



117 Jefferson St N | Huntsville, Alabama 35801
Tel 256.539.3431 | GMCNETWORK.COM

TRANSMITTAL COVER SHEET

DATE: 07 July, 2025

TO: ALL PLAN HOLDERS OF RECORD

FROM: JAY PURKEY, AIA, PROJECT MANAGER

PROJECT: A12 OXCART EXHIBIT
GMC PROJECT NO. AHUN250002

RE: ADDENDUM NO. 1 AND
ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM NO. 1

ACKNOWLEDGEMENT OF RECEIPT:

PLEASE PRINT RECIPIENT'S NAME, FIRM, AND DATE RECEIVED.

THEN E-MAIL BACK TO daniel.mejia@gmcnetwork.com FOR OUR RECORDS AND
TO ACKNOWLEDGE YOUR RECEIPT OF THIS ADDENDUM.

NAME (PLEASE PRINT)

FIRM (PLEASE PRINT)

DATE RECEIVED (PLEASE PRINT)

If there are any problems with this transmittal, please contact sender, at the number listed above.

ADDENDUM NUMBER 01

July 07, 2024

PROJECT: A12 OXCART EXHIBIT
GM&C PROJECT NO. AHUN250002

AD1-1 GENERAL:

- A. The following revisions and/or additions to the Drawings and Project Manual are hereby made a part of same, and shall be incorporated in the Work of the Contract the same as if originally included in the Bid and Construction Documents.
- B. Bidders shall acknowledge receipt of this Addendum in writing, as provided on the Proposal Form.
- C. When a revision and/or addition is called for to the Drawings or Project Manual, they shall be fully coordinated with and carried through all applicable Drawings and portions of the Project Manual, including in part, all related Civil, Landscaping, Architectural, Structural, Plumbing, Mechanical, Electrical, and other Documents.

AD1-2 PROJECT MANUAL AND SPECIFICATIONS:

- A. **00 0500 – Advertisement for Prequalification and Bids**
 - a. Revised time for Pre-Bid Conference
 - b. Pre-Bid Conference is no longer mandatory
- B. **01 0150 – Special Conditions**
 - a. Revised 1.1.A
 - i. Completion of the Work shall be within 65 days from Notice to Proceed
- C. **01 0160 – Permit Fee Worksheet**
 - a. Worksheet added to Project Manual
- D. **01 4000 – Quality Requirements**
 - a. Removed irrelevant paragraphs
- E. **01 4216 – Definitions**
 - a. Replaced with Section 01 4223 – Reference Standards and Definitions
- F. **01 4219 – Reference Standards**
 - a. Replaced with Section 01 4223 – Reference Standards and Definitions
- G. **01 4223 – Reference Standards and Definitions**
 - a. Added this Section for Manual conciseness
- H. **01 4533 – Code-Required Special Inspections**
 - a. Removed irrelevant paragraphs
- I. **13 4613 – Lightning Protection for Structures**
 - a. Air terminal to be made of aluminum

AD1-3 DRAWINGS:

- A. **A1.01 - Plans**
 - a. Modified notes 3 & 4

AD1-4 MISCELLANEOUS:

A. N/A

AD1-5 ATTACHMENTS:

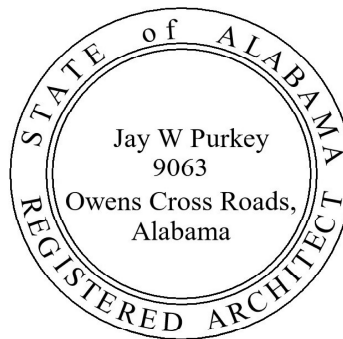
- A. All Specifications Listed Above
- B. RFI Log
- C. Drawing A1.01

END OF ADDENDUM NUMBER 01

PREPARED BY

GMC

117 Jefferson St N | Huntsville, Alabama 35801
Tel 256.539.3431 | GMCNETWORK.COM
Goodwyn Mills Cawood, LLC.



A handwritten signature in blue ink, appearing to read "JPurkey", located below the professional seal.

