MAINE DEPARTMENT OF

INLAND FISHERIES AND WILDLIFE

ADDENDUM NO. 1

25-JUN-24

TO THE SPECIFICATIONS, PROPOSAL, CONTRACT AND BOND

FOR THE CONSTRUCTION OF

IMPROVEMENTS AT GRAND LAKE STREAM STATE FISH HATCHERY
GRAND LAKE STREAM, MAINE

WASHINGTON COUNTY

BGS PROJECT NO.: 3289-14

BID DATE: 03 MAY 2024

SUBJECT:	**ADDENDUM NO. 1**
PROJECT:	Improvements at Grand Lake Stream State Fish Hatchery
TO:	Richard Parker - DIFW
FROM:	Andrew Gurski – HDR

This Addendum is issued to known individuals, firms or corporations holding Bidding Documents and Contract Documents for above listed project.

The pre-bid conference was held on **Thursday, June 20, 2024**. The sign-in list is attached below.

This Addendum is hereby made a portion of Bidding Documents and Contract Documents.

PART 1 - QUESTIONS AND ANSWERS

1. **QUESTION:** The notice to contractors calls for a walk through on 20 June 2024 at 11:30 am on site at the Grand Lake Stream Fish Hatchery located at 14 Hatchery Lane in Grand Lake Stream, ME. The BGS website calls for a conference at 11:00am. We are planning to be onsite for the walk through. Can you please confirm the time of the Prebid to be 11:30?
   ANSWER: DIFW will be on-site and both times will be honored.
   SOURCE: *Jason Jendrasko jjendrasko@benchmarkconstruction.org Tue 6/18/2024 07:12*

2. **QUESTION:** I am inquiring to request that Tank Connection be listed as an acceptable supplier.
   ANSWER: Tank Connection will be added to dome covers. More information is needed before a decision can be made whether or not to add Tank Connection to flat panel covers.
   SOURCE: *George Mead gmead@tankconnection.com Tue 6/18/2024 07:22*

PART 2 - SPECIFICATION UPDATES

3. **DIVISION 08 - OPENINGS**
   a. **SECTION 08 51 13 – ALUMINUM WINDOWS**
      i. **ADD:** Section to Project Manual

4. **DIVISION 09 – FINISHES**
   a. **SECTION 09 29 00 – GYPSUM BOARD**
      i. **REMOVE SECTION**

5. **DIVISION 13 – SPECIAL CONSTRUCTION**
   b. **SECTION 13 34 19 – METAL BUILDING SYSTEMS**
      i. **UPDATE:** The roof insulation shall be either 3.25” (R-10) batt insulation with vapor retarder and metal liner panel as per 13 34 19 Subsection 2.9.C Metal Liner Roof Insulation Support System, or 2” Rigid insulation per 13 34 19 Subsection 2.9.D Rigid Polystyrene Board Insulation.

6. **DIVISION 46 – WATER AND WASTEWATER EQUIPMENT**
   a. **SECTION 46 13 01 – ALUMINUM COVERS – DOME TYPE**
      i. **ADD: Part 2.1, A.:** "3. Tank Connection."
   b. **SECTION 46 13 15 - ALUMINUM COVERS - FORMED PANEL TYPE**
      i. **REPLACE:** Part 1.1, A.1.: Change "formed panel" To "formed or extruded panel."
      ii. **ADD:** PART 2.3, D., "Sampling hatches shall have OSHA compliant railing with gate all fabricated of aluminum with stainless steel fasteners. Gated railing does not necessarily have to be supplied by the cover manufacturer; but must be coordinated with and supported by the cover manufacturer and the coordination is the responsibility of the Contractor."

PART 3 - DRAWING UPDATES

7. **SHEET 04S-106**
   a. **REPLACE:** SECTION A: Move upper right railing note leader TO concrete tank perimeter railing and Change "XX/XXXX" To "04/00S-103."

