypass piping for the existing effluent sample line or installing the new sampler in a temporary shelter and providing the necessary power and signal wiring connections.

D. The power and control work for existing equipment shall be arranged and sequenced to minimize the downtime of all equipment. In general, only one item of equipment can be out of service at any one time, and the unavailability of equipment shall be kept to a minimum duration.

E. Any Work that requires any plant equipment to be unavailable for use by the plant staff must be scheduled one week in advance of the planned outage.

F. Existing Plant Flows

1. The dry weather flows range from 0.30mgd to 1.00 mgd.
2. Wet weather flows range from 1.0 mgd to 4.3 mgd. Max flow is based on max capacity of the raw wastewater pump station.
3. Flows greater than 4.3 mgd are diverted to the CSO EQ basin.

4.05 SUGGESTED SEQUENCE OF CONSTRUCTION

A. Storm Water Pollution Prevention Plan (SWPPP)

1. The storm water prevention, best management practices shall be implemented prior to commencement of any earth moving activities.

B. Project Constraints

1. Contractor shall coordinate the construction of the sewers with the new and existing plant operations.

2. The flow equalization basin may be utilized to divert flow from the influent sewers to allow for installation of the sewers and chambers.

3. Flow diversion to the EQ basin will be limited when a wet weather event is predicted or when the flow equalization basin is being utilized.

4. Wet Startup of the new plant may be performed with effluent downstream of the final clarifiers or river water. Contractor shall provide the necessary equipment to pump water into the influent sewers for plant wet-test.

a. Dry-weather effluent flow rate at existing plant effluent will be in the range of 200,000 gpd to 500,000 gpd (not guaranteed and dependent on influent rate and weather)

b. Wastewater content of the existing plant will not be transferred to the new plant.

c. The intent would be after the wet-test the sewers are connected and raw sewage is introduced to the new plant.

5. The Village will arrange for removal of the existing WW Contents

C. Entrance Road

1. Entrance road shall remain open for Owner's operations.

2. The entrance road base widening shall be performed as early as possible in the construction to facilitate contractor's movement of materials and equipment to/from the site, as well as the Owner's operations.

a. The drive widening shall be stone as specified and shown on the drawings.

b. Entrance road, final grading, milling and resurfacing shall be performed at the completion of construction.

D. Administration building and new sludge handling building

1. The existing laboratory/office building shall remain in service until the new administration building is substantially complete, occupancy permit received and ready for service to the satisfaction of the Owner and Engineer.

2. The new sludge dewatering building will be ~~is not required~~ in the first phase of construction. ~~It cannot be constructed until the existing Laboratory Building and primary tanks are demolished.~~ **(Addendum 3, Issued 5/28/2026)** The existing sludge dewatering press shall remain in service until the new sludge dewatering process is completed, commissioned and ready for service to the satisfaction of the Owner and Engineer.

E. Electrical Utility Power

1. The Village of Oak Harbor, electric department (Electric Department) has purchased the transformer, and it is stored in their facility. The electrical Department does not have material handling equipment large enough for the transformer. The Contractor shall provide material handling equipment and pick up the transformer from the Electric Department.

2. The Electric Department will be installing a new power pole, as shown on the Drawings, near the generator and transformer for the utility drop. Contractor shall coordinate the scheduling of this work.

3. The electric department will be removing the existing pole, in the new driveway, as shown on the drawings. Contractor shall coordinate the scheduling of this work.

4. The existing power to the existing plant will be removed by the Electrical Department. Removal of the existing power is dependent on satisfactory operation of the new facilities. Contractor shall coordinate the scheduling of this work.

F. Flow Equalization Basin

1. Work in the flow equalization basin may be completed at any time during construction, unless a wet weather event is predicted or when the flow equalization basin is being utilized

G. Construction of the New Plant

1. New plant will be constructed off-line while existing plant continues to receive flow and operate.

2. The influent sewers may be constructed but not connected to the existing sewers. The influent sewers shall not receive and convey flow to the new plant until the new plant is substantially complete, commissioned and ready for service to the satisfaction of the Owner and Engineer.

3. The embankment, at the effluent pipe, shall be constructed, prior to the installation of the pipe and prior to the construction of the effluent structure. The embankment material source is from suitable materials excavated on site. See drawings for haul route.

H. Sewer Construction

1. Construction of the new 36-inch sewer between MH SA-1 and Existing Chamber may be installed by either open cut or jacked pipe.

2. Manhole MH-SA-5.

a. Manhole MH-SA-5 will be constructed over the existing 18-inch plant influent with a new 24-inch directing flow to the Headworks. It will be constructed as a Type II (5-foot diam.) manhole.

b. The manhole will have a cast bottom, no doghouse allowed. The existing 18-inch flowing out of the manhole and the new 24-inch flowing to the new Headworks will both remain active after the manhole is installed.

c. Either 18-inch or 24-inch line can be temporarily plugged during construction as needed to complete the work and accomplish start-ups.

d. The 18-inch line will be permanently plugged after the new plant is operating satisfactorily.

I. Abandonment of the Existing Plant

1. Once the sewers are constructed, and the new plant is operating satisfactorily, the Contractor shall pump the wet stream contents of the existing plant to the new plant for disposal.

2. Demolish the existing plant including but not limited to, Raw Wastewater Pump Station, Grit Chamber, Primary Settling Tanks, Trickling Filters, Trickling Filter Pump Station, Final Clarifiers, and Post Aeration Tank, and UV Building and miscellaneous structures as necessary and shown on Drawings

J. Shutdowns

1. All shutdowns shall be coordinated with the Owner and require a minimum one-week notice and 24-hour confirmation.

2. A coordination meeting on site between the Owner, Engineer, and Contractor shall be held the day prior to each shutdown. The Owner reserves the right to cancel shutdowns for any reason without a claim from contractor for cost or delay.

3. Shutdowns are weather dependent.

4.06 COORDINATION WITH OUTSIDE UTILITIES

A. Electric Utility Oak Harbor Municipal Electric (Includes Frontier)

Mr. Dan Wendt, 228 Park Street, Oak Harbor

419-898-1823

B.	Gas Utility	Columbia Gas of Ohio Jamie Briehl, 2901 west Manhattan Boulevard, Toledo , Ohio 43449 567-395-4619
C.	Water Utility	Oak Harbor Public Works Tyler Richards, 351 East Water Street, Oak Harbor 43449 419-898-1823

END OF SECTION

SECTION 04200
UNIT MASONRY

PART 1 GENERAL

1.01 SCOPE

A. This Section includes furnishing, all labor, materials, equipment, and appliances required to complete the masonry work, including the following:

1. Furnishing and placing masonry units, grout, mortar, masonry lintels, sills, copings, through-wall flashing, and connectors.
2. Furnishing and setting of the steel reinforcement as indicated on the Drawings and as herein specified or necessary.
3. Furnishing, erecting, and maintaining bracing, forming, scaffolding, rigging, and shoring.
4. Furnishing and installing other equipment for constructing masonry.
5. Cleaning masonry and removing surplus material and waste.
6. Installing steel lintels, nailing blocks, all bolts, anchors, inserts, window and door frames, connectors, and construction items to be built into the masonry, and building in vent pipes, conduits, and other items furnished and located by other trades.
7. The removal and repair of sections of the masonry for inspection as directed by the Engineer.

B. Products Furnished but not Installed in this Section:

1. Dovetail anchor slots shall be installed under Section 03100.

C. Products installed but not furnished under this Section include the following:

1. Steel lintels for unit masonry specified in Section 05500.
2. Frames for masonry openings specified in Division 8.

D. Laboratory services shall be furnished in accordance with requirements of Section 01410.

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. Shop Drawings for Review:
    a. Reinforcement placing drawings. The drawings shall show the location of reinforcement in plan, elevation and section views, and include bending schedules.
    b. Product literature for joint reinforcement, anchors and ties, premolded joint fillers, and accessory materials.
    c. Mortar and grout mix proportions.
    d. Manufacturer's color selection kit for each type of masonry and mortar.
    e. Samples of each type of facing brick and architectural concrete masonry units showing range of colors, textures, finishes and dimensions.
    f. Six-inch-long sample of each premolded joint material.
    g. Product Certifications - Results of tests of mortar, grout mixes, and masonry units attesting compliance with applicable ASTM Standards.
    h. Certification of compliance for each type and size of anchors, ties, metal accessories, and reinforcement to be used in construction, demonstrating compliance with applicable ASTM Standards.
    i. Show locations of the wall expansion joints with the corresponding vertical reinforcement.
2. Information for the Record:
    a. Manufacturer's installation instructions.
    b. Results of tests on components of mortar, grout, and masonry units to provide evidence that they conform to applicable ASTM specification requirements.

1.03 QUALITY

A. Preconstruction Verifications - The Contractor shall submit the following information prior to the start of construction. The Contractor shall pay for independent laboratory services if required to obtain the following information. Current tests and certificates issued by the manufacturer will be accepted in lieu of laboratory test results.

1. Test indicating that clay masonry units conform to ASTM C62, ASTM C216 or ASTM C652 and that concrete masonry units conform to ASTM C55 or ASTM C90. Manufacturer's certificates stating that the supplied units conform to these tests will be accepted.
2. Grout mix designs indicating type and proportions of materials conforming to the proportion specification of ASTM C476, Table 1. Grout mix component material certificates stating conformance with applicable materials listed in ASTM C476.

3. Mortar mix designs indicating type and proportions of materials conforming to the proportion specification of ASTM C270, Table 1. Mortar mix component material certificates stating conformance with allowable materials listed the Mortar specification section herein.

B. Sample Panel:

1. Mock-up panels of each type of masonry wall using proposed materials and procedures shall be constructed. Minimum panel size shall be 4 feet by 4 feet.

2. The accepted panels shall establish the acceptance standard for the Work.

3. Unless directed otherwise, panels shall be constructed separate from the Work and shall be retained at the job site until masonry work has been accepted.

C. ~~Fire-Resistance Ratings - Provide materials and construction identical to those of assemblies with fire-resistance ratings determined per ASTM E119 by a testing and inspecting agency, by equivalent concrete-masonry thickness, or by another means, as acceptable to authorities having jurisdiction.~~

1. ~~All concrete masonry unit walls shall have a minimum two-hour fire rating.~~ **(Addendum 3, Issued 5/28, 2026)**

D. Single-Source Responsibility for Masonry Units - Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from one source and by a single manufacturer for each different product required.

E. Single-Source Responsibility for Mortar Materials - Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from one manufacturer for each cementitious component and from one source or producer for each aggregate.

F. Masonry construction and materials shall conform to all requirements of the following codes and standards:

1. “Building Code Requirements for Masonry Structures” (ACI 530/ASCE 5/TMS 402), American Concrete Institute, American Society of Civil Engineers, The Masonry Society.

2. “Details and Detailing of Concrete Reinforcement” (ACI 315), American Concrete Institute.

3. “Ohio Building Code”.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver masonry units to job site in undamaged condition. Deliver and handle units to prevent chipping, breaking, or other damage.

B. Store masonry units on elevated platforms, under cover, and in a dry location to prevent their deterioration or damage due to moisture, temperature changes, contaminants,

and other causes. If units become wet, do not install until they are in an air-dried condition.

C. Store cementitious materials on elevated platforms, under cover, and in a dry location.

D. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil. Protect from bending and other damage.

PART 2 PRODUCTS

2.01 MASONRY UNITS

A. Units shall be sized as shown or specified. Provide or cut special shapes for corners, jambs, lintels, or other areas as required. Special units shall match color and texture of standard units. Units shall be sound, dry, clean, free of cracks, and shall have reached the specified moisture content and compressive strength prior to placing in the structure.

B. Facing Brick shall conform to ASTM C652 or ASTM C216, Grade SW (severe weathering), Type FBS (standard). Nominal dimensions shall be 4-inch thick by 8-inch long. Coordinating height shall be 3 courses to 8-inch used for exposed areas where appearance is an important design criteria. Color and texture shall be the same as approved wall sample constructed at the job site. Color and texture of the units are to be approved by the Owner.

C. Concrete Masonry Unit (CMU) shall conform to ASTM C90, Type I. Nominal dimensions of standard unit shall be 8-inch high by 16-inch long. Thickness shall be as shown. Unless otherwise specified, units shall be normal weight. When CMU units are used for exterior walls add the following:

1. Where required in Part 4, units shall be integrally colored with mineral oxide pigments. Color will be selected by Owner from manufacturer’s standards.

D. Concrete Brick shall conform to ASTM C55, Type I, Grade N. Units shall be of normal weight unless otherwise specified.

E. Precast Concrete Lintels shall have appearance similar to masonry units in wall surrounding lintel. Lintel shall be constructed as shown and shall be marked for proper location and orientation.

2.02 WATER REPELLANT ADMIXTURE

A. APMU, AMU, CPMU and CMU Units shall contain integral polymer water repellant admixture. Admixture shall be W. R. Grace “Dry-Block Water Repellant Admixture”, or equal. Admixture shall be used in accordance with manufacturer’s instructions.

2.03 MORTAR

A. Mortar mix shall conform to ASTM C270, Type S, proportion specification. Required Applicable specifications for mortar material components are: Mortar Cement (ASTM C1329), portland cement (ASTM C150, Type I), hydrated lime (ASTM C207, Type S) and sand (ASTM C144).

B. Mortar for exterior masonry units shall contain integral polymer water repellant admixture. Admixture shall be W.R. Grace “Dry-Block Mortar Admixture”, “Dry-Brick Mortar Admixture”, or equal.

C. Calcium chloride and other admixtures containing chloride ion are prohibited.

D. Mortar shall be used as soon as possible after mixing. Mortar which has begun to stiffen or is not used within two hours after initial mixing shall be discarded. Mortar that cannot regain original plasticity after single retempering shall be discarded.

2.04 GROUT

A. Grout mix components and mixing procedures shall conform to ASTM C476. Admixtures shall not be used without written permission of Engineer.

B. Grout shall be proportioned in accordance with ASTM C476, Table 1. The grout shall be mixed to a slump of between 8 and 12 inches. Aggregate for grout shall conform to ASTM C404.

2.05 MASONRY STRENGTH

A. Net area compressive strength (f`m) of concrete and brick masonry at 28 days, in each wythe and grouted collar joint, shall be not less than 1500 psi.

B. Net area compressive strength of clay masonry units shall not be less than 3350 psi.

C. Net area compressive strength of concrete masonry units shall not be less than 1900 psi.

2.06 BAR REINFORCEMENT

A. Reinforcement shall be grade 60 deformed bars conforming to ASTM A615.

B. Reinforcement to be welded shall be grade 60 and conform to ASTM A706.

C. Bars shall be fabricated in conformance with CRSI Manual of Standard Practice.

D. Reinforcement shall be cold bent, where bending is specifically shown, but shall not be bent or straightened in injurious manner.

2.07 JOINT REINFORCEMENT

A. Joint reinforcement shall be manufactured with wire conforming to ASTM A82, size number W1.7 (9 gauge) for both longitudinal and cross wires. Longitudinal wires shall be deformed in conformance with requirements of ACI 530.1/ASCE 6/TMS 602.

B. Joint reinforcement shall be fabricated in ladder configurations.

1. For non-cavity wall construction use ladder type reinforcement with two longitudinal wires weld-connected to perpendicular cross rods at 16-inch on center to form a ladder configuration. Hohmann & Barnard, Inc. 220 Ladder-Mesh, Wire-Bond Series 200 Ladder Mesh, or equal.

2. For cavity wall construction use ladder type reinforcement with two longitudinal wires weld-connected to perpendicular cross rods to form a ladder configuration and adjustable tie loop to snap to third wire. Two wires shall reinforce back-up wythe and third wire shall act as tie and reinforcement for veneer wythe. Cross wires shall be spaced at 16-inch centers. Hohmann & Barnard, Inc. 270-2X-SH Ladder, Hohmann & Barnard, Inc. 270-2X S.I.S. Ladder, or equal.

C. Corners and intersections shall be factory fabricated.

D. Joint reinforcement shall be hot dip galvanized in accordance with ASTM A153, Class B-1 or B-2.

E. Plate, header, and bent bar anchors shall conform to ASTM A36.

F. Sheet metal anchors and ties shall conform to ASTM A1008.

G. Wire ties and anchors shall conform to ASTM A82.

2.08 PREMOLDED JOINT MATERIAL

A. Expansion Joint Filler for Face Brick - Highly compressible extrusion of four connected rubber tubes. Material shall conform to ASTM D1056, Grade 2A1 or 2B1. Williams Products, Inc. “Everlastic 1056 Joint Filler”, Hohmann & Barnard “NS – Closed Cell Neoprene Sponge” or equal.

B. Shear Keys - Designated to provide lateral stability to masonry walls at expansion and control joints: Rubber conforming to ASTM D2000, 2AA-805 with minimum durometer hardness of 80, or PVC conforming to ASTM D2287, Type PVC 654-4 with minimum durometer hardness of 85. Hohmann & Barnard “RS Series – Rubber Control Joints” or equal.

C. Control Joint Compressible Filler for Concrete Masonry - Expanded neoprene conforming to ASTM D1056 Grade 2A1. Thickness shall be as shown. Williams Products, Inc. “Williams Neoprene Everlastic NN-1 1040 Series”, or equal.

D. Isolation Gasket - Expanded PVC conforming to ASTM D1056 Grade 2A1 and ASTM D1667, Grade VE41. Williams Products, Inc. “Everlastic Vinyl Type U 1000 Series”, or equal.

2.09 ANCHORS AND TIES

A. Dovetail Anchors:

1. Dovetail anchor slot shall be minimum 20-gauge hot dip-galvanized steel. Hohmann & Barnard “No. 305 - Dovetail Slot,” or equal.

2. Anchor shall be 1 1/4-inch wide by 12-gauge hot dip galvanized sheet metal fabricated to fit in dovetail slots. Anchor shall be notched to receive 9 gage veneer reinforcement wire. Hohmann & Barnard No. 303 SV, or equal.

B. Weld on Ties - Anchor shall be 1/4-inch wire or 14 gauge sheet metal designed to weld to steel frame, with adjustable 3/16 wire tie. Anchor shall be mill galvanized and tie shall be hot dip galvanized. Hohmann & Barnard, Inc. “359 Weld-On Tie” or “359-FH Weld-On Tie” with “VBT Vee Byna Tie” or “301W Column Web Tie”or equal.

C. Corrugated Wall Ties - 7/8-inch wide by 22-gauge, hot dip galvanized steel. Hohmann & Barnard “CWT-Corrugated Wall Tie” or equal.

D. Corrugated Wall Ties - 7/8-inch wide by 22-gauge, mill-galvanized steel. Hohmann & Barnard “CWT-Corrugated Wall Tie,” or equal.

E. Rigid Straps - 1-1/2-inch-wide by 1/4-inch thick by 2 feet-0-inch-long, ASTM A36 steel bar formed in Z shape with 2-inch legs. Hohmann & Barnard, Inc., “No. 344 - Rigid Partition Anchor”, or equal.

2.10 ACCESSORIES

A. Cellular Plastic Weep/Vent: One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8 inch (3.2 mm) less than depth of outer wythe, in color selected from manufacturer's standard.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

a. Advanced Building Products Inc.

b. Heckmann Building Products, Inc.

c. Hohmann & Barnard, Inc.

d. Mortar Net Solutions.

e. Wire-Bond.

B. Brickvent - Injection molded PVC vent. Williams Products, Inc. “Williams Goodco Brick Vent”. Hohmann & Barnard “343 Louvered Weep Holes” or equal.

C. Hardware cloth shall be corrosion proof, biologically inert, and shall not reduce bond in mortar joint. Hohmann & Barnard “MGS-Mortar/Grout Screen” or equal.

D. Through-wall flashing for double wythe exterior walls shall be a two-piece system consisting of a stainless-steel drip-edge flashing and a fully adhered flexible concealed flashing. The drip-edge flashing shall have a minimum 1/2-inch lip and shall be the nominal width of the exterior wythe, not including the drip edge. The drip edge shall be 26-gauge, Type 304, stainless steel. Fully adhered flexible concealed flashing shall be Hohmann & Barnard “Textroflash Flashing”, or equal.

E. Insulation retainer shall be Blok-Lok “Wedge-Lok”, CTP “Insulation Retainer Plate”, or equal.

F. Mortar dropping control device shall be used in all cavity wall construction. Mortar dropping control device shall be manufactured from an inert open weave plastic mesh, MortarNet Solutions “Mortar Net, Hohmann & Barnard, Inc. “Mortar Trap” or equal.

2.11 MASONRY CLEANERS

A. Solution of 2 cup dry measure tetrasodium polyphosphate and two cup dry measure laundry detergent dissolved in one gallon of water.

PART 3 EXECUTION

3.01 COORDINATION

A. Cold weather construction requirements apply when ambient temperature is below 40 degrees F or temperature of masonry units is below 40 degrees F.

B. Hot weather construction requirements apply when ambient air temperature exceeds 100 degrees F, or ambient temperature exceeds 90 degrees F and wind velocity exceeds 8 mph.

C. Prior to beginning masonry work, Contractor shall inspect and verify that foundations are constructed within specified tolerances. Contractor shall notify the Engineer when such inspections are scheduled.

D. Contractor shall notify Engineer when foundations are not suitable for masonry construction.

E. The Contractor shall attend to walling-inch at their proper position all steel beams, steel columns, bar joists, lintels, openings, window and door frames, anchors, anchor bolts, cutout boxes, electric conduits, downspouts, pipe sleeves, and all similar Work, and shall form all flues, ventilating shafts, leader shafts, recesses, and openings in the walls for the complete performance of the other Work of the Contract.

3.02 PERFORMANCE REQUIREMENTS

A. Masonry shall be constructed within following tolerances (measured in inches) from dimensions shown:

1. Dimension of Elements:

a.	In cross section or elevation	-1/4, +1/2
b.	Mortar joint thickness	+ 1/8
c.	Grout space and cavity width	-1/4, +3/8

2. Elements:

a.	Variation from level	+ 1/4 in 10-feet
		+ 1/2 maximum
b.	Variation from plumb	+ 1/4 in 10-feet
	and true to a line	+ 3/8 in 20-feet
		+ 1/2 maximum

3. Location of Elements:

a.	Indicated in plan	+ 1/2 in 20-feet
		+ 3/4 maximum
b.	Indicated in elevation	+ 1/4 in story height
		+ 3/4 maximum

4. Placing of Reinforcement:

a.	Location relative to face of masonry	+ 1/2
b.	Location along length of wall	+ 2

B. Regardless of specified tolerances, no portion of a structure shall extend beyond legal boundary of project.

3.03 PREPARATION

A. Laitance, loose aggregate, dirt, and other substances deleterious to bond shall be removed from foundation prior to laying masonry.

B. Concrete masonry shall not be wetted before laying.

C. Clay masonry having initial absorption rate exceeding one gram per minute, per square inch, when measured in accordance with ASTM C67 shall be wetted sufficiently to reduce absorption prior to use. Wetted units shall be laid when surface is dry. Allow units to absorb the water so they are damp but not wet at the time of laying.

D. The coursing of brick work must be predetermined to ensure the location of sills, lintels, etc., at their proper elevation without the use of any half courses or brick pinners. Interior masonry shall be laid to minimize the need for units of less than half a unit at masonry openings. Any adjustments in location of vertical joints shall be made at inside corners.

E. Opening frames and hollow metal door frames shall be installed square and plumb and without distortions. Frames shall be rigidly anchored to masonry. Space between masonry and steel frames shall be filled with mortar as units are laid.

F. All aluminum materials inserted in masonry shall have the contact surface coated with mastic or coal tar paint.

G. When new masonry is specified to match existing, this is to mean color, texture, size, grade, and type specifications. Laying new units to match existing includes laying units in running bond, window sills, soldier courses, and other feature courses as required.

H. Cut masonry units with motor-driven saws to provide clean, sharp, unchipped edges. Cut units as required to provide continuous pattern and to fit adjoining construction. Use full-size units without cutting, where possible. Allow units cut with water-cooled saws to dry before placing, unless wetting of units is required. Install cut units with cut surfaces and edges concealed where possible.

I. Mix units for exposed unit masonry from several pallets or cubes as they are placed to produce uniform blend of colors and textures.

3.04 LAYING UNITS

A. Placing Units:

1. Build cavity and composite walls and other masonry construction to the full thickness shown on the Drawings. Build single-wythe walls to the actual thickness of the masonry units, using units of thickness shown on the Drawings.

2. Units shall be laid in a full bed of mortar.

3. Unless shown otherwise, construct masonry in 1/2 running bond. (Vertical joints in each course centered on units in courses above and below).

4. Courses shall be carried up level with no section of wall extended more than three feet above an adjacent section. When specifically permitted or required, in certain locations, courses shall be stepped as directed.

5. Place units such that exposed faces or edges of masonry are unaltered manufactured surfaces. Cores, cells, and frogs shall not be exposed to view.

6. Units shall be placed while mortar is soft and plastic. Units disturbed to extent that initial bond is broken after initial positioning, shall be removed and relaid in fresh mortar.

7. Contaminated or damaged units shall not be used.

8. Fill cores in hollow concrete masonry units under bearing plates, beams, lintels, posts, and similar items. Unless shown otherwise, grout shall extend a minimum 24-inch deep and 24-inch on each side of the bearing plates.

9. Build non-load-bearing interior partition walls full height of story, unless shown otherwise, to underside of solid floor or roof structure above and install compressible filler in joints between top of wall and underside of structure.

B. Bed and Head Joints:

1. Unless specified otherwise bed and head joints shall be 3/8-inch thick except at foundation. Bed joint of starting course shall be not less than 1/4-inch and not more than 3/4-inch thick.

2. Structural glazed facing tile shall be constructed with 1/4-inch bed and head joints.

3. Line pin holes shall be filled.

4. Joints shall be tooled with round jointer when mortar is thumbprint hard.

5. Mortar protrusions extending 1/2-inch or more into cavity of cavity wall construction or into cells or cavities to be grouted shall be removed.

C. Collar joints less than 3/4-inch wide shall be filled with mortar as Work progresses.

D. Hollow Units:

1. Face shells of bed joints shall be fully mortared.

2. Webs shall be fully mortared in piers, columns, and pilasters. Webs shall be fully mortared in starting course on foundation and where adjacent cells or cavities are to be grouted.

3. Head joints shall be mortared minimum distance from each face equal to face shell thickness.

4. Vertical cells shall be aligned.

5. Maintain joint width of 3/8-inch, except for minor variations required to maintain bond alignment.

E. Solid Units:

1. Bed and head joints shall be solidly filled. Bed joints shall not be furrowed.

2. Head joints shall not be filled by slushing with mortar.

3. Head joints shall be constructed by shoving mortar tight against adjoining unit. Closure units shall be rocked into place pushing mortar against adjacent units.

F. In glazed tile walls, all outside corners, joints, and lintels shall be square unless noted otherwise on the Drawings. Sills shall be bullnosed. Glazed tile walls shall be provided with a structural glazed tile coved wall base unless noted otherwise on the Drawings.

3.05 EMBEDDED ITEMS

A. Embedded items and accessories shall be installed and secured as units are laid. Embedded items shall be installed as shown.

B. Chases shall be constructed as units are laid.

C. Pipes and conduits passing through masonry shall be installed in sleeves as shown. Embedded aluminum conduits, pipes, and accessories shall be heavily coated with mastic or coal tar paint.

D. Through-wall Flashing:

1. Flashing shall be installed in double wythe walls, and as shown on the Drawings, in continuous runs with all seams and joints lapped 6-inch minimum and sealed with adhesive in accordance with manufacturer's instructions. Flashing over openings shall extend a minimum of 4-inch beyond the ends of lintel. Discontinuous ends of flashing shall be folded-up 2-inch to form a dam.

2. When flashing is not shown on the Drawings, it shall be installed at the top of parapet walls under the coping, at the base of all walls, above and below all wall openings, and at other obstructions to the downward flow of water in the wall.

3. Metal flashing shall be brought out beyond the wall face and turned down to form a drip. Flexible flashing shall be held back an inch from the exterior face of wall.

4. Thoroughly adhere drip edge flashing to substrate with adhesive that is compatible with both the substrate and the drip edge materials. Install flexible flashing above the drip edge flashing.

5. Concealed flexible through-wall flashing shall be installed so it begins at the midpoint of the interior wythe, extends down the wall, then out to lap the drip edge flashing a minimum of 4-inches. Drip-edge flashing and flexible flashing shall be kept clean to maximize adhesion. Through-wall flashing shall be installed as specified in conjunction with manufacturer's recommendations.

E. Weepholes and Brickvents:

1. Install weepholes in the head joints in exterior wythes of the first course of masonry immediately above all through-wall flashing. Mortar droppings and debris shall be prevented from blocking weephole.

2. Unless shown otherwise on the Drawings, weepholes shall be installed at 16-inch on center above wall openings in cavity walls. Trim weephole material flush with outside face of wall.

3. Install brickvents in place of weepholes in walls where noted on the Drawings or Specified. Brickvents shall be installed in headjoints near top of wall, just below large openings, and in the first course of masonry immediately above through-wall flashing. Unless otherwise shown on the Drawings, horizontal brickvent spacing shall be 24-inch center to center.

F. Embedded anchor bolts shall be accurately placed, secured against displacement, and grouted in place.

G. Anchors, ties, and rigid straps shall be installed as shown or specified. Ends of anchors and ties shall be embedded in mortar joints. Ties and anchors shall be embedded minimum of 1/2-inch into outer face shell of hollow units and 1-1/2-inch into bed joint of solid masonry unit or solid grouted hollow unit. Anchors, ties, and rigid straps shall not be field bent.

H. Premolded joint materials shall be installed as soon as units are laid. Mortar droppings and debris shall be prevented from entering joints.

I. Wood nailers shall be installed and secured in locations shown or as otherwise required.

J. Lintels shall be of the type and size indicated on the Drawings or as required, and shall be acceptable to the Engineer. Lintels shall extend at least 4-inch beyond each side of the opening unless otherwise indicated on the Drawings.

K. Unless otherwise detailed on the Drawings, structural steel shall be isolated from masonry walls by minimum 3/8-inch thick isolation gasket.

L. Where masonry walls abut, or cover concrete columns, walls, or other concrete construction, the masonry shall be anchored to the concrete by means of dovetail anchor slots cast in the concrete and dovetail anchors. Anchor slots shall be installed at a minimum horizontal spacing of 24-inch center to center. Dovetail anchors shall be installed at a minimum vertical spacing of 16-inch center to center. Vertical cells of hollow masonry units at each anchor shall be filled with mortar.

M. Insulation retainers shall be installed in cavity walls receiving rigid insulation. The retainers shall hold the rigid board insulation tight against interior wythe. The retainers shall be installed at all horizontal insulation joints on each cross wire.

N. Mortar dropping control device shall be placed in the cavity between multi-wythe walls in the bed joints at approximately 16-inch and 32-inch above through wall flashing. The devices shall be placed at a horizontal spacing of 12-inch center to center alternating between the 16-inch and 32-inch bed joints as recommended by the manufacturer.

O. Anchors shall be installed to tie new masonry veneer to existing masonry or concrete. The anchors shall be installed at a maximum horizontal spacing of 24-inch center to center and a maximum vertical spacing of 16-inch center to center. Anchors shall be embedded a minimum of 2-inch and maintain at least 5/8-inch mortar cover. Vertical cells of hollow masonry units at each anchor shall be filled with mortar.

3.06 PROTECTION

A. Design, provide, and install bracing according to the guidelines in the “Standard Practice for Bracing Masonry Walls Under Construction” by the Council for Masonry Wall Bracing, 1999.

3.07 BAR REINFORCEMENT

A. Reinforcement shall be cleaned of mud, oil, and other materials which adversely affect bond. Reinforcement with rust, mill scale, or combination of both shall be considered satisfactory provided minimum dimensions, weight, and height of deformations of hand-wire-brushed test specimen are not less than applicable ASTM specification requirements.

B. Reinforcement shall be accurately placed as shown on approved Shop Drawings and secured against displacements before grouting. Wire bar positioners shall be used to position and secure reinforcement.

C. When it is necessary to move reinforcement to avoid interference with other reinforcement, conduits, or embedded items, the resulting arrangement of bars shall be subject to Engineer's approval.

D. Unless shown otherwise on the Drawings, clear distance between reinforcing bars and masonry surface shall not be less than 1/2-inch

E. Bar reinforcement shall be lapped a minimum of 48 bar diameters unless shown otherwise.

F. Field bending or straightening of reinforcement is prohibited except as specifically shown.

3.08 JOINT REINFORCEMENT

A. Joint reinforcement shall be placed so that longitudinal wires are embedded in mortar with 5/8-inch minimum cover.

B. Joint reinforcement shall be lapped in a minimum of 12-inch.

C. Block walls shall have ladder type reinforcement. Multi-wythe walls or walls with mortar-filled collar joints shall have truss type reinforcement. Unless otherwise shown on the drawings, reinforcement shall be placed in horizontal joints at 16-inch center to center vertically. An additional joint shall be reinforced above and below openings, and shall extend at least 2-feet. Beyond the edges of the openings.

D. Veneer masonry shall be horizontally reinforced in joints at 16 inches on center and shall be tied to backup support wall at 24-inch on center horizontally.

E. Intersecting masonry walls shall be tied together with factory fabricated wire reinforcing tees unless shown otherwise. Reinforcing tees shall be installed in same horizontal joints as other common wall wire reinforcing.

3.09 CONTROL JOINTS AND EXPANSION JOINTS

A. Vertical masonry control and expansion joints shall be spaced at 20-feet maximum on center, unless shown otherwise on the Drawings. The joint spacing shall include the distance measured around building corners to the next joint.

3.10 INSTALLATION OF REINFORCED UNIT MASONRY

A. Temporary Formwork and Shores – Construct formwork and shores as needed to support reinforced masonry elements during construction.

1. Construct formwork to conform to shape, line, and dimensions shown. Make sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.

2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other temporary loads that may be placed on them during construction.

B. Grouting:

1. Do not place grout until entire height of masonry to be grouted has attained sufficient strength to resist grout pressure. Grout spaces shall be free of mortar droppings, debris, loose aggregate and other materials deleterious to masonry grout.

2. A grout pour is defined as the height of masonry to be grouted before additional height of masonry can be added. A grout pour can consist of one or several grout lifts.

3. Cleanouts:

a. Provide cleanouts in bottom course of masonry for each grout pour when the grout pour exceeds 5-feet in height. Cleanouts shall be constructed at each vertical bar. In solid grouted masonry, cleanouts shall be spaced at 32-inch maximum centers.

b. Cleanouts shall have opening of sufficient size to permit removal of debris. Minimum opening dimension shall be 3-inch.

c. After cleaning, cleanouts shall be closed and closures shall be braced against grout pressure.

4. Grout shall be placed within 1-1/2 hours after water is introduced to mixture and prior to initial set.

5. Grout shall be confined to areas shown. Hardware cloth shall be used to prevent grout from flowing into areas not intended to be grouted.

6. Contractor shall provide fine or coarse grout as required to meet the required pour height per the following table.

7. Maximum grout pour height and grout space dimension shall be as follows:

Grout Type	Maximum Grout Pour Height (ft.)	Minimum Width of Grout Space (in.)	Minimum Grout Space Dimensions for Grouting Cells of Hollow Units, (in. x in.)
Fine	1	3/4	1-1/2 x 2
	5	2	2 x 3
	12	2-1/2	2-1/2 x 3
Coarse	1	1-1/2	1-1/2 x 3
	5	2	2-1/2 x 3
	12	2-1/2	3 x 3

8. Grout lifts shall not exceed five feet unless masonry to be grouted has cured for at least 4 hours.

9. Grout lifts shall not exceed the maximum pour height. When intermediate bond beams are present grout lifts shall not exceed the distance between bond beam and floor, the distance between adjacent bond beams or the maximum gout pour height, whichever is smaller.

10. Grout shall be consolidated by mechanical vibration as it is placed. Grout pours exceeding 1-feet in height shall be reconsolidated by mechanical vibration after initial water loss and settlement have occurred.

3.11 CURING

A. Moist curing methods similar to those used in concrete construction shall be used to prevent premature masonry dryouts. Periodic wetting of the finished masonry with a fine water spray shall be used to ensure that adequate moisture is available for curing, strength development, and good bond. The Contractor may use alternate methods of curing, subject to the approval of Engineer, such as covering the walls with polyethylene sheets to create a greenhouse effect to aid in moist curing.

3.12 COLD-WEATHER CONSTRUCTION

A. Implement the following requirements when the ambient temperature falls below 40 degrees F or the temperature of masonry units is below 40 degrees F.

1. Preparation:

a. Remove visible ice and snow form the surface of existing foundations and masonry to receive new construction. Heat these surfaces above freezing.

b. Remove visible ice and snow from units before unit is laid. Units having temperature below 32 degrees F shall not be used. Units which ordinarily require wetting shall be sprinkled with warm of hot water immediately prior to laying.

2. Construction:

   a. When ambient temperature is between 40 degrees F and 32 degrees F, mortar sand or mixing water shall be heated to produce mortar temperatures between 40 degrees F and 120 degrees F at time of mixing. Mortar temperature shall be maintained above 40 degrees F. Grout materials need not be heated provided they are above 32 degrees F.

   b. When ambient temperature is between 32 degrees F and 25 degrees F, mortar shall comply with the previous requirements. Heat grout aggregates and mixing water to produce grout temperature between 70 degrees F and 120 degrees F at time of mixing. Grout temperature shall be above 70 degrees F at time of placement.

   c. When ambient temperature is between 25 degrees F and 20 degrees F, mortar and grout shall comply with the previous requirements and the following. Heat masonry surfaces under construction to 40 degrees F. Use wind breaks if the wind speed exceeds 15 mph. Heat masonry to 40 degrees F minimum prior to grouting.

   d. When ambient temperature is below 20 degrees F, mortar and grout shall comply with the previous requirements and the following. Provide an enclosure and maintain air temperature in the enclosure above 32 degrees F.

3. Protection – Protection is to be based on the anticipated minimum daily temperature.

   a. When the minimum daily temperature is between 40 degrees F and 25 degrees F complete masonry shall be protected by covering with weather resistive membrane for 24 hours after construction.

   b. When the minimum daily temperature is between 25 degrees F and 20 degrees F, completed masonry shall be protected with weather resistive insulating blankets, or equal protection, for 24 hours after construction. The protection period shall be 48 hours for grouted masonry.

   c. When the minimum daily temperature is below 20 degrees F, completed masonry temperature shall be maintained above 32 degrees F for at least 24 hours by using heated enclosures. The protection period shall be 48 hours for grouted masonry.

3.13 HOT WEATHER CONSTRUCTION

A. High temperature, low humidity, and wind adversely affect performance of the masonry. When ambient temperature is above 100 degrees F or above 90 degrees F with wind velocities greater than 8 mph, protection measures shall be taken to assure continue hydration, strength, and maximum bond.

1. Mortar beds shall not be spread more than four feet ahead of masonry units.
2. Units shall be laid within one minute of spreading mortar.
3. Flush mixer, mortar board, etc. with cool water before they come in contact with mortar or mortar ingredients.
4. Temperature of mortar and grout shall be below 120 degrees F.
5. Mortar shall be used within 1-1/2 hours after initial mixing.
6. When wind speed exceeds 10 mph, wind breaks shall be installed.
7. Install sunshade or schedule Work during cooler parts of the day.
8. Materials shall be stored in a shaded location and aggregate stockpiles shall be covered with plastic sheets to retard moisture evaporation.

3.14 TESTING/FIELD QUALITY CONTROL

A. All inspection shall be conducted to verify through visual inspection or by testing that the construction and material meet the requirement of the specifications herein and the Contract Drawings. The Contractor shall engage and pay for the services of an independent testing agency per Section 01410, to perform the following testing for field quality control. Retesting of materials failing to meet specified requirements shall also be done at Contractor's expense.