ADVERTISEMENT FOR BIDS

SEALED PROPOSALS will be received only from previously **PRE-QUALIFIED General Contractors** by (Owner) Alabama Space Science Exhibit Commission dba U.S. Space and Rocket Center, located at 1 Tranquility Base, Huntsville, AL 35805, Administrative Office; until 2:00 PM Local Time, July 17th, 2025 for this project:

**A-12 OXCART EXHIBIT MOUNTING
HUNTSVILLE, ALABAMA for
ALABAMA SPACE SCIENCE EXHIBIT COMMISSION DBA
U.S. SPACE AND ROCKET CENTER**

(LOCALLY FUNDED)

at which time and place they will be publicly opened and read.

A cashiers check or bid bond payable to (Owner) Alabama Space Science Exhibit Commission in an amount not less than five (5) percent of the amount of the bid, but in no event more than \$10,000, must accompany the bidder's proposal. Performance and statutory Labor and Material Payment Bonds, and insurance in compliance with requirements, will be required at the signing of the Contract.

Drawings and Specifications may be examined at the Office of the Architect; Dodge Data & Analytics; and ConstructConnect.

Bid documents (Plans, Specifications, and Addenda) will be sent to General Contractors only from the Architect electronically with no deposit. Subcontractors should contact a General Contractor or plan room for documents.

Only General Contractors who are properly licensed in accordance with criteria established by the State Licensing Board for General Contractors under the Provision of Title 34, Chapter 8, Code of Alabama, 1975, as amended, will be considered for the Work of this project.

A **PRE-BID CONFERENCE** will be held at the same location as bids are to be opened, at **3:00 PM local time July 10, 2025** for the purpose of reviewing the project and answering Bidder's questions. **Attendance at the Pre-Bid Conference is NOT MANDATORY for all General Contractor Bidders** intending to submit a Proposal, and is highly recommended for Subcontractors.

Any and all plan holders intending to submit a bid on the project referenced above must submit a written registration with the Architect prior to bid. There are no exceptions. Bidder Registrations may be emailed to: Daniel Mejia, email: Daniel.Mejia@gmcnetwork.com. Bids will not be accepted from unregistered bidders. It is the sole responsibility of the Bidder to confirm with the Office of the Architect receipt of registration.

Per the Owner and the Alabama Department of Revenue (ADOR), Act 2013-205, the project will be bid **EXCLUDING TAXES** and will require the Contractor to complete DCM Form C-3A Accounting of Sales Tax Attachment to DCM Form C-3 Proposal Form (August 2020) which will be submitted with the Contractors Proposal at the time of the Bid. If awarded the bid, both tax exempt entity and contractor shall apply for certificates of exemption. ADOR shall issue certificates of exemption from sales and use tax for each tax exempt project. Certificates shall only be issued to contractors licensed by the State Licensing Board for General Contractors or any subcontractor working under the same contract. Items eligible for exemption are building materials, construction materials and supplies and other tangibles that become part of the structure. ADOR will handle the administration of the

certificates and the accounting of exempt purchases.

The Owner reserves the right to reject any or all proposals, to waive technical errors and bid process if, in their judgment, the best interests of the Owner will thereby be promoted.

**ALABAMA SPACE SCIENCE EXHIBIT COMMISSION DBA
U.S. SPACE AND ROCKET CENTER
1 TRANQUILITY BASE
HUNTSVILLE, AL 35805**

GOODWYN MILLS CAWOOD, LLC.
MEMBERS, AMERICAN INSTITUTE OF ARCHITECTS
2400 5th Avenue South, Suite 200
Birmingham, Alabama 35233
Phone: (205) 879-4462
Fax: (205) 879-4493

END OF ADVERTISEMENT

NOTE: For projects exceeding \$50,000, this notice must be run once a week for three successive weeks in a newspaper of general circulation in the county or counties in which the project, or any part of the project, is to be performed. If the project involves an estimated amount exceeding \$500,000, this notice must also be run at least once in three newspapers of general circulation throughout the state. Proof of publication is required.

DCM Form C-1; August 2020.

REVISED (GM&C): February 2021.



