SECTION 009113.02 – ADDENDA.02

1.1 PROJECT INFORMATION

- A. Project Name: Spectacle Pond Water Treatment Plant PFAS Treatment Facility.
- B. Owner: Town of Ayer.
- C. Owner Project Number: 20DPW-12.
- D. Engineer: CDM Smith Michaela L. Bogosh, P.E., PMP.
- E. Date of Addendum: September 14, 2020.

1.2 NOTICE TO BIDDERS

- A. This Addendum is issued to all registered plan holders pursuant to the INSTRUCTIONS to Bidders. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.
- B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.
- C. The date for receipt of bids is unchanged by this Addendum, at same time and location.

1.3 ATTACHMENTS

- A. This addendum includes the following attachments:
 - 1. Filed Sub-bid results, 6 pages.
 - 2. Envelope Compliance Certificate, 2 pages.
 - 3. Specification Section 323300 Site Furnishings, 2 pages.

1.4 REVISIONS TO PREVIOUS ADDENDA

- A. Addendum No. 1, Item 1.7.I, (not reissued).
 - 1. Paragraph 1.7.I.1: Delete "2.2.A" and replace with "2.5.A".
 - 2. Paragraph 1.7.I.2: Delete "2.2.C" and replace with "2.5.C".

1.5 REVISIONS TO DIVISION 00 PROCUREMENT REQUIREMENTS AND CONTRACTING REQUIREMENTS (NOT USED)

1.6 REVISIONS TO DIVISION 01 GENERAL REQUIREMENTS

- A. Specification Section 013300 "Submittal Procedures", (not reissued).
 - 1. Article 1.13, Paragraph 1.13.B., delete "an unlimited number of" and replace with "seven".

1.7 REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS

- A. Specification Section 075323 "Ethylene-Propylene-Diene-Monomer (EPDM) Roofing", (not reissued).
 - 1. Paragraph 1.2.A.2: Delete in its entirety.
 - 2. Article 1.10 WARRANTY: Delete "substrate boards" from paragraphs 1.10.A.1, and 1.10.B.
 - 3. Article 2.4 SUBSTRATE BOARDS: Delete Article 2.4 in its entirety.
 - 4. Article 3.4 SUBSTRATE BOARD INSTALLATION: Delete Article 3.4 in its entirety.
- B. Specification Section 075323 "Ethylene-Propylene-Diene-Monomer (EPDM) Roofing", (not reissued).
 - 1. Article 2.6 ROOF INSULATION Paragraph 2.6.B.4.b: Replace "5-1/2 inches" with "3-1/2 inches."
- C. Specification Section 084523 "Fiberglass-Sandwich-Panel Assemblies", (not reissued).
 1. Article 2.3, Paragraph 2.3.E.1: Replace "0.060 inch" with "0.045 inch."
- D. Specification Section 263213.16 "Gaseous Emergency Engine Generators", (not reissued).
 1. Article 3.2 INSTALLATION Paragraph 3.2.G.1: Replace "231126" with "221126".
- E. Specification Section 323300 "Site Furnishings", (reissued).

1.8 REVISIONS TO DRAWING SHEETS

- A. Sheet G-3 COMCHECK ENERGY EFFICIENCY DOCUMENTATION I, (not reissued).
 - 1. Replace "Envelope Compliance Certificate" pages with the attached "Envelope Compliance Certificate" pages.
- B. Sheet C-2 TREATMENT PLANT SITE PREPARATION PLAN, (not reissued).
 1. Replace "PROPOSED SILT FENCE (TYP)" note and replace with "PROPOSED SILT SOCK (TYP)".
- C. Sheet A-16 PFAS TREATMENT BUILDING ROOF AND WALL DETAILS (not reissued).

1. Drawing A-16: Add a general note as follows:

"General Note: Substrate board where indicated is not required."

