NOTICE TO ALL FIRMS

Date: December 7, 2023
To: All Prospective Bidders
From: Sam Li
Interim Director of Procurement Services
Re: Addendum Number 4
IFB # C1558 – East Courtyard & Pomerantz Center Air Handler Units Replacement

Notes

1) We are releasing the hold on this project. The new bid due date is December 18, 2023, 12:00 PM. Your bid must be emailed to Purchasingbids@fitnyc.edu by December 18, 2023, on or before 12:00 PM.

2) We are including the dunnage work to this project. Please see the attached specifications and drawings.

THIS ADDENDUM IS PART OF THE CONTRACT DOCUMENT AND SHALL BE INCLUDED WITH YOUR REQUEST FOR PROPOSAL SUBMITTAL. YOUR SIGNATURE BELOW WARRANTS THAT YOU UNDERSTAND THIS ADDENDUM AND THAT YOU HAVE MADE THE APPROPRIATE ADJUSTMENTS IN YOUR PROPOSAL AND CALCULATIONS.

________________________________________ __
Signature

____________________________________________
Print Name and Title of Authorized Representative

____________________________________________
Print Name of Company/Partnership/Individual

____________________________________________
Date
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.

B. Section 01300 – SUBMITTALS

C. Section 01340 – SHOP DRAWINGS AND SAMPLES

D. Section 01380 – PROGRESS PHOTOGRAPHS

E. Section V. General Conditions - Articles 1-21

1.2 SUMMARY

A. Section Includes:

1. Structural steel.
2. Shrinkage-resistant grout.

B. Related Requirements:

1.3 DEFINITIONS

A. Structural Steel: Elements of the structural frame indicated on Drawings and as described in ANSI/AISC 303.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

A. Product Data:

2. High-strength, bolt-nut-washer assemblies.
4. Etching cleaner.
5. Galvanized repair paint.
6. Shrinkage-resistant grout.
B. Shop Drawings: Show fabrication of structural-steel components.

C. Delegated Design Submittal: For structural-steel connections indicated on Drawings to comply with design loads, include analysis data.

1.6 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Mill test reports for structural-steel materials, including chemical and physical properties.

C. Field quality-control reports.

1.7 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with AWS D1.1/D1.1M.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Comply with applicable provisions of the following specifications and documents:

1. ANSI/AISC 303.
2. ANSI/AISC 360.
3. RCSC's "Specification for Structural Joints Using High-Strength Bolts."

B. Connection Design Information:

1. Fabricator's experienced steel detailer selects or completes connections in accordance with ANSI/AISC 303.
   a. Select and complete connections using schematic details indicated and ANSI/AISC 360.
   b. Use Allowable Stress Design; data are given at service-load level.

2.2 STRUCTURAL-STEEL MATERIALS

A. W-Shapes: ASTM A992/A992M.

B. Angles: ASTM A36/A36M.

C. Plate and Bar: ASTM A36/A36M.
D. Cold-Formed Hollow Structural Sections: ASTM A500/A500M, Grade C structural tubing.

E. Steel Pipe: ASTM A53/A53M, Type E or Type S, Grade B.

F. Welding Electrodes: Comply with AWS requirements.

2.3 BOLTS AND CONNECTORS

A. High-Strength A325 Bolts, Nuts, and Washers: ASTM F3125/F3125M, Grade A325 (Grade A325M), Type 1, heavy-hex steel structural bolts; ASTM A563, Grade DH (ASTM A563M, Class 10S), heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers; all with plain finish.

1. Direct-Tension Indicators: ASTM F959/F959M, Type 325-1 (Type 8.8-1), compressible washer type with plain finish.

B. Zinc-Coated High-Strength A325 Bolts, Nuts, and Washers: ASTM F3125/F3125M, Grade A325 (Grade A325M), Type 1, heavy-hex steel structural bolts; ASTM A563, Grade DH (ASTM A563M, Class 10S), heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers.

1. Finish: Hot-dip zinc coating.
2. Direct-Tension Indicators: ASTM F959/F959M, Type 325-1 (Type 8.8-1), compressible washer type with mechanically deposited zinc coating or mechanically deposited zinc coating, baked epoxy-coated finish.