ALABAMA DEPARTMENT OF FINANCE
REAL PROPERTY MANAGEMENT
Division of Construction Management

www.dcm.alabama.gov, 334-242-4082, inspections@realproperty.alabama.gov

Revised December 2021

Department Use Only
Invoice # _____
Date Paid _____
Confirmation # _____

PERMIT FEE & PERMIT RE-INSPECTION FEE CALCULATION WORKSHEET

DCM (BC) # _____	Date _____
Project Name; Owner/Architect/Engineer Project # & Phase/Package # _____	
Owner Entity Name _____	
Architect/Engineer Firm Name _____	
Contractor Company Name _____	
Select only ONE of the following:	
<div style="border: 1px solid black; padding: 5px; text-align: center;">Basic Permit Fee. Fee is based on awarded contract sum.</div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">Permit Re-Inspection Flat Fee.</div>
Awarded Contract Sum: _____	
Email address(es) for Payment Receipt: _____	

BASIC PERMIT FEE CALCULATION:

Awarded Contract Sum is less than \$1,000: N/A

Awarded Contract Sum is \$1,001 - \$50,000:

Contract Sum or Shelter Estimate less \$1,000= _____/1,000 x \$5.00= _____+\$15.00= _____

Awarded Contract Sum is \$50,001 - \$100,000:

Contract Sum or Shelter Estimate less \$50,000= _____/1,000 x \$4.00= _____+\$260.00= _____

Awarded Contract Sum is \$100,001 - \$500,000:

Contract Sum or Shelter Estimate less \$100,000= _____/1,000 x \$3.00= _____+\$460.00= _____

Awarded Contract Sum is \$500,001 and up:

Contract Sum or Shelter Estimate less \$500,000= _____/1,000 x \$2.00= _____+\$1,660.00= _____

PERMIT RE-INSPECTION FEE:

Flat fee of \$1,500.00 per occurrence

TOTAL DUE: _____

Basic Permit Fee: Covers all required pre-construction conferences, construction inspections and certificate of substantial completion issuance by the DCM Inspector. This fee is due when a construction contract or self-performance letter is received by DCM and must be paid before the required Pre-Construction Conference is scheduled with the DCM Inspector.

Permit Re-Inspection Fee: May be charged if (A) the contractor has not completed the work required for the particular inspection as detailed in DCM Form B-8: Pre-Construction Conference Checklist, or (B) the inspection is canceled or rescheduled without the required minimum 48 hours notice to all parties.

Make check payable to: "Finance - Construction Management," include the DCM (BC) Project # on the check and attach the fee worksheet. Mail payment to: Finance - Construction Management, P.O. Box 301150, Montgomery, AL 36130-1150.

State agency inter-fund transfer and payments using Public School and College Authority (PSCA) funds: contact Jennie Jones at 334-242-4808 or jennie.jones@realproperty.alabama.gov.

Fees may be paid online at www.dcm.alabama.gov (in which case a completed fee worksheet is not required).

The Basic Permit Fee is subject to Final Reconciliation of Fees at the end of construction.

**SECTION 01 4000
QUALITY REQUIREMENTS**

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Submittals.
- B. Quality assurance.
- C. Testing and inspection agencies and services.
- D. Control of installation.
- E. Tolerances.
- F. Manufacturers' field services.
- G. Defect Assessment.

1.2 RELATED REQUIREMENTS

- A. Section 01 3000 - Administrative Requirements: Submittal procedures.
- B. Section 01 4223 - Reference Standards and Definitions.
- C. Section 01 6000 - Product Requirements: Requirements for material and product quality.

1.3 REFERENCE STANDARDS

- A. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008 (Reapproved 2023).
- B. ASTM C1077 - Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation; 2024.
- C. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2023.
- D. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2023.
- E. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2023.
- F. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing; 2021.
- G. IAS AC89 - Accreditation Criteria for Testing Laboratories; 2021.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: For integrated exterior and interior mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
 - 1. Indicate manufacturer and model number of individual components.
 - 2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions
 - 3. Fire Protection: Sprinkler shop drawings shall include PE stamp of Professional Engineer licensed in the state in which the project is located.
- C. Design Data: Submit for Architect's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents, or for Owner's information.

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- D. Schedule of Submittals.
 - E. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
 - F. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
 - 1. Specification Section number and title.
 - 2. Entity responsible for performing tests and inspections.
 - 3. Description of test and inspection.
 - 4. Identification of applicable standards.
 - 5. Identification of test and inspection methods.
 - 6. Number of tests and inspections required.
 - 7. Time schedule or time span for tests and inspections.
 - 8. Requirements for obtaining samples.
 - 9. Unique characteristics of each quality-control service.
 - G. Test Reports: After each test/inspection, promptly submit two copies of report to Architect and to Contractor.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of test/inspection.
 - h. Date of test/inspection.
 - i. Results of test/inspection.
 - j. Compliance with Contract Documents.
 - k. When requested by Architect, provide interpretation of results.
 - 2. Test report submittals are for Architect's knowledge as contract administrator for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents, or for Owner's information.
 - H. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Architect, in quantities specified for Product Data.
 - 1. Indicate material or product complies with or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
 - 2. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect.
 - I. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
 - J. Manufacturer's Field Reports: Submit reports for Architect's benefit as contract administrator or for Owner.
-

1. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.
- K. Erection Drawings: Submit drawings for Architect's benefit as contract administrator or for Owner.
 1. Submit for information for the limited purpose of assessing compliance with information given and the design concept expressed in the Contract Documents.
 2. Data indicating inappropriate or unacceptable Work may be subject to action by Architect or Owner.

1.5 QUALITY ASSURANCE

- A. Testing Agency Qualifications:
 1. Prior to start of work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
 2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
 3. Qualification Statement: Provide documentation showing testing laboratory is accredited under IAS AC89.
- B. Designer Qualifications: Where professional engineering design services and design data submittals are specifically required of Contractor by Contract Documents, provide services of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

1.6 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. As indicated in individual specification sections, Owner or Contractor shall employ and pay for services of an independent testing agency to perform other specified testing.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Contractor Employed Agency:
 1. Testing agency: Comply with requirements of ASTM E329, ASTM E543, ASTM C1021, ASTM C1077, ASTM C1093, and ASTM D3740.
 2. Inspection agency: Comply with requirements of ASTM D3740 and ASTM E329.
 3. Laboratory: Authorized to operate in the State in which the Project is located.
 4. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.
 5. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.
- D. Refer to Section 01 0150 - "Special Conditions" for additional information and requirements.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.

- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.2 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

3.3 TESTING AND INSPECTION

- A. See individual specification sections for testing required.
- B. Testing Agency Duties:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Architect and Contractor of observed irregularities or non-compliance of Work or products.
 - 6. Perform additional tests and inspections required by Architect.
 - 7. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
 - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.

-
- c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 - 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 - 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 - 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 - E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect. Payment for re-testing will be charged to the Contractor by deducting testing charges from the Contract Price.
 - F. Refer to Section 01 0150 - "Special Conditions" for additional information and requirements.

3.4 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment, and _____ as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.5 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not complying with specified requirements.

END OF SECTION

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SECTION 01 4223
REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS:

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. Indicated: The term “indicated” refers to graphic representations, notes or schedules on the Drawings, or other Paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as “shown,” “noted,” “scheduled,” and “specified” are used, it is to help the reader locate the reference; no limitation on location is intended.
- C. Directed: Terms such as “directed,” “requested,” “authorized,” “selected,” “approved,” “required,” and “permitted” mean “directed by the Architect,” “requested by the Architect,” and similar phrases.
- D. Approve: The term “approved,” where used in conjunction with the Architect’s action on the Contractor’s submittals, applications, and requests, is limited to the Architect’s duties and responsibilities as stated in the Conditions of the Contract.
- E. Regulation: The term “Regulations” includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. Furnish: The term “furnish” is used to mean “supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.”
- G. Install: The term “install” is used to describe operations at project site including the actual “unloading, temporary storage, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.”
- H. Provide: The term “provide” means “to furnish and install, complete and ready for the intended use.”
- I. Installer:
 - 1. An “Installer” is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 2. The term “experienced,” when used with the term “Installer,” means having a minimum of five previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of the authority having jurisdiction.
- J. Trades: Use of titles such as “carpentry” is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter.” It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- K. Project Site is the space available to the Contractor for performance of construction activities, either exclusively or in conjunction with others performing other work as part of the Project.

The extent of the Project Site is shown on the Drawings, and may or may not be identical with the description of the land on which the Project is to be built.