END OF ADDENDUM 1

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

Maine IF+W Grand Lake Stream State Fish Hatchery Pre-Bid Sign in Project 3289-14

COMPANY NAME	CONTRACTOR NAME	PHONE NUMBER	EMAIL ADDRESS
Benchmark construction	Zack Burrell	207-591-7600	krice@benchmarkconstruction.org
HDR	Andrew Gurski	217.553.4250	andrew.gurski@hdrinc.com
HDR	Troy Talsma	~~217-41~~ 217-331-5864	troy.talsma@hdrinc.com
MDIFW	RICHARD PARKER TODD JOSH		

SECTION 08 51 13
ALUMINUM WINDOWS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Aluminum windows.

B. Related Sections include but are not necessarily limited to:
   1. Section 07 92 00 - Joint Sealants.
   2. Section 08 81 00 - Glass and Glazing.
   3. Section 09 96 00 - High Performance Industrial Coatings.

1.2 QUALITY ASSURANCE

A. Referenced Standards:
   1. American Architectural Manufacturers Association (AAMA):
      a. 904, Voluntary Specification for Multi-Bar Hinges in Window Applications
      b. 1503, Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections.
      c. 2605, Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
   2. ASTM International (ASTM):
      a. A924, Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
      b. C1363, Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus.
      c. E283, Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
      d. E330, Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference.
      e. E331, Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
   3. American Welding Society (AWS):
      a. D1.2, Structural Welding Code - Aluminum.

1.3 DEFINITIONS

A. Installer or Applicator:
   1. Installer or applicator is the person actually installing or applying the product in the field at the Project site.
   2. Installer and applicator are synonymous.

1.4 SUBMITTALS

A. Shop Drawings:
   1. Product technical data for framing system and major accessories including:
      a. Acknowledgement that products submitted meet requirements of standards referenced.
      b. Hardware being provided by window manufacturer.
      c. Glass being provided by window manufacturer in factory glazed units.
      d. Manufacturer's installation instructions.
   2. Elevation drawings indicating window dimensions and details.

B. Samples:

1. After initial color selection, provide 2 x 3 inches minimum sample of each color and finish selected.

C. Informational Submittals:
1. Qualifications of testing laboratory.
2. Test results.
3. Warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store units in vertical position off ground with wood spacers between each unit.

1.6 WARRANTY

A. Five year warranty of weathertightness of installation.
1. Air and water integrity and structural adequacy of units and hardware, including sealants and sealing within and around perimeter of installation.
2. Signed jointly by fabricator, installer, and contractor.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
1. Thermally broken windows:
a. Wausau Metals Corp., 2250-T Series.
b. Kawneer Company Inc., 8225-T Series.
c. EFCO Windows, Series [510] [520] [530] [540].

2.2 MATERIALS

A. Extruded Aluminum: 6063T5 alloy.

B. Sealants: As specified in Section 07 92 00.

C. Thermal Insulator: Poured in place polyurethane, self-adhering to adjacent aluminum surfaces.

D. Weatherstripping: Sponge neoprene.

2.3 ACCESSORIES

A. Screens:
1. 18 x 16 mesh aluminum wire screens.
2. Secure to aluminum shapes with vinyl spline.
3. Hold in place with spring loaded plungers.
4. Removable to inside of building.
5. Finish same as window frames.

B. Flashing:
1. Minimum 0.040 inches aluminum.
2. Finish to match window frames.
3. Mill finish if concealed.

2.4 FABRICATION

A. General:
1. Fully degrease and clean members prior to assembly or application of protective coatings.
2. Weld by methods recommended by manufacturer and AWS D1.2 to avoid discoloration at welds.
3. Grind exposed welds smooth and restore finish.
4. Ease corners of cut edges to a radius of approximately 1/64 inches.