- D. Sheet A-18 PFAS TREATMENT BUILDING SCHEDULES AND PARTITION TYPES, (not reissued).
 - 1. Delete note "STL REINF, EA SIDE; SEE STRU DWGS".

1.9 QUESTIONS AND ANSWERS

A. **Question:** In addition to our last question. Is It the intent to paint new di pipe, New GAC Vessels, New Plumbing Pipe, New HVAC Duct?

Response: Refer to the painting schedule in the specifications for all items which need to be painted as part of this project.

B. **Question:** On the shingle roof does the roofing FSB own removing it down to the deck? Who owns furnishing and installing plywood sheathing before ice and water shield goes on?

Response: Section 070150.19 "Preparation for Reroofing," (work of filed sub-bid Roofing and Flashing) Paragraph 3.2.C. specifies removal of the roofing ". . . down to existing roof deck. . .". Plywood sheathing is by the General Contractor.

C. Question: In the EPDM section does the roofing sub own furnish and installing wood nailer?

Response: No.

D. **Question**: Is the sub straight board going deck in adhesive or mechanically attached?

Response: Substrate board has been eliminated. See response to question H below.

E. **Question**: Who owns furnish and installing thru wall flashing?

Response: Embedded flashing is by 040001 Masonry Work.

F. **Question**: In Section 077100, Paragraph 1.2-2 Fall Arrest Stanchions. Please consider making this work part of misc. metals or G.C. as this work is not typically performed by roofers.

Response: No change.

G. **Question**: In Section 075323, Paragraph 2.6-B &C: 7" flat stock and ¹/₄" slope tapered are called out. This will make insulation +-15" at edge. Detail 4/A16 scales to +-10", please clarify insulation start thickness and slope.

Response: See revisions to DIVISIONS 02-49 SPECIFICATIONS above.

H. **Question:** Section 075323, Paragraph 2.4 and details call for a substrate board over the concrete deck. This is not typically required at concrete decks, please advise if this can be eliminated?

Response: See revisions to DIVISIONS 02-49 SPECIFICATIONS and REVISIONS TO DRAWING SHEETS above.

I. **Question**: In Section 075523, Paragraph 3.6 & 3.7 call for insulation and coverboard to be adhered. Section 075523, Paragraph 3.8 calls for membrane to be fastened. Is adhering the membrane acceptable?

Response: Section 075523 Paragraph 2.1.C may be used to determine if cover board is required to be mechanically or adhesively fastened.

J. **Question**: In Drawing A-5 new ½" plywood roof sheathing. Please consider giving this work to the roofer. If this work remains as G.C.'s who's responsible for weathertightness after roof rip?

Response: No change. The filed sub-bidder and general contractor are each responsible for the work they install in accordance with the Division 00 and Division 01 requirements.

K. **Question**: Can you please clearly identify the location of new chain link fence and gates? Can you also provide a detail for the gates specified on page 323300-1 &323300-2?

Response: There is no new fencing included on this job aside from the temporary turtle exclusionary fencing. See Specification 323300 Site Furnishings, reissued as part of this addendum.

L. **Question**: The drawings (C-2) show "Silt Fence" the detail shows "Silt Sock" please confirm which method of erosion control is required.

Response: As referenced in Section 312500 and shown in the detail, a silt/compost sock should be provided. See "REVISIONS TO DRAWINGS" above for update.

M. **Question**: In addenda 1, does question/response U extend to the Filed sub-bidders (FSB) or just the GCs subcontractors? If it extends to the FSB, question/response L states the roofing FSB is to carry the cost for removal and disposal of their roof shingles. Please clarify that the Roofing FSB owns their dumpsters for their demo work.

Response: For the work covered by Section 070150.19 - Preparation for Reroofing, dumpsters must be carried by the file sub-bidder for this section.

N. **Question**: Due to limited space onsite, would a 10x40 trailer be acceptable for the resident engineer, in lieu of the 12x50 requested?

Response: Yes, a 10x40 trailer will be acceptable for the resident engineer.