1. If areas available are not indicated, they will be as mutually agreed by Owner and Contractor at Preconstruction Conference and as modified during construction.
- L. Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.
- M. OFCI - Owner Furnished, Contractor Installed.
- N. OFOI: Owner Furnished, Owner Installed.
 1. Equipment indicated on the drawings with the (OFOI) symbol designates the Owner will supply and deliver to the project site any equipment and finish items specified in these specifications and the Owner install the equipment and finish items in place ready for intended use.
 2. The Owner shall furnish all standard integral parts of the equipment and finishes, and tailgate-deliver items to project site.
 3. Owner shall receive items at site and give written receipt for items at time of delivery, noting visible defects or omissions. If such declaration is not given, the Owner shall assume responsibility for such defects and omissions. Contractor shall be responsible for cooperating with the Owner who shall provide unloading, handling and proper storage of equipment prior to installation at the site. The Owner and the Contractor will coordinate deliveries of equipment and finish items to coincide with construction schedule to minimize storage of equipment before installation.
 4. Owner shall uncrate, assemble, set items in place, and install items in accordance with manufacturer's instructions.
 5. Contractor shall provide utility rough-in for equipment items where required regardless of equipment responsibility designation unless specifically noted otherwise.
 6. Contractor shall be responsible for verification of utility requirements for approved equipment items. Upon request, the Owner shall make available dimensions and power characteristics of the Owner-furnished items.

1.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION:

- A. Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's 50-Division format and MASTERFORMAT numbering system.
- B. Specification Content: This Specification uses certain conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
 1. Abbreviated Language:
 - a. Language used in Specifications and other Contract Documents is the abbreviated type. Words and meanings shall be interpreted as appropriate. Words that are implied, but not stated shall be interpolated as the sense required. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and the context of the Contract Documents so indicates.
 2. Imperative and streamlined language is used generally in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text, for clarity, subjective language is used to describe

responsibilities that must be fulfilled indirectly by the Contractor, or by others when so noted.

1.4 INDUSTRY STANDARDS:

- A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with the standard in effect as of the date of the Contract Documents.
- C. Conflicting Requirements:
 - 1. Where compliance with two or more standards is specified, and the standards may establish different or conflicting requirements for minimum quantities or quality levels. Refer requirements that are different, but apparently equal, and uncertainties to the Architect for a decision before proceeding.
 - 2. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum, as appropriate for the context of the requirements. Refer uncertainties to the Architect for a decision before proceeding.
- D. Copies of Standards:
 - 1. Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 2. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.

1.5 DRAWING SYMBOLS:

- A. General: Except as otherwise indicated, graphic symbols used on drawings are those symbols recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., seventh edition.
- B. Mechanical/Electrical Drawings: Graphic symbols used on mechanical and electrical drawings are generally aligned with symbols recommended by ASHRAE. Where appropriate, these symbols are supplemented by more specific symbols as recommended by other recognized technical associations including ASME, ASPE, IEEE and similar organizations. Refer instances of uncertainty to the Architect/Engineer for clarification before proceeding.

1.6 SUBMITTALS:

- A. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01 4533
CODE-REQUIRED SPECIAL INSPECTIONS AND PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Code-required special inspections.
- B. Testing services incidental to special inspections.
- C. Submittals.

1.2 RELATED REQUIREMENTS

1.3 DEFINITIONS

- A. Code or Building Code: ICC (IBC)-2021 , Edition of the International Building Code and specifically, Chapter 17 - Special Inspections and Tests.
- B. Authority Having Jurisdiction (AHJ): Agency or individual officially empowered to enforce the building, fire and life safety code requirements of the permitting jurisdiction in which the Project is located.
- C. Special Inspection:
 - 1. Special inspections are inspections and testing of materials, installation, fabrication, erection or placement of components and connections mandated by the AHJ that also require special expertise to ensure compliance with the approved Contract Documents and the referenced standards.
 - 2. Special inspections are separate from and independent of tests and inspections conducted by Owner or Contractor for the purposes of quality assurance and contract administration.

1.4 REFERENCE STANDARDS

- A. ACI CODE-318 - Building Code Requirements for Structural Concrete and Commentary; 2019 (Reapproved 2022).
- B. AISC 360 - Specification for Structural Steel Buildings; 2022.
- C. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.
- D. ASTM C31/C31M - Standard Practice for Making and Curing Concrete Test Specimens in the Field; 2023.
- E. ASTM C172/C172M - Standard Practice for Sampling Freshly Mixed Concrete; 2017.
- F. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2023.
- G. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection; 2023.
- H. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing; 2021.
- I. ICC (IBC)-2021 - International Building Code; 2021.