C. Tension-Control, High-Strength Bolt-Nut-Washer Assemblies: ASTM F3125/F3125M, Grade F1852, Type 1, heavy-hex head assemblies, consisting of steel structural bolts with splined ends; ASTM A563, Grade DH (ASTM A563M, Class 10S), heavy-hex carbon-steel nuts; and ASTM F436/F436M, Type 1, hardened carbon-steel washers.

1. Finish: Mechanically deposited zinc coating.

2.4 PRIMER

A. Steel Primer:
1. Fabricator’s standard lead- and chromate-free, non asphaltic, rust-inhibiting primer complying with MPI#79 and compatible with topcoat.

2.5 SHRINKAGE-RESISTANT GROUT

A. Nonmetallic, Shrinkage-Resistant Grout: ASTM C1107/C1107M, factory-packaged, nonmetallic aggregate grout, noncorrosive and non staining, mixed with water to consistency suitable for application and a 30-minute working time.
2.6 FABRICATION

A. Structural Steel: Fabricate and assemble in shop to greatest extent possible. Fabricate in accordance with ANSI/AISC 303 and to ANSI/AISC 360.

2.7 SHOP CONNECTIONS

A. High-Strength Bolts: Shop install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for type of bolt and type of joint specified.
   1. Joint Type: As indicated.

B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.

2.8 GALVANIZING

A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel in accordance with ASTM A123/A123M.
   1. Fill vent and drain holes that are exposed in the finished Work unless they function as weep holes, by plugging with zinc solder and filing off smooth.

2.9 SHOP PRIMING

A. Shop prime steel surfaces, except the following:
   1. Surfaces embedded in concrete or mortar. Extend priming of partially embedded members to a depth of 2 inches (50 mm).
   2. Surfaces to be field welded.
   4. Surfaces to receive sprayed fire-resistive materials (applied fireproofing).
   5. Galvanized surfaces.

B. Surface Preparation of Steel: Clean surfaces to be painted. Remove loose rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces in accordance with the following specifications and standards:
   1. SSPC-SP 2.
   2. SSPC-SP 3.

C. Surface Preparation of Galvanized Steel: Prepare galvanized-steel surfaces for shop priming by thoroughly cleaning steel of grease, dirt, oil, flux, and other foreign matter, and treating with etching cleaner or in accordance with SSPC-SP 16.
D. Priming: Immediately after surface preparation, apply primer in accordance with manufacturer's written instructions and at rate recommended by SSPC to provide a minimum dry film thickness of 1.5 mils (0.038 mm). Use priming methods that result in full coverage of joints, corners, edges, and exposed surfaces.

2.10 SOURCE QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform shop tests and inspections.

1. Allow testing agency access to places where structural-steel work is being fabricated or produced to perform tests and inspections.
3. Welded Connections: Visually inspect shop-welded connections in accordance with AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:
   a. Liquid Penetrant Inspection: ASTM E165/E165M.
   b. Magnetic Particle Inspection: ASTM E709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
   c. Ultrasonic Inspection: ASTM E164.
   d. Radiographic Inspection: ASTM E94/E94M.
4. Prepare test and inspection reports.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify, with certified steel erector present, elevations of concrete- and masonry-bearing surfaces and locations of anchor rods, bearing plates, and other embedments for compliance with requirements.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 ERECTION

A. Set structural steel accurately in locations and to elevations indicated and in accordance with ANSI/AISC 303 and ANSI/AISC 360.

   1. Set plates for structural members on wedges, shims, or setting nuts as required.
   2. Weld plate washers to top of baseplate.
3. Promptly pack shrinkage-resistant grout solidly between bearing surfaces and plates, so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. C. Maintain erection tolerances of structural steel within ANSI/AISC 303.

3.3 FIELD CONNECTIONS

A. High-Strength Bolts: Install high-strength bolts in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt and joint type specified.

1. Joint Type: As indicated.

B. Weld Connections: Comply with AWS D1.1/D1.1M for tolerances, appearances, welding procedure specifications, weld quality, and methods used in correcting welding work.


3.4 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector to perform the following special inspections:

1. Verify structural-steel materials and inspect steel frame joint details.
2. Verify weld materials and inspect welds.
3. Verify connection materials and inspect high-strength bolted connections.