5. Conceal fasteners wherever possible.
6. Fit and assemble work at shop to maximum extent possible.
7. Maintain true continuity of line and accurate relation of planes and angles.
8. Provide secure attachment and support at mechanical joint, with hairline fit of contacting members.
9. Reinforce work as necessary to withstand wind loadings and to support system.
10. Separate dissimilar metal with paint or preformed separators to prevent corrosion.
    a. See Section 09 96 00.
11. Separate metal surfaces at moving joints with plastic inserts or other nonabrasive concealed inserts to permanently prevent freeze-up of joint.
12. Reinforce frames for hardware.
13. Structural steel reinforcement hot-dip galvanized after fabrication meeting G-90, ASTM A924, requirements.

B. Construct Window Frames (Casement, Fixed and Projected):
1. Cope and mechanically fasten together at corners or mitre at corners and heliarc weld on nonexposed surfaces, leaving only hairline joinery.
2. Seal weathertight.
3. Do not use joinery methods which discolor finish.

C. Thermal Insulator: Provide minimum 1/4 inches separation between exterior and interior metal surfaces after bridge is removed.

D. Weatherstripping:
1. Thermally broken type windows:
    a. Casement and projected:
        1) Provide two rows of fin type extruded neoprene weatherstrips extending around perimeter of sash at both inner and outer overlap contacts.
        2) Provide corners which are securely staked and joined.
        3) Provide units which are easily replaceable.

E. Window Hardware:
1. General:
    a. Locking device and strikes: White bronze and/or non-magnetic stainless steel.
    b. All hardware elements that bridge sash or frame thermal barrier: Reinforced nylon, deirin or suitable non-metallic, low conductivity material.
    c. Custodial key operation: Secure sash in closed position and automatically lock in washing position.
    d. Safety keys removable only in closed position.
2. Glass: See Section 08 81 00 for types of glass to be installed under this Section.

F. Fasteners:
1. Finish exposed fasteners to match finish of system.
2. Provide Phillips flat head screws where exposed.

G. Finish: AAMA 2605 Fluoropolymer paint; color to be [_____] [AA-MA10C22A31+, clear anodized] [AA-MA10C22A42, anodized].
1. Color: [Dark bronze] [Medium bronze] [Light bronze] [Black].

2.5 SOURCE QUALITY CONTROL

A. General Test Requirements:
1. Utilize independent testing laboratories specifically qualified to conduct all performance tests required.
2. Performance tests may be conducted in manufacturer's laboratories provided they are witnessed and certified by qualified independent testing laboratory personnel.
3. Perform all tests on "Test Unit":

a. Full-sized window unit for project or a minimum 5 x 8 feet unit mounted in test chamber in exact accordance with job conditions including anchorage system, sealing, etc.
b. Test unit to be completely assembled and glazed.
1) Thermal tests may be conducted on 4 x 6 feet unit.

4. Test air infiltration first, water resistance second.
a. Other tests may be in any order.

5. Test data on vertical pivot windows will be accepted for fixed windows for condensation resistance, thermal, temperature exposure and acoustical tests provided the fixed windows are the same as the vertical windows tested in the following respects:
a. Same frame section (or same family of extrusions).
b. Same basic metal mass inside and outside.
c. Identical thermal break.
d. Same type of glazing.

B. Test Requirements:
1. Air infiltration test:
a. With sash and ventilators closed and locked, test in accordance with ASTM E283.
b. Air infiltration, in CFM/FT of crack length, at pressure differential of 6.24 psf as follows:
1) Fixed windows: 0.06 maximum, all others 0.10 maximum.

2. Water resistance test:
a. Mount glazed unit in its vertical position, continuously supported around outside perimeter with sash and ventilators closed and locked.
b. Test in accordance with ASTM E331.
c. No uncontrolled leakage allowed, with pressure differential of 6.24 psf.

3. Uniform load deflection test:
a. Test in accordance with ASTM E330.
b. Subject unit to load of 25 psf applied to outside of window and 25 psf applied to inside of window.
c. Maximum allowable deflection of any unsupported span: L/175.
d. No glass breakage, permanent damage to fasteners, hardware parts, support arms or activating mechanisms, or any other damage which would cause window to be inoperable will be allowed.