1.5 SUBMITTALS

- A. Special Inspection Agency Qualifications: Prior to the start of work, the Special Inspection Agency is required to:
 - 1. Submit agency name, address, and telephone number, names of full time registered Engineer and responsible officer.
 - 2. Submit copy of report of laboratory facilities inspection made by NIST Construction Materials Reference Laboratory during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.
 - 3. Submit certification that Special Inspection Agency is acceptable to AHJ.
- B. Fabricator's Qualification Statement: Fabricator is required to submit documentation of fabrication facilities and methods as well as quality control procedures. Include documentation of AHJ approval.
- C. Special Inspection Reports: After each special inspection, Special Inspector is required to promptly submit at least two copies of report; one to Architect and one to the AHJ.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of Special Inspector.
 - d. Date and time of special inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of special inspection.
 - h. Date of special inspection.
 - i. Results of special inspection.
 - j. Compliance with Contract Documents.
 - 2. Final Special Inspection Report: Document special inspections and correction of discrepancies prior to the start of the work.
- D. Test Reports: After each test or inspection, promptly submit at least two copies of report; one to Architect and one to AHJ.
 - 1. Include:
 - a. Date issued.
 - b. Project title and number.
 - c. Name of inspector.
 - d. Date and time of sampling or inspection.
 - e. Identification of product and specifications section.
 - f. Location in the Project.
 - g. Type of test or inspection.
 - h. Date of test or inspection.
 - i. Results of test or inspection.
 - j. Compliance with Contract Documents.

1.6 SPECIAL INSPECTION AGENCY

- A. Owner or Architect will employ services of a Special Inspection Agency to perform inspections and associated testing and sampling in accordance with ASTM E329 and required by the building code.

- B. The Special Inspection Agency may employ and pay for services of an independent testing agency to perform testing and sampling associated with special inspections and required by the building code.
- C. Employment of agency in no way relieves Contractor of obligation to perform work in accordance with requirements of Contract Documents.

1.7 TESTING AND INSPECTION AGENCIES

- A. Owner or Architect may employ services of an independent testing agency to perform additional testing and sampling associated with special inspections but not required by the building code.
- B. Employment of agency in no way relieves Contractor of obligation to perform work in accordance with requirements of Contract Documents.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 SCHEDULE OF SPECIAL INSPECTIONS, GENERAL

- A. Frequency of Special Inspections: Special Inspections are indicated as continuous or periodic.
 - 1. Continuous Special Inspection: Special Inspection Agency is required to be present in the area where the work is being performed and observe the work at all times the work is in progress.
 - 2. Periodic Special Inspection: Special Inspection Agency is required to be present in the area where work is being performed and observe the work part-time or intermittently and at the completion of the work.

3.2 SPECIAL INSPECTIONS FOR STEEL CONSTRUCTION

- A. Structural Steel: Comply with quality assurance inspection requirements of ICC (IBC)-2018.
- B. Steel Frame Joint Details: Verify compliance with approved Contract Documents.
 - 1. Details, bracing and stiffening; periodic.
 - 2. Member locations; periodic.
 - 3. Application of joint details at each connection; periodic.

3.3 SPECIAL INSPECTIONS FOR CONCRETE CONSTRUCTION

- A. Concrete Sampling Concurrent with Strength Test Sampling: Each time fresh concrete is sampled for strength tests, verify compliance with ASTM C172/C172M, ASTM C31/C31M, and ACI CODE-318, Sections 5.6 and 5.8 and record the following, continuous:
 - 1. Slump.
 - 2. Air content.
 - 3. Temperature of concrete.

3.4 SPECIAL INSPECTIONS FOR SOILS

- A. Materials and Placement: Verify each item below complies with approved construction documents and approved geotechnical report.
 - 1. Design bearing capacity of material below shallow foundations; periodic.
 - 2. Design depth of excavations and suitability of material at bottom of excavations; periodic.
 - 3. Materials, densities, lift thicknesses; placement and compaction of backfill: continuous.
 - 4. Subgrade, prior to placement of compacted fill verify proper preparation; periodic.

- B. Testing: Classify and test excavated material; periodic.

3.5 SPECIAL INSPECTIONS FOR CAST-IN-PLACE DEEP FOUNDATIONS

- A. Materials, Equipment and Final Placement: Verify each item below complies with approved construction documents and approved geotechnical report.
1. Element length; continuous.
 2. Element diameters and bell diameters; continuous.
 3. Embedment into bedrock; continuous.
 4. End bearing strata capacity; continuous.
 5. Placement locations and plumbness; continuous.
 6. Type and size of hammer; continuous.
- B. Drilling Operations: Observe and maintain complete and accurate records for each element; continuous.
- C. Material Volume: Record concrete and grout volumes.
- D. Concrete Elements Associated with Cast-in-Place Deep Foundations: Perform additional inspections as required by the Special Inspections for Concrete Construction article of this section.