O. **Question**: Addenda 1, paragraph 1.6 indicates provide, administer, and use engineers preferred web-based project software for the purpose of hosting and managing project communication and documentation. It also states to provide up to 7 software user licenses. Section 013300, paragraph 1.13.A.1 indicates web-based electronic system shall be submittal exchange or approved equal and that the GC is to provide unlimited licenses in paragraph 1.13.B.1. Is the web-based software indicated in addenda 1 the same software that is indicated in section 013300? And how many licenses are the contractors to supply (7 or unlimited?)

Response: Both references are to the same software and the Contractor should provide a maximum of 7 licenses to the Owner and Engineer. See "REVISIONS TO DIVISION 01 GENERAL REQUIREMENTS" above.

P. **Question**: Section 017300, paragraph 3.3B indicates to engage a land surveyor to layout the work. Is it intent that this is a registered land surveyor, or could a general contractor's foreman or superintendent provide this service?

Response: Yes, if the Contractor is in compliance with the requirements of Section 017300 and other related sections as specified.

Q. **Question**: Section 017300, paragraph 3.4C, 3.4D and 3.4E, are the requirements of these paragraphs required for this project?

Response: Yes.

R. **Question**: Section 017900, paragraph 1.10 indicates that a commercial videographer is required to record training videos. Can the general contractor's personnel be utilized to perform the video recordings for demonstration and training videos?

Response: No, the Contractor's personnel cannot be utilized unless they comply with the requirements outlined.

S. **Question**: Section 017900, paragraph 1.9 indicates that a qualified facilitator is required to prepare instruction program and training modules, to coordinate instructors, and to coordinate between contractor and owner for the number of participants, instruction times and locations. Can this facilitator be an employee of the general contractor?

Response: The Contractor's personnel can be used if they have experience in the training and facilitation requirements as outlined.

T. **Question**: Section 019113, paragraph 1.9a, regarding the commissioning coordinator. Can the general contractor's personnel perform this function, and do they need to have one of the certifications listed in paragraph 1.9A2?

Response: The qualifications listed are acceptable but not exclusive, qualifications must be submitted and can be approved or rejected by the Owner.

U. **Question**: Revision I for Specification Section 263213.16 it states to delete "231126 "and replace it with "221126". I don't see this referenced in this section.

Response: See "REVISIONS TO PREVIOUS ADDENDA" above.

V. **Question**: Hardware set 02 in section 087100 lists materials for an exterior pair of doors (includes weather-strip, rain drip cap, flush bolts, coordinator, etc.), but opening (D-100) is a single interior door. Which hardware set should be used for this?

Response: Provide door hardware as specified. The weatherstripping is to prevent moisture infiltration into the room.

W. **Question**: On Drawing S-5 "Concrete Pipe Encasement" detail notes 2 and 3 mention "a partial contraction joint" Please provide the details of the contraction joint.

Response: A partial contraction joint detail is shown on sheet S-5.

X. **Question**: Please confirm that the in-situ gravel must be removed under the entire building for a depth of 2 feet and then must be replaced with 2 feet of structural (off site) fill?

Response: The removal of 2 feet of in-situ gravel is not required under the entire foundation footprint. Refer to drawings S-1 and S-2 for requirements.

Y. Question: Please confirm that the construction joints do not need water stop or keyways.

Response: A roughened joint should be supplied as specified and shown on the contract drawings. There is not a waterstop required at the construction joints.

Z. **Question**: Please confirm that the only "weighted guardrail" on the roof is on to the extent shown on Drawing A-9 North and South Elevations and it is not required for the total perimeter of the roof.

Response: Refer to the design drawings which also show a plan view of the roof and clearly indicate the extent of the weighted guardrail.

AA. **Question**: A wall system provider manufactures systems to the design criteria and product performance requirements provided by the structural engineer and/or Architect. That wall system provider does not provide delegated design, please advise.