B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.

2. Welded Connections: Visually inspect field welds in accordance with AWS D1.1/D1.1M.
   a. In addition to visual inspection, test and inspect field welds in accordance with AWS D1.1/D1.1M and the following inspection procedures, at testing agency's option:

   1) Liquid Penetrant Inspection: ASTM E165/E165M.
   2) Magnetic Particle Inspection: ASTM E709; performed on root pass and on finished weld. Cracks or zones of incomplete fusion or penetration are not accepted.
   3) Ultrasonic Inspection: ASTM E164.
   4) Radiographic Inspection: ASTM E94/E94M.

END OF SECTION 051200
SECTION 055000 – MISCELLANEOUS METAL FABRICATIONS

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.

B. Section 01300 – SUBMITTALS

C. Section 01340 – SHOP DRAWINGS AND SAMPLES

D. Section 01380 – PROGRESS PHOTOGRAPHS

E. Section V. General Conditions - Articles 1-21

1.2 SUMMARY

A. Section Includes:

1. Steel framing and supports for dunnage supported bar grating.
2. Steel framing and supports for dunnage supported pipe and tube railing.
3. Steel framing and supports for metal ships’ ladders.

B. Products furnished and installed under this section includes the following:

1. Galvanized steel bar grating walking surface.
2. Galvanized steel pipe railing handrail and guardrails.
3. Galvanized stair stringer and bar grating treads.

C. Related Requirements

1. Section 051200 “Structural Steel Framing”

1.3 COORDINATION

A. Coordinate performance and coating of steel with galvanized specification in Section 051200.

B. Coordinate installation of metal fabrications that are anchored to or receive other work.
1.4 ACTION SUBMITTAL

A. Product Data: For the following:
   1. Miscellaneous steel materials
   2. High-strength, bolt-nut-washer assemblies
   3. Galvanized-steel primer
   4. Galvanized repair paint

B. Shop Drawing:
   1. Include plans, elevations, sections, and details of metal fabrications and their connections.
   2. Show installation details and connection to dunnage
   3. Show anchorage and accessory items.

C. Delegated-Design Submittal:
   1. For anchorage of bar grating, railing, ships’ ladders, and supports, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATION SUBMITTALS

A. Qualification Data: For professional engineer.

B. Research/Evaluation Reports: For connections, from ICC-ES

1.6 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of walls, grating elevations, and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 – PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Deleted Design: Engage a qualified professional engineer to design anchorage for bar gratings, guard rails hand rails, and ships’ ladder to steel dunnage.

   1. Experienced: When used with an entity or individual, "experienced" unless otherwise further described means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

   2. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
B. Structural Performance: Bar gratings, Railing, and ships’ ladder connections, including attachment to dunnage, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Handrail and Top Rail of Guards:
   a. Uniform load of 50 lbf/ft. applied in any direction.
   b. Concentrated load of 200 lbf applied in any direction.
   c. Uniform and concreted loads need not be assumed to act concurrently.

2. Infill of Guards:
   a. Concentrated load of 50 lbf applied horizontal on an area of 1 square foot.
   b. Infill load and others loads need be assumed to act concurrently.

C. Thermal Movements: Allow for thermal movement from ambient and surface temperature changes acting on exterior metal fabrication by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

D. Source Quality-Control Tests: Tests and inspections that are performed at the source; for example, plant, mill, factory, or shop.

E. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements.

2.2 METALS

A. Metal Surfaces, General: Provide materials with smooth and flat surfaces unless otherwise indicated. All steel elements shall be galvanized.

   1. Galvanizing: Hot dipped galvanized items as indicated to comply with ASTM A 153 / A 153M for steel hardware and ASTM A 123 / A 123M for other steel products.
   2. After galvanizing, thoroughly clean railing of grease, dirt, oil, flux, and other foreign matter, and treat with metallic phosphate process.

B. Steel Tubing: ASTM A500 / A500M, cold formed steel tubing, galvanized steel.

C. Steel Pipe: ASTM A53 / A53M, Standard Weight (Schedule 40), galvanized steel.

D. Bar grating: Pressure locked steel bar grating. Limit openings in gratings to no more than $\frac{1}{2}$” in least direction.
2.3 FASTENERS

A. General: Unless otherwise indicated. Provide galvanized steel fasteners for exterior uses. Select fasteners for type, grade, and class required.