3.6 SPECIAL INSPECTIONS FOR WIND RESISTANCE

- A. Structural Observations for Wind Resistance: Visually observe structural system for general compliance with the approved Contract Documents; periodic.

3.7 SPECIAL INSPECTION AGENCY DUTIES AND RESPONSIBILITIES

- A. Special Inspection Agency shall:
1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 2. Perform specified sampling and testing of products in accordance with specified reference standards.
 3. Ascertain compliance of materials and products with requirements of Contract Documents.
 4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of work or products.
 5. Perform additional tests and inspections required by Architect.
 6. Submit reports of all tests or inspections specified.
- B. Limits on Special Inspection Agency Authority:
1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 2. Agency may not approve or accept any portion of the work.
 3. Agency may not assume any duties of Contractor.
 4. Agency has no authority to stop the work.
- C. Re-testing required because of non-compliance with specified requirements shall be performed by the same agency on instructions by Architect.
- D. Re-testing required because of non-compliance with specified requirements shall be paid for by Contractor.

3.8 TESTING AGENCY DUTIES AND RESPONSIBILITIES

- A. Testing Agency Duties:
 - 1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 2. Perform specified sampling and testing of products in accordance with specified standards.
 - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 4. Promptly notify Architect and Contractor of observed irregularities or non-compliance of work or products.
 - 5. Perform additional tests and inspections required by Architect.
 - 6. Submit reports of all tests or inspections specified.
- B. Limits on Testing or Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the work.
- C. On instructions by Architect, perform re-testing required because of non-compliance with specified requirements, using the same agency.
- D. Contractor will pay for re-testing required because of non-compliance with specified requirements.

3.9 CONTRACTOR DUTIES AND RESPONSIBILITIES

- A. Contractor Responsibilities, General:
 - 1. Deliver to agency at designated location, adequate samples of materials for special inspections that require material verification.
 - 2. Cooperate with agency and laboratory personnel; provide access to approved documents at project site, to the work, to manufacturers' facilities, and to fabricators' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to work to be tested or inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested or inspected.
 - c. To facilitate tests or inspections.
 - d. To provide storage and curing of test samples.
 - 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing or inspection services.
 - 5. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- B. Contractor Responsibilities, Seismic Force-Resisting System, Designated Seismic System, and Seismic Force-Resisting Component: Submit written statement of responsibility for each item listed in the Statement of Special Inspections to AHJ and Owner prior to starting work. Statement of responsibility shall acknowledge awareness of special construction requirements and other requirements listed.

- C. Contractor Responsibilities, Wind Force-Resisting System and Wind Force-Resisting Component: Submit written statement of responsibility for each item listed in the Statement of Special Inspections to AHJ and Owner prior to starting work. Statement of responsibility shall acknowledge awareness of special construction requirements and other requirements listed.

END OF SECTION

**SECTION 13 4613
LIGHTNING PROTECTION FOR STRUCTURES**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Strike (air) terminals and interconnecting conductors.
- B. Grounding and bonding for lightning protection.

1.2 RELATED REQUIREMENTS

Section 10 7500 - Flag Poles

1.3 REFERENCE STANDARDS

- A. NFPA 780 - Standard for the Installation of Lightning Protection Systems; 2023.
- B. UL 96 - Lightning Protection Components; Current Edition, Including All Revisions.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination with Concrete Work: Coordinate embedding of lightning protection components in concrete.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate location and layout of air terminals, grounding electrodes, and bonding connections to structure and other metal objects. Include terminal, electrode, and conductor sizes, and connection and termination details.
 - 1. If concrete-encased grounds are to be used and are not shown in Contract Documents, provide sufficient data to determine concrete encasement dimensions and location.
 - 2. Include data on actual ground resistance determined by field measurement in accordance with NFPA 780.
 - 3. Include engineering analysis of equalization of potential to metal bodies within structure.
- C. Product Data: Provide dimensions and materials of each component, indication of testing agency listing, and installation instructions.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- E. Installation Certification: Submit copy of certification agency's approval.
- F. Operation and Maintenance Data: Provide recommended inspection and testing plan, including recommended intervals, to achieve periodic maintenance as recommended in NFPA 780; provide customized plan reflecting actual installation configuration with specific installed components identified.