1. At the start of work, the independent laboratory at the Site of the project shall:
    a. Verify that the grout slump is between 8 inches to 11 inches per ASTM C143.
    b. Verify grout mix materials and proportions comply with ASTM C476.
    c. Verify mortar mix materials and proportions comply with ASTM C270.
    d. Test clay masonry units per ASTM C62, ASTM C216 and ASTM 652 to verify that compressions strengths.
    e. Test concrete masonry units per ASTM C55 and ASTM C90 to verify that compressions strengths.
    f. Verify that materials are on site to protect masonry from hot, cold and inclement weather, as applicable.
2. During periodic inspections, the following tasks shall be performed by the independent laboratory for every 5000 square feet of wall.
    a. Verify that the grout slump is between 8 inches to 11 inches per ASTM C143.
    b. Verify grout mix materials and proportions comply with ASTM C476.
    c. Verify mortar mix materials and proportions comply with ASTM C270.

d. Test clay masonry units per ASTM C62, ASTM C216 and ASTM 652 to verify that compressions strengths.

e. Test concrete masonry units per ASTM C55 and ASTM C90 to verify that compressions strengths.

f. Verify that masonry units and mortar joints are placed within the specified tolerances.

g. Verify the placement, grade and type of reinforcing, anchors and metal masonry ties.

h. Verify that masonry protection procedures for inclement weather are being followed.

3. Continuous inspections:

a. Verify grout spaces are free of mortar droppings, debris, loose aggregate, and any material deleterious to the masonry grout.

b. Inspect placement of grout with respect to pour heights, lift heights and consolidation procedures.

c. Verify major masonry anchorage details to the building frame when called for elsewhere by the Construction Documents.

d. Inspect welding of reinforcing bars to other bars or steel frame. Verify welder's qualifications, electrode type and welding procedures and visual inspect welds in accordance with AWS code D1.4.

e. Verify that masonry protection procedures for hot weather and cold weather are being followed.

3.15 PROTECTION

A. During erection, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's Work. Cover partially-completed masonry when construction is not in progress.

1. Extend cover a minimum of 24-inch down both sides and hold cover securely in place.

B. Do not apply any loads for at least three days after building masonry walls.

C. Stain Prevention – Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.

1. Protect floor and base of walls from mortar splatter by coverings spread on the floor and over wall surface.

2. Protect sills, ledges, and projections from mortar droppings.

D. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.

3.16 REPAIRING, POINTING AND CLEANING

A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or if units do not match adjoining units. Install new units to match adjoining units; install in fresh mortar or grout, pointed to eliminate evidence of replacement.

B. Pointing – During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point-up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for application of sealants.

C. In-Progress Cleaning – Clean unit masonry as Work progresses by dry brushing to remove mortar fins and smears prior to tooling joints.

D. Final Cleaning – After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.

2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Owner's approval of sample cleaning before proceeding with cleaning of masonry.

3. Protect adjacent stone and non-masonry surfaces from contact with cleaner by covering them with liquid strippable masking agent, polyethylene film, or waterproof masking tape.

4. Wet wall surfaces with water prior to application of cleaners; remove cleaners promptly by rinsing thoroughly with clear water.

5. Clean brick by bucket and brush hand-cleaning method described in BIA Technical Note No. 20 Revised, using the following masonry cleaner:

   a. Job-mixed detergent solution.

6. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2 applicable to type of stain present on exposed surfaces.

3.17 PENETRATIONS

A. All penetrations through masonry walls from any element that interrupts the integrity of the masonry wall, whether in part or in whole, shall be sealed such that it's structural integrity and weatherproof performance and longevity equals or exceeds that of the masonry wall system itself.

3.18 MASONRY WASTE DISPOSAL

A. Recycling – Undamaged, excess masonry materials are Contractor's property and shall be removed from the Site for his use.

B. Excess Masonry Waste – Remove excess, clean masonry waste that cannot be recycled and legally disposed of off Owner's property.

PART 4 SPECIAL PROVISIONS

4.01 MASONRY COLOR

Not used.

END OF SECTION

This page was intentionally left blank.

SECTION 08310
OVERHEAD AND VERTICAL LIFT DOORS

PART 1 GENERAL

1.01 SCOPE

A. This Section includes the furnishing and installing of overhead doors as scheduled on the Drawings and specified herein.

B. The Contractor shall perform all preparatory Work and provide all necessary components for a complete installation.

C. Additional product requirements are specified in Section 01350.

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. Shop Drawings for Review:

a. The Contractor shall indicate all variances from the requirements of the Contract Documents.

b. Door Schedule.

c. Dimensional Drawing.

d. Manufacturer's Literature.

e. Electric Operated Doors:

1) Motor information per Section 11050.

2) Wiring schematic.

3) Controls catalog data.

2. Operation and maintenance manual.

PART 2 PRODUCTS

2.01 STEEL DOORS

A. Unless otherwise noted, overhead steel doors shall be upward-acting doors as manufactured by the Overhead Door Corporation, Kinnear Company, Barcol Overdoor, or equal.

B. The door shall be made of not less than 16-gauge steel exterior panels and 24-gauge steel interior panels joined together to form a door of not less than 2-inch thickness with flush face on both sides. The steel shall be galvanized with not less than 1.25-ounce zinc per square feet, and chemically treated for paint adherence.

C. Meeting rails shall be tongue and groove or rabbetted-type weathertight joints and act as two interlocking struts for the full length of all sections of the door.

D. The bottom section of all doors shall have a replaceable U-shaped PVC, vinyl, rubber, or neoprene weather seal. The top section and jambs of all doors shall have replaceable PVC, vinyl, or neoprene weather seal strips. Doors shall be insulated with polyurethane or isocyanurate.

E. The doors shall be counterbalanced by 25,000 cycle torsional springs on a continuous, ball bearing supported, head shaft; cast aluminum tapered drums, and galvanized steel aircraft type lift cables.

F. The doors shall be equipped with a wedge type opening and closing action.

G. Tracks shall be minimum 14-gauge galvanized steel and have a graduated seal for weathertight closing.

H. All hinges and brackets shall be minimum 14-gauge galvanized steel. Rollers shall have one-piece steel tires with ball bearings running in case hardened races.

I. Doors shall have a factory-applied baked-on enamel or polyester finish. Color shall be selected by the Owner from manufacturer's standard colors.

J. Overhead steel doors shall be manually operated by hand pull rope and lift handles unless otherwise noted in Part 4 or on the Drawings.

K. Lock shall be heavy duty slide bolt type with five pin tumbler cylinder key lock, inside release mechanism, and outside locking handle.

2.02 FIBERGLASS DOORS

A. Unless otherwise noted, overhead fiberglass doors shall be upward-acting doors as manufactured by the Overhead Door Corporation, Clopay Corporation, Gadco, McKee Door, or equal.

B. The door sections shall have framing of heavy gauge 6063-T6 extruded aluminum with integral reinforcing. Panels shall be 6 ounces per square feet translucent fiberglass. Fiberglass shall be white in color and stabilized for light and color. Overall thickness of each section shall be 2-inch minimum.

C. Meeting rails shall be tongue and groove or rabbetted-type weathertight joints and act as two interlocking struts for the full length of all sections of the door.

D. The bottom section of all doors shall have a replaceable U-shaped PVC, vinyl, rubber, or neoprene weather seal. The top section and jambs of all doors shall have replaceable PVC, vinyl, or neoprene weather seal strips.

E. The doors shall be counterbalanced by 25,000 cycle torsional springs on a continuous, ball bearing supported, head shaft, cast aluminum tapered drums, and galvanized steel aircraft type lift cables.

F. The doors shall be equipped with a wedge type opening and closing action.

G. Tracks shall be minimum 14-gauge galvanized steel and have a graduated seal for weathertight closing.

H. All hinges and brackets shall be minimum 14-gauge galvanized steel. Rollers shall have one-piece steel tires with ball bearings running in case hardened races.

I. Overhead fiberglass doors shall be manually operated by hand pull rope and lift handles unless otherwise noted in Part 4 or on the Drawings.

J. Lock shall be heavy duty slide bolt type with five pin tumbler cylinder key lock, inside release mechanism, and outside locking handle.

2.03 ELECTRIC OPERATORS

A. Each door shall be automatically operated by an electric operator.

B. Each motor shall be 1/2 hp and operate on 480-volt, 3 phase, 60 Hz electric power. It shall be totally enclosed, instant reversing with built-in inherent overload.

C. Each door shall be supplied with a control panel that contains a reversing starter, control transformer, and all other components required for proper operation connected to a terminal strip. Also supplied with each door shall be a fused disconnect and an OPEN/ CLOSE/STOP pushbutton station shipped loose with each door operator. All enclosures shall be NEMA 4X unless otherwise noted on the Drawings.

D. The speed reducer shall be worm and gear type coupled to the motor by a flexible coupling. Shafts shall rotate on ball bearings.

E. A positive gear type limit switch shall be mounted on the operator frame with easily accessible and adjustable switches to control open and closed limits of door travel. They shall be totally enclosed in metal box and always “in-time” when motor is engaged.

F. A standard double shoe type brake shall be mounted on the speed reducer input shaft, independent solenoid actuated, controlled by the motor starter. It shall stop and hold the door in any position.

G. The bottom section of all doors shall have an electrical safety strip. The device operates in conjunction with the door operator control to stop and reverse the door to the open position if an obstruction is encountered while closing.

H. An emergency hand chain operator shall be provided to operate the door in case of power failure.

I. Location of door operator shall be as shown on the Drawings.

2.04 WINDOWS

A. Provide manufacturer's standard window units of shape and size and in locations indicated on Drawings. Set glazing in vinyl, rubber, or neoprene glazing channel. Provide removable stops of same material as door-sectional frames. Provide the following glazing:

1. Clear polycarbonate Plastic: 3 mm thick, transparent, fire-retardant, UV-resistant, polycarbonate sheet manufactured by extrusion process. **(Addendum 3, Issued 5/28/2026)**

PART 3 EXECUTION

3.01 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle overhead doors in accordance with the requirements of Section 01350.

3.02 INSTALLATION OF FRAMES

A. Set frames to maintain scheduled dimensions, hold head level, and set jambs plumb and square.

B. Secure anchorages and provide connections to adjacent construction.

3.03 INSTALLATION OF DOORS

A. Comply with manufacturer's instructions for installation of door hardware, operators, and other components.

B. Adjust so doors operate smoothly and fit properly when closed.

C. Adjust and lubricate locks and operators.

D. Clean surfaces and remove protective tape and excess caulking sealants.

PART 4 SPECIAL PROVISIONS

4.01 MAINTENANCE BUILDING

A. The Maintenance Building will be include five vehicle parking areas. The Contractor shall furnish and install Five overhead doors and door frames which meet the specifications herein. Five doors shall be 12-feet wide by 14-feet high The five 12-feet-1-inch doors shall be furnished with regular headroom tracks.

4.02 SERVICE BUILDING UV ROOM

A. The Contractor shall furnish and install one hand-operated overhead door in the UV Room in the Service Building. The new opening for this door in the north wall is 6-feet wide and 8-feet high.

END OF SECTION

~~SECTION 09880~~
~~PROTECTIVE COATING FOR CONCRETE~~
(Addendum 3, Issued 5/28/2026)

PART 1 ~~GENERAL~~

1.01 ~~SCOPE~~

A. ~~This Section includes protective coating for concrete.~~

B. ~~Additional product requirements are specified in Section 01350.~~

1.02 ~~SUBMITTALS~~

A. ~~Submittals shall be in accordance with the requirements of Section 01300 and shall include:~~

1. ~~Shop Drawings for Review:~~

a. ~~Contractor shall indicate variances from requirements of Contract Documents.~~

b. ~~Product literature.~~

2. ~~Information for the Record:~~

a. ~~Material certification.~~

b. ~~Manufacturer's surface preparation, mixing, application, and curing instructions.~~

1.03 ~~DELIVERY, STORAGE AND HANDLING~~

A. ~~Materials shall be stored in enclosed, dry space protected from weather and out of direct sunlight. Temperature of storage area shall be maintained between 40 degrees F and 90 degrees F.~~

1.04 ~~PROJECT CONDITIONS~~

A. ~~Surfaces to receive coating shall have temperature between 50 degrees F and 90 degrees F. Coating shall not be applied when surface temperature is less than 5 degrees F above dew point.~~

1.05 ~~SCHEDULING AND SEQUENCING~~

A. ~~Surfaces shall be allowed to cure minimum of 28 days prior to application of coating.~~

PART 2 ~~PRODUCTS~~

2.01 ~~COATING SYSTEM~~

A. ~~Coating shall be one-part, self-priming, high-build, cold-applied, coal tar coating. Minimum solids content shall be 68% by volume. Kop-Coat "Bitumastic Super Service Black", Tnemec "46-465 H.B. Tnemecol", or equal.~~

PART 3 ~~EXECUTION~~

3.01 ~~SURFACE PREPARATION~~

A. ~~Surfaces to receive membrane shall be dry and free of oil, form release agents, curing compounds, grease, laitance, and loose material. Protrusions shall be removed.~~

B. ~~Surfaces shall be abrasive blasted in accordance with ASTM D4259. Surface texture shall be equivalent to medium grit sand paper.~~

C. ~~Bugholes and surface defects shall be patched.~~

D. ~~Contractor shall verify dryness of concrete by plastic sheet method in accordance with D4263.~~

3.02 ~~APPLICATION~~

A. ~~Coating shall be applied in accordance with manufacturer's written instructions.~~

B. ~~Coating shall be applied in two coats. Dry film thickness of each coat shall be 13-16 mils.~~

C. ~~Each coat shall be cured in accordance with manufacturer's recommendations. Final coat shall be cured minimum of 14 days prior to immersion.~~

PART 4 ~~SPECIAL PROVISIONS~~

4.01 ~~SCHEDULE~~

A. ~~New concrete and concrete masonry surfaces of following structures which are immersed in sewage or exposed to sewage fumes shall receive protective coating:~~

~~END OF SECTION~~

SECTION 09900
PAINTING

PART 1 GENERAL

1.01 SCOPE

A. This Section includes furnishing and application of protective coatings to all wood, concrete, and metal surfaces as specified or as shown on the Drawings.

B. Included in this Section is surface preparation, shop application inspection, and field touch up work as required to provide a complete protective coating system.

C. In general, the Work shall include the field painting of the following:

1. All exposed interior cast-in-place concrete (except floors) above ground floor.
2. All exposed concrete blocks and hollow core precast slabs.
3. All exposed plaster.
4. All exposed wood.
5. All exposed pipe insulation.
6. All exposed piping, including fittings, valves, couplings, flanges, and other in-line accessories.
7. All machinery, pumps, and equipment.
8. All metal surfaces except the following:
    a. Bronze surfaces.
    b. Stainless steel surfaces.
    c. Aluminum or galvanized steel not requiring color coding or otherwise specified to be coated.

D. Additional product requirements are specified in Section 01350.

E. A Coating Schedule appears in Part 4 of this Section.

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. Shop Drawings for Review:
    a. Coating manufacturer's product data and technical literature including:
        1) Catalog number.
        2) General classification.

3) Coating material analysis.

4) Detailed surface preparation guidelines.

5) Mixing, thinning, and application instructions for each material.

6) Induction time, pot life, viscosity, and drying and curing times for acceptable ranges of temperature and humidity.

b. Abrasive manufacturer's information including:

1) Name, address, and phone number of manufacturer and local supplier.

2) Bulk density.

3) Mohs ranking.

4) Sieve analysis.

5) Chemical analysis including impurities.

6) Free silica content.

7) Grain shape (roundness).

c. Submittals of coatings by a manufacturer not named in these specifications shall include performance criteria on abrasion, adhesion, exterior exposure, hardness, humidity exposure, salt spray (fog), impact, immersion, etc., as applicable, per the appropriate ASTM standards. If requested by the Engineer, the Contractor shall submit manufacturers complete formula for the coatings which are proposed to be furnished. The Engineer may also require the submission, at the Contractor's expense, of test reports from private laboratories showing results of comparable tests on the coatings proposed and the coatings specified.

d. Details of application equipment and procedures.

e. Samples of manufacturer's standard colors.

2. Information for the Record:

a. Certification that materials meet or exceed Specifications and that coating systems are suitable for intended use.

b. Certification that coating systems are compatible with substrate, specified surface preparation, prime coats, sealants and existing finishes.

c. Safety Data Sheets (SDS) for coating materials, thinners, diluents, abrasives, cleansers, and other materials.

d. Schedule of coating work showing each phase and step of Work.

1.03 QUALITY ASSURANCE

A. Standards - Surface preparation, coating, and patching work performed under this Section shall conform to the applicable provisions and recommendations of the following standards.

1. SSPC Steel Structures Painting Manual, Volume 1, “Good Painting Practice.”
2. SSPC Steel Structures Painting Manual, Volume 2, “Systems and Specifications.”
3. SSPC Vis. 1 and 2, visual standards and written guidelines.
4. NACE Coatings and Linings Handbook.
5. Applicable NACE standards and recommended practices including RP0178 and RP0184.

B. Field Mock-ups - Where specified in the Coating Schedule, a field mock-up shall be done prior to performing the required Work.

1. Field mock-ups shall be a minimum of 4 square feet in area, in a location chosen by the Owner or his representative.
2. The mock-ups will serve as a standard of acceptance for applicable coating work under this Contract.
3. The coating manufacturer’s representative will be available to advise the Contractor.
4. Step-down mock-ups, showing the prepared substrate, primer, intermediate, and finish coats, as applicable, shall be used. Where the substrate is a ferrous metal, the portion remaining exposed shall be protected with a clear varnish.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Delivery, storage, and handling shall be in accordance with Section 01350.

B. Include the following information on container labels or packing slips:

1. Manufacturer’s name.
2. Name or title of material.
3. Batch numbers.
4. Stock number and date of manufacture.
5. Shelf life or expiration date.
6. Contents by volume of pigment, binder, and vehicle.
7. Thinning instructions when recommended.
8. Application instructions.
9. Color name and number.

10. Safety Data Sheets (SDS).

C. Provide controlled storage for coating materials and abrasives. Store coating materials in environmentally controlled enclosure with minimum ambient temperature of 55 degrees F. Store abrasives in dry area.

D. Maintain inventory of coating materials, solvents, and cleaners.

1.05 SCHEDULING AND SEQUENCING

A. Notify Engineer two weeks in advance of surface preparation and coating application.

B. Work systematically in accordance with submitted schedule.

C. Sequence and coordinate abrasive blasting and coating application with Work of other sections. Do not interrupt plant process or interfere with Owner's operations.

D. Coordinate coating work with installation of sealants specified in Section 07900.

E. Furnish specified testing and inspection equipment to Owner a minimum of two weeks prior to beginning surface preparation and coating work.

1.06 MANUFACTURER'S RECOMMENDATIONS

A. Apply coatings in strict compliance with manufacturer's recommendations and instructions as to environmental conditions, surface preparation, mixing, application, and curing. Where Specifications are more stringent than manufacturer's recommendations, Specifications shall prevail.

B. Resolve conflicts between Specifications and manufacturer's recommendations and instructions by obtaining written agreement between Engineer and coating manufacturer prior to beginning Work.

1.07 DESCRIPTION

A. Shop Painting - Shop painting shall be performed to the extent and as required under Section 01350 and the various individual sections of the specifications. All metal surfaces shall be given a protective shop coat of primer compatible with the field coating. Shop primer color shall be beige where available. If a prime coat has not been applied in the shop, then a prime coat shall be applied in the field after proper surface preparation and prior to the application of the finish coats.

B. Compatibility - The Contractor shall ensure the primer or finish coating applied in the shop is compatible with the specified field coatings. If the coatings are incompatible, the shop coatings shall be removed by abrasive blasting and coatings applied in conformance with this Section.

PART 2 PRODUCTS

2.01 MATERIALS

A. The products shall be as specified in the Coating Schedule. Materials selected for each coating system shall be the product of one manufacturer. The Contractor shall be responsible for the compatibility of all components of each coating system including primer, thinner, and solvents.

2.02 COATING SCHEDULE

A. The Coating Schedule included in Part 4 of this Section identifies the areas to be painted, the required materials, and number of coats required.

PART 3 EXECUTION

3.01 ENVIRONMENTAL REQUIREMENTS

A. Environmental Conditions:

1. Perform Work of this Section under the following environmental conditions.

   a. Abrasive blast only when surface contamination can be prevented. Abrasive blast only when surface temperature is more than 5 degrees F above dew point and relative humidity is less than 85%.

   b. No coating shall be applied when the air temperature, as measured in the shade, is below 40 degrees F or above 90 degrees F. No coating shall be applied when the temperature of the surface to be painted is below 35 degrees F or as recommended by the paint manufacturer, whichever is greater. Coatings shall not be applied to wet or damp surfaces, when the relative humidity exceeds 85%, or when the surface to be painted is less than 5 degrees F above the dew point.

2. Coating work may proceed during inclement weather in environmentally controlled enclosures. Environment within enclosure shall comply with Specifications and manufacturer's recommendations. Provide adequate ventilation and illumination. Minimum illumination shall be 150-foot candles.

B. Interior Painting may be done only when the building has been thoroughly dried, by natural or artificial heat, and when the Work area is properly heated and ventilated, clean, and as nearly dust free as possible. Room temperature shall be maintained within the manufacturer's recommendations during application and until coatings are dry.

C. Dust - Coating shall not be applied in areas where dust is being generated.

3.02 PROTECTION

A. During the construction period, all electrical and mechanical equipment and other equipment and apparatus shall be protected from paint drippings by means of tarpaulins, burlap, wooden housings, or other protection.

B. Finished work of other trades, surfaces not being painted concurrently or not to be painted, and factory finished lockers, toilet partitions, etc., that will not require field painting shall be protected at all times from paint spots and damage to the finish.

C. Perform cleaning and coating operation in manner which prevents dust and contaminants from falling in newly applied coating.

D. Protect portions of Work which are partially or entirely completed and which are adjacent to surfaces being prepared by abrasive blasting.

E. Protect completed Work from solvents, contaminants, or other substances which may damage coating.

F. Prominently display “Wet Paint” signs in sufficient number to protect newly applied coating.

3.03 PREPARATION OF SURFACES

A. General - All surfaces, of whatever material, which are to be painted shall be thoroughly cleaned of dirt, grease, rust scale, or other injurious substance, and, at the time of application of the coating, shall be clean and dry.

B. Metal Surfaces:

1. Remove weld spatter and other projections. Grind sharp edges to a minimum radius of 1/8-inch. Grind rough welds smooth. Grinding shall be in accordance with SSPC Surface Preparation Commentary. Surfaces shall be smooth and contoured in compliance with SSPC-SP 12.

2. Surfaces which have not been shop coated shall be abrasive blasted prior to any prime coats. Abrasive blasting shall be done in accordance with the Coating Schedule.

3. Shop primed surfaces shall receive a field sweep blast prior to the application of subsequent coats.

4. Abrasions or defects on shop coated surfaces shall be spot primed.

5. Surfaces which are to receive a high heat coating shall be Near White Blast Cleaned (SSPC, SP-10) and painted within eight hours; or, if recommended by the manufacturer of the approved high heat coating, the surfaces may be thoroughly cleaned to bare metal and given wash coats or a cold phosphatizing treatment as recommended by the manufacturer and as approved by the Engineer.

C. Concrete and Masonry Surfaces:

1. New concrete and masonry surfaces shall be allowed to become completely cured for at least 30 days at a temperature of 75 degrees F and, immediately prior to treatment, shall be thoroughly cleaned of all dirt, grease, form release agents and stains. Curing compounds shall be removed.

2. Concrete surfaces shall be pressure washed with solution of trisodium phosphate (4 ounce per gallon) and detergent in hot water. Water temperature shall be approximately 180 degrees F. Immediately flush surface with clean potable water until pH of surface meets acceptance criteria of ASTM D4262.

3. If recommended by the coating manufacturer, on concrete surfaces less than six months old, one coat of zinc sulfate solution shall be uniformly applied and allowed to dry before application of the coating.

4. Concrete surfaces shall be abrasive blasted with coarse, hard, and angular abrasive after cleaning. Air stream shall be free of moisture and oil.

5. Acid etching is not permitted.

D. Wood Surfaces shall be sanded smooth and filled with an approved paste or liquid grain filler, and cracks and crevices shall be filled with a non-shrinking, elastic composition especially prepared for this purpose. Wood surfaces to be varnished shall be rubbed smooth with pumice and oil.

E. Clean up all debris from the surface preparation operation.

3.04 ABRASIVE BLASTING

A. Abrasives shall be expendable coal slag or aluminum oxide, free of silica, or a steel shot/grit mixture. Maintain abrasives free from dust, salts, and other impurities. Select the type and size of abrasive to yield a surface as specified in the Coatings Schedule.

B. Provide moisture and oil separators or traps of adequate size in compressed air system to provide dry and clean air supply. Drain traps automatically during blasting operation. Remove oil and moisture accumulated in air receiver by regular purging.

C. Remove weld splatter, slivers, laminations, and underlying mill scale which become visible after abrasive blasting, by grinding in accordance SSPC SP-3 and NACE RP0178. Follow grinding by final abrasive blast.

D. Surfaces which cannot be properly cleaned by abrasive blasting because of their location may be prepared by power tool cleaning in accordance with SSPC SP-11 (Power Tool Clean to Bare Metal) in lieu of abrasive blasting, subject to Engineer's approval.

E. After surface preparation but prior to priming inspect surface for corrosion. Remove corrosion products which become visible when viewed without magnification by re-blasting.

F. Remove dust and blasting residue by blowing with clean, dry air, and vacuum cleaning with clean tools.

3.05 MIXING AND THINNING

A. All mixing shall be performed by mechanical paint shakers or mixers in strict accordance with the manufacturer's printed instructions.

B. Do not use coating material which has livered, gelled, or otherwise deteriorated during storage. Thixotropic materials which obtain normal consistency when stirred are acceptable. Where a skin has formed in container, cut skin loose from sides of container and discard prior to mixing.

C. Each component of multi-component materials shall be mixed individually before use. The material shall be mixed in a manner which will insure the break-up of all lumps, complete dispersion of pigment, and a uniform composition. Materials shall be inspected after mixing for uniformity and to verify that no unmixed pigment remains at the bottom of the container.

D. The individual parts shall be mixed together in the proportions recommended by the manufacturer. The materials shall be mixed thoroughly before use and shall be agitated often enough during application to ensure a uniform composition.

E. Mixed coatings shall be strained after mixing unless the application equipment is provided with strainers. Strainers shall be of a type to remove skins and undesirable matter without removing pigment.

F. Thinner shall not be added unless required for proper application. Thinning shall be in strict accordance with the manufacturer's recommendations.

G. Mixed coatings shall have pot life stated on label and indicated in approved Shop Drawing. When pot life limit is reached, discard material, clean equipment, and mix and induct new material.

H. Store materials not in actual use in tightly covered containers. Maintain containers and equipment used in storage, mixing, and application in clean condition, free of foreign materials and residue.

3.06 COATING APPLICATION

A. Apply prime coat within eight hours of completion of surface preparation. If surface is degraded, contaminated, or wet by rain or moisture subsequent to surface preparation and prior to coating, restore surface in accordance with Specifications.

B. Prior to applying each coat, remove dust with industrial vacuum cleaner using new filters, clean tools, and clean hopper. Remove residue or foreign matter on coating before applying additional coats by pressure rinsing with 1800-2000 psi water, when required by Engineer's representative.

C. Apply coatings in accordance with applicable provisions of SSPC Paint Application Specification PA 1. Use equipment best suited for the coating material.

D. Cloudiness, spotting, laps, brush marks, roller marks, runs, sags, drips, ropiness, voids, discontinuities, pinholes, and other surface imperfections are unacceptable.

E. When spray application is approved by Engineer. Spare fittings, gun tips, gun parts, and other spray equipment shall be acceptable to Engineer.

F. Stripe coat edges, welds, corners, crevices, and other surfaces difficult to coat before applying full coat in accordance with SSPC-PA 1.

G. Coverage shall be in conformance with the manufacturer's instructions. The dry mil thickness of coatings shall be as specified in the Coating Schedule.

3.07 APPLICATION BY SPRAYING

A. Application of coatings by spraying may be permitted in locations and on surfaces approved by the Engineer. The Contractor must submit for approval a written request giving the proposed locations and the coating manufacturer's instructions for spray application. Applicator and equipment must conform to the following paragraphs:

1. Spraying shall conform to the manufacturer's recommendations.

2. Equipment:

a. The spray equipment used shall be suitable for the intended purpose, capable of properly atomizing the coating, and equipped with suitable pressure regulators and gages. The equipment shall be in good working order.

b. Spray equipment shall be kept sufficiently clean so that dirt, dried coating, and other foreign substances are not deposited with the coating.

c. All solvents used in cleaning the equipment shall be completely removed before use.

d. The equipment manufacturer's instructions for proper use shall be strictly followed.

3. Air Spray:

a. Air caps, nozzles, and needles shall be those recommended by the manufacturers of the coating system and spray equipment being used.

b. Moisture and oil separators or traps shall be used in the compressed air system to provide a dry and clean air supply. The traps or separators must be of adequate size and must be drained periodically during the coating application.

4. Airless Spray:

   a. Fluid tips shall be of the proper orifice size and fan angle, and the fluid control gun of proper construction, as recommended by the manufacturer of the coating system and the spray equipment being used.

3.08 CURING

A. Each coat shall be in a proper state of cure or dryness prior to the placement of the succeeding coat. Coating shall be considered sufficiently dry for recoating when an additional coat can be applied without the development of any detrimental film irregularities such as lifting, wrinkling, or loss of adhesion of the undercoat. Where an overcoat will not properly adhere to an overly cured undercoat, it shall be applied within the time period recommended by the manufacturer.

B. The curing times for the coatings shall conform to the coating manufacturer's recommendations considering ambient temperature and relative humidity.

3.09 FIELD QUALITY CONTROL

A. Thickness - The Contractor shall furnish the Engineer a suitable thickness detector of a type recommended by the coating manufacturer. Dry film measurements shall be taken in accordance with SSPC-PA 2.

B. The color of the prime coat shall be beige when available. It shall be inspected before application of intermediate or finish coats.

C. Intermediate Coats shall be the approximate shade of final coat; however, each coat shall be of a slightly different tint. Each coat shall be inspected and approved before the next coat may be applied; otherwise, credit will not be given and the Work shall be recoated.

3.10 PATCHING AND REPAIRS

A. All defective coatings shall be removed or repaired as the Engineer may direct. Surfaces with defective shop primer shall be repaired per the manufacturer's recommendations of the system in the Coating Schedule.

B. Before final approval of the Work all damaged coating surfaces (field or factory applied) shall be cleaned and repainted or touched up as directed.

3.11 CLEANING

A. Remove coating and splatter inadvertently placed on items not scheduled to be coated. Remove splatter by washing or scraping, taking care not to scratch or otherwise damage finished surfaces.

B. Remove and dispose spent abrasives, discarded coating materials, rubbish containers, rags, and other debris at the end of each work day.

3.12 MARRED EXISTING FINISHES

A. Existing buildings, pipelines, plumbing, etc., marred during construction by the Contractor shall be repainted to match the existing coating. Repainting shall be carried far enough to match the newly painted area with the existing coating.

B. Surface preparation, primer, and finish coats shall be in accordance with the Coating Schedule.

PART 4 SPECIAL PROVISIONS

4.01 PAINTING OF EXISTING EQUIPMENT AND STRUCTURES

A. Surface preparation shall be in accordance with the manufacturer's recommendations of the system in the Coatings Schedule.

B. The scope of the repainting work is described in the following table.

	Previously Painted Interior Concrete	Interior Piping	Doors and Interior Equipment	Interior Str. Steel	Window Frames	Door Frame
~~Headworks~~	~~X~~	~~X~~	~~X~~		~~X~~	
~~Grit Building~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~
~~Oxidation Ditch~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~
~~Sludge Thickening Building~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~
Chemical/service Building *	~~X~~	~~X~~	X	~~X~~		X
~~Administration/Maintenance Building~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	

1. Interior concrete includes all concrete walls, columns, beams, ceilings, curbs, and machinery bases. Floors and stair treads are not included.

2. *The exterior steel panels of the existing Service Building will be repainted. **(Addendum 3, Issued 5/28/2026)**

4.02 COLORS

A. The colors used shall be selected by the Owner and the Engineer, from the manufacturer's standard colors.

B. All pipelines and associated equipment shall be color coded and banded as follows. Banding shall consist of 3-inch wide painted bands at 30-inch center to center.

Pipeline	Color of Pipe	Color of Legend
Natural Gas	Vermillion	White
City Water	Dark Blue	White
Plant Water	Aqua	Black
Compressed Air	Green	White

Pipeline	Color of Pipe	Color of Legend
Chlorine	Yellow	Black
Raw Sewage	Light Gray	White
Scum	Dark Gray	White
Primary Sludge	Brown	White
Thickened Sludge	Brown with 3-inch red band	White
Waste Sludge	Brown with 3-inch black band	White
Return Sludge	Brown with 3-inch orange band	White
Tank Drains	Black with 3-inch white band	White
Digested Sludge	Black	White
Iron Salt	Orange	White
Polymer	Light Blue	Black
Boiler Feed Water	White with 3-inch blue bands	Black
Digester Gas	Red with 3-inch white band	White
Hot Water Heat Piping	To match walls, ceilings, etc., with 3-inch brown bands	Black

Pipeline	Color of Pipe	Color of Legend
Raw	Olive Green	White
Settled or Clarified	Aqua	Black
Finished or Potable	Dark Blue	White
Alum	Orange	White
Carbon Slurry	Black	White
Caustic	Yellow with 3-inch Green Band	Black
Chlorine (Gas or Solution)	Yellow	Black
Chlorine Dioxide	Yellow with 3-inch Black Band	Black
Ferric Chloride	Orange with 3-inch Brown Band	White
Fluoride	Light Blue with 3-inch Red Band	Black
Lime Slurry	Light Green	White
Ozone	Yellow with 3-inch Orange Band	Black
Phosphate Compounds	Light Green with 3-inch Red Band	White
Polymers	Orange with 3-inch Green Band	White
Potassium Permanganate	Purple	White
Soda Ash	Light Green with 3-inch Orange Band	White
Sodium Chlorite	Yellow with 3-inch Brown Band	Black
Sulfuric Acid	Yellow with 3-inch Red Band	Black
Sulfur Dioxide	Light Green with 3-inch Yellow Band	White
Backwash Waste	Light Brown	White
Sludge	Dark Brown	White
Sewer (Sanitary or Other)	Dark Grey	White
Compressed Air	Dark Green	White
Gas	Red	White
Carbon Dioxide	Light Green with 3-inch Black Band	White

C. Electrical conduit, roof drains, sanitary drains, etc., shall be painted to match the color of adjacent wall or ceiling surface.

4.03 STENCILS AND LABELS

A. Lettering and flow direction arrows shall be stenciled on each pipeline describing the function of the pipeline near the equipment served, at both sides of walls and floors where pipe passes through, and at intervals of not more than 50-feet. Flow direction arrows shall be stenciled on each pipeline adjacent to valves and at each branch or tee. It is intended that all pipelines shall bear labels at the most visible point. If, in the opinion of the Engineer, the foregoing requirements will result in an excessive number of labels or arrows on a run of pipe, the number shall be reduced as directed.

B. Where the flow of a pipeline is in one direction only, an additional flow arrow shall be stenciled in front of each legend on the pipe.

C. For pipes smaller than 1-inch in outside diameter, a white plastic tag with black lettering shall be used. Secure to piping with self-locking nylon straps.

D. The legends and flow arrows shall be stenciled with approved stencil paint. Following the completion of other Work under this Item, all stencils used shall remain the property of the Owner.

E. Each chemical storage tank shall have stenciled on its side a legend describing the tank contents and the tank number as shown on the Drawings such as “Alum Tank No. 1”.

F. Preprinted pressure sensitive vinyl labels may be used in lieu of stencils. Labels shall be additionally secured to the pipe at each end by 2-inch roll tape with preprinted directional arrows. Tape color shall match the label. Label size shall be determined by pipe size as recommended by the manufacturer’s standard literature. Labels shall be Opti-Code as manufactured by Seton Name Plate Corporation, or equal.

4.04 INSPECTION EQUIPMENT

A. The Contractor shall furnish the following testing equipment:

1. SSPC Surface Preparation Specifications, SSPC Publication 91-08:
   a. Quantity: 1 copy.
2. SSPC Visual Standard for Abrasive Blast Cleaned Steel Surfaces, SSPC VIS 1-89:
   a. Quantity: 1 each.
3. Keane-Tator Surface Profile Comparator with sand, grit/slag, and shot disks:
   a. Quantity: 1 each.
4. NACE Visual Comparator for Surface Finishing of Welds Prior to Coating, NACE Standard RP0178:
   a. Quantity: 1 required.
5. Wet Film Thickness Gauge:
   a. Nordson Model 790-010; Range 0 to 20 mils.

b. Quantity: 3 required.

6. Wet Film Thickness Gauge:
   a. Nordson Model 790-015; Range 4 to 60 mils.
   b. Quantity: 3 required.
7. Dry Film Thickness Gauges:
   a. Positector 6000 Series, Model F2; Range 0 to 60 mils.
   b. Quantity: 1 required.
8. Holiday/Pinhole Detector (Low Voltage):
   a. Elcometer Model No. 269; battery operated, low voltage; with probe, connecting wires and battery.
   b. Quantity: 1 required.
   c. If battery is rechargeable, furnish one spare battery for each detector supplied.
   d. If battery is not rechargeable, furnish six spare alkaline batteries.
9. US Weather Bureau Psychometric Tables:
   a. KTA-TATOR Model WB-235; standard tables from 23.0 to 30.0 inches barometric pressure.
   b. Quantity: 1 required.
10. Surface Temperature Thermometer:
   a. KTA-TATOR Model PTC/315F dial thermometer 0-150 degrees F.
   b. Quantity: 2 required.
11. Paint Thermometer:
   a. KTA-TATOR Model 6212 dial thermometer 25-125 degrees F.
   b. Quantity: 2 required.
12. Surface Profile Spring Micrometer:
   a. KTA-TATOR Model 354.
   b. Quantity: 1 required.
   c. Tape Required:
      1) 0.8 to 2.0 mils (50 per package) - 1 package.
      2) 1.5 to 4.5 mils (50 per package) - 2 packages.

13. 10X Magnifier:
    a. KTA-TATOR Model 405.
    b. Quantity: 1 required.

This page was intentionally left blank.

4.05 COATING SCHEDULE

A. The following coating schedules is not guaranteed to be complete. The coating systems manufacturers are listed in no particular order, any of the four listed systems, or equal may be used.