Response: Delegated design is required. The division of the work is by the contractor and may include providing delegated design by others than the panel manufacturer.

BB. Question: One of our manufacturers cannot meet the Flame spread required on Spec 084523 2.3H with the required Interior face sheet thickness of 0.060 Inch. – Typically, Hurricane High Impact face sheets 0.060 are used on Exterior, is it the intent to use the HHI 0.060 as an interior facesheet? HHI 0.060 Does not meet the requirements for flame spread and smoke developed per ASTM E 84, UL723, ASTM D 365. The meet this code requirement use Interior Type A 0.045 facesheet, please clarify the choice of facesheet.

Response: See revisions to "DIVISIONS 02-49 SPECIFICATIONS".

CC. **Question:** Is the Bent Plates for the structural steel beam, as shown on Drawing S-3 and Drawing S-4 detail S1, continuously placed or spaced at 1'-6" OC at the location as shown on the plans?

Response: The bent plate is not continuous. Provide bent plate as shown on S-3; 1'-6" from the column line.

DD. **Question:** Drawing A-18, Partition Types A – There is a note for stl rein. Ea side; see STRU drawings. There was no detail on the structural drawings for angles at the top of wall. Please provide a detail for these angles with spacing requirements.

Response: See "REVISIONS TO DRAWING SHEETS" above.

- EE. **Question:** Drawing E-4 references a detail M on E-13 in the location of the new transformer. Detail M on E-13 notes a utility three phase transformer pad but provides no details on a pad.
 - 1. Please confirm if this pad is cast in place or precast concrete.
 - 2. Provide detail of pad.

3. If precast, confirm if this is to be supplied and installed under the Electric Pre-file scope of work.

Response: Refer to Addendum No. 1 for updated Detail M on Drawing E-13. Drawing E-1 under Service and Metering 5.C states, "PURCHASE AND INSTALL TRANSFORMER PAD FROM UTILITY COMPANY."

FF. **Question:** Section 443117 paragraph 1.9 A states that this specification is a performance-based specification. Please confirm if the manufacturer is required to provide a performance bond or guarantee to protect the Owner as well as the General Contractor.

Response: The performance requirements are stated in 443117.

END OF DOCUMENT 009113.02

Masonry

	Bidder	Bid	Addenda	DCAM Update	Bid Security	Signature	Restricted From	Restricted To
1	l Cenedella Masonry	\$ 268,500	\checkmark	\checkmark	\checkmark	\checkmark	IFCC	
2	2 Costa Brothers Masonry	\$ 181,000	✓	\checkmark	~	~		
	3 Kenney Masonry	\$ 268,970	\checkmark	\checkmark	\checkmark	\checkmark		

	Bidder	Bid	Addenda	DCAM Update	Bid Security	Signature	Restricted From	Restricted To
1	Greenwood Industries	\$ 171,000	\checkmark	\checkmark	\checkmark	\checkmark		
2	Belcour Corporation	\$ 137,000	✓	~	~	\checkmark		
3	Capeway Roofing Systems	\$ 149,000	✓	~	~	\checkmark		
4	Rockwell Roofing	\$ 187,250	~	~	~	\checkmark	Seaver Constructors	
5	Waterline Industries	\$ 97,677	✓	~	~	\checkmark		Waterline Industries
6	Stanley Roofing Co.	\$ 154,600	\checkmark	\checkmark	~	\checkmark	Greenwood Industries	

Roofing and Flashing

Painting

	Bidder	Bid	Addenda	DCAM Update	Bid Security	Signature	Restricted From	Restricted To
1	Dandis Contracting	\$ 72,900	\checkmark	\checkmark	\checkmark	\checkmark		
2	John W. Egan Co., Inc.	\$ 67,685	✓	~	~	~		
3	Soep Painting	\$ 129,000	✓	~	~	~		
4	Keltic Painting	\$ 114,030	\checkmark	\checkmark	~	~		