4. Uniform load structural test:
a. Test in accord with ASTM E330.
b. Subject unit to loads indicated below.
c. Stabilize pressure and maintain it for minimum period of 10 seconds.
d. No glass breakage, permanent damage to fasteners, hardware parts, support arms or activating mechanisms or any other damage which would cause window to be inoperable will be allowed.
e. Maximum permanent deformation of any main frame, sash or ventilator member: 0.4% of its span.
f. After performing Uniform Load Structural Test, increase loads 1-1/2 times and perform safety test.
g. Design unit to withstand following design pressures acting normal to plane of wall, at applicable heights and locations.
1) At height of 30 feet or less: [_____] PSF acting inward [_____] PSF acting outward.

5. Condensation resistance test:
a. Perform on "test unit," except size may be 3 x 4 feet, minimum.
b. Test in accordance with AAMA 1503.
c. CRF (Condensation Resistance Factor): 50, minimum.

6. Thermal test:
a. Perform on "test unit" except size may be 4 x 6 feet, minimum.

b. Test in guarded hot box ASTM C1363, with an exterior temperature of 18 degrees F, an interior of 68 degrees F and 15 mph fan-generated wind velocity on exterior.
c. "U" value: not to exceed 0.65 btu/HR/SQFT/DEGF.
d. Calculated "U" values from smaller units or data or theoretical assumptions will not be acceptable.

7. Temperature exposure test:
   a. Perform on "test unit" except size may be 4 x 6 feet, minimum.
   b. Maintain interior chamber temperature at 70 degrees F.
   c. Reduce exterior ambient temperature to minus 15 degrees F.
   d. Interior rail of frame and ventilator must maintain a temperature of not less than +[_____] DEGF as indicated by thermocouple temperature sensing.
8. Structural thermal barrier tension test:
   a. Test urethane filled sections of aluminum.
   b. Mechanically secure interior and exterior faces of 12 inches section in horizontal position.
   c. Apply heat tape to exterior face to control surface temperature at 180 degrees F 5 minutes before loading, as indicated by a thermocouple wire operated by an automatic controller.
   d. Apply direct tension (pull) using a Universal testing machine set in 12,000 pound load range.
   e. Test results: No loss of bond at 4000 pound IN/IN/MIN.
9. Structural thermal barrier shear test:
   a. Test urethane filled sections of aluminum.
   b. Mechanically secure interior face of 12 inches section in vertical position.
   c. Apply heat tape to exterior face to control surface temperature at 180 degrees F 5 minutes before loading, as indicated by a thermocouple wire operated by an automatic controller.
   d. Apply load to exterior face by a bearing plate resting on top of exterior face, using Universal Testing machine set in 12,000 pound load range at a strain rate of 0.050 inches/IN/MIN.
   e. Test results: No loss of bond at 5500 pound loading.
10. Structural thermal barrier combined torsion and shear test:
    a. Test urethane filled sections of aluminum.
    b. Secure interior face of 12 inches section in horizontal position.
    c. Apply heat tape to exterior face to control surface temperature at 180 degrees F 5 minutes before loading, as indicated by a thermocouple wire operated by an automatic controller.
    d. Apply load to bearing plate centered on portion of glazing pocket to exterior side of thermal barrier, using a Universal Testing machine set in the 12,000 pound load range.
    e. Test results: No loss of bond at 3900 pound load applied at strain rate of 0.05 inches/IN/MIN.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Set units plumb, level, and true to line.

C. Anchor securely in place.

D. Separate metal surfaces from sources of corrosion or electrolytic action.
   1. See Section 09 96 00.

E. Set sill and base members in a bed of sealant.

F. Provide joint fillers or gaskets for weathertight construction.

G. Seal all joints within and at perimeter of system.

H. Provide sealant color to match finish of system at exposed locations.

I. Provide sealants compatible with aluminum system and recommended for use with this type of installation.

J. See Section 07 92 00 for sealants.

3.2 FIELD QUALITY CONTROL

A. Installation supervised or inspected by manufacturer's authorized representative.

END OF SECTION