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
A.	Ferrous metals, except galvanized or stainless steel, submerged or partially submerged in wastewater or non-submerged exposed to splash or spill, including all tank mechanisms and tank mechanism support structures; clips, beams, and walkway supports; pipes, valves, sluice gates, scum baffles, and weirs:				
	Surface Preparation:	SSPC-SP 10 (NACE 2) Near White Blast Cleaning with a 1.5-2.0 mil Profile	SSPC-SP 10 (NACE 2) Near White Blast Cleaning with a 2.0 mil Profile	SSPC-SP 10 (NACE 2) Near White Blast Cleaning with a 1.5-2.0 mils Profile	SSPC-SP 10 (NACE 2) Near White Blast Cleaning with a 1.5-2.0 mil Profile
	Primer:	1 coat, Carboguard 890 (4.0-6.0 mils DFT)	1 coat, N140 Pota-Pox Plus (DFT 3.0-5.0 mils).	N/A	1 coat, Macropoxy 240 (DFT 3.0-5.0 mils)
	Field Finish:	2 coats, Bitumastic 300m (8.0-16.0 DFT per coat)	2 coats, 46H-413 HB Tneme-Tar, (DFT 8.0-10.0 mils per coat).	N/A	2 coats, Targuard Coal Tar Epoxy (DFT 8.0-16.0 mils per coat)
B.	Ferrous metals, except galvanized or stainless steel, submerged or partially submerged in or exposed to potable water or water being treated for potable use, including all tank mechanisms and tank mechanism support structures; clips, beams, and walkways; pipes, valves, sluice gates, and weirs:				
	Surface Preparation:	SSPC-SP 10 (NACE 2) Near White Metal Blast Cleaning, surface profile 1.5-2.0 mils	SSPC-SP 10 (NACE 2) Near White Metal Blast Cleaning, surface profile 2.0 mils	SSPC-SP 10 (NACE 2) Near White Metal Blast Cleaning, surface profile 1.5-2.5 mils	SSPC-SP 10 (NACE 2) Near White Metal Blast Cleaning, surface profile 2.0-3.0 mils
	Primer (Zinc Rich):	N/A	1 coat Series 91 H2O Hydrozinc , (DFT 3.0-5.0 mils)	1 coat, Cathacoat 316 (DFT 2.5-3.5 mils)	1 coat, Corothane I Galvapac at DFT 2.0-4.0 mils
	Field Finish:	N/A	2 coats, N140 Pota-Pox Plus (DFT 4.0-6.0 mils per coat)	2 coats, Bar-Rust 233 H (DFT 4.0-6.0 mils per coat)	2 coats, Macropoxy 646 PW (DFT. 4.0-6.0 mils per coat)
	Primer (Non-Zinc Rich):	1 coat, Carboguard 61 (DFT 4.0-6.0 mils)	1 coat N140 Pota-Pox Plus (DFT 4.0-6.0 mils)	1 coat Bar-Rus 2334 (DFT 4.0-6.0 mils)	1 coat Macropoxy 646 PW (DF 4.0-6.0 mil per coat)
	Field Finish:	2 coats, Carboguard 61 (DFT 4.0-6.0 mils per coat)	2 coats, N140 Pota-Pox Plus (DFT 4.0-6.0 mils per coat)	2 coats, Bar-Rust 233 H (DFT 4.0-6.0 mils per coat)	2 coats, Macropoxy 646 PW (DFT. 4.0-6.0 mils per coat)
C.	Concrete walls, columns, beams, etc. in contact with potable water or water being treated for potable use:				

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
	Surface Preparation:	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry
	Filler:	Fill bugholes with Carboguard 501/510	215 Surfacing Epoxy or 218 MortarClad	Fill bugholes with Devran 133/Cabo-Sil M-5 (DFT up to 80.0 mils)	Fill all bugholes with Steel Seam FT 910 or Dura-Plate 2300 or cementitious repair mortar from AW Cook
	Primer:	1 coat, Carboguard 61 (DFT 4.0-6.0 mils)	1 coat, N140 Pota-Pox Plus (DFT 4.0-6.0 mils).	1 coat, Bar-Rust 233 H (DFT 4.0-6.0 mils)	1 coat, Macropoxy 646 PW (DFT 3.0-5.0 mils).
	Final:	2 coats, Carboguard 61 (DFT 4.0-6.0 mils per coat)	1 coat, N140 Pota-Pox Plus (DFT 4.0-6.0 mils)	1 coat, Bar-Rust 233 H (DFT 4.0-6.0 mils)	2 coats Macropoxy 646 PW (DFT 4.0-6.0 mils per coat)
D.	Exterior nongalvanized, ferrous metal surfaces not submerged:				
	1. Subject to splash or spills or atmospheric:				
	Surface Preparation:	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5- 2.0 mils	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils
	Primer:	1 coat, Carbozinc 859 (3.0-5.0 mils DFT)	1 coat, 90-97 Tneme-Zinc, (DFT 2.5-3.5 mils).	1 coat, CathaCoat 313 (DFT 2.0-4.0 mils)	1 coat, Corothane I Galvapac (DFT 2.0-4.0 mils)
	Intermediate:	1 coat, Carboguard 60 (4.0-6.0 mils DFT)	1 coat, 27 Typoxy, (DFT 2.5-4.0 mils).	1 coat, Devran 224HS (DFT 4.0-8.0 mils)	1 coat, Macropoxy 646 (DFT 3.0-5.0 mils).
	Final:	1 coat, Carbothane 134HG (2.0-2.5 mils DFT)	1 coat, 72/73 Endura-Shield (DFT 2.5-5.0 mils).	1 coat, Devthane 359 (DFT 3.0-5.0 mils)	1 coat, Hi-Solids Polyurethane (DFT 3.0-5.0 mils).

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
E.	Interior wall surfaces of masonry block construction and precast concrete walls and ceiling surfaces:				
	1. Concrete Masonry Block (CMU and AMU)				
	Surface Preparation:	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). Masonry shall be moisture free.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). Masonry shall be moisture free.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). Masonry shall be moisture free.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). Masonry shall be moisture free.
	Sealer/Surfacer:	1 coat, Sanitile 100 (5.0-20.0 mils DFT) depending on porosity must be pin hole free prior to applying	1 coat, 130 Envirofill (DFT 10.0-15.0 mils).	1 coat, Tru-Glaze-WB 4015 (DFT 9.0-11.0 mils)	1 coat, Cement Plex 875 Masonry Filler/Sealer (DFT 13-25 mils).
	Finish:	2 coats, Carboguard 60 (DFT 4.0-6.0 mils per coat)	2 coats, N69 H.B. Epoxoline II (DFT 4.0-6.0 mils per coat).	2 coat, Devran 224HS (DFT 4.0-6.0 mils per coat)	2 coats, Macropoxy 646 (DFT 4.0-6.0 mils per coat)
	2. Pre-Cast Concrete				
	Surface Preparation:	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.	SSPC-SP 13 (NACE 6) D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.
	Filler:	Fill bug holes with Carboguard 501/510	Fill bug holes with 215 surfacing epoxy or 218 MortarClad	Fill bug holes with Devfil 145 (DFT 16.0-22.0 mils)	Fill all bugholes with Steel Seam FT 910 or Dura-Plate 2300 or cementitious repair mortar from AW Cook

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
	Finish:	2 coats, Carboguard 60 (DFT 4.0-6.0 mils per coat)	2 coats, N69 H.B. Epoxoline II (DFT 4.0-6.0 mils per coat).	2 coats, Devran 224HS (DFT 4.0-6.0 mils per coat)	2 coats, Macropoxy 646 (DFT 4.0-6.0 mils per coat)
F.	Interior concrete walls, columns, beams, and ceilings; concrete curbs; concrete bases for machinery and equipment; etc.:				
	Surface Preparation:	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete). Abrade precast concrete, if recommended by coating manufacturer, per ASTM D4259. ASTM D4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, retest until dry.
	Filler:	Fill bugholes with Carboguard 501/510	Fill bugholes with 215 Surfacing Epoxy or 218 MortarClad	Fill bug holes with Devfil 145 (16.0-22.0 mils DFT)	Fill all bugholes with Steel Seam FT 910 or Dura-Plate 2300 or cementitious repair mortar from AW Cook
	Primer:	1 coat, Carboguard 60 (DFT 4.0-6.0 mils)	1 coat, 27 Typoxy (DFT 2.5-4.0 mils).	1 coat, Devran 224HS (DFT 4.0-8.0 mils)	1 coat, Macropoxy 646 (DFT 3.0-5.0 mils).
	Final:	2 coats, Carboguard 60 (DFT 4.0-6.0 mils)	2 coats, N69 H.B. Epoxoline II (DFT 4.0-6.0 mils).	2 coats, Devran 224 HS (DFT 4.0-6.0 mils per coat)	2 coats Macropoxy 646 (DFT 4.0-6.0 mils).
G.	Interior, nongalvanized, ferrous metal surfaces of items such as pipe; machinery, equipment; doors and door frames; rolling doors; exposed ductwork; hoppers, chutes, pipe supports, trays, and hangers; walkway platforms; stairs; structural members; floor frames and covers; miscellaneous metal tanks shall be finished as follows:				
	Surface Preparation:	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils.	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils.	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5 to 2.0 mils.	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils.
	Primer:	1 coat, Carboguard 60 (DFT 4.0-6.0 mils)	1 coat, 27 Typoxy (DFT 2.0-4.0 mils).	1 coat, Devran 201H (DFT 2.0-3.0 mils)	1 coat, Recoatable Epoxy Primer, Macropoxy 646 (DFT 3.0-5.0 mils).

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
	Finish:	2 coats, Carboguard 60 (DFT 4.0-6.0 mils per coat)	2 coats, N69 H.B. Epoxoline II, or equal (DFT 4.0-6.0 mils per coat).	2 coats, Devran 224 HS (DFT 4.0-6.0 mils per coat)	2 coats, Macropoxy 646, (DFT 4.0-6.0 mils per coat).
H.	Ferrous metal surfaces of all chemical pipe supporting trays throughout the project and ferrous metal surfaces of items in chemical rooms such as pipes, machinery, equipment, doors, ductwork, hoppers, walkways, and stairs, but not structural wall panels and roof joists, shall be finished as follows:				
	Surface Preparation:	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils.	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils.	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5-2.0 mils.	SSPC-SP 6 (NACE 3) Commercial Blast Cleaning, surface profile 1.5 -2.0 mils.
	Primer:	1 coat, Carboguard 60 (4.0-6.0 mils DFT)	1 coat, 27 Typoxy, or equal (DFT 2.0-4.0 mils).	1 coat, Devran 201H (DFT 2.0-3.0 mils)	1 coat, Recoatable Epoxy Primer, Macropoxy 646 (DFT 3.0-5.0 mils).
	Finish:	2 coats, Carboguard 890 (4.0-6.0 mils DFT)	2 coats, N69 H.B. Epoxoline II (DFT 4.0-6.0 mils per coat).	2 coats, Devran 224 HS (DFT 4.0-6.0 mils per coat)	2 coats, Macropoxy 646, (DFT 4.0-6.0 mils per coat).
I.	Galvanized ferrous, aluminum, copper, fiber reinforced plastic or other plastic piping and conduits located inside buildings requiring color coding:				
	1. Aluminum and Copper:				
	Surface Preparation:	SSPC-SP 16 - Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals	SSPC-SP 16 - Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals	SSPC-SP 16 - Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals	SSPC-SP 16 - Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals
	Primer:	N/A	1 coat, 27 Typoxy, or equal (DFT 2.0-4.0 mils).	1 coat, Devran 201H (DFT 2.0-3.0 mills)	N/A
	Finish:	2 coats, Carboguard 60 (DFT 4.0-6.0 mils per coat)	1 coat, N69 H.B. Epoxoline II (DFT 4.0-6.0 mils per coat).	1 coat, Devran 224 HS (DFT 4.0-6.0 mils)	2 coats, Macropoxy 646 (DFT 4.0-6.0 mils per coat).
	2. Galvanized Metal:				
	Surface Preparation:	SSPC SP 16 "Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals	SSPC SP 16 "Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals	SSPC SP 16 "Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals	SSPC SP 16 “Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
	Primer:	None	1 coat, 27 Typoxy, or equal (DFT 2.0-4.0 mils).	1 coat, Devran 201H (DFT 2.0-3.0 mills)	N/A
	Finish:	2 coats, Carboguard 60 (DFT 4.0-6.0 mils per coat)	1 coat, N69 H.B. Epoxoline II (DFT 4.0-6.0 mils per coat).	1 coat, Devran 224HS (DFT 4.0-6.0 mils)	2 coats, Macropoxy 646 (DFT 3.0-5.0 mils per coat).
3. FRP, PVC, CPVC, and Other Plastics:					
	Surface Preparation:	Scuff sand to uniformly roughen surface	Scuff sand to uniformly roughen surface	Scuff sand to uniformly roughen surface	Scuff sand to uniformly roughen surface
	Primer:	None	1 coat, 27 Typoxy, or equal (DFT 2.0-4.0 mils).	1 coat, Devran 201H (DFT 2.0-3.0 mills)	None
	Finish:	2 coats, Carboguard 60 (DFT 4.0-6.0 mils per coat)	1 coat, N69 H.B. Epoxoline (DFT 4.0-6.0 mils per coat).	1 coat, Devran 224 HS (DFT 4.0-6.0 mils)	2 coats, Macropoxy 646 (DFT 3.0-5.0 mils per coat).
J.	Exterior piping requiring color coding and made of galvanized ferrous, aluminum, fiberglass reinforced plastic, or other plastic and all exterior fiberglass reinforced plastic piping and galvanized conduit:				
	Surface Preparation:	SSPC SP 16 "Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals	SSPC SP 16 "Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals	SSPC SP 16 "Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals	SSPC SP 16 “Brush-off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-ferrous Metals
	Surface Preparation: FRP and Other Plastics:	Scuff sand to roughen surface	Scuff sand to roughen surface	Scuff sand to roughen surface	Scuff sand to roughen surface
	Primer:	1 coat, Carboguard 60 (4.0-6.0 mils DFT)	1 coat, 27 Typoxy, or equal (DFT 2.0-3.0 mils).	1 coat Devran 201H (DFT 2.0-3.0 mils)	1 coat, Macropoxy 646 (DFT 2.0-3.0 mils).
	Finish:	2 coats, Carbethane 134 HG (DFT 4.0-6.0 mils per coat)	1 coat, 72/73 Endura-Shield (DFT 2.0-4.0 mils).	1 coat, Devthane 359 (DFT 2.0-4.0 mils)	1 coat Hi-Solids Polyurethane (3.0-5.0 mils DFT)
K.	Exterior wall surfaces of masonry block construction (Not previously Coated):				
	Surface Preparation:	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). ASTM	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). ASTM	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). ASTM	SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). Masonry shall be moisture free.

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
		D4261 (Block). Masonry shall be moisture free.	D4261 (Block). Masonry shall be moisture free.	D4261 (Block). Masonry shall be moisture free.	
	Primer:	N/A	N/A	1 coat Bloxfil 4000 (DFT 7.0-14.0 mils)	N/A
	Finish	2 coats, Flexxide Elastomer (DFT 6.0-8.0 mils per coat)	2 coats, 180/181 Tneme-Crete (DFT 4.0-8.0 mils per coat)	2 coats Decra Flex 300 Elastomeric (2260 smooth) (DFT 6.0-8.0 mils per coat)	2 coats Loxon XP (DFT 6.0-8.0 mils per coat).
L.	Interior and exterior wood surfaces such as soffits and trim:				
	Surface Preparation:	Surface must be clean and dry. Sand rough areas and fill knots and voids	Surface must be clean and dry. Sand rough areas and fill knots and voids	Surface must be clean and dry. Sand rough areas and fill knots and voids	Surface must be clean and dry. Sand rough areas and fill knots and voids.
	Primer:	1 coat, Sanitile 120 (DFT 2.0-3.0 mils)	1 coat, 10-99W Tnemec Primer (DFT 2.0-3.0 mils)	Exterior: 1 coat, Hydrosealer 6001 (DFT 1.4-1.7 mils); Interior: 1 coat, Gripper 3210 (DFT 1.8-2.1 mils)	1 coat PrepRite ProBlock Interior/Exterior Latex Primer Sealer (DFT 1.0-2.0 mils).
	Finish:	2 coats, Carbocrylic 3359 (DFT 2.0-3.0 mils DFT per coat)	2 coats, 1028/1029 Enduratone (DFT 2.0-3.0 mils per coat)	2 coats, Lifemaster Oil Semi-Gloss 1506 Lifemaster Oil Semi-Gloss (DFT 2.0-3.0 mils per coat)	2 coats Metalatex Semi-Gloss or Pro Industrial 0 VOC Acrylic (DFT 2.0-4.0 mils per coat)
M.	Plaster or drywall finished walls and ceilings:				
	Surface Preparation:	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination.
	Primer:	1 coat, Sanitile 120 (DFT 2.0-3.0 mils)	1 coat, 51-1204 PVA Sealer (DFT 2.0-3.0 mils)	Plaster: 1 coat, Gripper 3210 (DFT 1.8-2.1 mils); Drywall: 1 coat, PVA Wall Primer 1030 (DFT 2.0-3.0 mils)	1 coat, ProMar 200 Interior Latex Wall Primer (DFT 1.0-2.0 mils).
	Finish:	2 coats, Carbocrylic 3359 (DFT 2.0-3.0 mils per coat)	1 coat, 6 Tneme-Cryl (DFT 2.0-3.0 mils)	Ceilings: 2 coats, Ultra Hide 250 Interior Flat Paint 1200N (DFT 1.2-1.4 mils); Walls: 2 coats, Ultra Hide 250 Interior	2 coats, ProMar 200 Interior Latex Eg-Shel (DFT 1.5-2.0 mils per coat).

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
				Eggshell Paint 1402N (DFT 2.0-3.0 mils)	
N.	Exposed pipe insulation				
	Surface Preparation:	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination.
	Finish:	2 coats, Carbocrylic 3359 (DFT 2.0-3.0 mils per coat)	2 coats, 6 Tneme-Cryl (DFT 2.0-3.0 mils)	2 coats, Devflex 4020 PF (DFT 2.0-3.0 mils per coat)	2 coats, Metalatex Semi-Gloss Acrylic or Pro Industrial 0 VOC Acrylic (DFT 2.0-4.0 mils per coat).
O.	Stained finish carpentry:				
	Surface Preparation:	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination.	Surface must be clean and dry, no contamination	Surface must be clean and dry, no contamination.
	Primer:			Wood Pride Water-Based Wood Finishing Semi-Transparent Stain 1700V (300-400 sq ft/gal)	Minwax Water Based Wood Stain (300-400 sq ft/gal)
	Finish:			Wood Pride Water-Based Satin Varnish 1802 or Water-Based Gloss Varnish 1808 (400-500 sq ft/gal)	Minwax Water Based Polyacrylic Clear Satin Protective Finish (400-500 sq ft/gal)
P.	Interior Ferrous metals that are part of the PEMB structure and are either unfinished or factory primed: Color to be PT-1				
	Surface Preparation:	Surface must be clean, dry and degreased, no contamination.	Surface must be clean, dry and degreased, no contamination.	Surface must be clean, dry and degreased, no contamination.	Surface must be clean, dry and degreased, no contamination.
	Primer:	1 coat, Carboguard 60 (4.0-6.0 mils DFT). (not required if factory primed)	1 coat, 27 Typoxy, or equal (DFT 2.0-3.0 mils). (not required if factory primed)	1 coat Devran 201H (DFT 2.0-3.0 mils). (not required if factory primed)	1 coat Devran 201H (DFT 2.0-3.0 mils). (not required if factory primed)
	Finish:	2 coats, Carbethane 134 HG (DFT 4.0-6.0 mils per coat)	2 coats, N69 H.B. Epoxoline II (DFT 4.0-6.0 mils per coat).	2 coats, Devran 224 HS (DFT 4.0-6.0 mils per coat)	2 coats, Macropoxy 646, (DFT 4.0-6.0 mils per coat).
Q.	Interior Masonry and Gyp Bd Walls that are not in Process Areas (admin building)				

		Carboline	Tnemec	AkzoNobel (International, Devoe, Glidden Professional)	Sherwin Williams
	Surface Preparation:			Masonry: SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). Masonry shall be moisture free. Gyp Bd: Level 3 finish (GA-214).	Masonry: SSPC-SP 13 (NACE 6) Remove surface contaminates per ASTM D4258 (Concrete), and ASTM D4261 (Block). Masonry shall be moisture free. Gyp Bd: Level 3 finish (GA-214).
	Primer:			Masonry: 1 coat, Tru-Glaze-WB 4015 (DFT 9.0-11.0 mils) Gyp Bd: 1 coat, Hydrosealer 6001 (DFT 1.4-1.7 mils); Interior: 1 coat, Gripper 3210 (DFT 1.8-2.1 mils)	Masonry: 1 coat, Cement Plex 875 Masonry Filler/Sealer (DFT 13-25 mils). Gyp Bd: 1 coat PrepRite ProBlock Interior/Exterior Latex Primer Sealer (DFT 1.0-2.0 mils).
	Finish:			2 coats, PPG Speedhide Interior (DFT 4.0-6.0 mils per coat)	2 coats, ProMar 200, (DFT 4.0-6.0 mils per coat).

(Addendum 2, Issued 5/18/26)

END OF SECTION

This page was intentionally left blank.

SECTION 11233
ULTRAVIOLET DISINFECTION SYSTEM

PART 1 GENERAL

1.01 SCOPE

A. Furnish all labor, materials, equipment and appurtenances required to provide an open channel, gravity flow, low pressure high intensity ultraviolet lamp (UV) disinfection system complete with an automatic mechanical/chemical cleaning system and variable output electronic ballasts. The UV system shall be complete and operational with all control equipment and accessories as shown and specified herein. This system will be capable of disinfecting effluent to meet the water quality standards listed in this section.

1.02 QUALITY ASSURANCE

A. The manufacturer shall be regularly engaged in the manufacture of UV systems with a proven record of at least one hundred (100) operating installations of the proposed UV system.

B. The manufacturer will provide documentation of previous experience with municipal UV disinfection systems in wastewater applications with variable output electronic ballasts.

1. To be considered, the manufacturer shall submit a bioassay evaluation for the proposed reactor, without exception. The bioassay shall be completed by an independent third party and have followed protocols described in the NWRI Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse (May 2003) and applicable sections of the US EPA Design Manual - Municipal Wastewater Disinfection (EPA/625/1-86/021) using MS2 bacteriophage. The bioassay must demonstrate that the proposed UV system design and number of lamps will deliver the specified dose. Independent certification of fouling factor and lamp aging factor must be submitted if values other than the specified default values are being proposed.

2. Documentation of UV manufacturer's service capabilities including location and experience.

3. Sample disinfection performance guarantee including scope and duration of guarantee.

1.03 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. Shop Drawings for Review:

a. Complete description in sufficient detail to permit an item comparison with the specification.

b. Dimensions and installation requirements.

c. Descriptive information including catalogue cuts and manufacturers' specifications for major components.

d. Electrical schematics and layouts.

e. Hydraulic calculations demonstrating compliance with the required hydraulic characteristics.

f. Independent bioassay validation and dosage calculations demonstrating compliance with the specified dose requirements.

2. Information for the Record:

a. Disinfection performance guarantee.

b. Manufacturer’s certification of installation.

c. Provide operation and maintenance manuals.

d. Provide an electronic copy of the PLC program to the owner for restoration of the system program.

1.04 GUARANTEE

A. Equipment:

1. The equipment furnished under this section will be free of defects in material and workmanship, including damages that may be incurred during shipping for a period of 24 months from date of substantial completion. All materials and equipment found defective within the warranty period shall be replaced at no cost to the OWNER. All costs including shipping shall be paid for under this warranty.

B. UV Lamps:

1. The UV lamps shall be warranted for a minimum of 12,000 hours when operated in automatic mode, prorated after 9,000 hours. On/off cycles are limited to four (4) per day.

C. Ballasts:

1. The UV ballast shall be warranted for 5 years, prorated after 1 year.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. The physical layout of the system shown on the contract drawings and the equipment specified herein are based upon the UV3000PlusTM System, as manufactured by Trojan Technologies.

2.02 DESIGN CRITERIA AND PEFORMANCE:

A. Provide equipment that will disinfect effluent with the following characteristics:

1.	Current Peak Flow:	8 mgd
2.	Future Peak Flow:	8 mgd
3.	Minimum Flow:	0.25 mgd
4.	Total Suspended Solids:	15 mg/L, 30-day average, grab samples
5.	Effluent Temperature Range:	33 to 85 F (1 to 30 °C)
6.	Ultraviolet Transmittance @ 253.7 nm:	65 %, minimum
7.	Maximum Mean Particle Size:	30 microns
8.	Effluent standards to be achieved:	126 E. coli/100 ml based on a 30-day geometric mean.
9.	Effluent standards to be achieved:	284 E.coli/100ml based on 7-day geometric mean.
10.	Effluent standards will be guaranteed regardless of influent count to UV system.	

B. The UV system shall be installed in one open channel having the dimensions as shown on the drawings.

C. System configuration:

1. The configuration of the UV system will be based on the manufactures design required to meet the channel configuration and performance requirements as shown on the drawing and listed in this specification.

D. Performance Requirements:

1. The ultraviolet disinfection system will produce an effluent conforming to the following discharge permit: 126 E. coli/100 ml based on a 30-day geometric mean and 284 E. coli/100 ml based on a 7-day geometric mean. Grab samples will be taken in accordance with the Microbiology Sampling Techniques found in Standard Methods for the Examination of Water and Wastewater, 19th Ed.

2. The UV system will be designed to deliver a minimum UV dose of 35,000 Ws/cm2 at peak flow, in effluent with a UV Transmission of 65% at end of lamp life (EOLL) after reductions for quartz sleeve fouling. The basis for evaluating the

UV dose delivered by the UV system will be the independent third-party bioassay using MS2 bacteriophage, without exception. Bioassay validation methodology to follow protocols described in NWRI Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse (May 2003) and/or applicable sections of the US EPA Design Manual - Municipal Wastewater Disinfection (EPA/625/1-86/021) using MS2 bacteriophage.

3. The UV Dose will be adjusted using an end of lamp life factor of 0.5 to compensate for lamp output reduction over the time period corresponding to the manufacturer's lamp warranty. The use of a higher lamp aging factor will be considered only upon review and approval of independent third party verified data that has been collected and analyzed in accordance with protocols described in NWRI Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse (Current Standard).

4. The UV Dose will be adjusted using a quartz sleeve fouling factor of 0.8 when sizing the UV system in order to compensate for attenuation of the minimum dose due to sleeve fouling during operation. The use of a higher quartz sleeve fouling factor will be considered only upon review and approval of independently verified data that has been collected and analyzed in accordance with protocols described in NWRI Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse (Current Standard).

5. Independent Validation for use of higher factors (lamp aging and sleeve fouling) must be submitted to the Engineer.

6. The system will continue providing disinfection while replacing UV lamps, quartz sleeves, ballasts and while cleaning the UV lamp sleeves.

7. The system will be designed for complete outdoor installation.

2.03 DESIGN, CONSTRUCTION AND MATERIALS

A. General:

1. All module welded metal components in contact with effluent shall be Type 316 stainless steel.

2. All metal components above the effluent shall be Type 304 stainless steel with the exception of the ballast enclosure, which is constructed of anodized aluminum.

3. All wiring exposed to UV light shall be Teflon™ coated.

4. All wires connecting the lamps to the ballasts shall be enclosed inside the frame of the UV Module and not exposed to the effluent.

B. Lamp Array Configuration:

1. The lamp array configuration in relationship to the flow through the UV channel shall be based on the manufacturer’s recommendation. The system shall be

designed for complete immersion of the UV lamps including both electrodes and the full length of the lamp tube in the effluent.

C. UV Module:

1. UV modules shall consist of UV lamps with an electronic ballast enclosure mounted on a Type 316 stainless steel frame, ballasts housed in a separate enclosure located external to the channel shall be equipped with a suitable cooling system to keep the ballast at their recommended operating temperature. The cooling system shall be supplied by the UV manufacturer. Each lamp will be enclosed in its individual quartz sleeve, one end of which shall be closed and the other end sealed by a lamp end seal. The closed end of the quartz sleeve shall be held in place by means of a retaining O-ring. The quartz sleeve shall not come in contact with any steel in the frame.
2. The ends of the lamp sleeve will not protrude beyond the stainless-steel frame of the UV Module.
3. Lamp wires shall terminate in the electronic ballast enclosure located at the top of the UV Module.
4. Lamp to ballast connections shall be made by and tested by the UV Manufacturer.
5. The electronic ballast enclosure shall contain the electronic ballasts and addressable lamp status monitoring systems.
6. Each UV Module shall be connected to a receptacle on the Power Distribution Center.
7. At the point of exit from the UV Module frame the multi conductor cable shall pass through a waterproof strain relief.
8. Each UV module shall have a rating of Type 6P.

D. UV Lamps:

1. Lamps shall be high intensity low pressure amalgam design. The lamp shall be preheated to promote longevity. The filament shall be of the clamped design, significantly rugged to withstand shock and vibration.
2. Electrical connections shall be at one end of the lamp and have four pins, dielectrically tested for 2,000 Vrms.
3. Lamps shall be operated by electronic ballasts with variable output settings.

E. Lamp End Seal and Lamp Holder:

1. The open end of the lamp sleeve shall be sealed by means of a sleeve nut which threads onto a sleeve cup and compresses the sleeve O-ring.
2. The sleeve nut shall have a knurled surface to allow a handgrip for tightening. The sleeve nut shall not require any tools for removal.

3. The lamp shall be held in place by means of a moulded lamp holder that will incorporate two seals. The lamp holder shall incorporate a double seal against the inside of the quartz sleeve to act in series with the external O-ring seal.
4. The second seal on the lamp holder shall isolate and seal the lamp from the module frame and all other lamps in the module.
5. In the event of a quartz sleeve fracture the two seals of the lamp holder shall prevent moisture from entering the lamp module frame and the electrical connections to the other lamps in the module.
6. The lamp holder shall incorporate a UV resistant PVC moulded stop that will prevent the lamp sleeve from touching the steel sleeve cup.
7. UV Lamp Quartz Sleeves shall be Type 214 clear fused quartz circular tubing. Lamp sleeves shall be a nominal thickness of 1.5 mm and domed at one end.

F. UV Module Support Rack shall be minimum Type 304 stainless steel and be mounted above the effluent in the channel allowing adjustment to the precise height of the channel.

G. Effluent Level Controller shall be trough weir as specified in Sections 06670 and 06680 located at the discharge end of the UV Channel, as shown on the drawings. The serpentine weir shall maintain a minimum channel level as required to keep lamps submerged

H. One low water level sensor shall be provided by the UV manufacturer. During manual, automatic and remote operation, the water level sensor shall ensure that lamps extinguish automatically if the water level in the channel drops below an acceptable level.

I. Electrical:

1. Each UV module within a bank shall be powered from the bank's dedicated Power Distribution Center.
2. All cabling and conduit between lamps and ballasts shall be supplied by the UV manufacturer.
3. All terminations between lamps and ballasts shall be performed by the UV manufacturer.
4. Each electronic ballast within a UV module shall operate two lamps.
5. Power factor shall not be less than 98% leading or lagging.
6. Electrical supply to each Power Distribution Center shall be 480 Volts, 3-phase, 4-wire (plus ground), 12.3 kVA.
7. Electrical supply to the Hydraulic System Center shall be 480 Volts, 3-phase, 3-wire (plus ground), 2.5 kVA.

8. Electrical supply for the water level sensor shall be provided by the Level Control Panel and be 24 ~~12~~ Volt DC. **(Addendum 3, Issued 5/28/2026)**

9. Electrical supply to the System Control Center shall be 120 Volts, 1-phase, 2-wire (plus ground), 300 VA.

J. Power Distribution Center:

1. Power distribution shall be through environmentally sealed receptacles on the PDC(s) to allow for local connection of UV modules.

2. Data concentration shall be through integrated circuit boards located inside the Power Distribution Center.

3. PDC enclosure material shall be Type 304 stainless steel.

4. All internal components shall be sealed from the environment.

5. All Power Distribution Centers shall be UL approved or equivalent with a rating of NEMA Type 4X.

6. One separate sealed Power Distribution Center will be provided per bank of lamps.

K. Control and Instrumentation:

1. The monitoring, operation and control shall be managed at the System Control Center (SCC) shall be managed by an Allen-Bradley PLC controller, and touch screen HMI.

2. The PLC shall be directly addressable by the plant controls network for data acquisition purposes.

3. The SCC will be mounted outdoors. The operator interface shall be positioned out of or away from direct sunlight and shall include a sunshade.

4. The SCC shall use Ethernet to communicate with the plants SCADA System using Cat 6 cable.

5. Alarms shall be provided to indicate to plant operators that maintenance attention is required or to indicate an extreme alarm condition in which the disinfection performance may be jeopardized. All alarms shall be made available to the plants SCADA System. The alarms shall include, but not be limited to:

   a. Individual Lamp Failure.

   b. Multiple Lamp Failure.

   c. Low UV Intensity.

   d. Bank Communication Alarm.

6. The 100 most recent alarms will be recorded in an alarm history register and will be displayed when prompted.

7. Mode of operation for UV Banks can be manual, automatic or remote.

L. UV Detection System:

1. A submersible UV sensor shall continuously monitor the UV intensity produced in each bank of UV lamps.

2. The sensor shall measure only the germicidal portion of the light emitted by the UV lamps. The detection system shall be factory calibrated. Detection systems that can be field calibrated will not be permitted.

M. Dose-Pacing:

1. A dose-pacing system shall be supplied to modulate the lamp UV output in relationship to a 4-20 mA DC signal from an effluent flow meter (by Others).

2. The system shall be dose-paced such that as the flow and effluent quality change, the UV dose is delivered while conserving power.

3. The dose-pacing system shall allow the operator to vary the dose setting. Logic and time delays shall be provided to regulate UV bank ON/OFF cycling.

N. Hydraulic System Center (HSC):

1. One (1) HSC shall be supplied to house all components required to operate the automatic cleaning system.

2. Enclosure material of construction shall be Type 304 stainless steel.

3. The HSC shall contain a hydraulic pump complete with integral 4-way valve and fluid.

4. The HSC panel shall be supplied with 480V disconnect switch.

O. Cleaning System:

1. An automatic cleaning system shall be provided to clean the quartz sleeves using both mechanical and chemical methods. Wiping sequence shall be automatically initiated with capability for manual override.

2. The cleaning system shall be fully operational while UV lamps and modules are submerged in the effluent channel and energized.

3. Cleaning cycle intervals to be field adjustable.

4. Remote Manual and Remote Auto cleaning control options shall be provided.

5. The cleaning system shall be provided with the required solutions necessary for initial equipment testing and for equipment start-up.

P. Spare Parts:

1. The following spare parts and safety equipment shall be supplied.

a. 10% UV Lamps

b. 2 Quartz Sleeves

c. 1 Ballast

d. 1 Operators kit including face shield, gloves and cleaning solution.

e. One portable UVT meter

PART 3 EXECUTION

3.01 INSTALLATION

A. In accordance with contract drawings, manufacturers' shop drawings and instructions.

3.02 MANUFACTURER'S SERVICES

A. The Manufacturer's field service technician shall check the installation of the equipment, assist in the start-up, and provide training on the maintenance of the equipment. A minimum of one (1) trip and a total of two (2) days per trip on site shall be provided.

B. The Manufacturer's technician or process engineer shall provide process training. The training shall be conducted after the system has begun receiving wastewater. At that time, plant analytical and operational data will be reviewed and training provided. Prior to the actual field visit. The total service shall not be less than one (1) trip and one (1) day at site.

PART 4 SPECIAL PROVISIONS

Not Used.

END OF SECTION

This page was intentionally left blank.

SECTION 11238
ROTARY LOBE BLOWER

PART 1 GENERAL

1.01 SCOPE

A. This section includes relocating the existing rotary lobe blower, Eurus Blower ZZ4L used in the existing pre-aeration tank to the Service Build to serve as the post-aeration blower. The blower is in the existing Workshop / Blower Building northeast of the pre-aeration tank. See reference drawings 1989 WWTP Improvements. The blower is not in use now. It is free standing and not connected to piping or fixed to floor. No shop drawings of the existing blower is available. The inlet and discharge connections to the blower are 3-inch diameter. **(Addendum 3, Issued 5/28/2026)**

B. The entire blower assembly including Sound attenuation housing, mounting base, isolators, silencers, guards and housing shall be relocated. Motor mounts and power belt(s) shall be modified as needed to accommodate the new motor. The blower shall be mounted on a new concrete equipment base as detailed in the Drawings.

C. The existing 15 HP 230/460m volt motor on the blower shall be replaced with a 20HP, 480-volt/3 -phase motor rated as inverter duty. The existing blower motor is a Baldor Motor EM2333T - Frame 254T. **(Addendum 3, 5/28/2026)**

D. All Work performed under this Section shall comply with all approved trade practices and manufacturers' recommendations.

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. For Review:

   a. Shop Drawings of proposed relocated blower installation for post aeration service

   b. Manufacturer's literature.

2. The Contractor shall submit two additional sets of information for the Engineer's review (6 total).

1.03 RELATED WORK

A. Electrical work is included in Division 16.

B. Valves not specified herein are included in Section 15250.

C. Pipe, hangers, and supports are included in Section 15210 and Section 15211.

D. Instrumentation and controls not specified herein are included in Section 16901.

E. Painting is included in Section 09900.

1.04 DESCRIPTION OF SYSTEM

A. The existing blower is a Eurus Blower Model ZZ4L with rated inlet of 527 scfm

B. The existing motor is a Baldor EM2333T 15 HP 230/460 volt,3 phase, 1,765 rpm, 254Tframe.

PART 2 PRODUCTS

2.01 GENERAL

A. The Contractor shall furnish and install all interconnecting piping, expansion joints, isolators wiring, gaskets, bolts, nuts, washers, and anchor bolts for required equipment to complete the system as shown on the Drawings and specified herein.

2.02 SHOP PAINTING

A. Shop painting shall be in accordance with Section 01350 for new metal items.

B. Touch-up paint for relocated blower assembly.

PART 3 EXECUTION

3.01 INSTALLATION

A. The blowers and accessories shall be installed in accordance with the approved Shop Drawings and the manufacturer's instructions.

B. All base pads and bearing pedestal shall be flat and parallel to the centerline of the existing drive within 0.001-inch. A vibration test by an independent Contractor shall be provided. Corrections in alignment, fabrication, and installation shall be made as necessary to bring the installation within the requirements of the blower vendor. Vibration readings shall be equal to or less than one mill at each bearing location.

C. Installation shall include the furnishing and installation of all supports and bracing as required to support the blowers, silencers, and piping and to prevent any excessive vibration or movement which may be harmful to the equipment.

D. Precompression or extension of the expansion joints is not allowed.

3.02 INSPECTION, START-UP, AND TESTING

A. The manufacturer of the blower shall provide a representative to check the installation, make final adjustments, supervise initial start-up of each mechanism, and prepare a written certificate thereof for the Owner.

B. The Contractor shall retighten bolts at all joints after a full two weeks of service.

PART 4 SPECIAL PROVISIONS

4.01 OSHA GUARDS

A. Provide OSHA Guards for all couplings, pillow blocks and shafts.

END OF SECTION

This page was intentionally left blank.

SECTION 11835
VOLUTE DEWATERING PRESS

PART 1 GENERAL

1.01 SCOPE

A. This section shall include furnishing one (1) Volute Dewatering Press as specified and indicated on the drawings and as required to meet the specified performance requirements.

B. The Volute Dewatering Press shall be a complete prefabricated system consisting of:

1. Sludge conditioning system consisting of two-stage flocculation tanks with mixing tanks with gear motor and mixing impeller to allow efficient mixing of polymer in the sludge and a flocculation tank including gear motor and large cross-sectional area agitator.
2. Three (3) x 300 series “Dewatering drums” including spray wash down system and gear drives.
3. Support structure for the Dewatering Drum including filtrate collection pan and outlet plumbing.
4. A self-contained electrical and control panel including control for ancillary equipment such as feed pumps and polymer prep set.
5. Each Dewatering Drum shall be equipped with an isolation valve located on the discharge line from the flocculation tank.

C. Appurtenances provided with voluted dewatering:

1. One (1) Velodyne Polymer Preparation manufactured by Velodyne or equal shall be supplied with Volute Press,
2. One spill containment system shall be supplied with the Volute Press. The containment system shall include one IBC spill containment system for the polymer tote. One IBC Spill Pallet for the polymer tote. The Spill Pallet shall be an UltraTech Spill Pallet Plus 1158 with Drain or equal.
3. ~~One inline sludge grinder~~ **(Addendum 3, Issued 5/28/2026)**
4. One sludge feed pump
5. One magnetic flowmeter

D. Appurtenance supplied by others and required to be coordinated and controlled by volute dewatering equipment.

1. One (1) shaftless screw conveyor.

E. The volute dewatering press shall have a maximum hydraulic throughput of 105 gpm of thin sludge, less than 1%, or 1050 pounds per hour of heavier sludge, greater than 4%

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. Shop Drawings for Review:

a. Complete description in sufficient detail to permit an item comparison with the specification.

b. Dimensions and installation requirements.

c. Descriptive information including catalogue cuts and manufacturers' specifications for major components.

d. Electrical schematics and layouts.

e. Hydraulic calculations demonstrating compliance with the required hydraulic characteristics.