Plumbing

	Bidder	Bid	Addenda	DCAM Update	Bid Security	Signature	Restricted From	Restricted To
	Robert W. Irvine & Sons	\$ 242,000	✓	\checkmark	\checkmark	\checkmark		
2	2 Waterline Industries	\$ 91,177	✓	\checkmark	~	\checkmark		Waterline Industries
;	Araujo Brothers Plumbing & Heating	\$ 275,000	✓	\checkmark	\checkmark	\checkmark	Waterline Industries	

HVAC

	Bidder	Bid	Addenda	DCAM Update	Bid Security	Signature	Restricted From	Restricted To
1	Cam HVAC & Construction Inc.	\$ 222,000	\checkmark	\checkmark	\checkmark	\checkmark		
2	Waterline Industries	\$ 117,677	~	~	~	✓		Waterline Industries
3	Thomas E. Snowden Inc.	\$ 211,000	~	~	~	✓		
4	Winston Builders	\$ 275,000	\checkmark	~	~	✓		Winston Builders

Electrical

	Bidder	Bid	Addenda	DCAM Update	Bid Security	Signature	Restricted From	Restricted To
1	Watermark Electric Co. Inc.	\$ 696,000	~	~	\checkmark	~		
2	Elm Electrical, Inc.	\$ 783,315	~	~	\checkmark	✓		
3	Energy Electric Co., Inc.	\$ 1,050,000	~	~	√	✓		
4	Wayne J. Griffin Electric, Inc.	\$ 809,000	~	~	√	✓		
5	Waterline Industries	\$ 637,677	~	~	\checkmark	✓		Waterline Industries
6	Amp Electrical Inc.	\$ 619,800	~	~	\checkmark	✓	Waterline Industries	
7	LaFleur Electric	\$ 665,525	~	~	√	✓		
8	Fall River Electric Associates	\$ 576,928	~	~	\checkmark	~	Waterline Industries	

COM*check* Software Version 4.1.3.0 Envelope Compliance Certificate

Project Information

Energy Code:	780 CMR Massachusetts State Building Code, 9th Edition, Energy Efficiency					
Project Title:						
Location:	Ayer, Massachusetts					
Climate Zone:	5a					
Project Type:	New Construction					
Vertical Glazing / Wall Area:	13%					

Construction Site:

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations. Enhanced Interior Lighting Controls

Building Area	Floor Area
1-Manufacturing Facility : Nonresidential	2232

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor _(a)
Roof 1: Insulation Entirely Above Deck, [Bldg. Use 1 - Manufacturing Facility]	2232		24.8	0.039	0.032
Floor 1: Slab-On-Grade:Heated, Vertical 4 ft., [Bldg. Use 1 - Manufacturing Facility] (d)	191		10.0	0.780	0.620
NORTH					
Exterior Wall 1: Other Mass Wall, Heat capacity 14.3, [Bldg. Use 1 - Manufacturing Facility] (b)	661			0.044	0.090
Window 3: Metal Frame with Thermal Break:Fixed, Perf. Specs.: Product ID Kalwall, SHGC 0.09, [Bldg. Use 1 - Manufacturing Facility] (c)	447			0.150	0.380
Exterior Wall 5: Other Exterior Wall, Heat capacity 1.0, [Bldg. Use 1 - Manufacturing Facility] (b)	641			0.021	0.064
Window 2: Metal Frame with Thermal Break:Fixed, Perf. Specs.: Product ID Kalwall, SHGC 0.09, [Bldg. Use 1 - Manufacturing Facility] (c)	336			0.150	0.380
EAST					
Exterior Wall 2: Other Mass Wall, Heat capacity 14.3, [Bldg. Use 1 - Manufacturing Facility] (b)	864			0.044	0.090
Door 3: Insulated Metal, Swinging, [Bldg. Use 1 - Manufacturing Facility]	26			0.600	0.370
Exterior Wall 6: Other Exterior Wall, Heat capacity 1.0, [Bldg. Use 1 - Manufacturing Facility] (b)	837			0.021	0.064
SOUTH					
Exterior Wall 3: Other Mass Wall, Heat capacity 14.3, [Bldg. Use 1 - Manufacturing Facility] (b)	661			0.044	0.090
Door 4: Insulated Metal, Swinging, [Bldg. Use 1 - Manufacturing Facility]	26			0.600	0.370