1.6 QUALITY ASSURANCE

- A. Maintain one copy of each referenced system design standard on site.
- B. Manufacturer Qualifications: Company specializing in lightning protection equipment with minimum three years documented experience.
- C. Designer Qualifications: Person or entity, employed by installer, who specializes in lightning protection system design with minimum three years documented experience.
- D. Installer Qualifications: Company specializing in lightning protection system design with minimum three years documented experience.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Lightning Protection Components:
 - 1. Labeled Lightning Protection, Inc; <https://labeledlightning.wixsite.com/labeled>.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.

2.2 LIGHTNING PROTECTION SYSTEM

- A. Lightning Protection System: Provide complete system complying with NFPA 780, including air terminals, bonding, interconnecting conductors and grounding electrodes.
 - 1. Coordinate with other grounding and bonding systems specified.
 - 2. Base of structure and aircraft must be primary bonded underneath as recommended by manufacturer and/or lightning protection specialist
 - 3. Provide system certified by Underwriters Laboratories or Lightning Protection Institute.
- B. Strike Terminals: Provide strike (air) terminals on the following:
 - 1. Flagpoles.
 - a. 1/2" x 24" Aluminum Terminal at top of pole with UL approved swivel manufactured for the thread size of the flagpole tip - replaces the gold ball
 - b. Flagpole must be 3/16" thick to be used as down conductor

2.3 COMPONENTS

- A. All Components: Complying with applicable requirements of UL 96.
- B. Materials: Class I Copper

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that field measurements are as indicated on shop drawings.

3.2 INSTALLATION

- A. Install in accordance with referenced system standards.

3.3 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for additional requirements.
- B. Perform visual inspection as specified in NFPA 780 as if this were a periodic follow-up inspection.
- C. Perform continuity testing as specified in NFPA 780 as if this were testing for periodic maintenance.
- D. Obtain services of specified certification agency to provide inspection and certification of lightning protection system, including performance of other testing required by that agency.

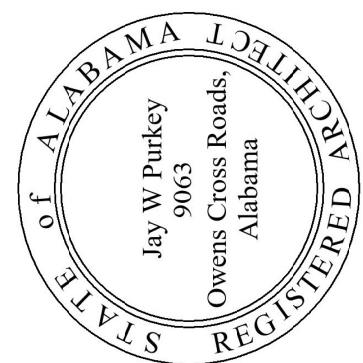
END OF SECTION

NO.	Question	ADD #	Response
1	When is estimated NTP Date and Construction Completion Date?	1	NTP Date expected one week after Bid - 24th of July. Construction Completion to thus be the 27th of September.
2	How much does the A12 Oxcart Weigh?	1	Less than 40,700 lbs. Engine and landing gear removal will lighten its weight.
3			
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	ISSUE	DATE
	CONSTRUCTION ISSUE	20.JUNE.2025
1	APPENDUM 01	Date 1
	DRAWN BY:	Author
	CHECKED BY:	Checker

USSRC A-12 EXHIBIT
1 Tranquility Base, Huntsville, AL 35805

GMC # AHUN150017



A handwritten signature in blue ink, appearing to be "H. R.", written over a horizontal line.

PLANS

A1.01

GENERAL NOTES - PLAN

1. PROJECT NORTH IS 35° FROM TRUE NORTH
2. BOLLARDS TO BE ASTM F2556 RATED FOR VEHICLE IMPACT - MUST BE ABLE TO STOP A 2,340 LBS. VEHICLE TRAVELING AT 40 MPH/HM.
3. GROUNDING AND LIGHTNING PROTECTION REQUIRED FOR THE A12 OXCART, THE MOUNTING STRUCTURE, AND THE FLAGPOLES
4. 45' BLACK ANODIZED EXTERNAL HALYARD FLAGPOLE TO BE 10' MAX DISTANCE FROM PLANE, FINAL LOCATION TO BE COORD. WITH LIGHTNING PROTECTION REQUIREMENTS DURING CONSTRUCTION

A2 EXHIBIT PLAN

SCALE: 1/8" = 1'-0"