2. Information for the Record:

a. Manufacturer’s certification of installation.

b. Provide operation and maintenance manuals.

c. Provide an electronic copy of the PLC program to the owner for restoration of the system program.

1.03 WARRANTY

A. The manufacturer shall warrant, in writing, that all equipment supplied by them shall be free from defects in material and workmanship, for a period of two (2) years from the date of substantial completion.

1.04 CONDITIONS OF SERVICE

A. The sludge dewatering equipment shall be designed to adequately condition and dewater the sludge such that a dewatered sludge cake is produced that easily discharges from the dewatering unit, without blinding or plugging, and that may be handled by the existing solids conveying equipment.

B. Each unit shall be designed to operate in the environment for which it is intended, continuously or intermittently on demand, and shall perform the required dewatering operations without spillage of water or sludge beyond the nominal machine envelope. In addition, the unit will operate with no requirement for operator attention other than periodic inspection and chemical replenishment.

1.05 QUALITY ASSURANCE

A. All components of the sludge dewatering equipment shall be engineered for long, continuous, and uninterrupted service with minimal operator intervention. Provisions shall be made for easy maintenance, adjustment, or replacement of all parts.

B. To ensure unity of responsibility, the screw press, supporting frames, polymer mixing and feeding blend unit, grinder, sludge feed pumps, conveyors, and control systems shall be coordinated by a single supplier. The Contractor shall assume full responsibility for the satisfactory installation and operation of the entire screw press dewatering system package.

C. Prior to shipment, the Volute Dewatering Press and control panel shall be factory tested at the place of assembly. Factory test each pre-assembled, pre-wired, Volute Dewatering Press and its associated control panel to be supplied to the job site. Prior to shipment, verify through a one-hour continuous operating test that the Volute Dewatering Press and associated equipment operate smoothly, noiselessly, vibration free, and without overheating of any bearing or motor.

D. The owner/engineer shall, at their option, be permitted to witness the factory quality control test at the manufacturer's facility. The manufacturer shall give the owner/engineer a minimum of one (1) weeks' notice prior to testing.

E. The Supplier shall have at least ten (10) full-scale systems utilizing the exact technology proposed for this project operating successfully for at least three (3) years in North America at municipal wastewater treatment plants that were furnished under the manufacturer's own name.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. Manufacturer

1. Volute Dewatering Press, Model ES-303 as supplied by Process Wastewater Technologies LLC, Rosedale, MD.

2.02 MATERIALS AND COATINGS SCHEDULE

A. All materials utilized in the construction of the sludge dewatering equipment shall be entirely suitable in every respect for the service required. All metals in contact with polyelectrolyte or sludge, and all other metal components other than those specified below in Table 1 shall be stainless steel, type 304 or 316.

B. No carbon steel will be used for any part of the press.

C. The following table indicates the materials and coatings that shall be provided for the Volute Dewatering Press and related components unless specified otherwise herein:

Item of Equipment	Material
Tanks and support frame	Type 304 Stainless steel
Plumbing and Spray bars	Type 304 Stainless steel
Dewatering Drums	Type 304 Stainless steel
Dewatering Drum screw	Type 304 Stainless steel with flame coating 10Co-4Cr
Gear Motors	Die cast Aluminum and Type 304 Stainless steel
Gear Motor coating	Acrylic paint
Spray nozzles	Polypropylene
Electrical enclosure	Type 304 Stainless steel
Electrical wiring housing	Non-metallic flexible liquid-tight conduit and fittings
Valves – wetted sections	Stainless Steel, EPDM Seating

2.03 STRUCTURAL COMPONENTS

A. The structural support frame shall be fabricated of type 304 stainless steel members conforming to the latest ASTM Standard Specifications for Structural Steel, Designation A36. It will be a rigid structure, adequately braced to withstand intended loads without excessive vibration or deflection.

B. The framework shall be of welded and/or bolted construction. All welding shall conform with the American Welding Society Structural Welding Code.

C. The structure shall be designed for installation on a prepared concrete foundation, suitable flat concrete slab, or fabricated platform and secured with anchor bolts.

D. The construction shall allow easy access and visual inspection of all internal components.

2.04 DEWATERING DRUMS

A. The dewatering drums will be constructed of ATSM type 304 SS. All circular components will be laser cut to ensure maximum evenness of wear and therefore operating life.

B. Assembly will be undertaken in such a way that all fixed rings are concentric and parallel. All fixed rings will be equally spaced apart for each section of the dewatering drum. When mounted on the retaining rods and installed, all moving rings will move freely between the fixed rings.

C. Each Dewatering Drum shall be equipped with individual spray bars. Each spray bar shall consist of a spray pipe fitted with spray nozzles, located above the dewatering drum. The spray pipe and spray nozzle assembly shall be readily removable. Nozzle spacing, and spray pattern shall be such that the sprays from adjacent nozzles overlap one another on the dewatering drum surface. The sprays will operate periodically and will remove solids built up externally on the drum such that over time no significant buildup of solids occurs on the drum.

D. The filtrate drain shall be a 6-inch flanges connection and shall be mounted under the dewatering drums housing for easy access to the drainage sump.

E. Each Dewatering Drum will have a drive motor:

1. The Dewatering Drum drive motor will be a one-piece gearmotor. Gearmotors will be hollow shaft design designed to drive the dewatering drum screws with no additional couplings or joints. Motors will be filled with grease on assembly and sealed for life. Screw rotational speed shall be obtained through a hypoid reduction gear. Input power to the dewatering drum drive shall be supplied through an A.C. variable frequency drive unit.

2. Drive Motor Data:

a.	Maximum Horsepower:	0.55
b.	Power Requirements:	480 VAC, 3 phase, 60 hertz
c.	No load motor speed:	1760 RPM
d.	Gear Reduction:	750:1
e.	Output shaft speed:	2.6 RPM @ 60Hz
f.	Insulation Class:	IP56
g.	Enclosure:	TEFC
h.	Enclosure material:	Die Cast Aluminum

2.05 MIXING AND FLOCCULATION TANKS

A. Each Volute Dewatering Press shall have an integrated two-stage mixing system comprising of a flash/rapid mix tank and flocculation tank, each with mixers and drive motors. Tank sizing and design will ensure adequate residence times and mixing conditions to ensure complete flocculation and satisfactory dewatering performance. Tank design will minimize the possibility of any short circuiting of flow. The discharges from the flocculation tank shall include a valve to isolate each dewatering drum.

B. Design and manufacture of tanks and spill trays must ensure no leakage or spillage of fluids under normal working conditions.

C. Mixing and flocculation tanks will be manufactured in type 304 stainless steel and will be a minimum of 11 gauge (0.12”). Tanks and spill containment trays will be fully welded internally and externally.

D. The Mixing and Flocculation tanks shall be equipped with a two (2) inch drain mounted on the side of the tanks for easy access by the operator given the tanks mounting location as indicated on the drawings. The drain lines shall be directed to the sump. All drain lines shall be equipped with a 2-inch Stainless Steel ball valve.

E. Each Mixer will have a drive motor:

1. The mixer and flocculation tank drive motors will be a one-piece gearmotor. Gearmotors will be hollow shaft design designed to drive the mixing impeller shafts with no additional couplings or joints. Motors will be filled with grease on assembly and sealed for life. Mixer rotational speed shall be obtained through a hypoid reduction gear. Input power to the dewatering drum drive shall be supplied through an A.C. variable frequency drive unit allowing variable mixing energy to be input to the system.

2. Flash Mixing tank drive motor data:

a.	Maximum Horsepower:	0.3
b.	Power Requirements:	480 VAC, 3 phase, 60 hertz
c.	No load motor speed:	1760 RPM
d.	Gear Reduction:	10:1
e.	Output shaft speed:	180 RPM @ 60Hz
f.	Insulation Class:	IP65
g.	Enclosure:	TEFC
h.	Enclosure material:	Die Cast Aluminum
i.	Service Factor:	1.15

3. Flocculation tank drive motor data:

a.	Maximum Horsepower:	1
b.	Power Requirements:	480 VAC, 3 phase, 60 hertz
c.	No load motor speed:	1760 RPM
d.	Gear Reduction:	60:1
e.	Output shaft speed:	30 RPM @ 60Hz
f.	Insulation Class:	IP65
g.	Enclosure:	TEFC
h.	Enclosure material:	Die Cast Aluminum
i.	Service Factor:	1.15

2.06 MAGNETIC FLOWMETER

A. A 2-inch magnetic flow meter Rosemont Model 8750W will be provided. It will provide accurate measurements for flows between 10 and 200 gpm. It will include a compact mounting of a transmitter on the flow body. Flowmeter will output aa 4-20mA analog signal

B. The flowmeter shall have 2-inch ANSI 150# flange connections with grounding rings.

2.07 RESERVED

2.08 CONTROL PANEL

A. Each Volute Dewatering Press shall have an integrated electrical and control system that will allow for safe, simple and automated operation of the unit. All electrical work, motors and drives will comply with any relevant NEMA standards.

B. The electrical control system will be able to accept remote start and stop signals, and will have outputs for unit in operation, and unit alarms to an external PC.

C. Control Panel Features:

1. Enclosures: Control panel enclosures shall be wall mounted or free-standing, fabricated of type 304 stainless steel and shall be suitable for NEMA 4X service.

2. The control panel shall accept a 480-volt, 60 hertz, 3-phase AC power input. A main disconnect circuit breaker and operator mechanism shall be included. When the disconnect is in the open position, all power shall be removed from the control system.

3. NEMA rated motor starters shall be provided for all non-VFD and DC motors.

4. Variable frequency drives (VFD) shall be provided for the dewatering drum drive and mixing and flocculation tank agitators.

5. Short circuit protection for system components shall be accomplished utilizing fuses. Individual thermal overload protection shall be provided.

6. A transformer shall be included that will provide 120 volts, ac for the polymer dilution and dosing system and control system

7. A Programmable Logic Controller (PLC) will control all timing and switching functions.

8. The Volute Dewatering Press PLC will communicate with the main PLC using Ethernet.

9. The Volute Control Panel equipment will not reside on a subnet to the plant controls network. All Volute devices must be directly addressable by the plant control system.

D. External Enclosure Features

1. The external door of the panel will have the following switches and indicators:

a. Main Isolating Switch (Circuit Breaker)

b. An emergency stop button which shall be a mushroom head style pushbutton that when depressed shall immediately de-energize all moving equipment in the system.

2. Within a windowed enclosure mounted on the panel door:
    a. HMI Touch Screen
    b. An H-O-A system switch to switch the Volute Dewatering System from Auto to off to manual modes
    c. Power on Light (white)
    d. An Operating Light -for when the unit is actually in operation - (green)
3. In addition to items located on the main enclosure door:
    a. An Alarm Light - a flashing light located on the top of the panel (red)

2.09 PROGRAMMABLE LOGIC CONTROLLER (PLC)

1. Each Volute Dewatering Press will be provided with an Allen Bradley CompactLogix PLC, installed, wired and programmed to perform the following functions:
2. Operational Control
    a. Control of all components of the Volute Dewatering System including the ability to place any component in Auto or in the Off position, set wait/run times and operating speeds for any feed pump, installed solids conveyor, dewatering drums, mixers, polymer dosing system and wash-down sprays.
3. System Tuning
    a. PLC will allow suitably qualified operators to adjust operating parameters such as delay timers for fault alarms and system calibration constants.
4. Monitoring Operation
    a. PLC will allow the operator to inspect the operation of all the components including indicators such as output frequency, current draw, thermal condition, elapsed operating times, and any faults present. Operator will be able to view approximated readouts of all operational speeds and flowrates relevant to the operation of the system.
5. Manual operation of components
    a. Operator will be able to manually operate each item of equipment from the PLC interface for inspection and maintenance reasons.
6. Time Clocks
    a. Operator will be able to set the unit to operate at specific time or on specific days with no operators present.

2.10 ELECTRICAL HARDWARE

A. Power wiring shall be 600 volt, type SIS insulation stranded copper and shall be sized for the required load, 14 AWG minimum.

B. Control wiring shall be 250 volt, type SIS insulation stranded copper and shall be sized for the required load, 18 AWG minimum.

C. Circuit breakers for the main disconnect shall be thermal magnetic molded case units. Circuit breakers shall be Square D, Class 650, Type FAL or equivalent.

D. Motor starters shall be full voltage, non-reversing, IEC style across-the-line units. Coils shall be 120 volts ac. Siemens type Sirius 3RT10 or equivalent.

E. Selector switches shall be heavy duty, corrosion resistant units rated for NEMA 4X service. Contact blocks shall be rated for 10 ampere continuous service. Selector switches shall be Idec Series TWTD.

F. Pilot lights shall be heavy duty, corrosion resistant units rated for NEMA 4X service. Units shall be 120 VAC full voltage incandescent type. Pilot lights shall be Idec Series TWTD or equal

G. Terminal blocks shall be high density, solderless box lug style, with 600-volt rating. Terminal blocks shall be Allen Bradley type 1492 or equal

H. Control relays shall be general purpose type with a 10 amp contact rating, miniature square base and internal on status pilot light. Relays shall be Allen Bradley Type 700-HF Series or equal.

I. Variable Frequency Drives (VFD) shall be UL listed and shall be manufactured by Altimar.

2.11 FUNCTIONAL SPECIFICATION

A. The control panel will undertake the following operations:

B. Auto-Manual operation

1. The Volute Dewatering Press system may be set to either Auto/Manual/Off on the control panel via a 3-position switch. This will be the “main switch” for the plant.

2. When set to manual, all items may be switched on and off at the control panel by the switches on the HMI unit.

3. When set to off, no items will work whether switched on or off either at the control panel or anywhere else.

4. When set to Auto, all items of equipment will work as per the following descriptions.

C. Clock Operation

1. The clock function will be controlled by the PLC in the control panel. Two clock functions will be allowed for in the program. The clock may be set to either “On” or “Auto/timer” via at the PLC. If the clock is set to “On” the plant will run for as long as the main switch is set to “Auto”. When the clock is set to “Auto/Timer” the plant will operate in accordance with the clock settings.

2. Clock function settings will allow the operator to set the dewatering press and all associated equipment to switch on and off, at pre-designated times on pre-designated days with no operators being present. A minimum of two (2) different “clock programs” will be allowed for in the PLC program.

D. Sludge Feed to dewatering press

1. Sludge is fed to the plant by a pump controlled from the control panel. A VFD will control the speed of the pump. In the event of a pump overload or a VFD fault the plant will shut down and an alarm will occur.

2. A flow meter will monitor the sludge flow. The operator will be able to set the flow and the feed pump will operate to maintain that flow via a PID loop. Any variations from the preset flow will cause the system to shut down and an alarm to occur.

E. Polymer Feed

1. Polymer feed to the plant is achieved by the integral polymer preparation system connected to the plant. This system is controlled and powered by the control panel. Outputs from the control panel to the polymer preparation system will include power, start and stop signals, and variable speed control for the polymer feed pump.

2. Manual adjustment of the speed control for the polymer dilution mixing chamber will be made from the control panel. The control panel will also monitor the polymer preparation system for faults due to low water pressure, or no polymer flow and shut the system down with an alarm should this occur.

F. Flocculation Tank Agitation

1. Whenever the plant is operating 2 motorized agitators will operate continuously, stirring the contents of the flocculation tank. These are geared motors and will be controlled by a VFD in the control panel. The VFD will be adjustable from 5 Hz up to 60 Hz

2. A high-level sensor will detect any high fluid level in the flocculation tank and will shut the plant down and cause an alarm should this occur.

G. Dewatering Drums

1. The Dewatering Drums will operate whenever the plant is operating. Each motor is controlled by a VFD. The Range of Adjustment for this will be 15 Hz to 60 Hz. When the plant shuts down the dewatering drum will continue to

operate for a pre-set time before they shut down. Sprays will periodically switch on while the dewatering drum is operating. The frequency and duration of the spray are adjustable in the PLC.

H. Conveyor

1. The conveyor(s) will operate whenever the dewatering drums are operating and will shut down following a pre-set delay following the shutdown of the dewatering drums. Any conveyor shut down alarm will trigger a Volute Dewatering Press System alarm that will shut down the Volute Dewatering Press System.

2. Coordinate with Shaftless Screw Conveyor Specification, C-14551.

PART 3 EXECUTION

3.01 INSTALLATION

A. Contactor will undertake installation of equipment in this section as per the manufacturer's submitted instructions and in accordance with these specifications and associated plans.

B. Manufacturer will provide phone/email consultation as necessary to ensure correct installation and resolve any issues that arise during installation.

C. No on-site supervision should be required for installation, however should the contractor deem it necessary, onsite services may be provided and charged to the Contractor at the manufacturer's standard service rates plus travel.

3.02 START-UP AND COMMISSIONING

A. Prior to start up and commissioning the manufacturer shall provide bench scale testing of the sludge to be dewatered along with polymer, including the polymer currently used by the Owner. The Manufactures technician shall test at least two other different polymer manufactures and will make their recommendation for the most cost-effective polymer to be used. Dry polymers will not be allowed.

1. Owner to package sludge samples for delivery to the manufacturer for testing in accordance with the manufacturer's directions. The Owner will purchase the recommended polymer for startup purposes.

B. Prior to start up and commissioning the Contractor and manufacturer shall perform installation inspection to ensure all equipment is installed properly and is ready to be started up and operated.

C. The Contractor shall provide manufacturer a minimum of two (2) weeks' notice prior to onsite start up, functional testing, and manufacturer training services.

D. Upon completion of the installation, and at a time that is deemed to be most appropriate by the Owner, the services of the manufacturer's factory trained startup technician shall be provided at the project site for equipment start-up. The following tasks will be undertaken during this time:

1. Functional Startup of equipment, calibration and setting of equipment parameters.
2. Operational startup, optimization and data collection.
3. Operator Training

E. Start-up or commissioning service shall be provided by the manufacturer, or their authorized representative.

F. Contractor shall ensure that start up is not performed until there is a minimum volume of sludge to allow four (4) days of operation at dewatering system design capacity plus sludge production rates sufficient to allow plant operators to operate the press on a regular schedule following start-up and training of plant staff.

3.03 OPERATOR TRAINING

A. Upon satisfactory completion of the start-up and calibration, a representative of the manufacturer shall be provided to instruct Owner's personnel in the proper operation and maintenance of the equipment.

B. Manufacturer will provide training during the four (4) day start-up period.

C. Training will occur during one (1) training session for all relevant plant staff.

D. Total time for equipment training session will not exceed eight (8) hours.

3.04 ON SITE SERVICES

A. Manufacturer will allow for one (1) trip of four (4) consecutive days on site for installation inspection, start-up, and operator training.

3.05 DOCUMENTATION

A. Upon completion of commissioning, the manufacturer will provide the owner with operation and maintenance manuals according to Section 1300, Submittals.

B. Upon completion of commissioning, the manufacturer will provide an electronic copy of the PLC program to the owner.

3.06 OTHER SERVICES

A. Additional services, other than those provided for by warranties or as specified herein, may be charged to the Owner/Contractor at the manufacturer's standard service rates.

PART 4 SPECIAL PROVISIONS

Not Used.

END OF SECTION

This page was intentionally left blank.

SECTION 14551
SHAFTLESS SCREW CONVEYORS

PART 1 GENERAL

1.01 SCOPE

A. The Contractor shall furnish, install, and place in satisfactory operation one inclined shaftless screw conveyor complete with all supports, spare parts, accessories, and appurtenances as specified herein, shown on the Drawings, and as required for a complete and operable system. The conveyor shall be reversing to allow discharge to the sludge storage area as selected by the operator or for maintenance activities.

B. Each screw conveyor unit shall consist essentially of shaftless spiral, trough, trough ends, seals, inlet and discharge chutes, motor operated gate, drive units, safety devices and supporting steel together with any other items required for a complete conveying system.

C. All necessary provisions required to comply with OSHA safety requirements shall be included.

D. The Contractor shall be responsible for coordinating the placement of all supports necessary to secure the equipment and shall have the undivided responsibility for the system's structural integrity.

E. The Contractor shall coordinate the fabrication of the screw conveyor with the sludge cake discharge configuration of the volute sludge press and provide required necessary transition provision between the two pieces of equipment.

F. Additional product requirements are specified in Section 01350.

1.02 SUBMITTALS

A. Submittals shall be in accordance with the requirements of Section 01300 and shall include:

1. Shop Drawings:

   a. The Contractor shall indicate all variances from the requirements of the Contract Documents.

   b. Plan and Elevation Drawings.

   c. List of accessories and appurtenances.

   d. Motor data in accordance with Section 11050.

   e. Fabrication drawings.

2. Information for the Record:

   a. Installation certification.

3. Operation and Maintenance Manual information.

1.03 QUALITY ASSURANCE

A. Manufacturer:

1. It is the intention of the specifications to cover minimum acceptable quality equipment for a complete installation.

2. The conveyor shall be as manufactured by Jim Myers & Sons, Keystone, Custom Conveyors, KWS Manufacturing, or equal.

B. Warranty:

1. The shaftless screw liner and spiral shall be warranted for a period of three years from start-up against wear.

   a. Liner:

      1) For a wear indicator (bi-color) liner, excessive wear shall be indicated by appearance of the bottom indicator layer (second color) along more than 30 percent of the conveyor length during the first three years of service. If these wear indications occur the conveyor supplier shall provide new formed liner in full length racks to replace all the liner in the conveyor that has excessive wear.

   b. Screw:

      1) Excessive wear on the screw shall be indicated by loss of more than 50 percent of the height of the main outer screw section over 30 percent of the total length of the screw. If excessive screw wear is found the conveyor supplier shall provide new screw to replace the screw in the conveyor that has excessive wear.

PART 2 PRODUCTS

2.01 DESIGN CRITERIA

A. The conveyor(s) shall be designed to handle dewatered municipal sludge with solids content between 15 and 32 percent.

B. AC motor(s) shall conform to the latest applicable NEMA, IEEE, and ANSI standards. Reversing as required. Motor safety factor to be a minimum of 2 times.

C. The conveyor shall be capable of conveying sludge in a clean and efficient manner.

D. Design criteria for shaftless screw conveyor is shown in the following table:

2.02 DESCRIPTION OF EQUIPMENT

A. Shaftless Flighting:

1. Spiral flight shall be 1-inch thick by 3-inch wide and manufactured from chromium nickel alloy steel with a brinnel hardness of 250, and maximum yield strength of 80,000 psi.

2. The spiral flights shall be designed with the stability to prevent distortion and jumping in the trough. The torsional rating of the spiral shall be such that, at 150 percent of the motor nameplate horsepower, the drive unit cannot produce more torque than the torsional rating of the flighting.

3. Packing gland material consisting of two Teflon fiber packing rings shall seal the drive shaft at its penetration through the end plate, along with a greased labyrinth sealing system.

4. The flighting shall be capable of conveying the product capacity and all horsepower and torque loadings without deflection or compression exceeding 0.08-inch per foot.

5. If flighting sections require field welding, this work shall be performed by the Contractor, with full penetration welds or bolted as recommended by the conveyor manufacturer.

6. The flighting shall include a bolted connection to the drive shaft.

B. Drive:

1. Drive assembly shall consist of an integral gearmotor, mounted directly to the screw shaft. Gearmotor housing shall be cast iron, furnishing complete protection under all conditions of service. Gears shall be manufactured and rated for continuous duty in accordance with AGMA Standards, of heat-treated alloy steel. The drive shall have a minimum AGMA service factor of 1.4. Provide splash type gear lubrication. Gear reducer shall be Class II speed reducer as manufactured by Eurodrive or approved equal.

2. The conveyor shall be driven by a 480 volt, 3 phase, 60 Hz, 1800 RPM, TEFC severe duty motor with 1.15 SF and class F insulation.

3. The drive shall be connected to the spiral with a bolted connection to a C-1045 drive shaft. A flanged gland seal with Teflon coated packing rings shall be provided at the trough end of the shaft penetration.

4. The drive system shall be provided with an instantaneous trip current relay for torque overload protection. The relay shall be provided with a time delay (adjustable) to short the relay on start-up and initial motor amp draw.

5. Gearboxes and motors shall be factory-assembled on the conveyor, factory-tested and shipped fully assembled with the conveyors.

6. The gear reducer and drive shall be designed to provide an applied torque adequate to start a fully loaded conveyor.

7. The drive package is to operate the conveyor at speeds determined by the system manufacturer to meet the specified Design Handling Capacity.

8. Bearings shall have on AFBMA B-10 life of 30,000 hours.

C. Trough:

1. Trough shall conform to CEMA Standards. The conveyor flighting shall be housed in a 3/16-inch-thick minimum type 304 stainless steel U-trough with double rolled down top flanges and integral end flanges. A neoprene or rubber gasket shall be provided at each trough flange.

2. Trough ends shall be inch 1/2-inch (gear end) and 3/16-inch (non-gear end) minimum thickness stainless steel and shall include top flange and CEMA standard drilling for end flanges, bearings, and seals.

3. Provide removable trough stiffeners, secured to the trough by screws to a tapped block welded to the top inside of the trough. Drilling holes in the trough for stiffeners is not acceptable.

4. A 4-inch drain shall be mounted into the end of the inclined conveyor trough.

D. Trough Liner:

1. The inside trough surfaces of the conveyors shall be lined with a layer of ultra-high molecular weight polyethylene (UHMW-PE). The liner shall be a single piece, formed and bonded with two layers of the same material, each of a different color, to provide a visible indication when the liner is nearing the end of its useful life. Liners using layers of different material shall not be accepted.

2. The liner shall be supplied in maximum 4-foot-long sections to provide ease of replacement. The liner shall be held in place with stainless steel cleats; no fasteners will be allowed.

3. Liner thickness shall be at a minimum 1/2-inch thick. Liners less than the specified minimum thickness, molecular weight, wear strips and steel or hardened steel shall not be acceptable.

4. The liner material shall have the following physical properties, as a minimum:

Property	**Value/Unit**	**Testing Method**
Density	61.2 lbs/ft^3	DIN53479
Molecular Weight	9.2 x 10^6 g/mol	Margolies
Ball Indentation Hardness	5,946 lbs/in^2	DIN53456
Shore Hardness D	64	DIN53505
Crystalline Melting Range	278 degrees F	
Dynamic Coefficient of Friction	0.1 – 0.12 ratio of tension / load	Plastic to steel

E. Covers:

1. The screw conveyor troughs shall include 12 gauge minimum 304 stainless steel covers with neoprene or rubber gasketing. Covers shall be held in place with stainless steel bolts on 24-inch maximum centers. Covers shall be manufactured in maximum four-foot length sections.

F. Supports:

1. Provide supports suitable for mounting at the approximate elevations and locations shown on the Drawings and as required by supplier's design. The supports shall be capable of supporting the equipment weight when fully loaded. The supports shall be fabricated from standard shapes and plates of 304 stainless steel. Supports shall be marked and shipped to the job site for installation in the field.

2. Provide base plates at each support leg or strut for anchor bolting into concrete floor or flexicore ceiling deck.

3. At a minimum, each conveyor shall be provided with supports at the inlet and discharge end, with intermediate supports at 10 feet-0 inches on center.

4. Length of support legs shall be as indicated in the Drawings. Supports shall be designed to avoid interference with other equipment or equipment supports.

5. Supports shall be coordinated with the platform supports.

G. Guards:

1. All exposed, accessible rotating parts shall be covered with an OSHA complaint guard. These guards are to be constructed of minimum 14 gauge mild steel, epoxy coated safety yellow.

H. Zero Speed Switch and Safety Stop Switch:

1. The conveyors shall be provided with a non-contacting probe and relay type zero speed indication switch. The probe shall be a Milltronics MSP-12 or approved equal with stainless steel mounting hardware. The relay shall be Milltronics MFA-4P, or approved equal, with stainless steel mounting hardware. Switch shall operate from 120v AC supply.

2. Each conveyor is to be provided with a NEMA-4, 115 V., safety pull cord stop switch. A continuous orange vinyl coated galvanized cable shall fully surround the conveyor. The cable shall be supported from the conveyor frame on 10-foot maximum centers.

I. General Requirements:

1. All welding to be in accordance with the latest AWS standards.

2. All component items shall be provided with manufacturer's standard finish. Shafting and other exposed machined surfaces shall be coated with a rust inhibitive compound.

3. All nuts, bolts, and washers used for assembly to be furnished by the conveyor manufacturer and shall be stainless steel.

PART 3 EXECUTION

3.01 COORDINATION

A. The screw conveyor shall be installed in accordance with the manufacturer's written recommendations.

3.02 LUBRICANTS AND LUBRICATING EQUIPMENT

A. Provide and install necessary grade quality oils, greases and anti-seize compounds for initial operation of all equipment provided that requires oil, grease or anti-seize.

B. Anti-seize shall be applied to the threads of all stainless steel bolts before assembly at the factory and field assembly.

3.03 INSPECTION, STARTUP, AND TRAINING

A. The Contractor shall furnish a qualified representative of the manufacturer to perform inspection, start-up, and training services. The manufacturer's representative shall be experienced in the installation, start-up, operation, and maintenance of the equipment.

B. A factory trained manufacturer's representative shall be provided for a minimum of two trips with a minimum of two eight-hour days each to provide installation supervision, start-up and field-testing services. The installation services shall be coordinated between the Contractor and the manufacturer. The start-up and field-testing services shall be coordinated with the Engineer.

C. Within two weeks of start-up, the manufacturer shall submit to the Engineer a written report (minimum 4 copies) covering the representative's inspection and start-up of the equipment. This report shall include the manufacturer's certification that the installation is correct, and the equipment is operating satisfactorily.

D. After the installation, start up, field service testing and operation of the equipment has been certified, the manufacturer's representative shall train the Owner's personnel for one four-hour period in the proper operation and maintenance of the equipment at a time and date accepted by the Owner. The Owner may video tape the training.

PART 4 SPECIAL PROVISIONS

4.01 CONVEYOR DROP CHUTES

A. An 8-foot-long drop chute shall be provided to allow directing the sludge into the containers. The drop chute shall be the same discharge size of the conveyor or larger. The chute shall be flexible and include a stainless steel ring at the bottom of the chute connected to a 12-foot-long stainless steel chain which can fasten to the grating above

with a clip to allow moving the bottom of the chute to a different location in the container of pulling the chute completely out of the way.

4.02 VOLUTE DEWATERING PRESS CONVEYOR

A. The volute dewatering press conveyor shall include a 1/4-inch stainless steel plate to direct the sludge from the volute press into the volute conveyor. The plate shall be removal and attached to the volute conveyor trough. The trough shall be reinforced to support the plate.

B. The bottom of the sludge conveyor shall be 10-ft minimum above the floor of the sludge storage room at 8-ft from the west wall. The installed angle of the conveyor shall be set to meet the required height.

C. The conveyor shall extend to the center of the 14-ft entry doors in the sludge storage area. **(Addendum 3, Issued 5/28/2026)**

D. A trimmed opening in the masonry wall shall be provided to close the opening around the conveyor and be large enough to accommodate removal of the conveyor.

4.03 VOLUTE DEWATERING DEWATERED SLUDGE LOADINGS TO CONVEYOR

A. The approximate dewatered sludge loading to the press conveyor is:

1. 420 cf/hour at typical operation
2. 660 cf/hour with press at full capacity
3. Assume 20% solids from volute press. **(Addendum 3, Issued 5/28/2026)**

END OF SECTION

This page was intentionally left blank.

~~SECTION 15262~~
~~STOP PLATE~~
(Addendum 3, Issued 5/28/2026)

PART 1 ~~GENERAL~~

1.01 ~~SCOPE~~

A. ~~This Section includes furnishing and installing stop plates in the locations shown on the Drawings.~~

B. ~~Stop plates, guides, invert seat, stiffeners, seals, wall brackets, anchors, and all appurtenances necessary to make an operational system shall be provided.~~

C. ~~Additional product requirements are specified in Section 01350.~~

1.02 ~~SUBMITTALS~~

A. ~~Submittals shall be in accordance with all requirements of Section 01300 and shall include:~~

1. ~~Shop Drawings for Review~~

a. ~~Scaled dimensional drawings, including materials of construction and details of fabrication and assembly.~~

b. ~~Manufacturer's catalog data.~~

2. ~~Information for the Record:~~

a. ~~Manufacturer basis of design and calculations, as required.~~

b. ~~Operation and maintenance manual.~~

PART 2 ~~PRODUCTS~~

2.01 ~~MATERIALS~~

A. ~~Stainless Steel Stop Plate(s):~~

1. ~~Stop plates, accessories and components shall be supplied by a single manufacturer. Stop plates shall be manufactured by Golden Harvest, Inc. or Hydro Gate, Rodney Hunt Co., R.W. Gates, or approved equal.~~

a. ~~Materials used in construction of stop plates and appurtenances shall conform to the following specifications:~~

b. ~~Frame, Slide, and Reinforcing: Stainless steel, ASTM A240/A240M, Type 304L, or ASTM A240/A240M, Type 316L~~

c. ~~Stainless Steel for fasteners: F593/F594, Alloy Group 1, 2 (SS304, SS316)~~

d. ~~Invert seals: Neopreone, ASTM D2000, 60 Durometer, with a stainless steel ASTM A276, Type 304L, or Type 316L retainer bar.~~

e. ~~Side Seals: Ultra High Molecular Weight (UHMW) Polymer, ASTM D4040~~

2. ~~The stop plate frame shall be an integral unit of structural shapes, rigidly assembled to form the waterway opening. The primary slot of the frame shall contain polymer guide liner retained in grooves, to prevent metal-to-metal contact between stop plate and frame.~~

3. ~~Stop plate shall be not less than 1/4-inch thickness and shall be reinforced such that deflection under full head shall be limited to that specified in 2.02.~~

4. ~~Stop plates shall incorporate a flush-bottom seal of neoprene that is mechanically fastened to the bottom frame invert member.~~

5. ~~Side seals of UHMW polymer shall be provided. Seals shall be securely fastened to the frame with non-corrosive retainers and shall be replaceable and adjustable. A compression device shall be set behind the UHMW seal to allow for a self-adjusting seal system.~~

6. ~~Stop plates shall have hand holes or handles as shown on the Drawings or specified.~~

B. ~~Fiberglass Reinforced Plastic (FRP) Stop Plates:~~

1. ~~Stop plates, accessories and components shall be supplied by a single manufacturer. Stop plates shall be manufactured by Plasti-Fab, Inc. or approved equal.~~

a. ~~The composition of the stop plate laminates shall be in accordance with the recommendations given by the Quality Assurance Report for Reinforced Thermoset Plastics (RTP) Corrosion Resistant Equipment and shall meet the specifications for Type I, Grade 10 laminates shown in Appendix M-1.~~

2. ~~Stop plate guide shall be pultruded fiberglass reinforced vinyl ester resin that incorporates a polymetric fiber surfacing material for high corrosion resistance. The guides shall be embedded or surface mounted, as noted in the stop plate schedule. Embedded guides shall be flush with the sides and bottom of the opening, unless noted otherwise all parts of the guide shall have a 1/4-inch minimum thickness.~~

a. ~~The guide frames shall be factory assembled with bonded or butt strapped reinforced corners.~~

b. ~~Side guides shall be provided with neoprene seals complying with ASTM D2000 on both sides of the stop plate.~~

c. ~~Invert seat shall be bonded to the side guides. The invert seat shall be flush with the bottom of the channel or opening, unless noted~~

otherwise. The invert seat seal shall be neoprene complying with ASTM D2000.

3. Stop plates shall be fiberglass reinforced polyester (FRP) with a UV stabilizer. The cover surface shall be resin enriched and reinforced with C-glass or polymeric fiber surfacing material. The surface shall be free of exposed reinforced fibers.

   a. The stop plate shall be reinforced when required by hydraulic loads. Reinforcing shall be with a fiberglass encased foam core or with steel shapes completely encapsulated with not less than 1/8-inch of fiberglass (FRP).

4. Stop plates shall not float or lift up when entirely submerged in water.

2.02 PERFORMANCE REQUIREMENTS

A. Stop plates, stop plate guides, accessories and appurtenances shall be designed to support a hydraulic head load equal to a height differential of the stop plate height plus one foot imposed on either side of the plate, unless noted otherwise.

1. The stop plate shall be designed for a maximum deflection of 1/360 of the stop plate span.

2. Allowable leakage shall not exceed 0.1 gpm per foot of seating perimeter.

2.03 COMPONENTS OR ACCESSORIES

A. All fasteners and anchor bolts shall be 304 stainless steel and supplied by the manufacturer.

B. Stop plates shall have lift handles as shown on the Drawings. When the stop plate is in the closed position the handles shall not extend above the channel or interfere with channel cover plating or grating and related framing.

1. Provide a minimum of one lift handle for plate widths three feet or less and a minimum of two handles for plate widths greater than three feet.