B. Galvanized Bolts and Nuts: Regular hexagon-head galvanized steel bolts. Select bolts and nuts for type, grade, and class required.

2.4 FABRICATION, GENERAL

A. Provide for anchorage of type indicated, coordinate with supporting structure. Space anchoring devices to secure metal fabrication rigidly in place and to support indicated loads.

B. Galvanized all steel elements, including grating, railing, ships’ ladder, brackets, and fasteners.

2.5 METAL SHIPS’ LADDERS

A. Provide metal ships’ ladder where indicated. Fabricate of bar grating construction with channel or plate stringer and tube railings unless otherwise indicated. Provide brackets and fittings for installation.

1. Tread depth shall be not less than 8 inches inclusive of nosing and no greater than 11 inches inclusive of nosing, and riser height shall be not less than 6 ½ inches and no more than 9 ½ inches.
2. Stairs shall have uniform riser height and tread depths.
3. Stairs shall be installed at angles between 50 to 70 degrees from the horizontal.
4. Fabricate ships’ ladder, including railing from galvanized steel.
5. Fabricate treads from pressure-locked steel bar grating. Limit openings in grating to no more than ½ in the least direction.

B. Galvanized steel ships’ ladder, including treads, guard rails, handrails, brackets, and fasteners.

C. Ships’ ladder shall require coordination with the roofing contractor, under a separate contract.

1. Contractor shall verify the slope of the roof in the field and ensure platforms riser height and tread depth are uniform at each stair.

2.6 HANDRAILS AND GUARDRAILS

A. Handrails shall be provided at both sides of ships’ ladder.

1. Handrails shall extend 12 inches beyond top riser.
2. Handrails shall be not less than 36 inches and not greater than 42 inches as measured from the leading edge of the stair tread to the top surface of the handrail.
3. Finger clearance between handrail and any other object shall be not less than 2 ¼ inches.
B. Guardrails shall be provided at all open ends of the platform.

1. Guardrails shall not be less than 42 inches above the top of bar grating.
2. Guardrails shall have post, top rail and mid rail and spacing shall be no more than 19 inches between any member.

PART 3 – EXECUTION

3.1 INSTALLATION

A. General: Cutting, Fitting, and Placement. Perform cutting, drilling, and fittings required for installing metal fabrication. Set metal fabrication accurately in location, alignment, and elevation, with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

B. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.

3.2 INSTALLING GRATING, HANDRAILS, GUARD RAILS, SHIPS’ LADDER AND SUPPORTS

A. General: Install supports of bar grating, hand rails, guard rails, and ships’ ladder to comply with requirements of items being supported, including requirements as determined under Delegated Design.

END OF SECTION 055000
### STATEMENT OF SPECIAL INSPECTIONS

<table>
<thead>
<tr>
<th>Inspection Task</th>
<th>Location</th>
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<tbody>
<tr>
<td><strong>A. COORDINATION AND VERIFICATION</strong></td>
<td></td>
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<tr>
<td>Review drawings and specifications for compliance with code requirements.</td>
<td></td>
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<tr>
<td>Verify the installation of materials and systems.</td>
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<tr>
<td>Ensure that the project is constructed in accordance with the approved materials and systems.</td>
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<tr>
<td>Verify that the project is constructed in accordance with the approved construction documents.</td>
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**B. MATERIALS INSPECTION**

- **Concrete**: Inspect the concrete for consistency and uniformity. Ensure that the concrete is placed and cured in accordance with the approved specifications.
- **Steel**: Inspect the steel for uniformity and proper connection. Ensure that the steel is placed and welded in accordance with the approved specifications.
- **Welding**: Inspect the welds for uniformity and proper penetration. Ensure that the welds meet the approved welding procedure specifications.

**C. INSTALLATION INSPECTION**

- **Anchor Bolts**: Inspect the anchor bolts for proper installation and alignment. Ensure that the anchor bolts are tightened to the minimum pretension by one of the AISC.*
- **Structural Components**: Inspect the structural components for proper alignment and connection. Ensure that the components are installed in accordance with the approved specifications.