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor _(a)
Exterior Wall 7: Other Exterior Wall, Heat capacity 1.0, [Bldg. Use 1 - Manufacturing Facility] (b)	641			0.021	0.064
<u>WEST</u> Exterior Wall 4: Other Mass Wall, Heat capacity 14.3, [Bldg. Use 1 - Manufacturing Facility] (b)	864			0.044	0.090
Door 5: Insulated Metal, Swinging, [Bldg. Use 1 - Manufacturing Facility]	26			0.600	0.370
Door 6: Insulated Metal, Garage door 14% glazing, [Bldg. Use 1 - Manufacturing Facility]	120			0.600	0.310
Exterior Wall 8: Other Exterior Wall, Heat capacity 1.0, [Bldg. Use 1 - Manufacturing Facility] (b)	837			0.021	0.064

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

(b) 'Other' components require supporting documentation for proposed U-factors.

(c) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

(d) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 32% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 780 CMR Massachusetts State Building Code, 9th Edition, Energy Efficiency requirements in COM*check* Version 4.1.3.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

Date

SECTION 323300 - SITE FURNISHINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Fixed Bollards
- B. Removable Bollards
- C. Related Requirements:
 - 1. Section 033000 "Cast-in-Place Concrete" for installing bollards.
 - 2. Section 312000 "Earthwork" for excavation for installing bollards.

1.3 ACTION SUBMITTALS (NOT USED)

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Steel Plate and Pipe: ASTM A36/A36M.
- B. Steel pipe: Schedule 40 with 36000 psf minimum yield point.
- C. Reflective Bands: Commercial grade pressure sensitive reflective sheeting tape 12-inch width with alternating bands of black and white as recommended in the "Manual on Uniform Traffic Control Devices".
- D. Concrete: Air-entrained 3500 psi compression strength in accordance with ASTM Standards.
- E. Fabricate all exposed nuts including the turn buckle assembly for vandal resistance by peening the ends of the bolt or punch pricking. All peened or pricked bolt ends shall be touched up with zinc-rich cold galvanized paint.

2.2 STANDARD BOLLARDS

A. Bollard Construction:

- 1. <u>Pipe OD: Not less than 6 inches.</u>
 - a. <u>Steel: Schedule 40 pipe.</u>
- 2. <u>Style: As indicated on Drawings.</u>
- 3. Overall Height: As indicated on Drawings
- 4. <u>Installation Method: Cast in concrete</u>
- B. <u>Steel Finish: Color coated.</u>
 - 1. <u>Color: OSHA Safety Yellow.</u>

2.3 <u>REMOVABLE BOLLARDS</u>

- A. <u>Bollard Construction:</u>
 - 1. <u>Pipe OD: Not less than 5.5 inches.</u>
 - a. <u>Steel: Schedule 40 pipe.</u>
 - 2. <u>Style: As indicated on Drawings.</u>
 - 3. Overall Height: As indicated on Drawings
 - 4. <u>Installation Method: Cast in concrete</u>
- B. <u>Steel Finish: Color coated.</u>
 - 1. <u>Color: OSHA Safety Yellow.</u>

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Restore area excavated and backfilled and/or disturbed by construction to its original condition.
- B. It is essential that all posts be installed perfectly plumb within the concrete footings. The Drawings reflect perfectly level site conditions in order that the operation of the gates may be shown.
- C. Install bollards in accordance with manufacturer specifications.

END OF SECTION 323300