2.02 FABRICATION

C. Stainless steel shall have a mill finish and comply with ASTM A276, Type 304.

PART 3 EXECUTION

3.01 COORDINATION

A. Embedded stop plate guides shall be delivered in time to permit the proper installation.

B. Prior to fabrication, Contractor shall field measure new and existing structures.

3.02 ~~PREPARATION~~

A. ~~When installing stop plates guides to existing concrete, the Contractor shall inspect concrete and report any damage to the Engineer that will adversely affect the stop plate installation.~~

3.03 ~~ERECTION AND INSTALLATION~~

A. ~~Install stop plates plumb and level and free to slide.~~

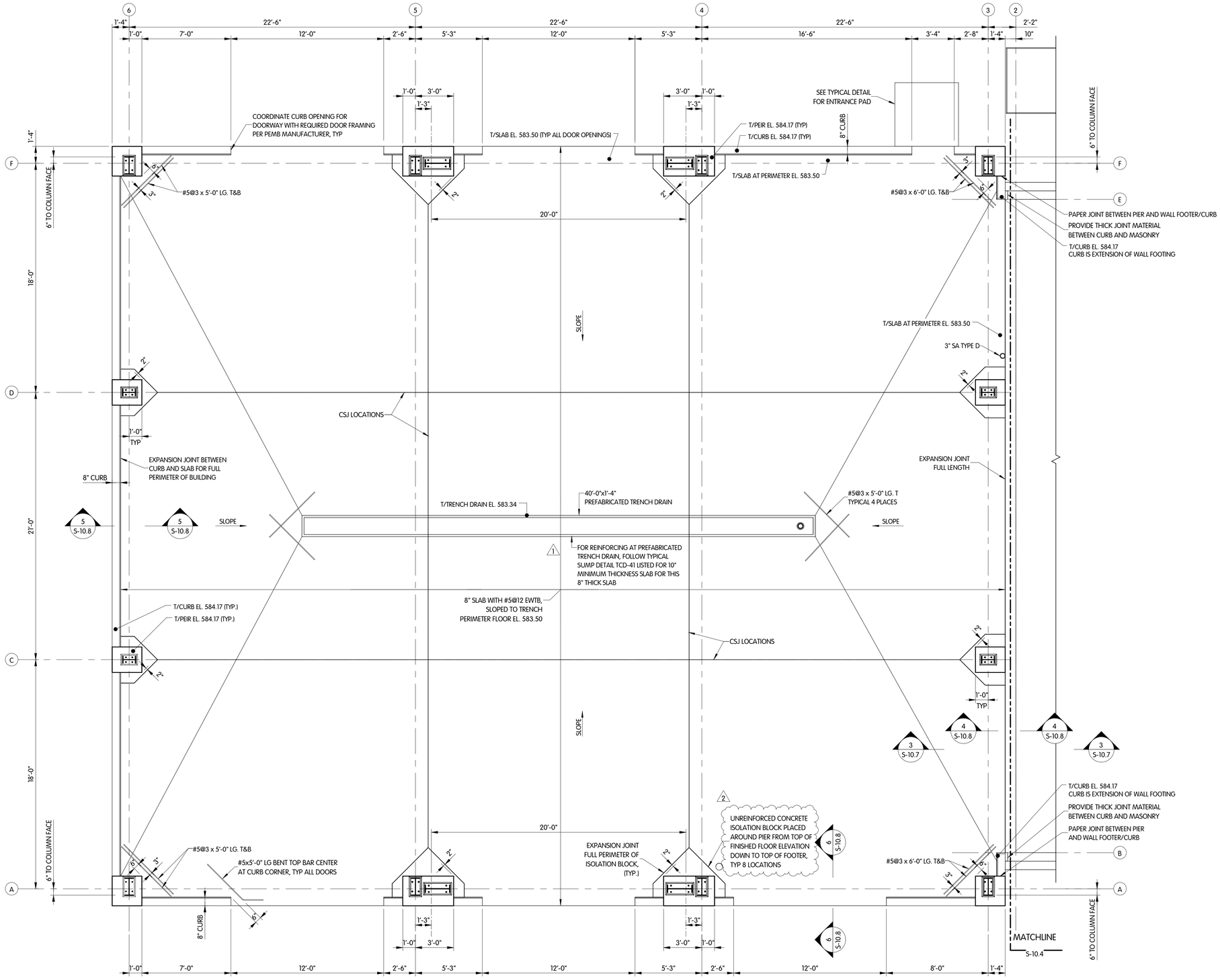
B. ~~Stop plates, guides, accessories and appurtenances shall be installed per the manufacturer's recommendations.~~

C. ~~Anchor bolts shall be installed in accordance with manufacturer recommendations, as specified in Section 05500, as shown on the Drawings and as directed.~~

PART 4 ~~SPECIAL PROVISIONS~~

~~Not Used.~~

~~END OF SECTION~~



PLAN AT EL. 583.50 - MAINTENANCE

1/4" = 1'-0"

NOTES:

1. PAPER JOINT MAY BE PAPER, OR ANY THIN COMPRESSIBLE MATERIAL.

ADMINISTRATION/MAINTENANCE BUILDING STRUCTURAL
PLAN AT EL. 583.50 - MAINTENANCE

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH
2	5/13/26	ADDENDUM 2	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®..
www.JHeng.com

JOB NO.: 904-8119.002
SCALE: 1/4" = 1'-0"
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
PDM	RGW	JDN

STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO.
S-10.3
140 OF 309

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	BASE	FLOOR	NORTH MATERIAL	NORTH FINISH	EAST MATERIAL	EAST FINISH	SOUTH MATERIAL	SOUTH FINISH	WEST MATERIAL	WEST FINISH	CEILING MATERIAL	CEILING FINISH	CEILING HEIGHT	REMARKS
2-HEADWORKS															
200	HEADWORKS	-	CONC	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	14'-8"	
10-ADMINISTRATION/MAINTENANCE BUILDING															
1000	HALL	RWB-1	CONC	CMU	PT-1	CMU	PT-1	CMU	PT-1	CMU	PT-1	ACT-1		8'-0"	
1001	OFFICE	RWB-1	CONC	GYP-BD	PT-1	GYP-BD	PT-1	GYP-BD	PT-1	GYP-BD	PT-1	ACT-1		8'-0"	
1001A	CLO	RWB-1	CONC	GYP-BD	PT-1	GYP-BD	PT-1	GYP-BD	PT-1	GYP-BD	PT-1	EXP		EXP	
1002	LAB	RFB-1	RF-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	ACT-1		9'-0"	
1002A	CLO	RFB-1	RF-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	GYP-BD	EPT-1	EXP		EXP	
1003	ELECTRICAL ROOM/CONTROLS	RWB-1	CONC	CMU	PT-1	CMU	PT-1	CMU	PT-1	CMU	PT-1	GYP BD	PT-1	EXP	
1004	TLT	RFB-1	RF-1	CMU	EPT-1	GYP-BD	EPT-1	CMU	EPT-1	CMU	EPT-1	ACT-1		8'-0"	
1005	BREAK/CONF	RWB-1	CONC	GYP-BD	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	ACT-1		9'-0"	
1006	SHOWER	RFB-1	RF-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	ACT-1		8'-0"	
1007	STOR	-	CONC	CMU	PT-1	CMU	PT-1	GYP-BD	PT-1	CMU	PT-1	ACT-1		9'-0"	
1008	TOILET	RFB-1	RF-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	ACT-1		8'-0"	
1009	JAN/MECH	-	CONC	CMU	EPT-1	CMU	EPT-1	GYP-BD	EPT-1/FRP	CMU	EPT-1	ACT-1		8'-0"	PROVIDE FRP AT SINK
1010	GARAGE	-	CONC	MTL	-	MTL	-	MTL	-	MTL	-	EXP		EXP	
11-SLUDGE HANDLING															
1100	EQUIPMENT ROOM	-	CONC	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	EXP	EPT-1	19'-4"	
1101	TRUCK BAY	-	CONC	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	CMU	EPT-1	EXP	EPT-1	19'-4"	
15-SERVICE BUILDING															
1501	OFFICE		EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	9'-0"	PAINT EXISTING EXPOSED MATERIALS
1502	SERVICE		EXIST	PLYWOOD	PT-1	PLYWOOD	PT-1	PLYWOOD	PT-1	PLYWOOD	PT-1	PLYWOOD	PT-1	11'-0"	PAINT EXISTING EXPOSED MATERIALS
1503	BLOWER		EXIST	PLYWOOD	PT-1	PLYWOOD	PT-1	PLYWOOD	PT-1	PLYWOOD	PT-1	PLYWOOD	PT-1	11'-0"	PAINT EXISTING EXPOSED MATERIALS

DOOR SCHEDULE

TAG / ID	DOOR WIDTH	DOOR HEIGHT	DOOR THICKNESS	DOOR TYPE	DOOR MATERIAL	STRUCTURAL DETAILS HEAD	STRUCTURAL DETAILS JAMB	ARCHITECTURAL DETAILS HEAD	ARCHITECTURAL DETAILS JAMB	ARCHITECTURAL DETAILS THRESHOLD	FRAME TYPE	FRAME MATERIAL	HARDWARE SET	RATING	REMARKS
2-HEADWORKS															
200	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH-S2	DJ-S2	DH-2	DJ-2	T-1	A	ALUM	6	-	CLEAR ANOD
200A	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH-S2	DJ-S2	DH-2	DJ-2	T-1	A	ALUM	6	-	CLEAR ANOD
200B	12' - 0"	10' - 0"	1 1/2"	RO	ALUM	DH-S4	DJ-S4	DH-4	DJ-1	T-2	C	STL	-	-	
3-GRIT															
300	3' - 0"	7' - 2"	1 3/4"	F	ALUM	-	-	-	-	T-1	A	ALUM	1	-	CLEAR ANOD
300A	3' - 0"	7' - 2"	1 3/4"	F	ALUM	-	-	-	-	T-1	A	ALUM	8	-	CLEAR ANOD
10-ADMINISTRATION/MAINTENANCE BUILDING															
1000	3' - 0"	7' - 2"	1 3/4"	HL	ALUM	DH-S2	DJ-S2	DH-A2	DJ-A2	T-1	A	ALUM	1	-	CLEAR ANOD
1000A	3' - 0"	7' - 2"	1 3/4"	NL	HM	DH-S1	DJ-S2	DH-A1	DJ-A1	-	A	HM	2	20 MIN	DOOR AND FRAME PT-2
1001	3' - 0"	7' - 2"	1 3/4"	HL	HM	DH-S5	DJ-S5	DH-A5	DJ-A5	-	A	HM	3	20 MIN	DOOR AND FRAME PT-2
1001A	4' - 0"	7' - 0"	1 1/2"	BI	WD	DH-S7	DJ-S7	DH-A7	DJ-A7	-	A	HM	4	-	DOOR AND FRAME PT-2
1002	3' - 0"	7' - 2"	1 3/4"	HL	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	3	20 MIN	DOOR AND FRAME PT-2
1002A	6' - 0"	7' - 0"	1 1/2"	BI	WD	DH-S6	DJ-S6	DH-A6	DJ-A6	-	B	HM	4	-	DOOR AND FRAME PT-2
1003	3' - 0"	7' - 2"	1 3/4"	F	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	5	20 MIN	DOOR AND FRAME PT-2
1003A	6' - 0"	7' - 10"	1 3/4"	F	ALUM	DH-S2	DJ-S2	DH-A2	DJ-A2	T-1	D	ALUM	6	-	CLEAR ANOD
1004	3' - 0"	7' - 2"	1 3/4"	F	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	7	20 MIN	DOOR AND FRAME PT-2
1005	3' - 0"	7' - 2"	1 3/4"	HL	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	8	20 MIN	DOOR AND FRAME PT-2
1005A	3' - 0"	7' - 2"	1 3/4"	HL	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	8	20 MIN	DOOR AND FRAME PT-2
1006	3' - 0"	7' - 2"	1 3/4"	F	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	8	-	DOOR AND FRAME PT-2
1007	3' - 0"	7' - 2"	1 3/4"	F	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	9	20 MIN	DOOR AND FRAME PT-2
1008	3' - 0"	7' - 2"	1 3/4"	F	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	7	-	DOOR AND FRAME PT-2
1009	3' - 0"	7' - 2"	1 3/4"	F	HM	DH-S1	DJ-S1	DH-A1	DJ-A1	-	A	HM	9	-	DOOR AND FRAME PT-2
1010	3' - 0"	7' - 2"	1 3/4"	HL	ALUM	-	-	-	-	T-1	A	ALUM	1	-	CLEAR ANOD, NOTE 1
1010A	12' - 0"	14' - 0"	2"	SO	STL	-	-	-	-	T-2	C	STL	-	-	SECTIONAL DOOR, NOTE 1
1010B	12' - 0"	14' - 0"	2"	SO	STL	-	-	-	-	T-2	C	STL	-	-	SECTIONAL DOOR, NOTE 1
1010C	12' - 0"	14' - 0"	2"	SO	STL	-	-	-	-	T-2	C	STL	-	-	SECTIONAL DOOR, NOTE 1
1010D	12' - 0"	14' - 0"	2"	SO	STL	-	-	-	-	T-2	C	STL	-	-	SECTIONAL DOOR, NOTE 1
1010E	12' - 0"	14' - 0"	2"	SO	STL	-	-	-	-	T-2	C	STL	-	-	SECTIONAL DOOR, NOTE 1
11-SLUDGE HANDLING															
1100	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH-S2	DJ-S2	DH-2	DJ-2	T-1	A	ALUM	6	-	CLEAR ANOD
1100A	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH-S2	DJ-S2	DH-2	DJ-2	T-1	A	ALUM	6	-	CLEAR ANOD
1100B	12' - 0"	12' - 4"	1 1/2"	RO	ALUM	DH-S4	DJ-S4	DH-4	DJ-4	T-2	C	STL	-	-	
1101	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH-S2	DJ-S2	DH-2	DJ-2	T-1	A	ALUM	6	-	CLEAR ANOD
1101A	14' - 0"	14' - 0"	1 1/2"	RO	STL	DH-S4	DJ-S4	DH-4	DJ-4	T-2	C	STL	-	-	
1101B	14' - 0"	14' - 0"	1 1/2"	RO	STL	DH-S4	DJ-S4	DH-4	DJ-4	T-2	C	STL	-	-	
15-SERVICE BUILDING															
15-1-1	6' - 0"	8' - 0"	2"	SO	STL	DH-S3	DJ-S3	DH-A3	DJ-A3	T-2	C	STL	-	-	
15-1-2	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH/DJ-S8	DH/DJ-S8	DH/DJ-A8	DH/DJ-A8	T-1	A	ALUM	6	-	NEW DOOR IN EXIST OPENING VERIFY DIMS, CLEAR ANOD
15-1-3	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH/DJ-S8	DH/DJ-S8	DH/DJ-A8	DH/DJ-A8	T-1	A	ALUM	6	-	NEW DOOR IN EXIST OPENING VERIFY DIMS,CLEAR ANOD
15-1-4	3' - 0"	7' - 2"	1 3/4"	F	ALUM	DH/DJ-S8	DH/DJ-S8	DH/DJ-A8	DH/DJ-A8	T-1	A	ALUM	6	-	NEW DOOR IN EXIST OPENING VERIFY DIMS, CLEAR ANOD

NOTES:

1. COORDINATE WITH PEMB MANUFACTURER AND STANDARD DETAILS FOR HEAD AND JAMB DETAILS AND CONDITIONS.

FINISH LEGEND

ACT-1 - ACOUSTICAL CEILING TILE - 09510
CONC - SEALED CONCRETE
EPT-1 - EPOXY PAINT - 09900 4.05 E.1.
PT-1 - PAINT - 09900 4.05 Q.
RF-1 - 09672
RFB-1 - 09672
RWB-1 - 09651

ARCHITECTURAL ABBREVIATIONS

ALUM	ALUMINUM
B	BOTTOM
BLDG	BUILDING
C/C	CENTER TO CENTER
CJ	CONTROL JOINT
DIA	DIAMETER
DEG	DEGREES
DIAG	DIAGONAL
EL	ELEVATION
EMB	EMBEDMENT
EXPJT	EXPANSION JOINT
EXT	EXTERIOR
EXIST	EXISTING
FRB	FIBERGLASS
GALV	GALVANIZED
HORIZ	HORIZONTAL
INT	INTERIOR
NTS	NOT TO SCALE
O/O	OUT TO OUT
SS	STAINLESS STEEL
STD	STANDARD
T	TOP
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL

ARCHITECTURAL SHEET SYMBOLS

XXXA-##.## — LETTER TAG DESIGNATION, SEE LEGEND; ARCHITECTURAL DETAIL; DETAIL NUMBER; STRUCTURE NUMBER — MASONRY WALL DETAIL TAG

X-#-## — DOOR NUMBER; STRUCTURE NUMBER; DOOR/ROOF HATCH ABBREVIATION — DOOR/ROOF HATCH TAG

W-#-# — WINDOW NUMBER; STRUCTURE NUMBER; WINDOW ABBREVIATION — WINDOW TAG

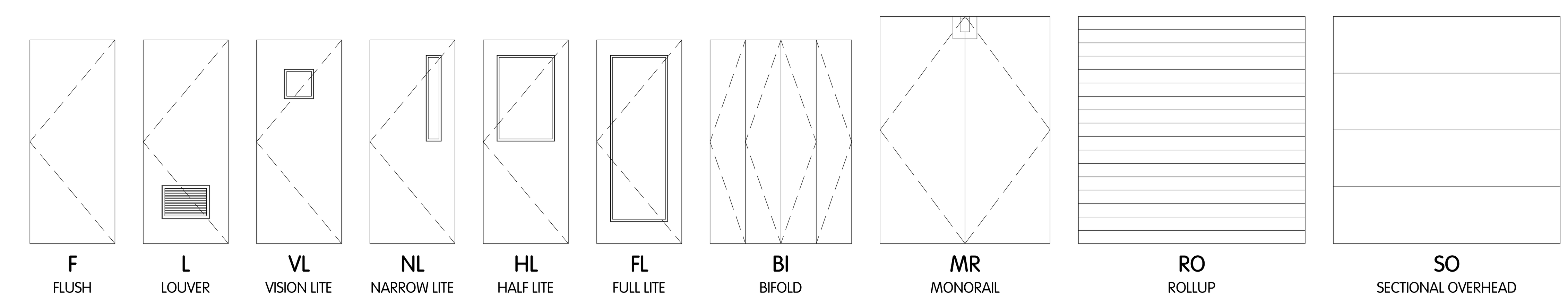
PATH OF EGRESS = 10'-0" — PATH DISTANCE — EGRESS PATH LINE TYPE/ TAG

ARCHITECTURAL TAG LEGEND

PWTA	-PARAPET WALL TOP, ARCHITECTURAL
WBA	-WALL BASE DETAIL, ARCHITECTURAL
WPCA	-WALL/PLANK CONNECTION DETAIL, ARCHITECTURAL
WTCA	-WALL/TRUSS CONNECTION DETAIL, ARCHITECTURAL

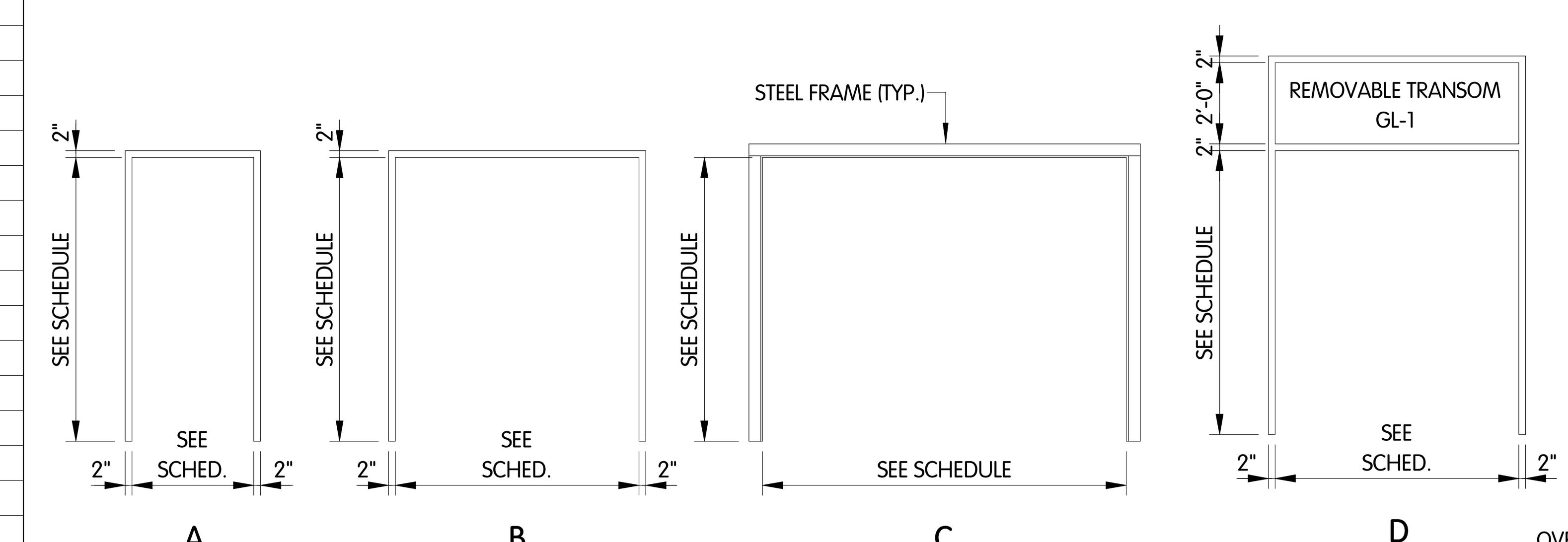
TYPICAL ARCHITECTURAL NOTES

1. THE CONSTRUCTION SHALL CONFORM TO THE TYPICAL ARCHITECTURAL NOTES, DETAIL, AD SCHEDULES, UNLESS NOTED OTHERWISE. TYPICAL NOTES, DETAILS, AND SCHEDULES ARE PREFIXED WITH THE WORD "TYPICAL".



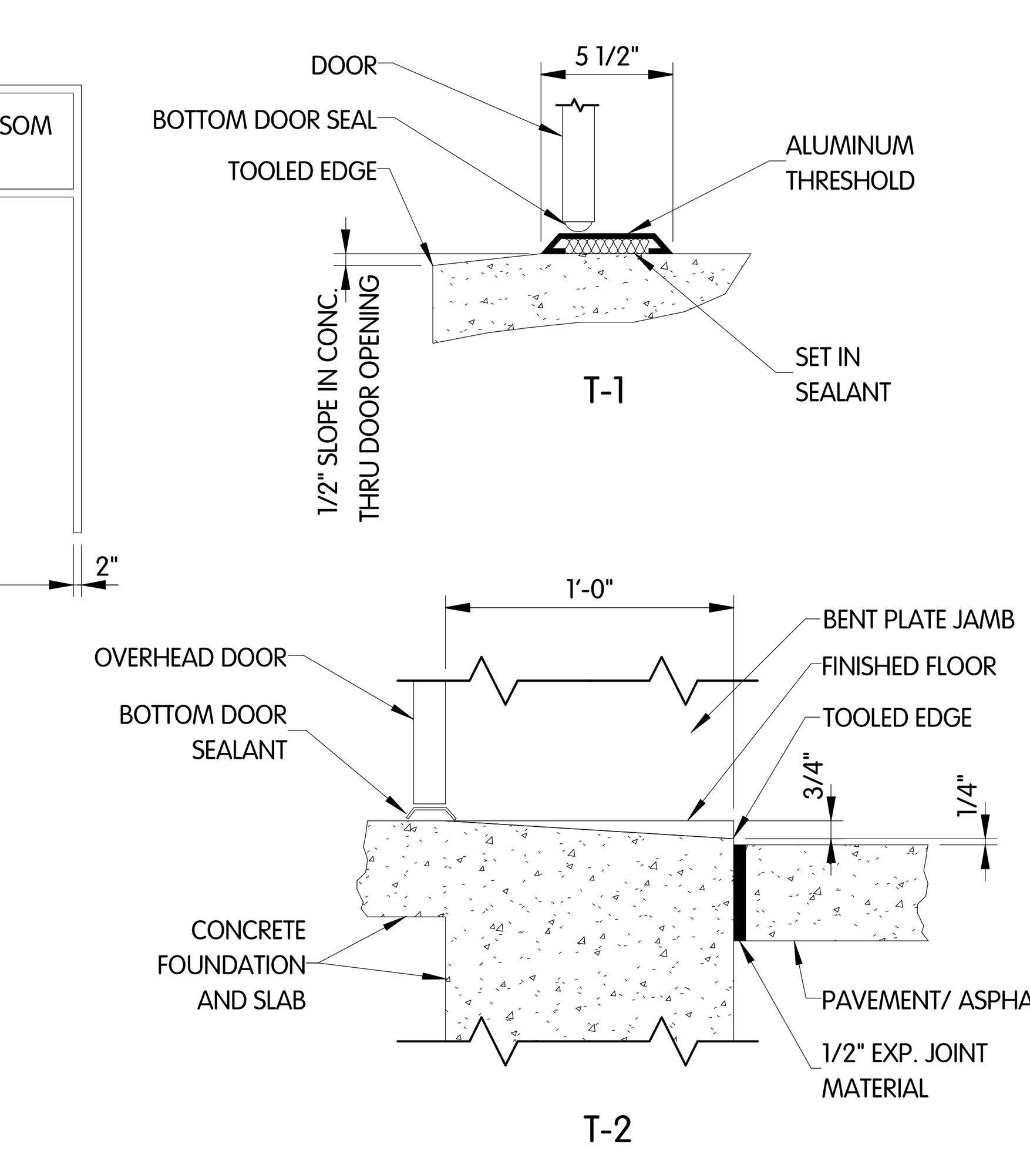
DOOR TYPES

1/4" = 1'-0"



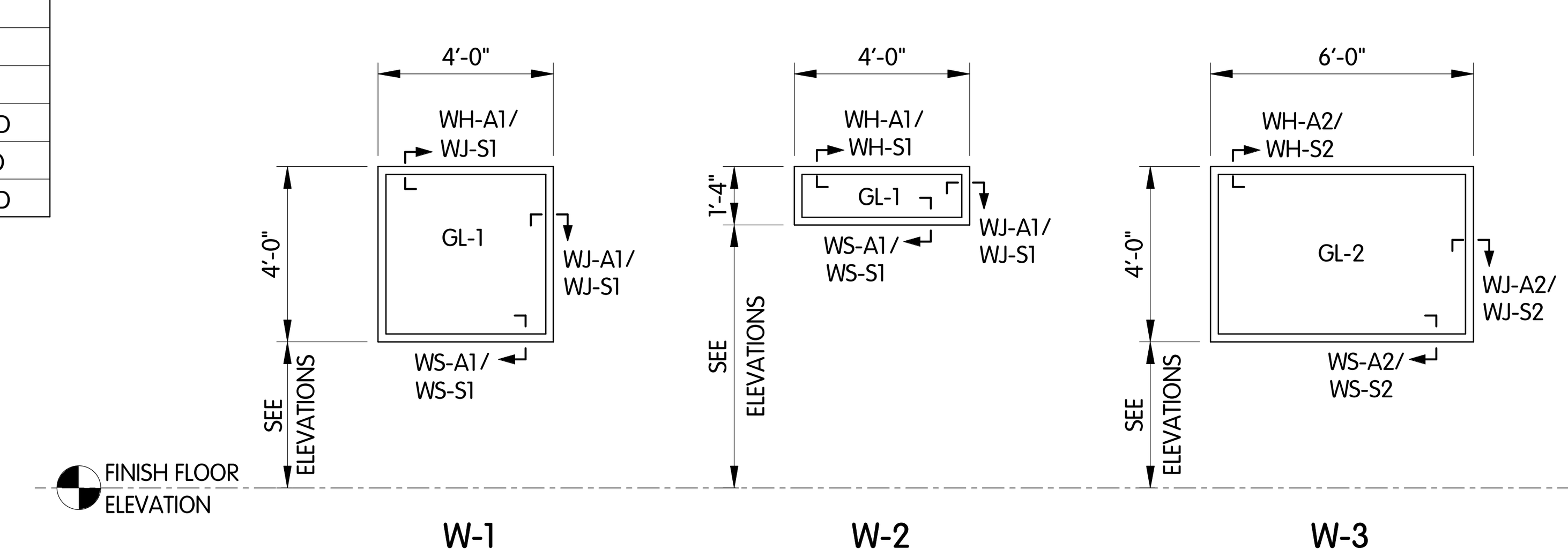
DOOR FRAME TYPES

1/4" = 1'-0"



THRESHOLD TYPES

NTS



WINDOW TYPES

1/4" = 1'-0"

NOTE:
SCHEDULES ARE NOT GUARANTEED TO BE COMPLETE. ALL ITEMS SHOWN ON THE DRAWINGS OR SPECIFIED SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WHETHER OR NOT LISTED IN THE FOLLOWING SCHEDULE.

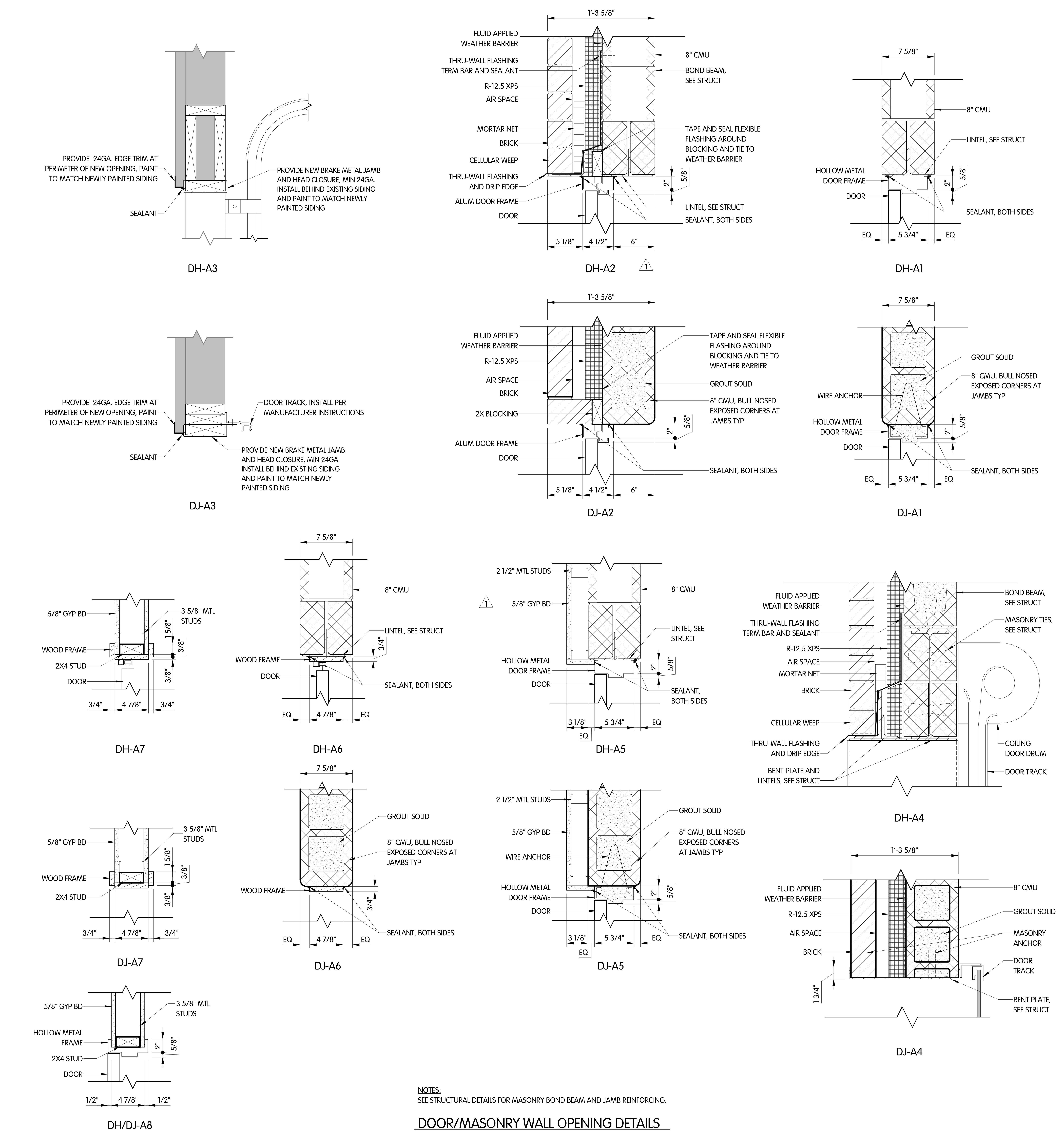
ARCHITECTURAL
LEGENDS, ABBREVIATIONS, SCHEDULES, AND NOTES

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
2	5/27/26	ADDENDUM 3	JAH
1	5/18/26	ADDENDUM 2	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

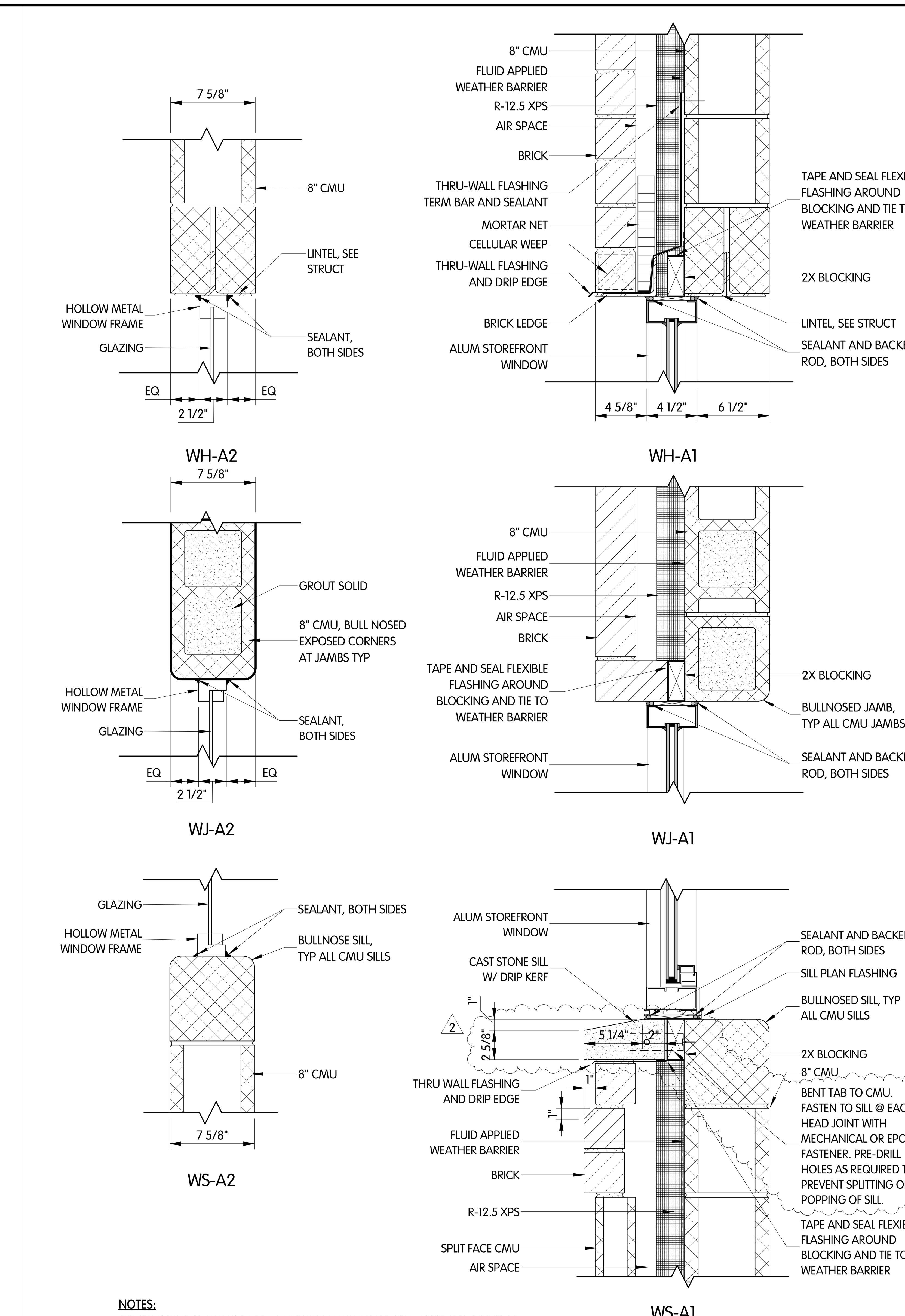
JOB NO. 904-8119.002
SCALE: NO SCALE
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE
DESIGNED DCE | DRAWN RGW | CHECKED DCE
STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO. A-0.1



NOTES:
SEE STRUCTURAL DETAILS FOR MASONRY BOND BEAM AND JAMB REINFORCING.

DOOR/MASONRY WALL OPENING DETAILS

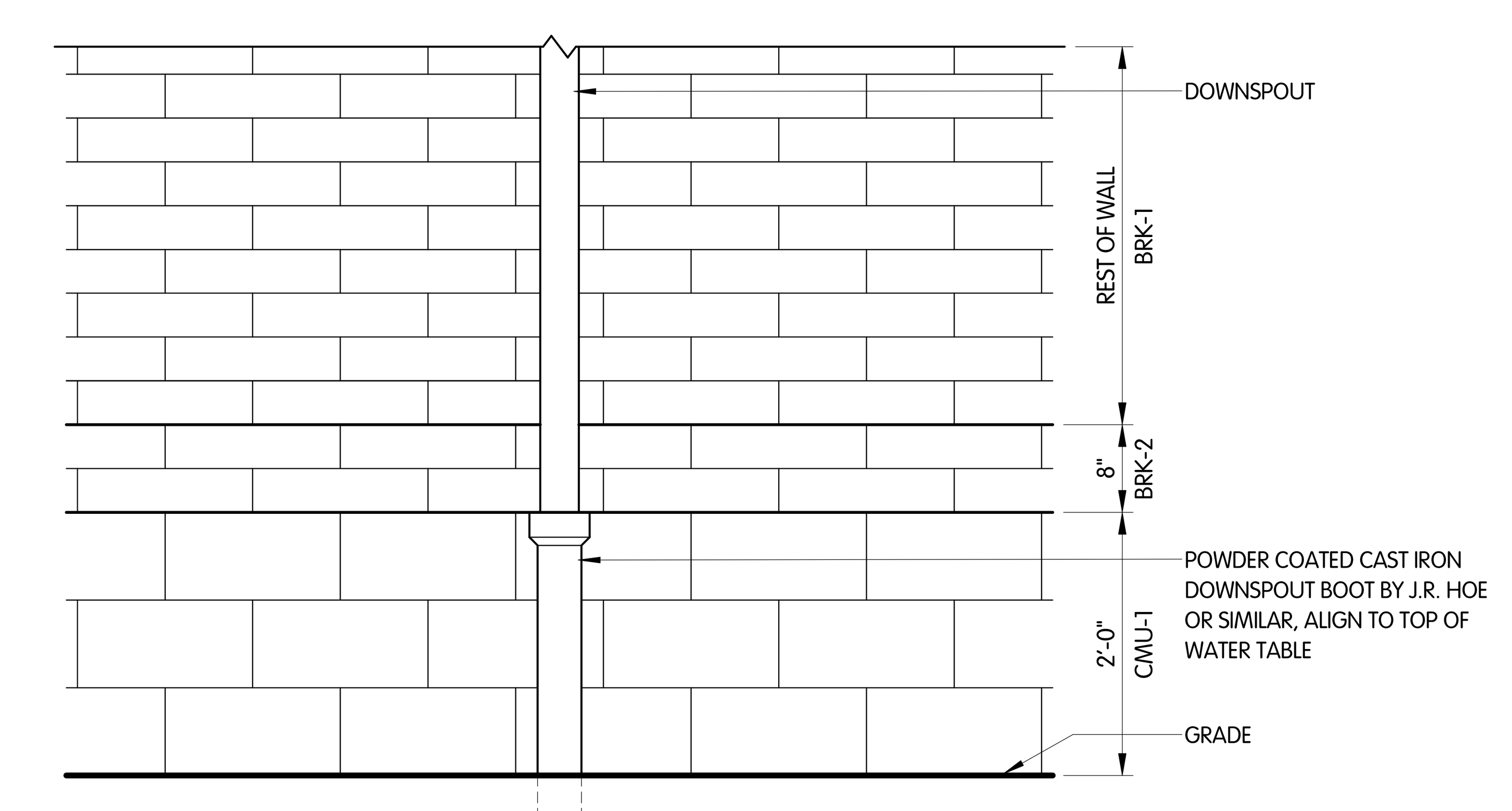
1 1/2" = 1'-0"



NOTES:
SEE STRUCTURAL DETAILS FOR MASONRY BOND BEAM AND JAMB REINFORCING.

WINDOW/MASONRY WALL OPENING DETAILS

1 1/2" = 1'-0"



TYPICAL DOWNSPOUT BOOT DETAIL

3/4" = 1'-0"

ARCHITECTURAL DETAILS

VILLAGE OF OAK HARBOR, OHIO WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
2	5/27/26	ADDENDUM 3	JAH
1	5/8/26	ADDENDUM 2	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

JOB NO. 904-8119.002
SCALE: NO SCALE
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

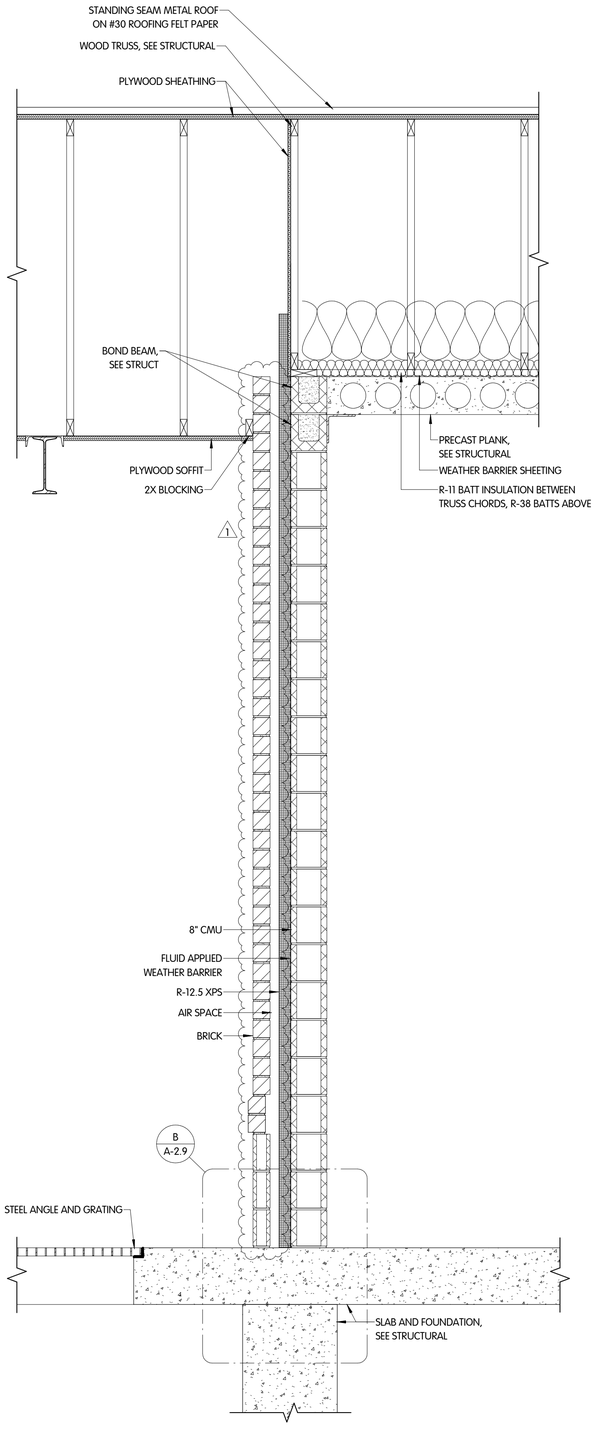
DESIGNED	DRAWN	CHECKED
DCE	RGW	DCE

STATUS: ISSUED FOR BID
DATE: APRIL 2026

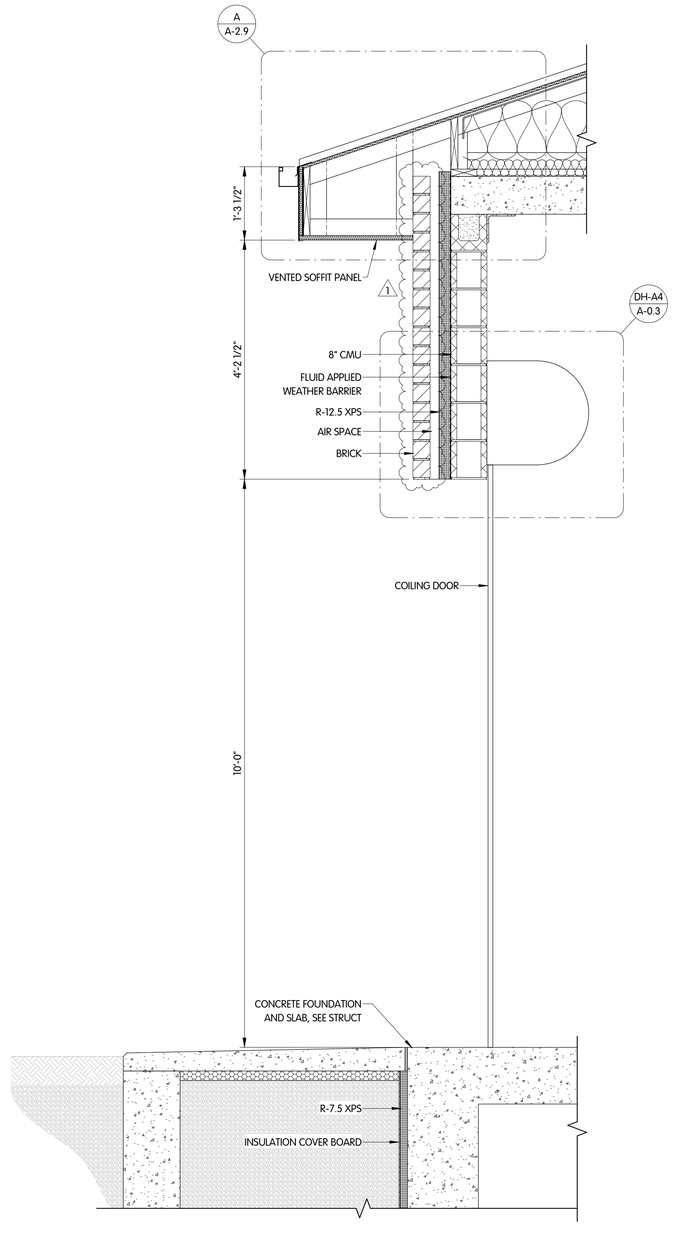
SHEET NO. A-0.3

47 OF 309

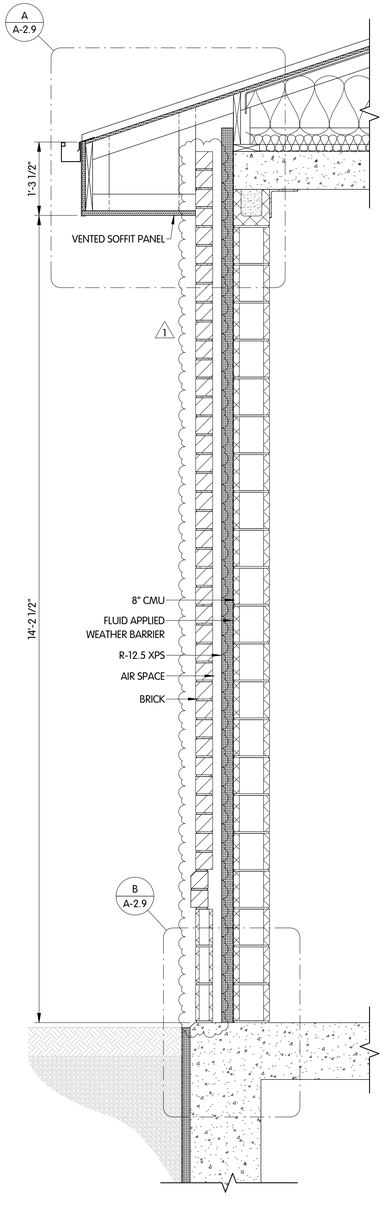
RSN://CLEOPHUS.JHENG.COM/OAKHARBOR 904/8119/002/02_GENERAL/8119002-RM.RVT
5/27/2026 9:43:10 AM



6 WALL SECTION
3/4" = 1'-0"



5 WALL SECTION
3/4" = 1'-0"



4 WALL SECTION
3/4" = 1'-0"

HEADWORKS BUILDING
ARCHITECTURAL
WALL SECTIONS

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH

Jones & Henry
Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

JOB NO.: 904-8119.002

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

THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

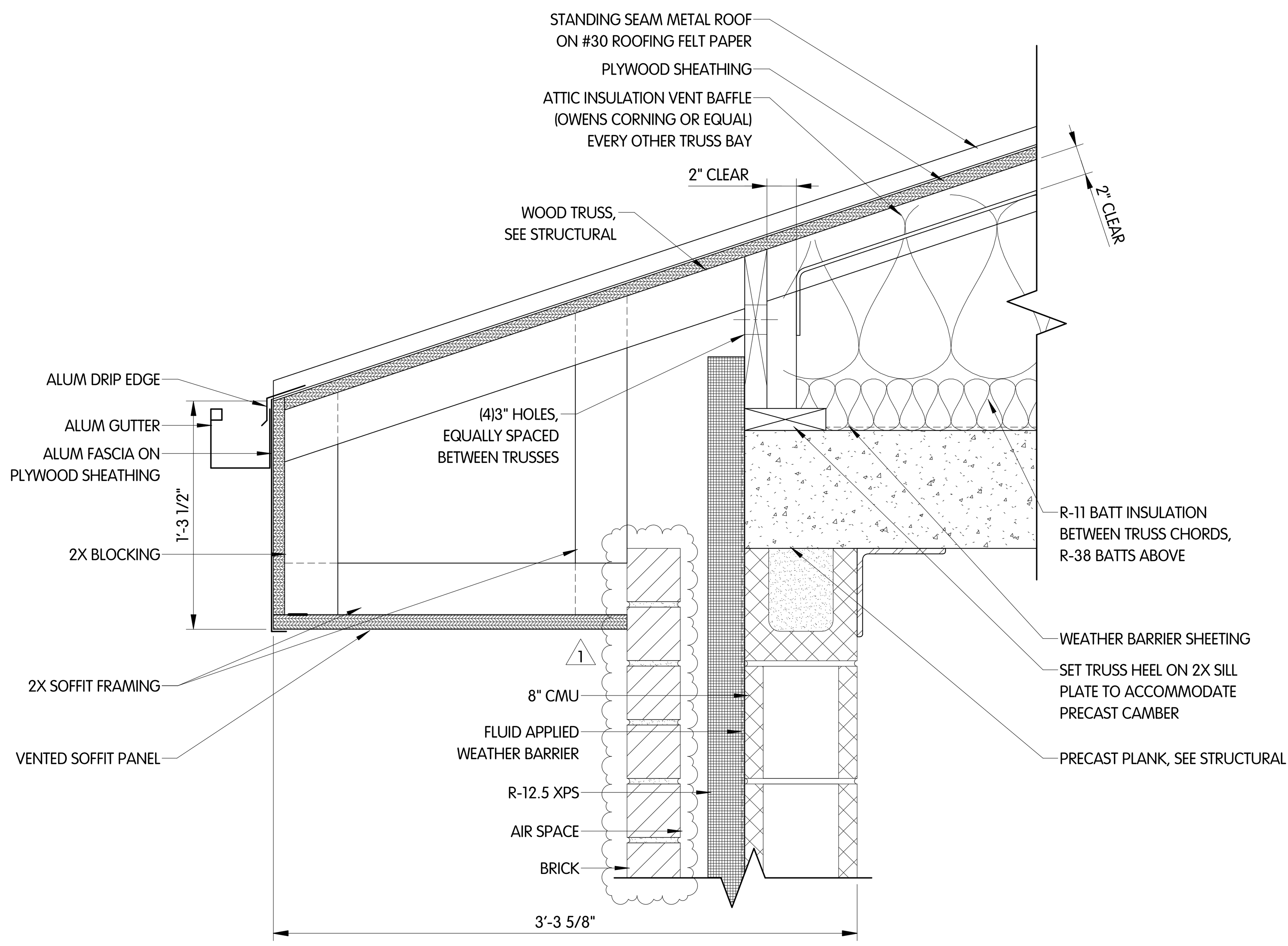
DESIGNED	DRAWN	CHECKED
DCE	RGW	DCE

STATUS: ISSUED FOR BID

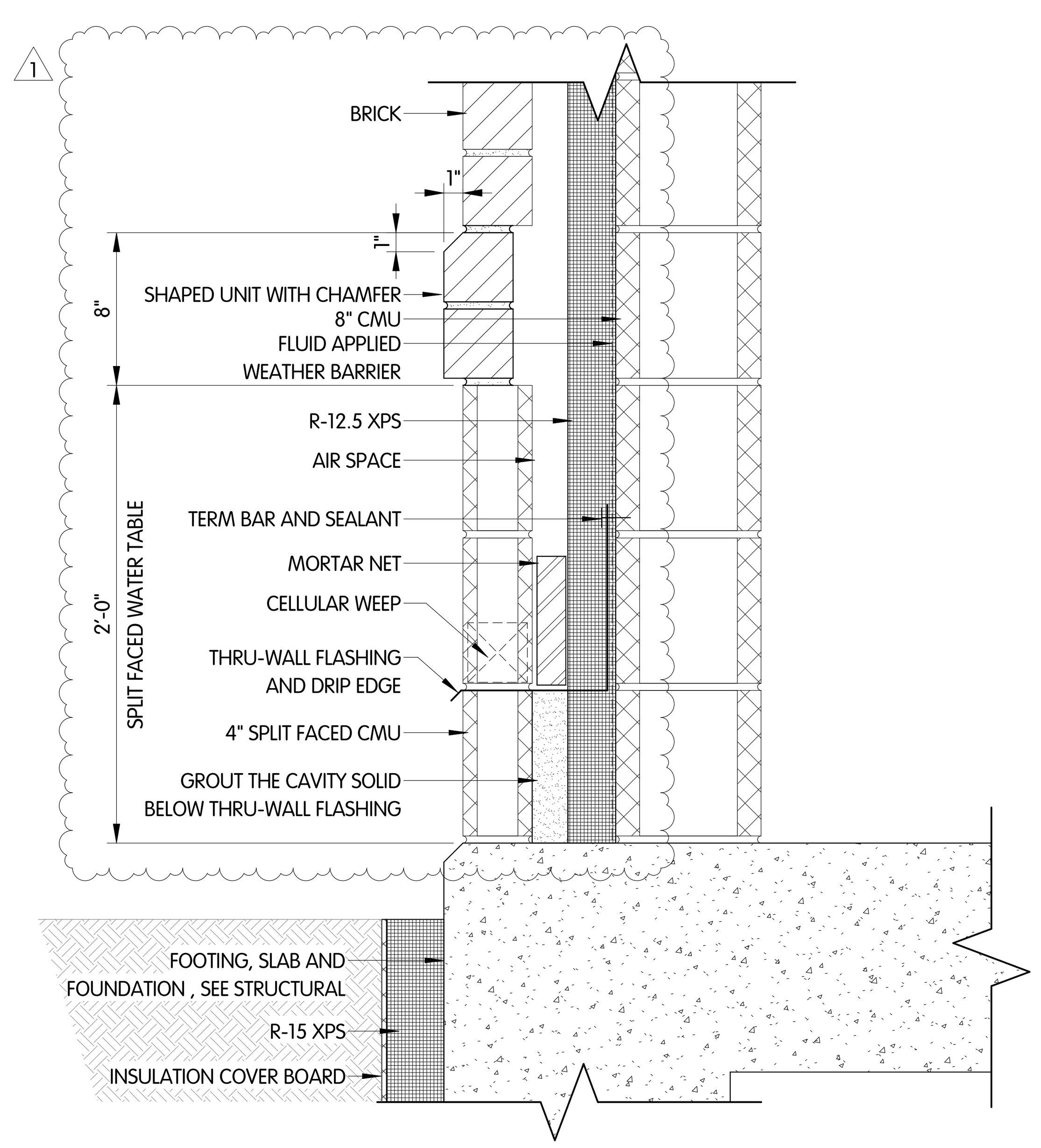
DATE: APRIL 2026

SHEET NO.
A-2.8
57 OF 309

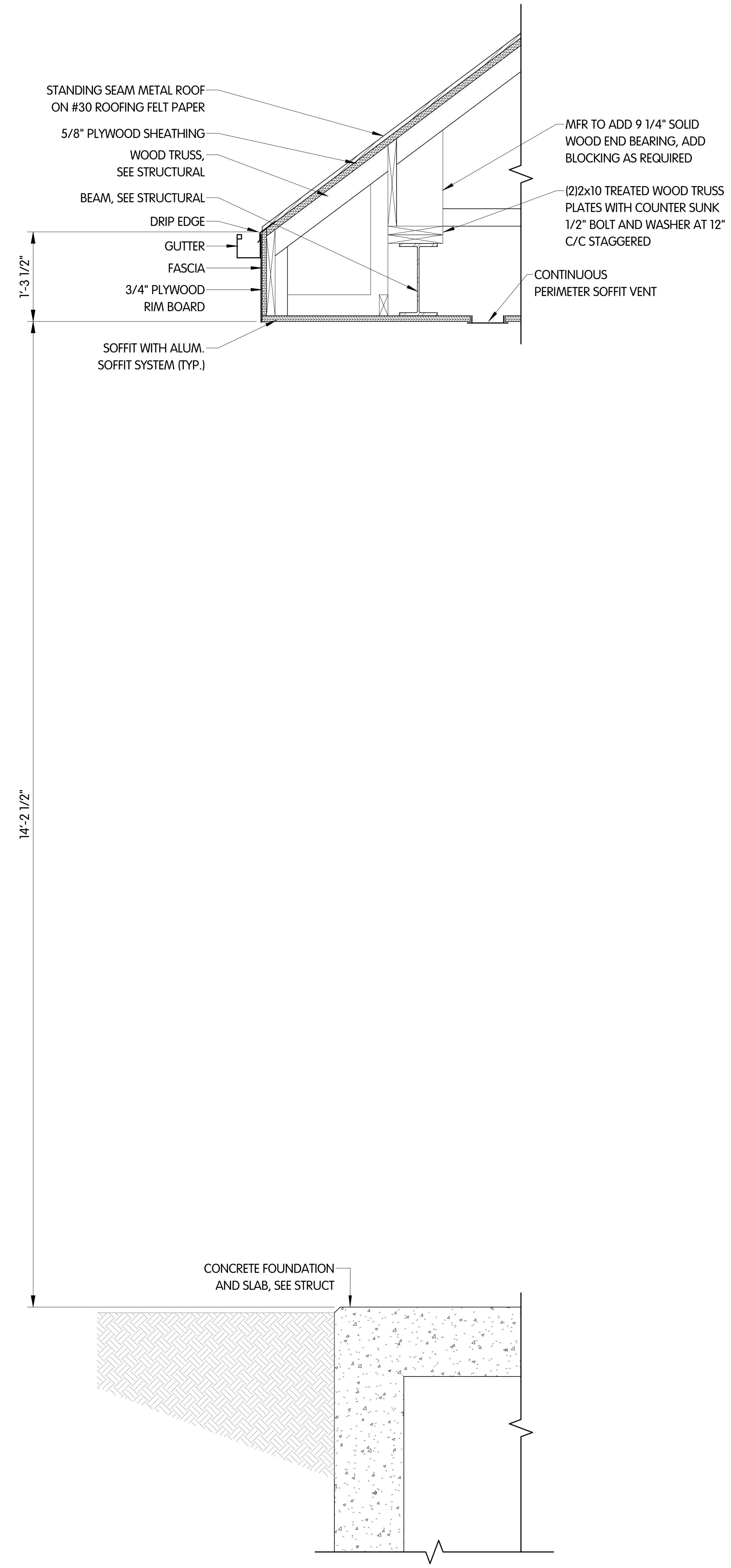
RSH: //CLIENTS/JHENG.COM/OAKHARBOR/904/8119/002/02_GENERAL/8119002-RM.RVT
5/27/2026 9:43:31 AM



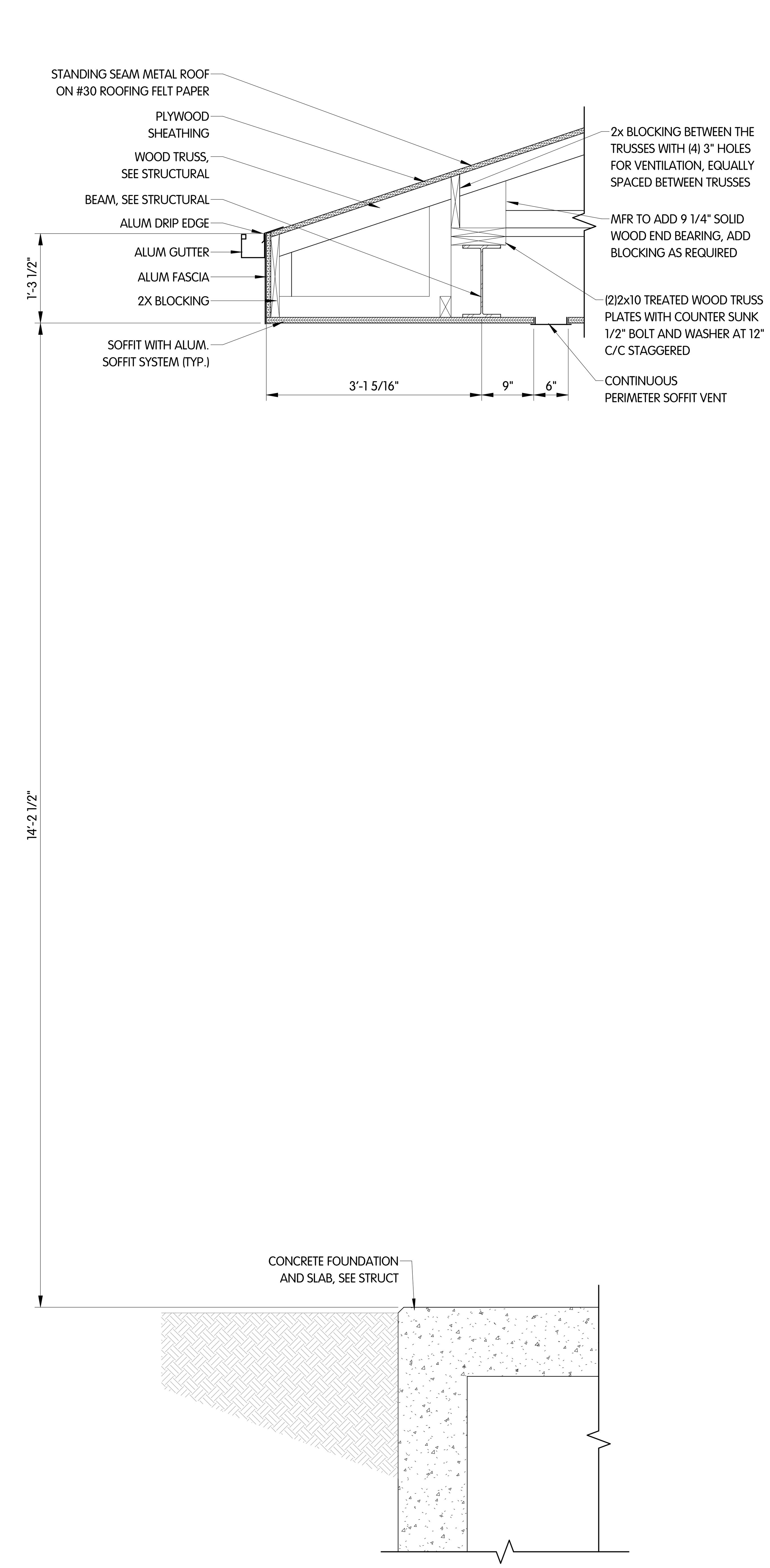
A DETAIL
1 1/2" = 1'-0"



B DETAIL
1 1/2" = 1'-0"



8 SECTION
3/4" = 1'-0"



7 SECTION
3/4" = 1'-0"

HEADWORKS BUILDING
ARCHITECTURAL
WALL SECTIONS AND DETAILS

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH

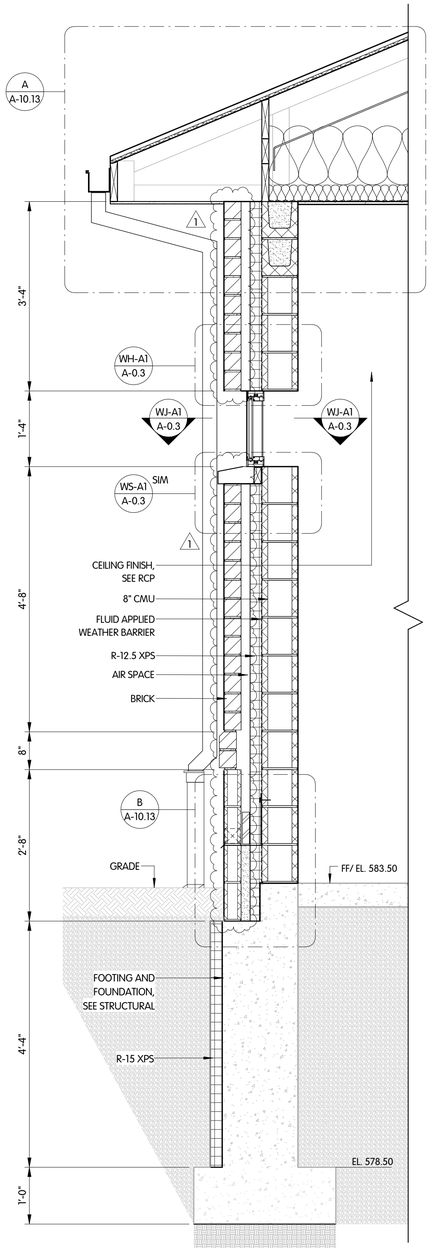
Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

JOB NO. 904-8119.002
SCALE: AS INDICATED
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

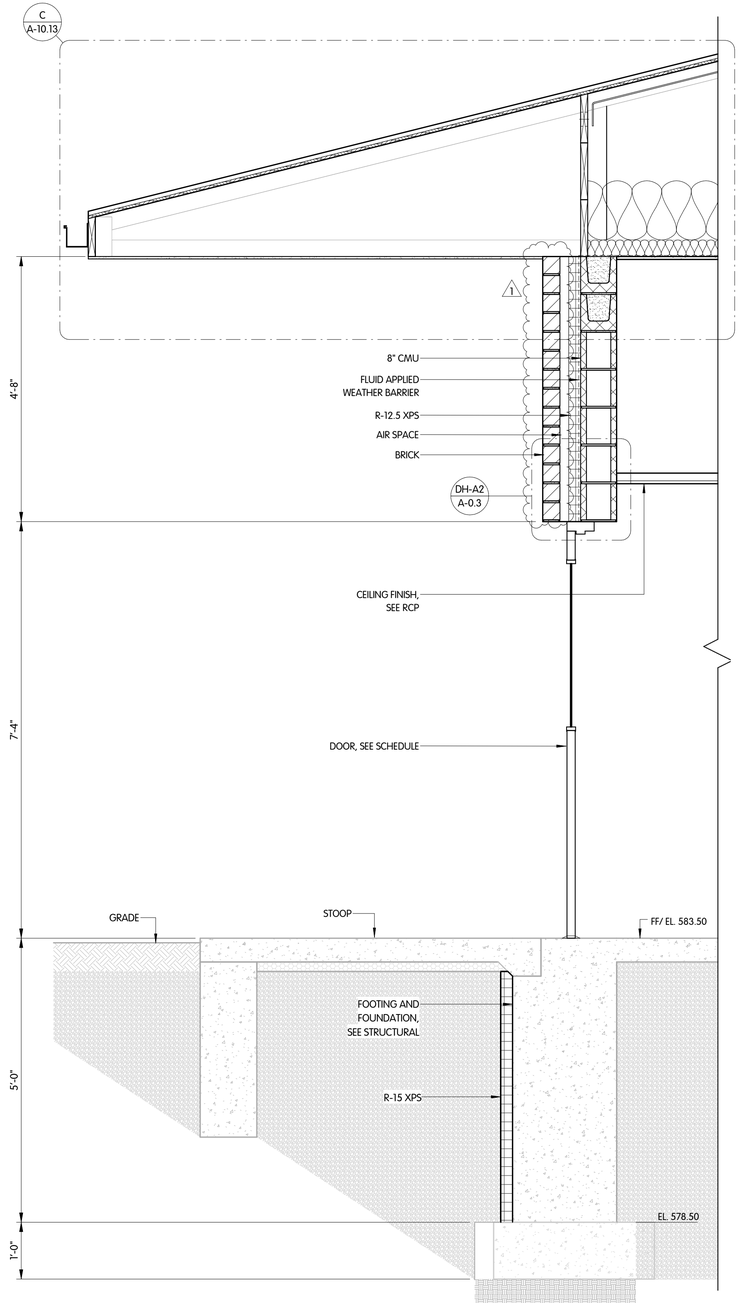
DESIGNED	DRAWN	CHECKED
DCE	RGW	DCE

STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO.
A-2.9
58 OF 309

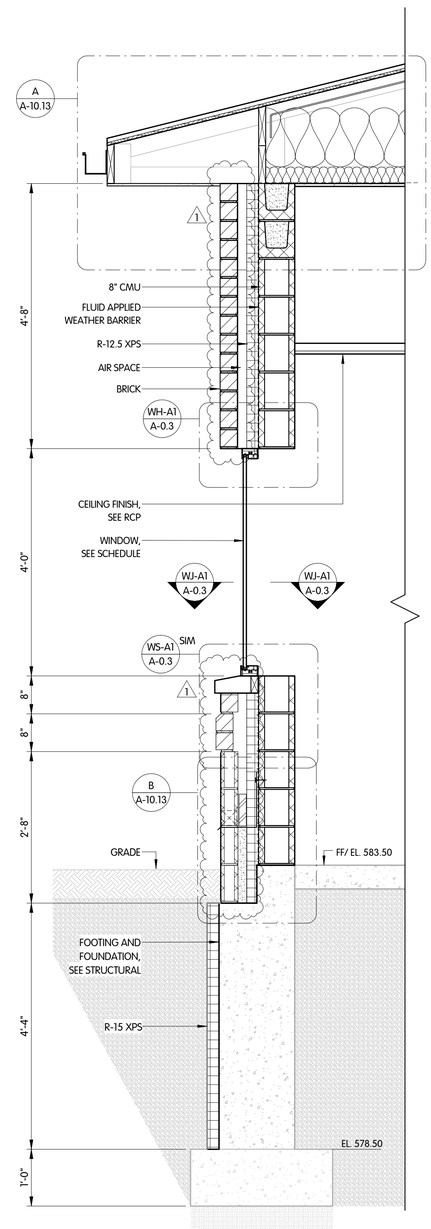
RSN://CLEOPHUS.JHENG.COM/OAKHARBOR 904/8119/002/02_GENERAL/8119002-RM.RVT
5/27/2026 9:43:12 AM



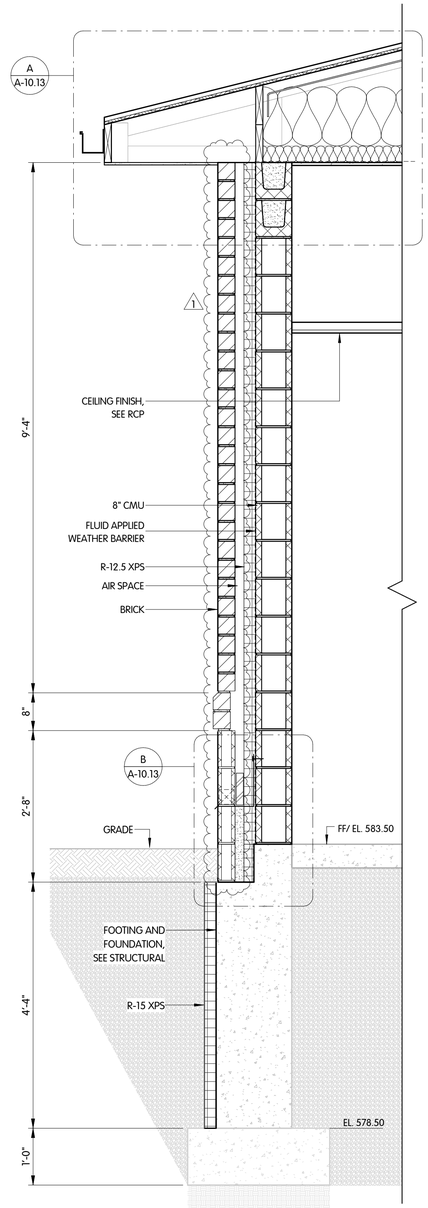
4 WALL SECTION
3/4" = 1'-0"



3 WALL SECTION
3/4" = 1'-0"



2 WALL SECTION
3/4" = 1'-0"



1 WALL SECTION
3/4" = 1'-0"

ADMINISTRATION/MAINTENANCE BUILDING
ARCHITECTURAL
WALL SECTIONS

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

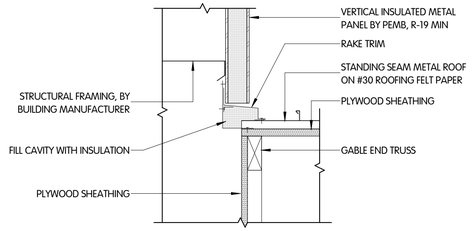
JOB NO.: 904-8119.002
SCALE: 3/4" = 1'-0"
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
DCE	RGW	DCE

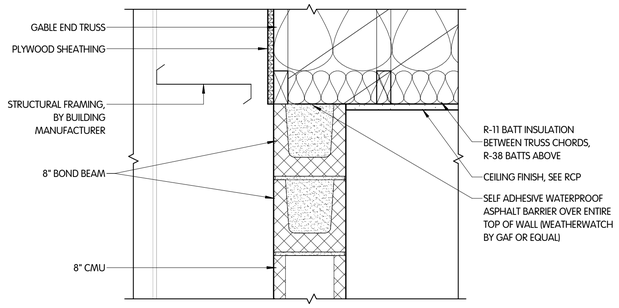
STATUS: ISSUED FOR BID
DATE: APRIL 2026

SHEET NO.
A-10.11
70 OF 309

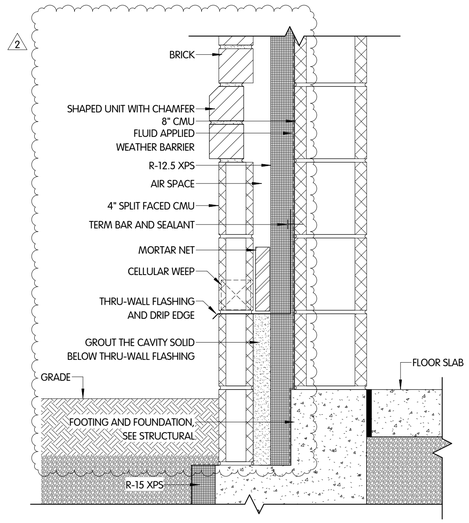
RSN://CLEOPHUS.JHENG.COM/OAKHARBOR 904/8119/002/02_GENERAL/8119002-RM.RVT
5/27/2026 9:44:32 AM



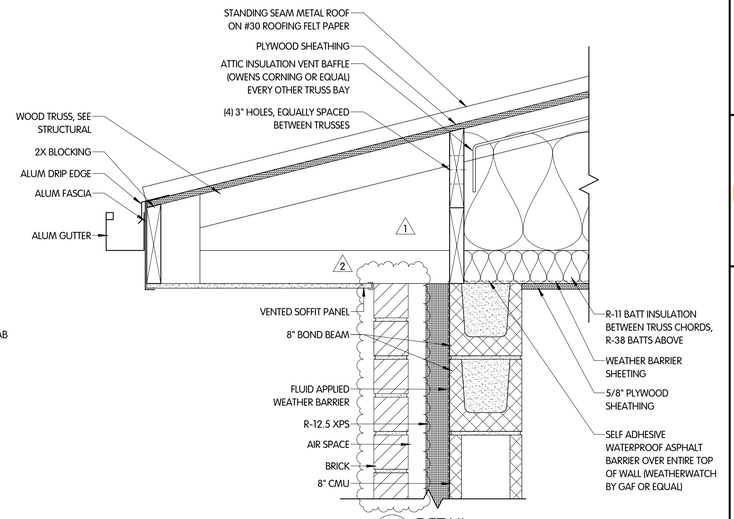
D DETAIL
1 1/2" = 1'-0"



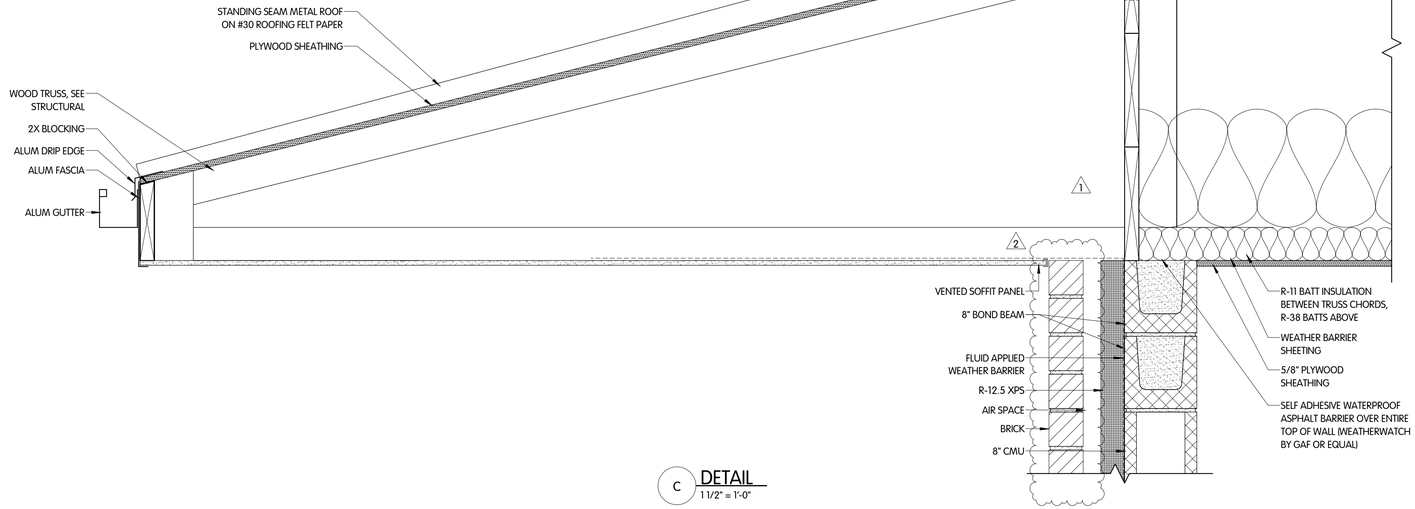
E DETAIL
1 1/2" = 1'-0"



B DETAIL
1 1/2" = 1'-0"



A DETAIL
1 1/2" = 1'-0"



C DETAIL
1 1/2" = 1'-0"

ADMINISTRATION/MAINTENANCE BUILDING
ARCHITECTURAL
DETAILS

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
2	5/27/26	ADDENDUM 3	JAH
1	5/13/26	ADDENDUM 2	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®..
www.JHeng.com

JOB NO.: 904-8119.002

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

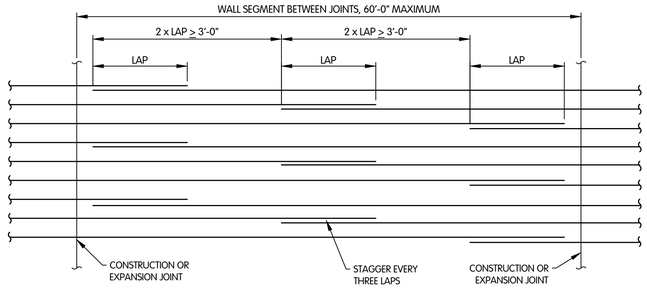
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
DCE	RGW	DCE

STATUS: ISSUED FOR BID

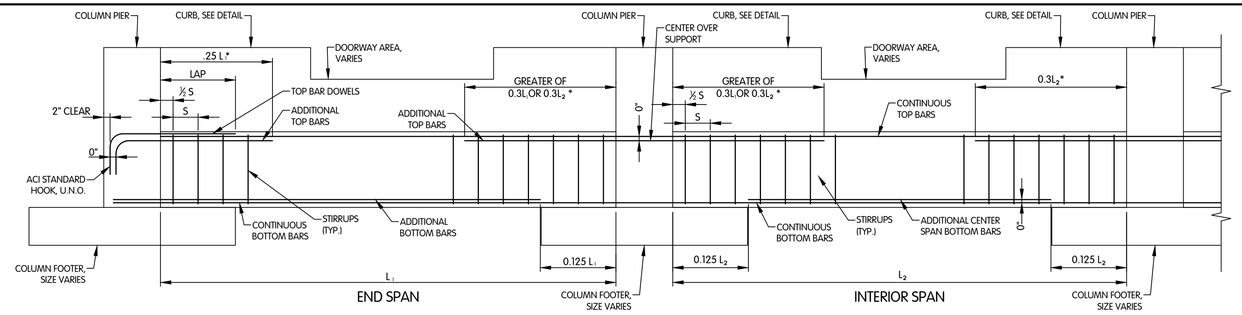
DATE: APRIL 2026

SHEET NO.
A-10.13
72 OF 309

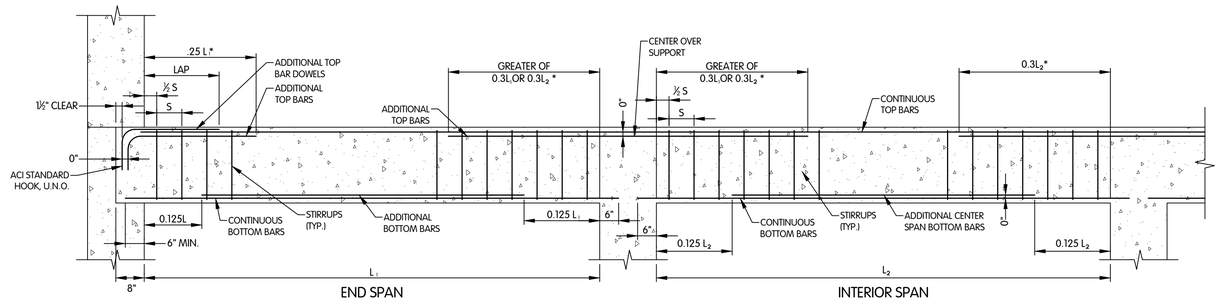


NOTES:
1. THIS DETAIL APPLIES TO CIRCLE, SEMI-CIRCLE AND OVAL TANK WALLS AND STRAIGHT TANK WALL SEGMENTS CONNECTED IN PLANE WITH THE FORE MENTIONED CURVED WALL SEGMENTS (I.E. ORBIAL AND OXIDATION TYPE TANKS).
2. REBAR LAPS SHALL OCCUR IN ALTERNATING WALL SEGMENTS SO THAT SEGMENTS ON EITHER SIDE OF THE LAPPED WALL SEGMENT ARE PLACED 48 HOURS PRIOR TO THE LAPPED SEGMENT BEING PLACED.
3. SHOW CONSTRUCTION JOINTS ON PLAN AND PROVIDE A POUR SEQUENCE.

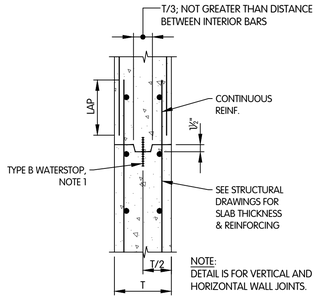
TYPICAL WALL HOOP STEEL LAP DETAIL
NTS



TYPICAL GRADE BEAM DETAIL
NTS

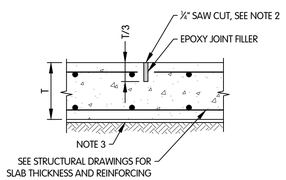


TYPICAL CONTINUOUS BEAM DETAIL
NTS

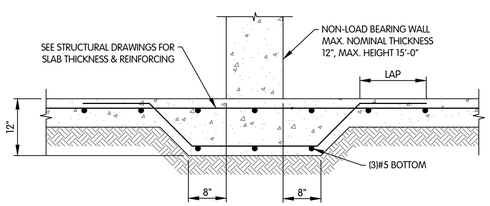


NOTE:
DETAIL IS FOR VERTICAL AND HORIZONTAL WALL JOINTS.

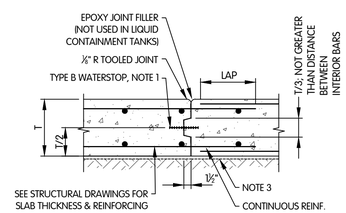
WALL CONSTRUCTION JOINT (CSJ)



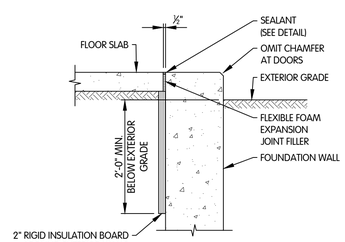
SLAB CONTROL JOINT (CJ)



THICKENED SLAB AT WALLS



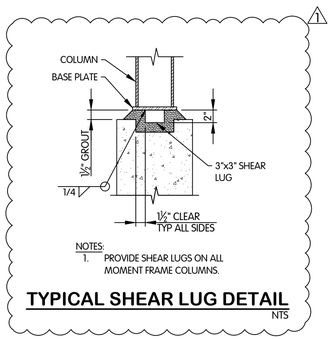
SLAB CONSTRUCTION JOINT (CSJ)



BUILDING SLAB PERIMETER ISOLATION JOINT

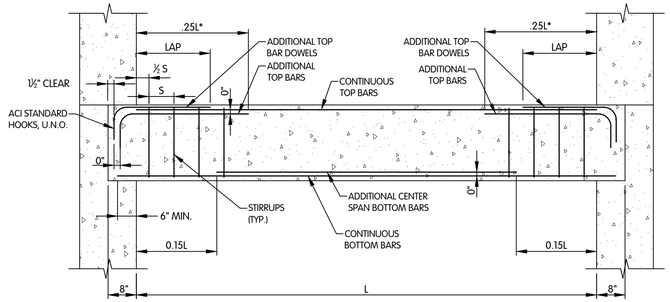
TYPICAL FLOOR SLAB-ON-GRADE DETAILS
NTS

NOTES:
1. IN LIQUID CONTAINMENT TANKS AND WHERE SHOWN ON DRAWINGS OR SPECIFIED.
2. CONTROL JOINTS ARE NOT TO BE USED IN LIQUID CONTAINMENT TANKS, UNLESS NOTED OTHERWISE.
3. PROVIDE VAPOR BARRIER IN OCCUPIED SPACES PER SPEC. 03300.



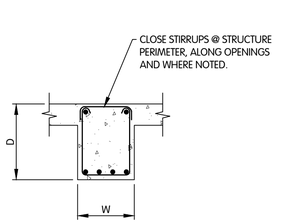
NOTES:
1. PROVIDE SHEAR LUGS ON ALL MOMENT FRAME COLUMNS.

TYPICAL SHEAR LUG DETAIL
NTS

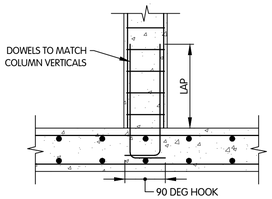


BEAM NOTES:
1. PLACE REINFORCEMENT IN SINGLE LAYER, UNLESS INDICATED OTHERWISE.
2. LAP TOP REINFORCEMENT AT MID-SPAN.
3. CONTINUE WALL AND SLAB REINFORCING THROUGH BEAM POCKET. CONTINUE WALL DOWELS AT BEAM POCKET. WHERE WATERSTOP IS INDICATED CONTINUE AROUND BEAM POCKET.
4. LENGTH OF TOP ADDITIONAL BARS IS MEASURED FROM FACE OF SUPPORT.
5. (*) INDICATES THAT LENGTH SHALL NOT BE LESS THAN BAR LAP LENGTH.

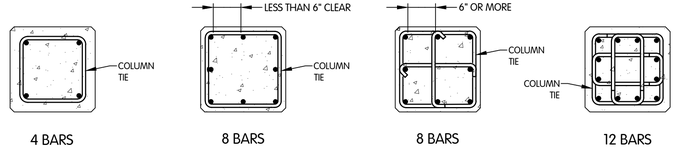
TYPICAL SINGLE SPAN BEAM DETAIL
NTS



TYPICAL STIRRUP DETAIL
NTS



TYPICAL CONNECTION OF PIER TO FOOTING
NTS



TYPICAL COLUMN TIE DETAILS
NTS

STRUCTURAL DETAILS

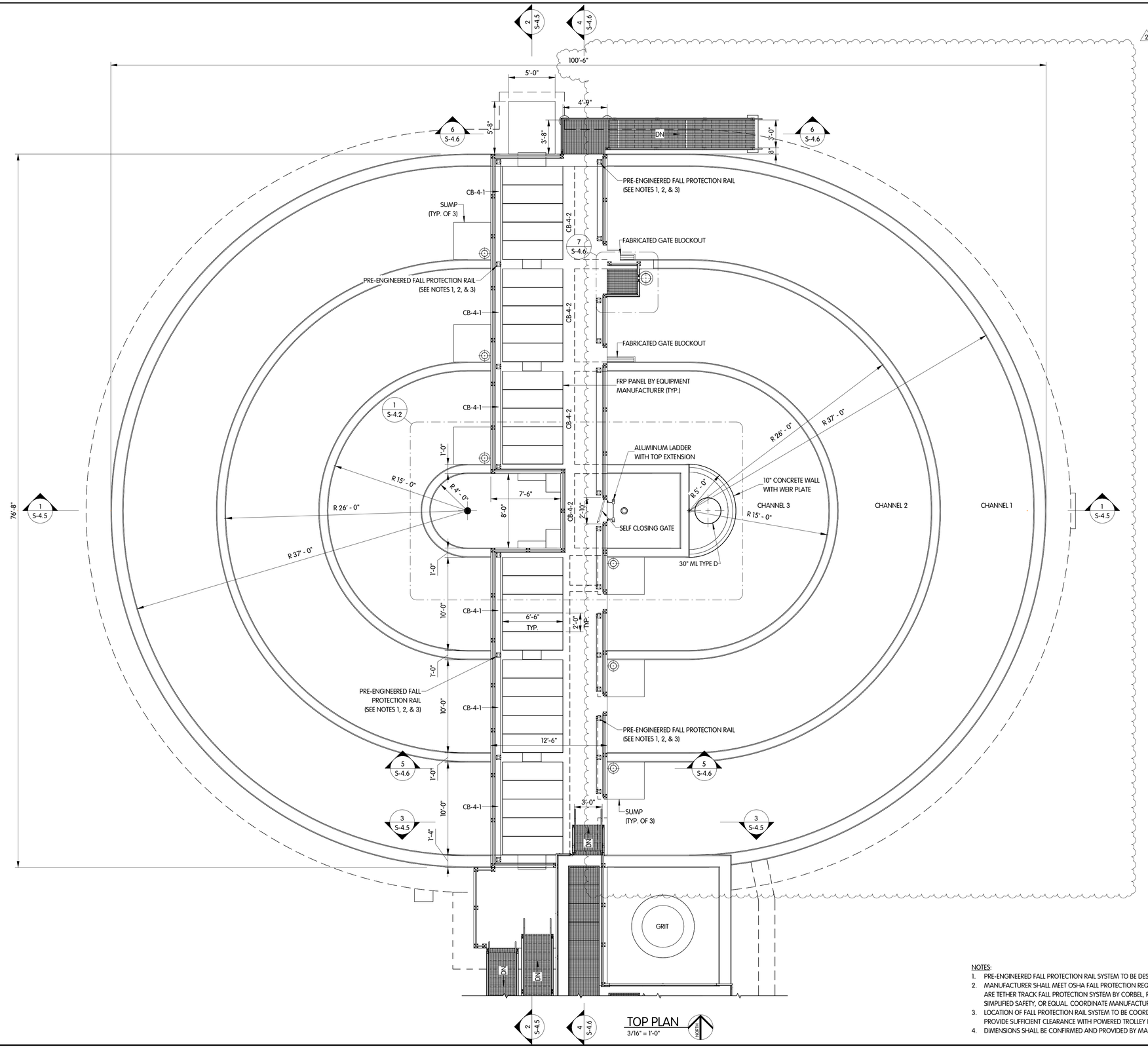
VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
5			
4			
3			
2	5/27/26	ADDENDUM 1	JAH
1			

Jones & Henry Engineers, Ltd.
Fluid thinking©.
www.JHeng.com

JOB NO. 904-8119.002
SCALE AS INDICATED
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE
DESIGNED JDN | DRAWN RGW | CHECKED JDN
STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO. S-0.3
84 OF 309

TOL-8119002_S15-S-0.3 - DETAILS
5/27/2026 11:36 AM - AELLINGHAM
5/27/2026 11:36 AM



TOP PLAN
3/16" = 1'-0"

NOTES:
1. PRE-ENGINEERED FALL PROTECTION RAIL SYSTEM TO BE DESIGNED FOR TWO PERSON USE.
2. MANUFACTURER SHALL MEET OSHA FALL PROTECTION REQUIREMENTS SUGGESTED MANUFACTURERS ARE TETHER TRACK FALL PROTECTION SYSTEM BY CORBEL, RIGID RAIL FALL PROTECTION SYSTEMS BY SIMPLIFIED SAFETY, OR EQUAL. COORDINATE MANUFACTURER SELECTION WITH OWNER.
3. LOCATION OF FALL PROTECTION RAIL SYSTEM TO BE COORDINATED WITH HOIST MONORAIL SYSTEM TO PROVIDE SUFFICIENT CLEARANCE WITH POWERED TROLLEY HOIST.
4. DIMENSIONS SHALL BE CONFIRMED AND PROVIDED BY MANUFACTURER OF EQUIPMENT.

OXIDATION DITCH STRUCTURAL TOP PLAN AND DETAIL

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

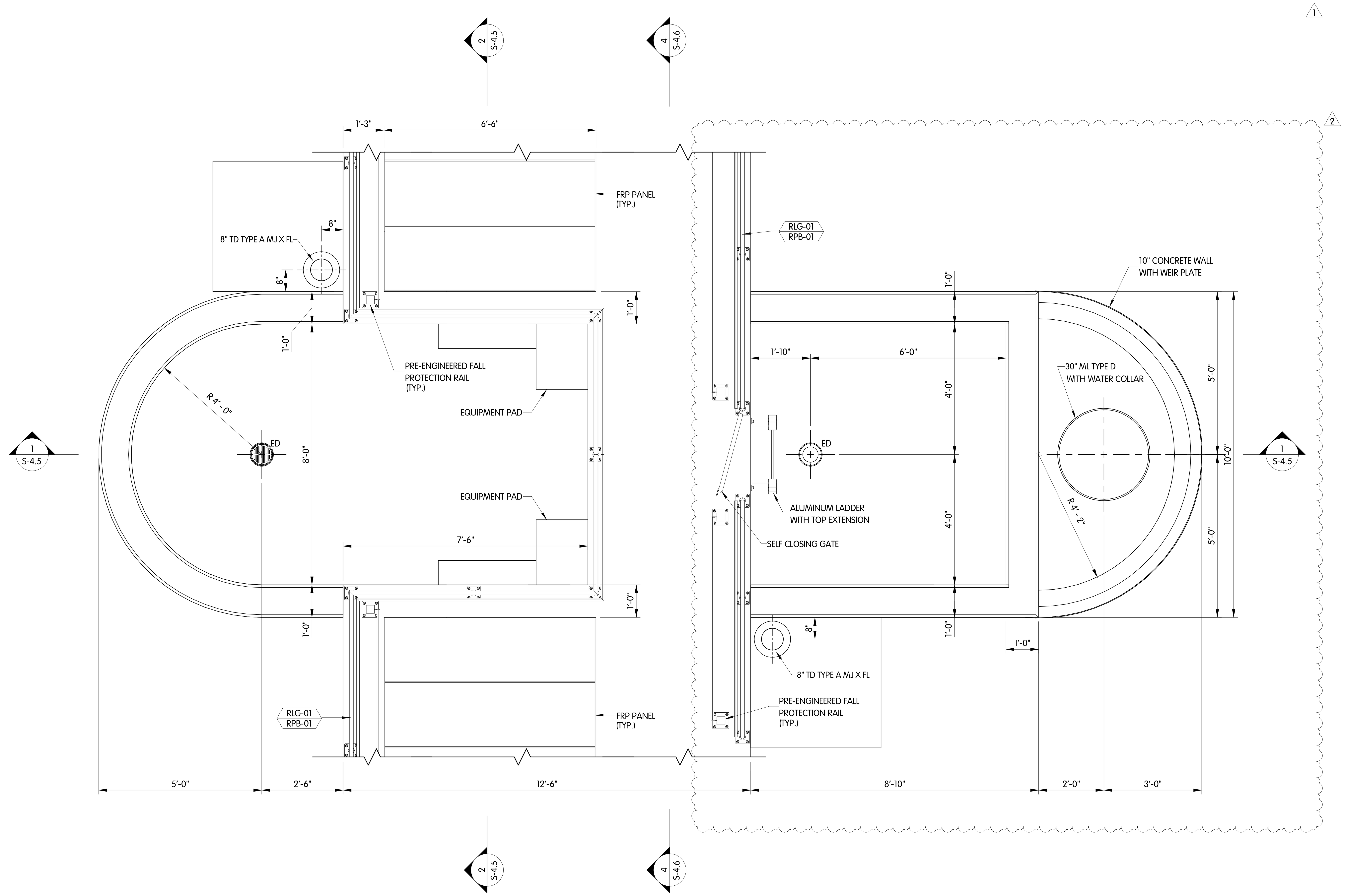
NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
2	5/27/26	ADDENDUM 3	JAH
1	5/13/26	ADDENDUM 2	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

JOB NO.: 904-8119.002
SCALE: 3/16" = 1'-0"
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
DRC	RGW	JDN

STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO.
S-4.1
111 OF 309



1 **TOP PLAN DETAIL**
1/2" = 1'-0"

NOTE:
1. DIMENSIONS SHALL BE CONFIRMED AND PROVIDED BY MANUFACTURER OF EQUIPMENT.

OXIDATION DITCH
STRUCTURAL
TOP PLAN DETAIL

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
2	5/27/26	ADDENDUM 3	JAH
1	5/18/26	ADDENDUM 2	JAH

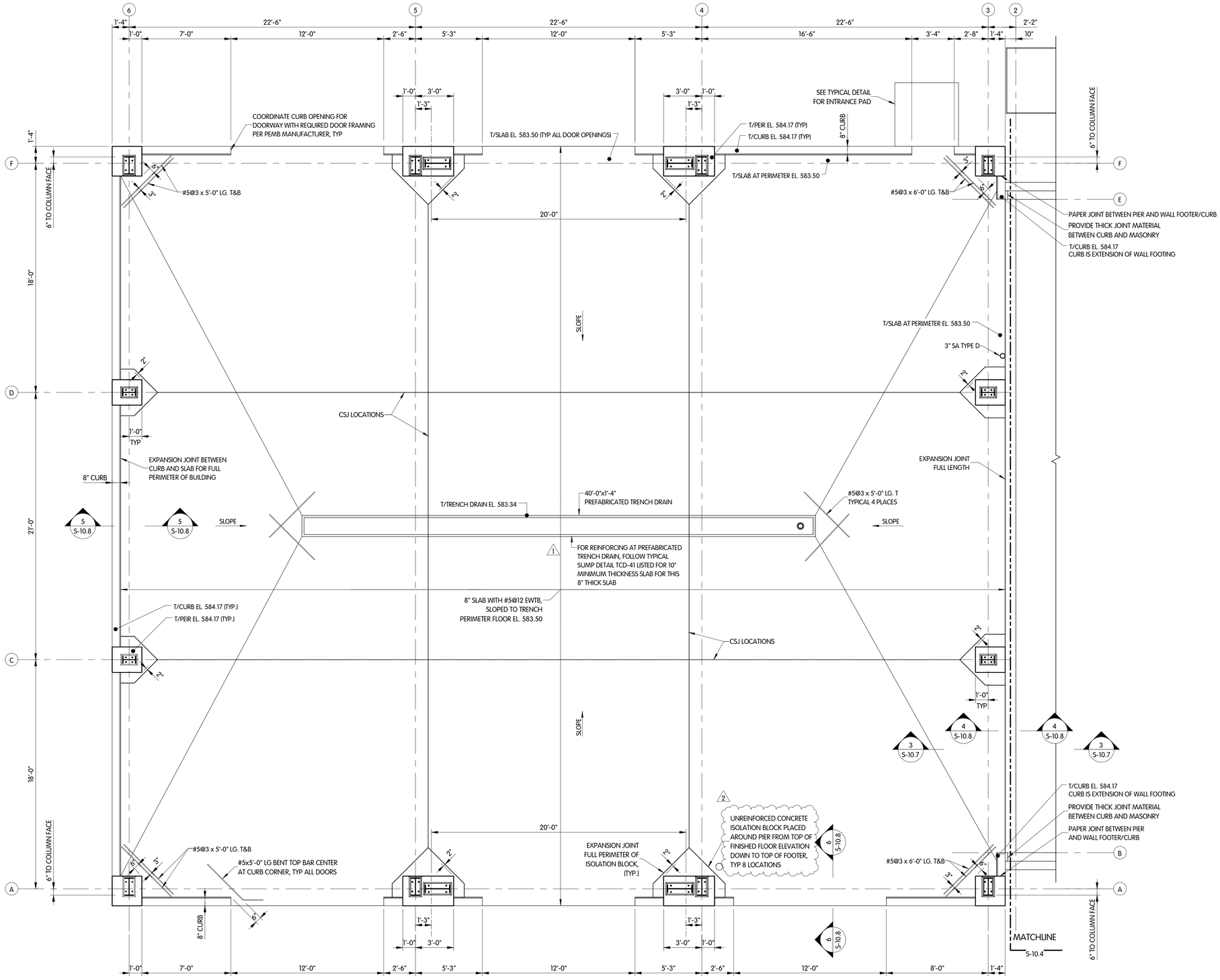
Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

JOB NO. 904-8119.002
SCALE: 1/2" = 1'-0"
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
DRC	RGW	JDN

STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO.
S-4.2
112 of 309

RSN://CLEOPHUS.JHENG.COM/OAKHARBOR 904/8119/002/02_GENERAL/8119002-RM.RVT
5/27/2026 9:43:37 AM



PLAN AT EL. 583.50 - MAINTENANCE

1/4" = 1'-0"

NORTH

NOTES:

1. PAPER JOINT MAY BE PAPER, OR ANY THIN COMPRESSIBLE MATERIAL.

ADMINISTRATION/MAINTENANCE BUILDING STRUCTURAL
PLAN AT EL. 583.50 - MAINTENANCE

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH
2	5/13/26	ADDENDUM 2	JAH

Jones & Henry Engineers, Ltd.

Fluid thinking®..
www.JHeng.com

JOB NO.:	904-8119.002
SCALE:	1/4" = 1'-0"

THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
PDM	RGW	JDN

STATUS: ISSUED FOR BID

DATE: APRIL 2026

SHEET NO.

S-10.3

140 OF 309

RDN: //CLEOPHUS.JHENG.COM/OAKHARBOR.904/8119/002/102_GENERAL/8119002-RM.RVT
5/27/2026 9:43:41 AM

FABRICATED SLIDE GATE SCHEDULE

TAG / ID	NOMINAL WIDTH x GATE HEIGHT (IN.)	FRAME TYPE	MOUNT TYPE	BOTTOM TYPE	TOP SEAL	MATERIAL	OPERATOR TYPE	RIGHT ANGLE GEARBOX	OPERATING STAND	ACTUATION	NORMAL OPERATING SEATING HEAD (FT)	NORMAL OPERATING UNSEATING HEAD (FT)	NOTES
2-HEADWORKS													
FSG-2-1	36" X 102"	NSC	EMB	EMB	NO	SS	MO	YES	FS	MOD	8.5	8.5	
FSG-2-2	36" X 102"	NSC	EMB	EMB	NO	SS	MO	YES	FS	MOD	8.5	8.5	
FSG-2-3	36" X 102"	NSC	EMB	EMB	NO	SS	MO	YES	FS	MOD	8.5	8.5	
FSG-2-4	36" X 102"	NSC	EMB	EMB	NO	SS	MO	YES	FS	MOD	8.5	8.5	
FSG-2-5	36" X 102"	NSC	EMB	EMB	NO	SS	MO	YES	FS	MOD	8.5	8.5	
FSG-2-6	48" X 84"	NSC	WM	WM	YES	SS	FB	YES	N/A	N/A	8.5	8.5	DOWNWARD ACTING
3-GRIT													
FSG-3-1	36" X 40"	SC	EMB	EMB	NO	SS	MO	YES	N/A	O-C	4.0	3.5	
FSG-3-2	36" X 40"	SC	EMB	EMB	NO	SS	MO	YES	N/A	O-C	4.0	3.5	
4-OXIDATION DITCH													
FSG-4-1	24" X 34"	SC	WM	WM	YES	SS	MO	YES	N/A	O-C	0	2.5	
FSG-4-2	24" X 34"	SC	WM	WM	YES	SS	MO	YES	N/A	O-C	0	2.5	
FSG-4-3	24" X 34"	SC	WM	WM	YES	SS	MO	YES	N/A	O-C	0	2.5	
FSG-4-4	48" X 48"	NSC	WM	EMB	YES	SS	MO	YES	FS/WMS	O-C	10	10	
FSG-4-5	48" X 48"	NSC	WM	EMB	YES	SS	MO	YES	FS	O-C	10	10	
5-SPLITTER BOX													
FSG-5-1	38" X 36"	SC	WM	WM	NO	SS	HW	YES	N/A	O-C	0	3.6	
FSG-5-2	38" X 36"	SC	WM	WM	NO	SS	HW	YES	N/A	O-C	0	3.6	
8-UV													
FSG-8-1	24" X 48"	SC	WM	WM	YES	SS	MO	YES	N/A	O-C	8	6	
FSG-8-2	36" X 36"	SC	WM	WM	YES	SS	MO	YES	N/A	O-C	8	9	
18-EQPS													
FSG-18-1	36" X 36"	NSC	WM	EMB	YES	SS	MO	YES	FS/WMS	O-C	4.25	8	
100-MH SA-1													
100-FSG-1	42" X 42"	NSC	WM	EMB	YES	SS	MO	YES	FS	O-C			

△1 △2

TAG/ID
FSG - FABRICATED SLIDE GATE

MATERIAL
ALUM - ALUMINUM
SS - STAINLESS STEEL

FRAME TYPE
SC - SELF CONTAINED
NSC - NON SELF CONTAINED

MOUNT TYPE
CM - CHANNEL MOUNT
EMB - EMBEDDED
WM - WALL MOUNT

BOTTOM TYPE
CM - CHANNEL MOUNT
EMB - EMBEDDED
WM - WALL MOUNT

OPERATOR TYPE
CH - CHAIN
HW - HAND WHEEL
MO - MOTOR OPERATED
ON - OPERATING NUT

OPERATING STAND TYPE
FB - FLOOR BOX
FS - FLOOR STAND
N/A - NOT APPLICABLE
OP - OFFSET PEDESTAL
WMS - WALL MOUNT SUPPORT BRACKET

ACTUATION
MOD - MODULATING
N/A - NOT APPLICABLE
O-C - OPEN-CLOSE

SLUICE / TIDE GATE SCHEDULE

TAG / ID	NOMINAL WIDTH x GATE HEIGHT OR GATE DIA. (IN.)	MOUNT TYPE	FRAME TYPE	BOTTOM TYPE	SEAL	MATERIAL	OPERATOR	RIGHT ANGLE GEARBOX	OPERATING STAND	ACTUATOR	NORMAL OPERATING SEATING HEAD (FT)	NORMAL OPERATING UNSEATING HEAD (FT)	NOTES
9-OUTFALL													
TG-9-1	36"	C	N/A	N/A	N/A	CI / SS	N/A	N/A	N/A	N/A	2	0.5	CL. EL. 574.75

△2

TAG/ID
SG - SLUICE GATE
TG - TIDE GATE

MATERIAL
CI - CAST IRON
SS - STAINLESS STEEL

MOUNT TYPE
C - CIRCULAR, FLANGED
CF - CIRCULAR, FLAT
R - RECTANGULAR, FLANGED
RF - RECTANGULAR, FLAT
SC - SELF CONTAINED
NSC - NON SELF CONTAINED

FRAME TYPE
CM - CHANNEL MOUNT
EMB - EMBEDDED
WM - WALL MOUNT

BOTTOM TYPE
CM - CHANNEL MOUNT
EMB - EMBEDDED
WM - WALL MOUNT

OPERATOR TYPE
CH - CHAIN
HW - HAND WHEEL
MO - MOTOR OPERATED
ON - OPERATING NUT

OPERATING STAND TYPE
FB - FLOOR BOX
FS - FLOOR STAND
N/A - NOT APPLICABLE
OP - OFFSET PEDESTAL
WMS - WALL MOUNT SUPPORT BRACKET

ACTUATION
MOD - MODULATING
N/A - NOT APPLICABLE
O-C - OPEN-CLOSE

PIPE SERVICE LEGEND

ABBREVIATION	SYSTEM NAME
AA	AERATION AIR
A	AIR
AL	ALUM
CA	COMPRESSED AIR
CON	CONDENSATE DRAIN
DS	DIGESTER SLUDGE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DTW	DOMESTIC TEMPERED WATER
SA	DOMESTIC WASTE
ED	EQUIPMENT DRAIN
GT	GRIT
GW	GROUND WATER
HWR	HOT WATER RETURN
ML	MIXED LIQUOR
NG	NATURAL GAS
NPW	NON-POTABLE WATER
P	POLYMER
PE	PRIMARY EFFLUENT
PI	PRIMARY INFLUENT
PS	PRIMARY SLUDGE
RS	RAW SEWAGE
RW	RAW WATER
REF	REFRIGERANT

VALVE SCHEDULE

TAG/ID	SIZE	TYPE	CONNECTION	OPERATOR TYPE	RIGHT ANGLE GEARBOX	OPERATING STAND	ACTUATOR	SERVICE
2-HEADWORKS								
CV-2-1	12"	CV	FL	N/A	N/A	N/A	O-C	RS
CV-2-2	12"	CV	FL	N/A	N/A	N/A	O-C	RS
CV-2-3	12"	CV	FL	N/A	N/A	N/A	O-C	RS
CV-2-4	8"	CV	FL	N/A	N/A	N/A	O-C	RS
CV-2-5	8"	CV	FL	N/A	N/A	N/A	O-C	RS
PV-2-1	12"	PV	FL	ON	N/A	FB	O-C	RS
PV-2-2	12"	PV	FL	ON	N/A	FB	O-C	RS
PV-2-3	12"	PV	FL	ON	N/A	FB	O-C	RS
PV-2-4	8"	PV	FL	ON	N/A	FB	O-C	RS
PV-2-5	8"	PV	FL	ON	N/A	FB	O-C	RS
3-GRIT								
CV-3-1	4"	CV	FL	N/A	N/A	N/A	O-C	GT
PV-3-1	4"	PV	FL	L	NO	N/A	O-C	GT
PV-3-2	4"	PV	FL	HW	YES	N/A	O-C	GT
PV-3-3	8"	PV	FL	MO	NO	N/A	O-C	RAS
PV-3-4	8"	PV	FL	MO	NO	N/A	O-C	RAS
PV-3-5	8"	PV	FL	MO	NO	N/A	O-C	RAS
PV-3-6	6"	PV	FL	MO	NO	N/A	O-C	WAS
4-OXIDATION DITCH								
MV-4-1	8"	MV	FL	ON	NO	N/A	O-C	TD
MV-4-2	8"	MV	FL	ON	NO	N/A	O-C	TD
MV-4-3	8"	MV	FL	ON	NO	N/A	O-C	TD
MV-4-4	8"	MV	FL	ON	NO	N/A	O-C	TD
MV-4-5	8"	MV	FL	ON	NO	N/A	O-C	TD
MV-4-6	8"	MV	FL	ON	NO	N/A	O-C	TD
TSV-4-1	12"	TSV	FL	HW	YES	FS/WMS	O-C	ML
7-RAS PUMP STATION								
CV-7-1	8"	CV	FL	N/A	N/A	N/A	N/A	RAS
CV-7-2	8"	CV	FL	N/A	N/A	N/A	N/A	RAS
CV-7-3	8"	CV	FL	N/A	N/A	N/A	N/A	RAS
PV-7-1	8"	PV	FL	ON	NO	FB	O-C	RAS
PV-7-2	8"	PV	FL	ON	NO	FB	O-C	RAS
PV-7-3	8"	PV	FL	ON	NO	FB	O-C	RAS
PV-7-4	8"	PV	FL	ON	NO	N/A	O-C	SL
PV-7-5	8"	PV	FL	ON	NO	N/A	O-C	SL
PV-7-6	8"	PV	FL	ON	NO	N/A	O-C	SL
7-UV								
BV-7-1	4"	BV	PVC	L	NO	N/A	O-C	AA
11-SLUDGE HANDLING BUILDING								
PV-11-1	4"	PV	FL	L	NO	N/A	O-C	SL
14-BLOWER BUILDING								
PV-14-1	4"	PV	FL	HW	YES	N/A	O-C	DS

NOTES:
1. 4" AND LARGER VALVES SCHEDULED ONLY. VALVES SMALLER THAN 4" NOT SCHEDULED.

TAG/ID
BV - BALL VALVE
BFV - BUTTERFLY VALVE
CV - CHECK VALVE
GV - GATE VALVE
GLV - GLOBE VALVE
KV - KNIFE VALVE
MV - MUD VALVE
NV - NEEDLE VALVE
PNV - PINCH VALVE
PV - PLUG VALVE
TSV - TELESCOPING VALVE

OPERATOR TYPE
CH - CHAIN
HW - HANDWHEEL
L - LEVER
MO - MOTOR OPERATED
ON - OPERATING NUT

OPERATING STAND TYPE
FB - FLOOR BOX
FS - FLOOR STAND
N/A - NOT APPLICABLE
OP - OFFSET PEDESTAL
WMS - WALL MOUNT SUPPORT
VB - VALVE BOX

ACTUATION
MOD - MODULATING
N/A - NOT APPLICABLE
O-C - OPEN-CLOSE

SIGNS

A — DANGER — HAZARDOUS CHEMICALS

B — CAUTION — Non-potable water. Do not drink.

C — CAUTION — CLEARANCE ____FT. ____IN.

D — CAUTION — THIS EQUIPMENT STARTS AND STOPS AUTOMATICALLY

E — FIRE

F — NOTICE — NO TRESPASSING

G — NOTICE — ALL VISITORS MUST REGISTER AT OFFICE

H — DANGER — 480 VOLTS

I — DANGER — CONFINED SPACE AUTHORIZED PERSONNEL ONLY

J — DANGER — HIGH VOLTAGE KEEP OUT

K — DANGER — MEN WORKING ABOVE

L — CAUTION — SLIPPERY WHEN WET

M — DANGER — FALL HAZARD

N — NOTICE — PERSONAL PROTECTION REQUIRED IN THIS AREA

O — CAUTION — LOCK OUT EQUIPMENT WHEN WORK IS BEING PERFORMED

P — DANGER — UNAUTHORIZED PERSONNEL KEEP OUT

Q — DANGER — NO SMOKING WITHIN 25 FEET

R — DANGER — UV LIGHT HAZARD AVOID LOOKING DIRECTLY AT LIGHT

S — Maximum Floor Loading ____psf

T — WARNING MAXIMUM BEAM LOAD CAPACITY ____LBS DO NOT EXCEED RATING

U — EMERGENCY SHOWER EMERGENCY EYE WASH

SIGN TAG DESCRIPTION

E — LOCATED AT ALL FIRE HYDRANTS

F — QUANTITY AS DIRECTED BY OWNER (PERIMETER FENCE)

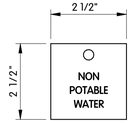
G — LOCATED AT MAIN GATE

H — LOCATED AT GENERATORS AND TRANSFORMERS

J — LOCATED AT MAIN TRANSFORMER AND AT GENERATOR

Q — LOCATED AT GENERATOR

TAG DETAIL - NON POTABLE WATER



LOCATED AT ALL HOSE BIBS AND HYDRANTS INSIDE AND OUTSIDE OF STRUCTURES

NOTE:
SCHEDULES ARE NOT GUARANTEED TO BE COMPLETE. ALL ITEMS SHOWN ON THE DRAWINGS OR SPECIFIED SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WHETHER OR NOT LISTED IN THE FOLLOWING SCHEDULE.

PIPING & EQUIPMENT
LEGENDS, ABBREVIATIONS, SCHEDULES, AND NOTES

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

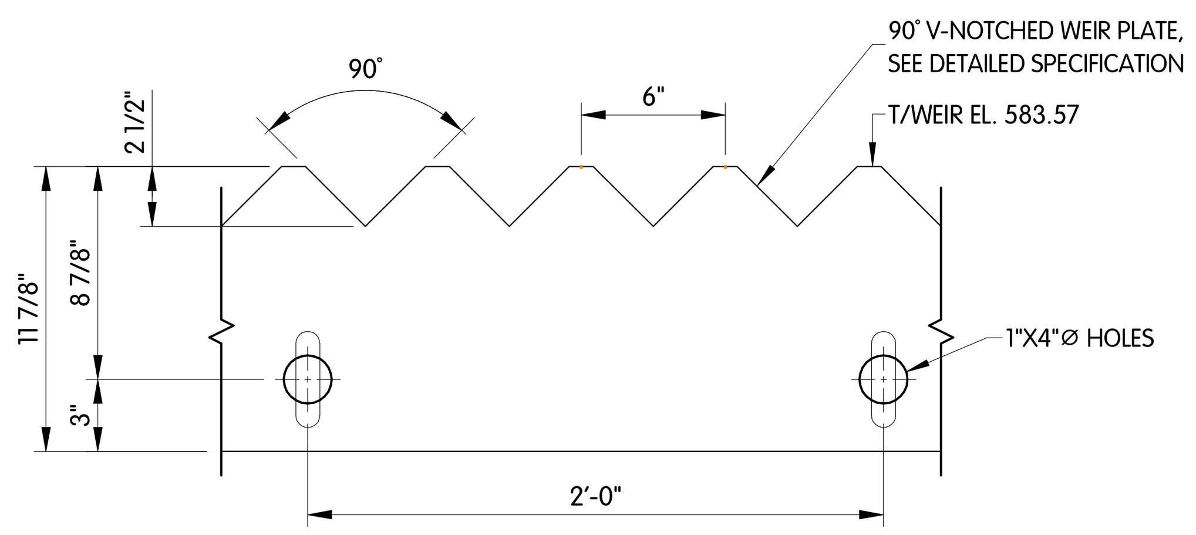
NO.	DATE	BY
2	5/27/26 ADDENDUM 3	JAH
1	5/1/26 ADDENDUM 2	JAH

REVISIONS AFTER ISSUED FOR BID

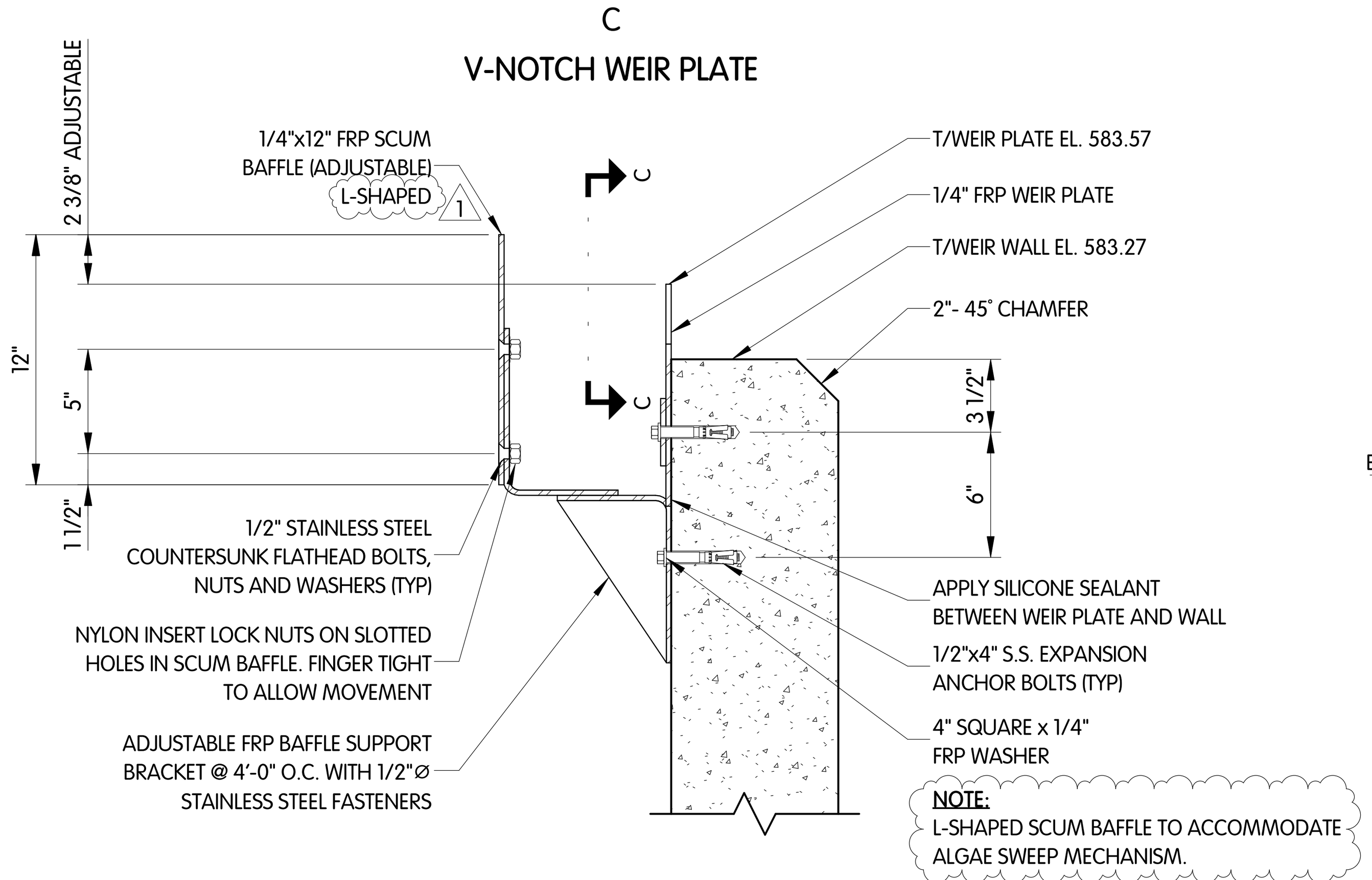
Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

JOB NO.: 904-8119.002
SCALE: NO SCALE
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE
DESIGNED JAH | DRAWN RGW | CHECKED PAL
STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO.
PE-0.1
157 OF 309

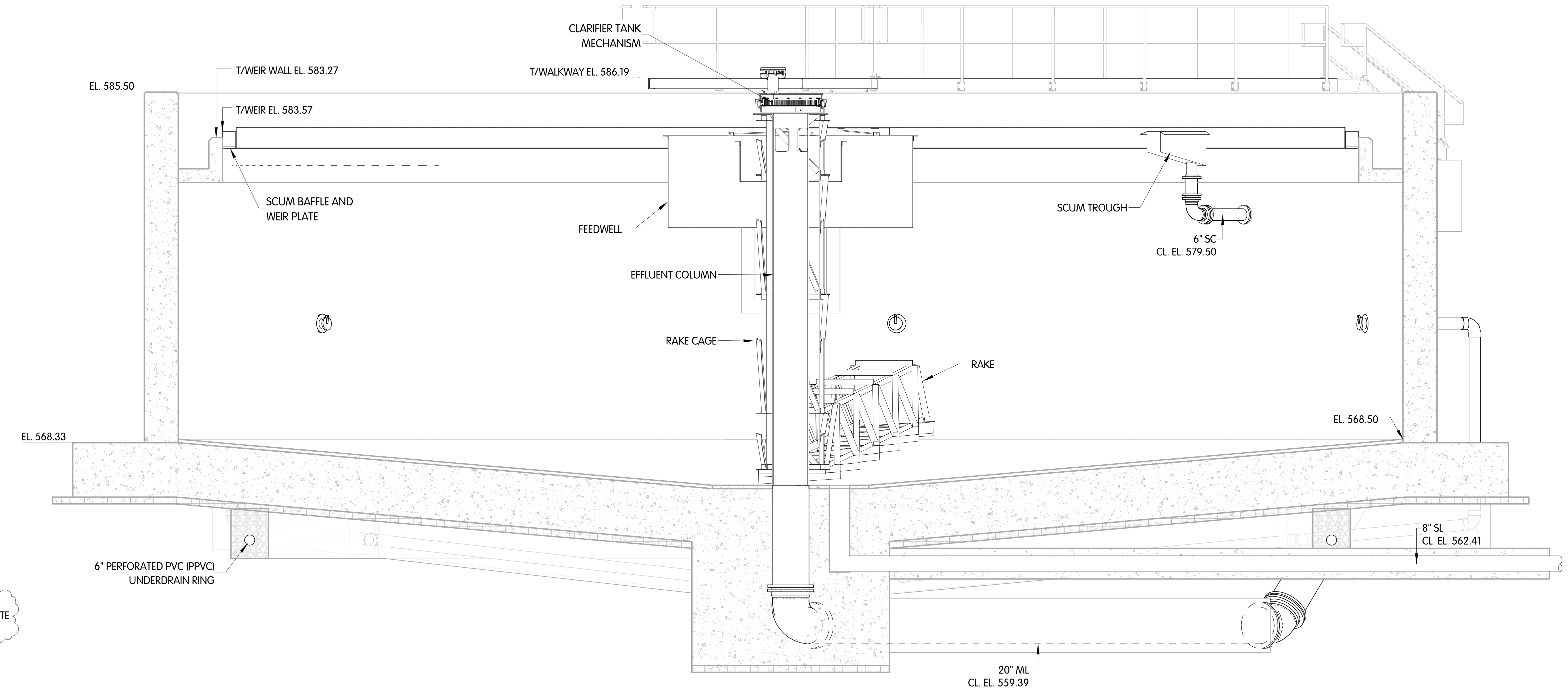
C:\USERS\JELLINGHAM_JH\DOCUMENTS\REVIT 2025 LOCAL FILES\8119002-RPM_JELLINGHAM.RVT
5/27/2026 11:07:21 AM



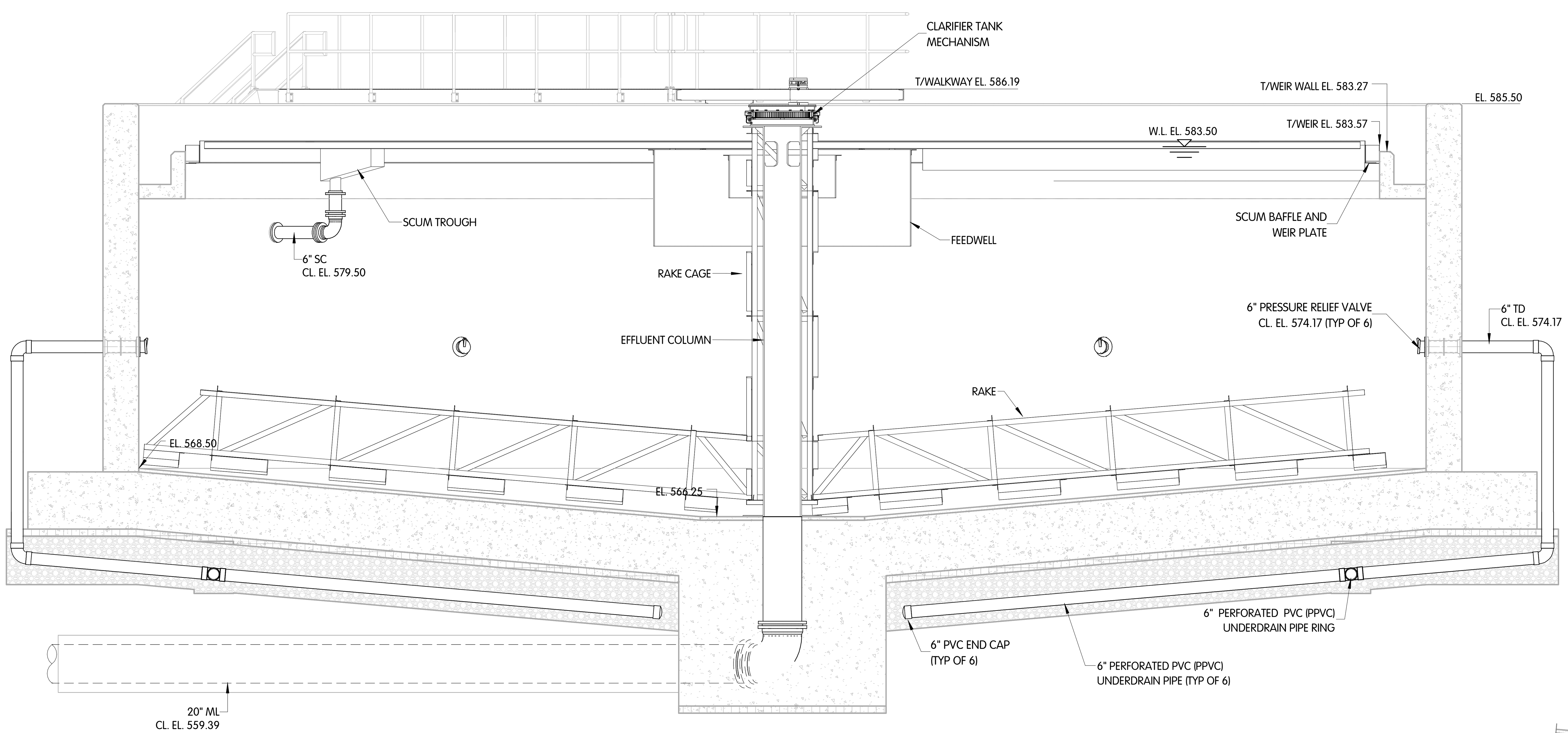
C
V-NOTCH WEIR PLATE



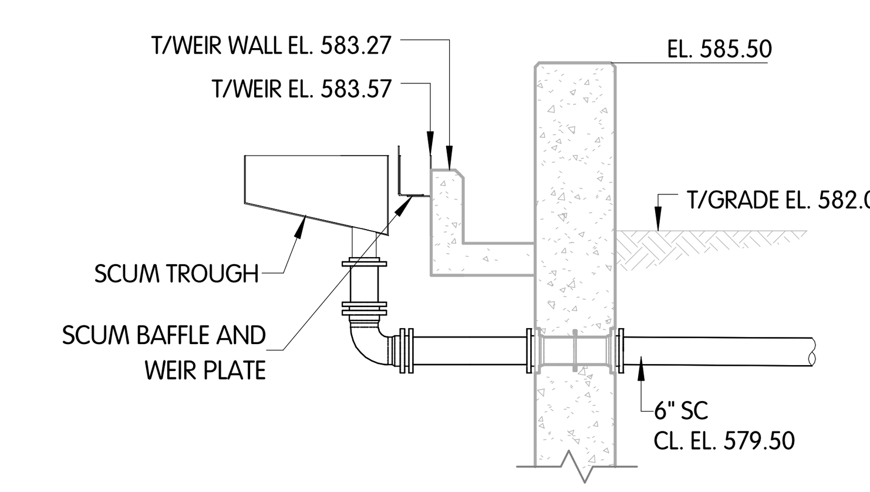
A SCUM BAFFLE & WEIR PLATE DETAIL
1 1/2" = 1'-0"



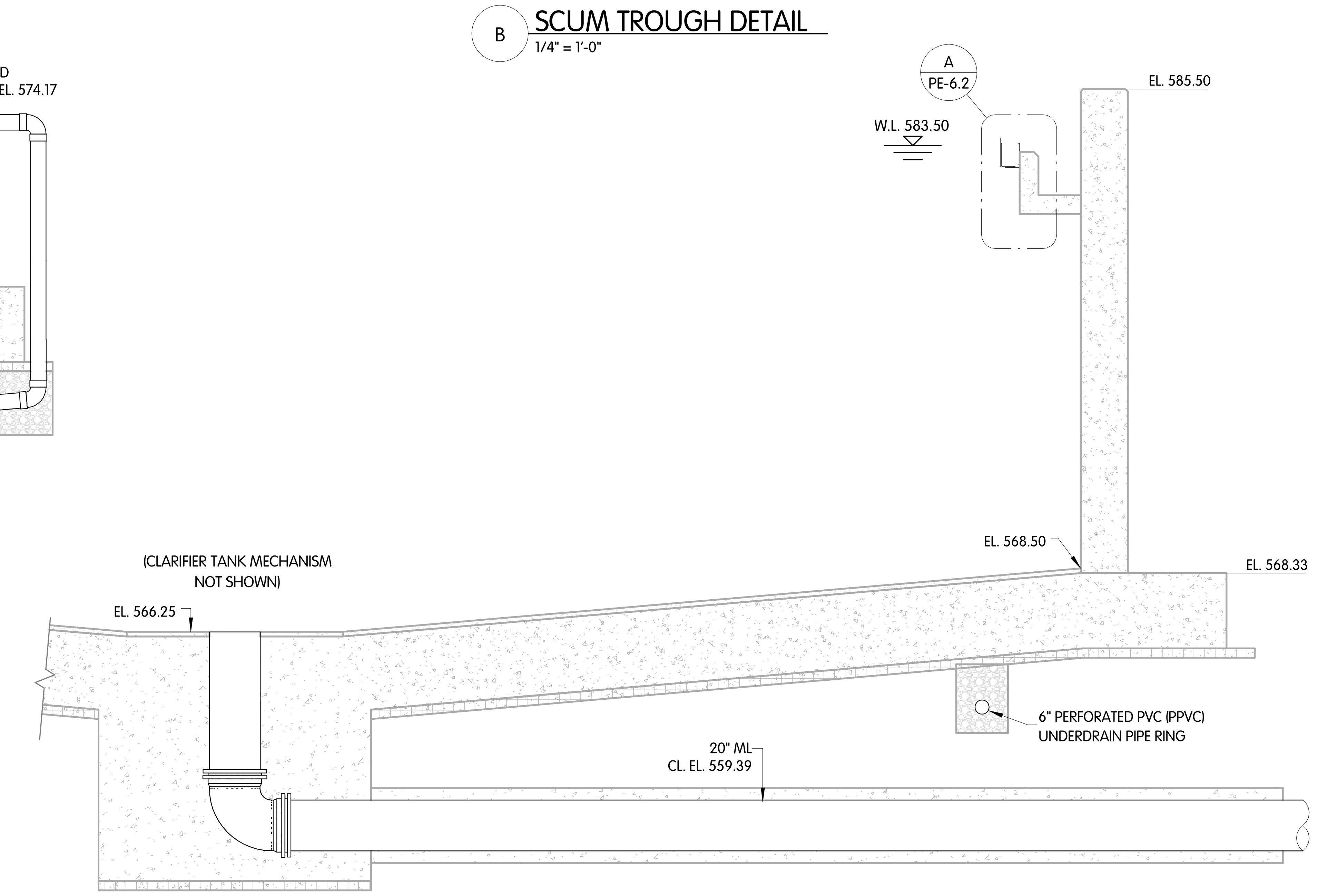
1 SECTION
1/4" = 1'-0"



2 SECTION
1/4" = 1'-0"



B SCUM TROUGH DETAIL
1/4" = 1'-0"



3 SECTION
1/4" = 1'-0"

CLARIFIER I PIPING & EQUIPMENT SECTIONS AND DETAIL

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

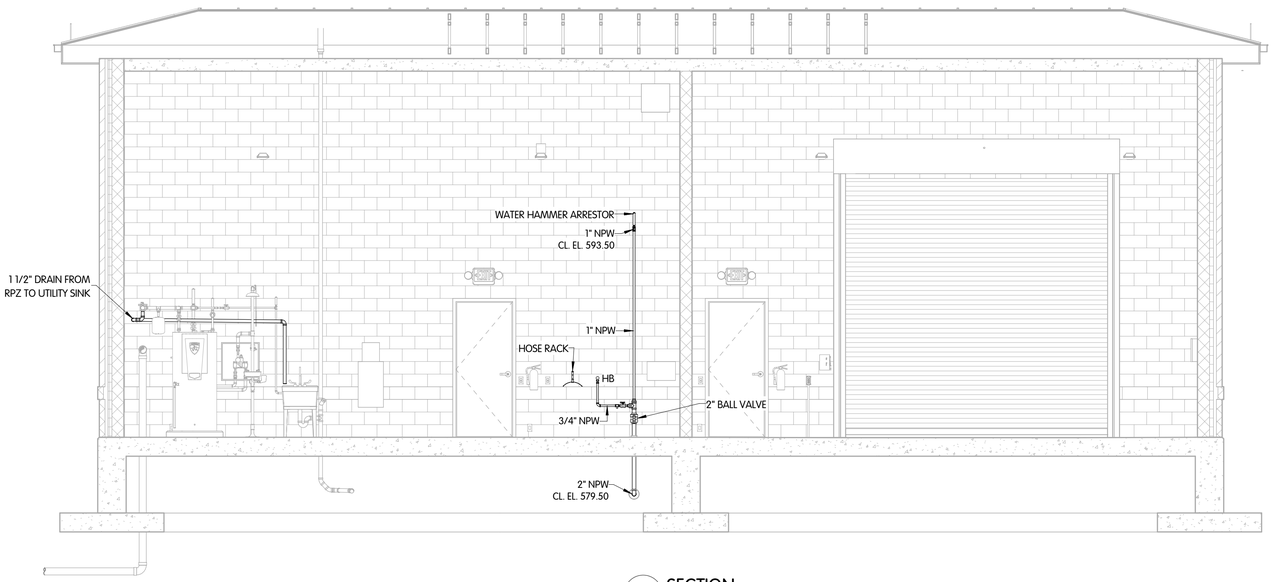
JOB NO.	904-8119.002
SCALE:	AS INDICATED

THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

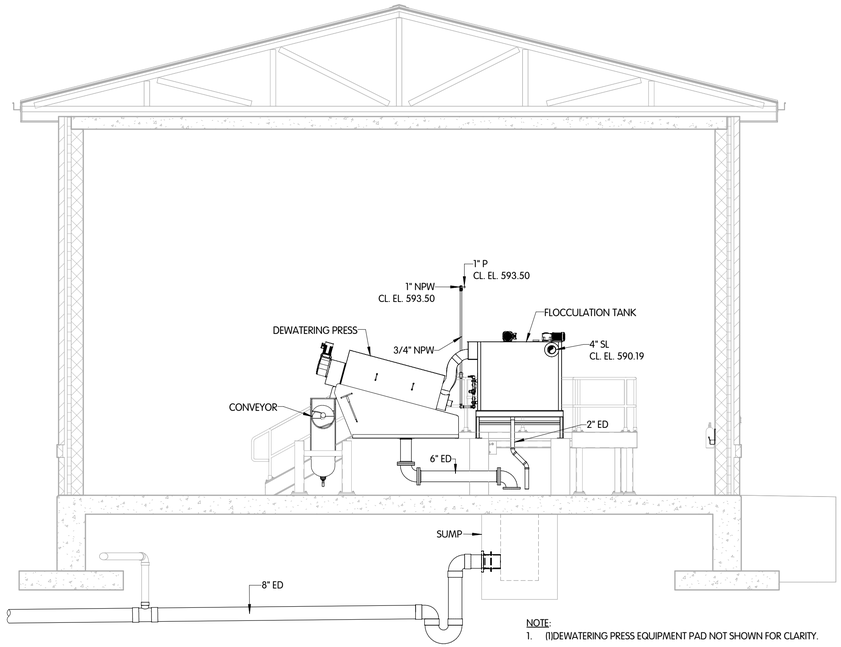
DESIGNED	DRAWN	CHECKED
JAH	RGW	PAL

STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO.
PE-6.2
178 OF 309

RSN://CLEOPHUS.JHENG.COM/OAKHARBOR 904/8119/002/02_GENERAL/8119002-RM.RVT
5/27/2026 9:45:38 AM

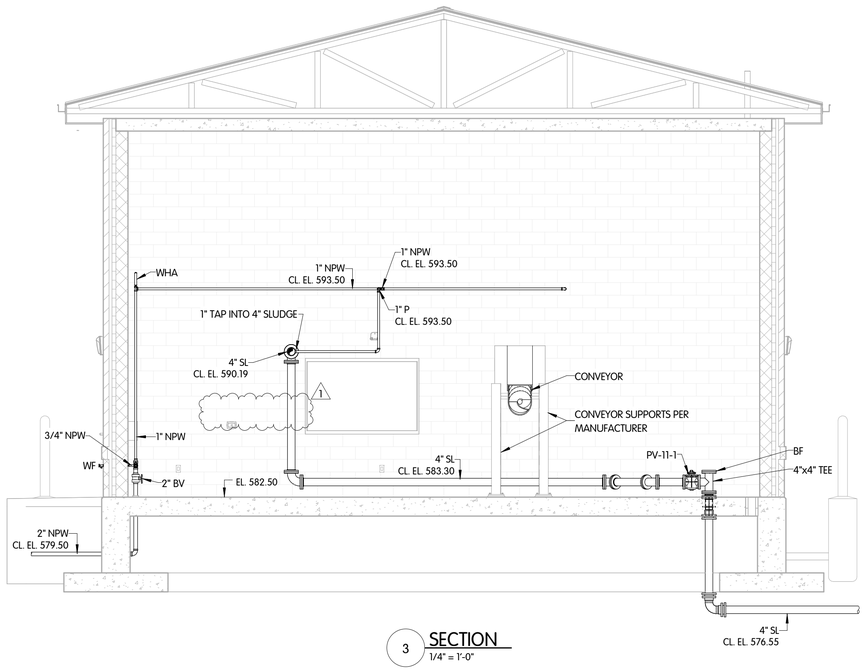


4 SECTION
1/4" = 1'-0"

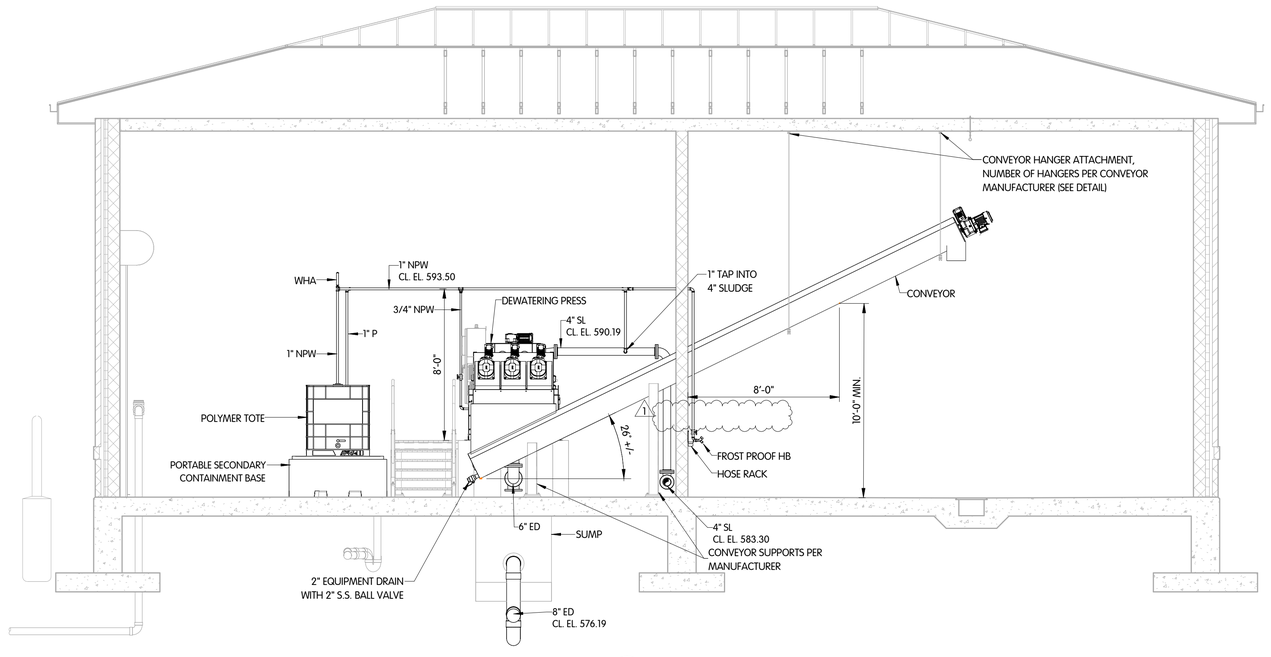


NOTE:
1. (1)DEWATERING PRESS EQUIPMENT PAD NOT SHOWN FOR CLARITY.

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



3 SECTION
1/4" = 1'-0"



2 SECTION
1/4" = 1'-0"

SLUDGE HANDLING BUILDING PIPING & EQUIPMENT SECTIONS

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

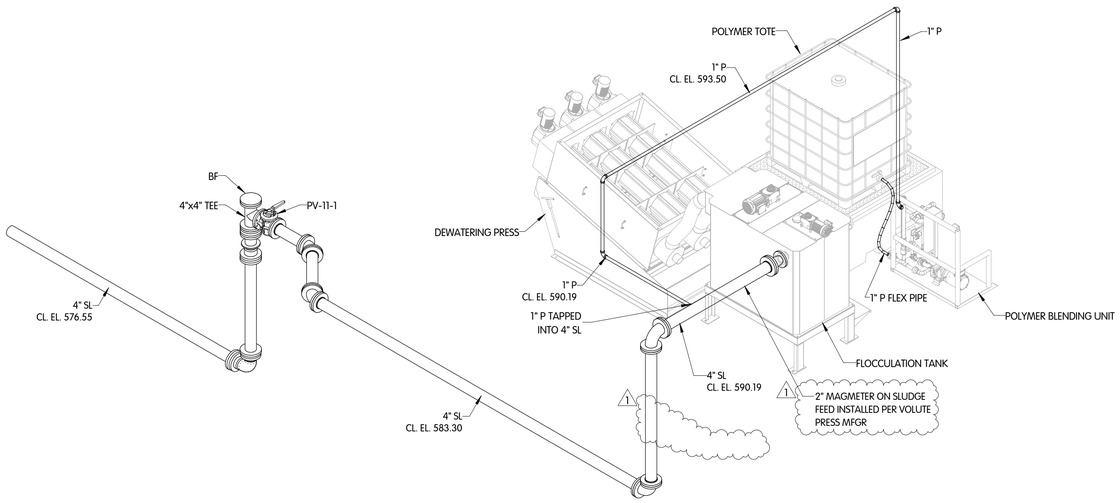
JOB NO.:	904-8119.002
SCALE:	1/4" = 1'-0"

THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

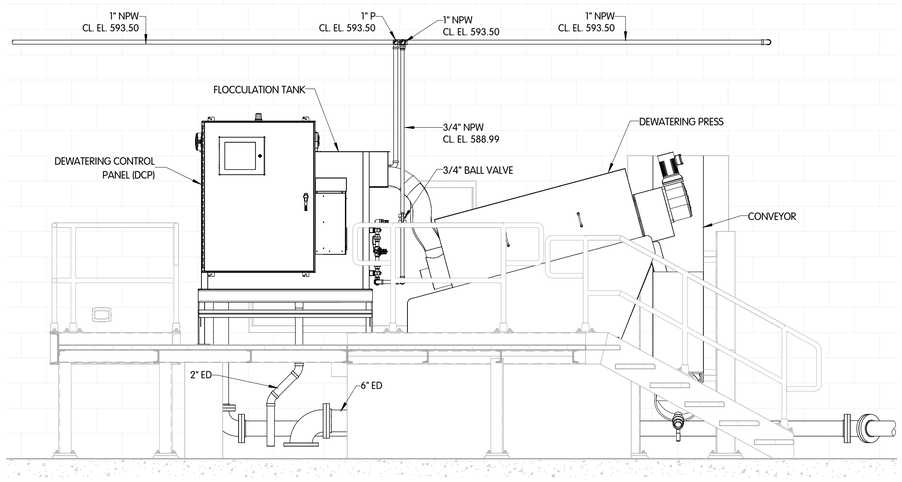
DESIGNED	DRAWN	CHECKED
JAH	RGW	PAL

STATUS: ISSUED FOR BID
DATE: APRIL 2026

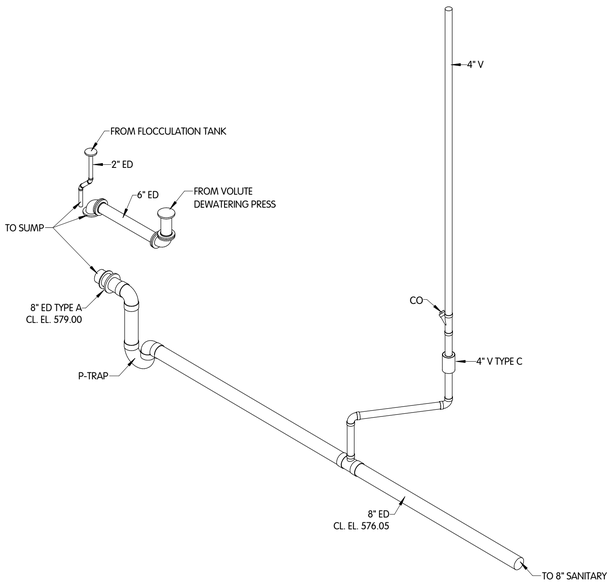
SHEET NO.
PE-11.2
189 OF 309



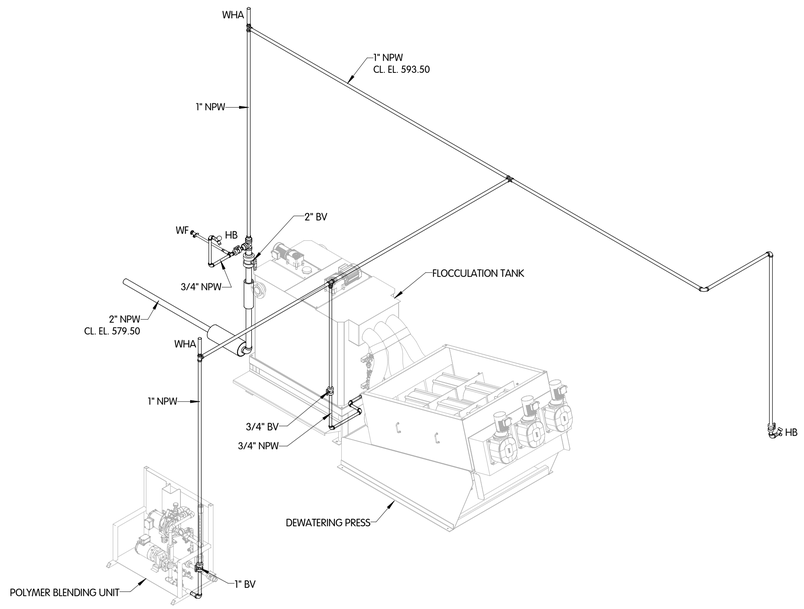
POLYMER & SLUDGE ISOMETRIC
NTS



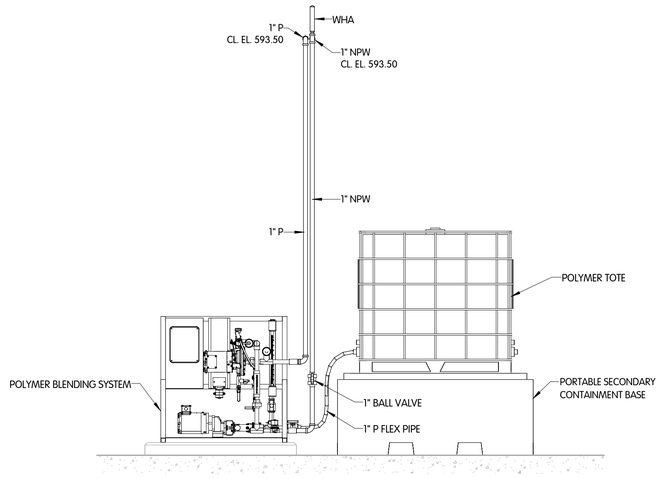
6 EQUIPMENT ELEVATION
1/2" = 1'-0"



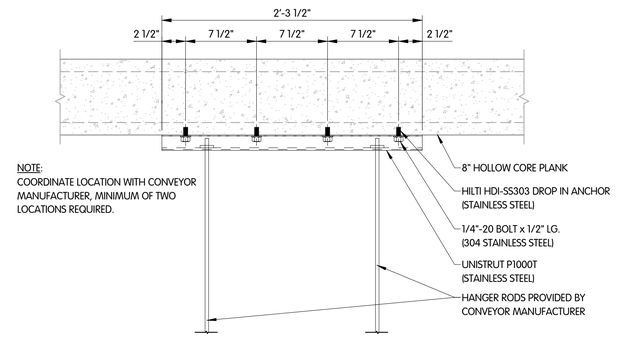
EQUIPMENT DRAIN ISOMETRIC
NTS



NON-POTABLE WATER ISOMETRIC
NTS



7 EQUIPMENT ELEVATION
1/2" = 1'-0"



NOTE:
COORDINATE LOCATION WITH CONVEYOR MANUFACTURER, MINIMUM OF TWO LOCATIONS REQUIRED.

CONVEYOR HANGER ATTACHMENT DETAIL
1 1/2" = 1'-0"

SLUDGE HANDLING BUILDING
PIPING & EQUIPMENT
EQUIPMENT ELEVATIONS, DETAIL AND ISOMETRICS

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5/27/26	ADDENDUM 3	JAH

Jones & Henry Engineers, Ltd.
Fluid thinking®.
www.JHeng.com

JOB NO.: 904-8119.002
SCALE: AS INDICATED
THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE
DESIGNED: JAH | DRAWN: RGW | CHECKED: PAL
STATUS: ISSUED FOR BID
DATE: APRIL 2026
SHEET NO.
PE-11.3
190 OF 309

C:\USERS\AELLINGHAM.JH\DOCUMENTS\REVIT 2025 LOCAL FILES\8119002-RM_AELLINGHAM.RVT
5/27/2026 10:04:02 AM

PLC

MCC-10B

FIELD

RAW/WAS WET WELL 1 LEVEL
RAW/WAS WET WELL 1 FLOOD ALARM
RAW/WAS WET WELL 1 HIGH LEVEL
RAW/WAS WET WELL 1 LOW LEVEL
RAW/WAS WET WELL 2 LEVEL
RAW/WAS WET WELL 2 FLOOD ALARM
RAW/WAS WET WELL 2 HIGH LEVEL
RAW/WAS WET WELL 2 LOW LEVEL

PRE-WIRED TO INTELLIGENT MCC-10A ETHERNET SWITCH AND TRANSMITTED TO SCADA VIA ETHERNET

RAW/WAS PUMP 1 IN SERVICE
RAW/WAS PUMP 1 MOISTURE DETECTED
RAW/WAS PUMP 1 MOTOR HIGH TEMP.
RAW/WAS PUMP 1 SPEED FEEDBACK
RAW/WAS PUMP 1 SPEED CONTROL
RAW/WAS PUMP 1 FAULT
RAW/WAS PUMP 1 START/STOP COMMAND
RAW/WAS PUMP 1 RUNNING
RAW/WAS PUMP 1 IN AUTO

480V

H-O-A HS
RUNNING JJ
KEYPAD
START HN
STOP HN
AUTO JJ
MOTOR HIGH TEMP JJ
MOISTURE DETECTED JJ
EY
VARIABLE FREQUENCY DRIVE (16421)

IN SERVICE/CONTROL CKT. SHUTDOWN

PRE-WIRED TO INTELLIGENT MCC-10A ETHERNET SWITCH AND TRANSMITTED TO SCADA VIA ETHERNET

RAW/WAS PUMP 2 IN SERVICE
RAW/WAS PUMP 2 MOISTURE DETECTED
RAW/WAS PUMP 2 MOTOR HIGH TEMP.
RAW/WAS PUMP 2 SPEED FEEDBACK
RAW/WAS PUMP 2 SPEED CONTROL
RAW/WAS PUMP 2 FAULT
RAW/WAS PUMP 2 START/STOP COMMAND
RAW/WAS PUMP 2 RUNNING
RAW/WAS PUMP 2 IN AUTO

480V

H-O-A HS
RUNNING JJ
KEYPAD
START HN
STOP HN
AUTO JJ
MOTOR HIGH TEMP JJ
MOISTURE DETECTED JJ
EY
VARIABLE FREQUENCY DRIVE (16421)

IN SERVICE/CONTROL CKT. SHUTDOWN

PRE-WIRED TO INTELLIGENT MCC-10B ETHERNET SWITCH AND TRANSMITTED TO SCADA VIA ETHERNET

RAW/WAS PUMP 3 IN SERVICE
RAW/WAS PUMP 3 MOISTURE DETECTED
RAW/WAS PUMP 3 MOTOR HIGH TEMP.
RAW/WAS PUMP 3 SPEED FEEDBACK
RAW/WAS PUMP 3 SPEED CONTROL
RAW/WAS PUMP 3 FAULT
RAW/WAS PUMP 3 START/STOP COMMAND
RAW/WAS PUMP 3 RUNNING
RAW/WAS PUMP 3 IN AUTO

480V

H-O-A HS
RUNNING JJ
KEYPAD
START HN
STOP HN
AUTO JJ
MOTOR HIGH TEMP JJ
MOISTURE DETECTED JJ
EY
VARIABLE FREQUENCY DRIVE (16421)

IN SERVICE/CONTROL CKT. SHUTDOWN

MCC-10A

MCC-10B

VALVE PV-3-3 FULL OPEN
VALVE PV-3-3 FULL CLOSE
VALVE PV-3-3 ACTUATOR FAULT
VALVE PV-3-3 IN REMOTE
VALVE PV-3-3 OPEN/CLOSE COMMAND

480VAC FROM PP-10

OPEN JJ
CLOSED JJ
LOCAL/REMOTE HS
ZC
OPEN HN
STOP HN
CLOSE HN
(15250)
VALVE ACTUATOR PV-3-3

SLUDGE HOLDING TANK LEVEL

FROM SLUDGE HOLDING TANK LEVEL SENSOR (SEE SHEET I-11)

VALVE PV-3-3 IN SERVICE

RETURN SLUDGE FLOW

WASTE ACTIVATED SLUDGE FLOW

VALVE PV-3-6 FULL OPEN
VALVE PV-3-6 FULL CLOSE
VALVE PV-3-6 ACTUATOR FAULT
VALVE PV-3-6 IN REMOTE
VALVE PV-3-6 OPEN/CLOSE COMMAND

480VAC FROM PP-10

OPEN JJ
CLOSED JJ
LOCAL/REMOTE HS
ZC
OPEN HN
STOP HN
CLOSE HN
(15250)
VALVE ACTUATOR PV-3-6

TYP. OF PV-3-4 AND PV-3-5

VALVE PV-3-6 IN SERVICE

GRIT PUMP ROOM

120 VDC MPZ-7

LIT 7-1 (16902-2.07B)
LIT 7-2 (16902-2.07B)

LE 7-1
LSHH 7-1
LSH 7-1
LSL 7-1
PI
(16902-2.07A)
24VDC 2W LOOP

WET WELL 1

LE 7-2
LSHH 7-2
LSH 7-2
LSL 7-2

WET WELL 2

VALVE VAULT

TS NS M (11050)
RAS/WAS PUMP 1
RAS/WAS PUMP 2
RAS/WAS PUMP 3

FROM CLARIFIER 1 (SEE SHEET I-8)

FROM CLARIFIER 2 (SEE SHEET I-8)

120 VAC MPZ-4

FIT 7-1 (16902-2.05)
FE 7-1
6" MAGMETER

RAS

PV-3-3

PV-3-5

PV-3-4

TO OX. DITCH INFLUENT CHANNEL (SEE SHEET I-7)

TO OXIDATION DITCH (SEE SHEET I-7)

FIT 7-2 (16902-2.08A)
FE 7-2
6" MAGMETER

WAS

PV-3-6

TO SLUDGE HOLDING

SLUDGE PUMPING INSTRUMENTATION AND CONTROL P & ID

VILLAGE OF OAK HARBOR, OHIO
WASTEWATER TREATMENT PLANT

NO.	DATE	REVISIONS AFTER ISSUED FOR BID	BY
1	5.27.26	ADDENDUM 3	JAH

Jones & Henry Engineers, Ltd.

Fluid thinking®
www.JHeng.com

JOB NO.	904-8119.002
SCALE	AS INDICATED

THIS LINE SCALES 1" WHEN PLOTTED TO NOTED SCALE

DESIGNED	DRAWN	CHECKED
EBK	RGW	EBK

STATUS: ISSUED FOR BID
DATE: APRIL 2026

SHEET NO.
I-5
299 OF 309

TOL-8119002_IG1-I-5 - SLUDGE PUMPING
5/27/2026 11:37 AM - KWORLEY
5/27/2026 11:37 AM