**D. FINISHING INSPECTION**

- **Concrete Finishing**: Inspect the concrete finishing for uniformity and proper finishing. Ensure that the concrete is finished in accordance with the approved specifications.

**E. SPECIAL INSPECTION**

- **Special Inspections**: Inspect the special inspections as required by the code. Ensure that the special inspections are performed in accordance with the approved specifications.

**F. COMPLIANCE INSPECTION**

- **Inspections**: Inspect the project for compliance with the approved specifications. Ensure that the project is constructed in accordance with the approved specifications.

**G. QUALITY ASSURANCE INSPECTION**

- **Quality Assurance**: Inspect the quality assurance procedures for compliance with the approved specifications. Ensure that the quality assurance procedures are performed in accordance with the approved specifications.

**H. COMPLETION INSPECTION**

- **Completion**: Inspect the project for completion. Ensure that the project is completed in accordance with the approved specifications.

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* AISC: American Institute of Steel Construction.
PARTIAL EXISTING ROOF FRAMING PLAN
FASHION INSTITUTE of TECHNOLOGY
State University of New York
300 7TH AVENUE NEW YORK, NY 10001
REPLACEMENT OF EAST COURTYARD & POMERANTZ AC UNITS
NEW YORK CITY BUILDING DEPARTMENT APPROVAL NOTE

NYC ENERGY CONSERVATION CODE FOR HVAC SYSTEMS:

1. Demolition of HVAC Items shall be performed under the HVAC Contract.
2. Location of the provided sections & pipes as shown on

NEW YORK CITY ENERGY CONSERVATION CODE

NYC ENERGY CONSERVATION CODE FOR HVAC SYSTEMS:

1. Demolition of HVAC Items shall be performed under the HVAC Contract.
2. Location of the provided sections & pipes as shown on

PROJECT
EAST COURT & POWERPLANT 574 7TH AVENUE
AC UNIT REPLACEMENT (DCS) R0

Environmental Consultants
EPRA, Inc.
111 West Ave. Suite 90
Lake Success, NY 11042 (516) 230-0990

Structural Consultants
Gensler Arcadis P.C.
75 West 7th Street
New York, NY 10011 (212) 532-2929

Fashion Institute of Technology

12/08/2023
INSTALL NEW DUCTWORK WITH INSULATION TO RECONNECT THE AC TO EXISTING DUCTWORK.

BRINGING INSTALLED AC UNIT ONLINE.

5. INSTALL NEW DDC CONTROLS AND ACTUATORS, ELECTRICAL POWER WIRING FROM NEW FANS TO POWER SOURCE (SEE ELECTRICAL DRAWINGS)

INSTALL NEW DUNNAGE AND NEW UNITS AS SCHEDULED.

WIRING, LIGHTS AND SWITCHES, PNEUMATIC/ELECTRIC CONTROLS AND ACTUATORS. REMOVE PNEUMATIC CONTROL PANEL.

REMOVE UNITS WITH ALL INTERNAL COMPONENTS: COILS, DRAIN PANS, FILTER RACKS, DAMPERS, FAN, MOTOR AND VIBRATION BASE, ELECTRICAL PENETRATIONS, DUCT PENETRATIONS, DUCT SUPPORTS, AND FOR THE ELECTRICAL CONDUIT PENETRATIONS.

THE NEW AC UNITS SHALL PROVIDE MINIMUM 24 INCHES BETWEEN THE COOLING COIL AND THE STEAM COIL.

PROVIDE TEMPORARY SUPPORT FOR THE DUCT UNTIL THE PAVERS ARE INSTALLED ON THE ROOF AND THEN PROVIDE PERMANENT DUCT SUPPORTS AND REMOVE THE TEMPORARY SUPPORTS.

THE ROOF REPAIR AND THE TEMPORARY PROTECTION OF THE ROOF OPENINGS DURING THE AHUS DEMOLITION DIRECT SUN RADIATION.

INSTALL OAT (OUTDOOR AIR TEMPERATURE) SENSOR ON THE WALL INSIDE AN ENCLOSURE TO PROTECT FROM DIRECT SUN RADIATION.

INSTALL UNIT ON DUNNAGE PROVIDED UNDER THIS CONTRACT.

DEMONSTRATE THE OPERATION OF THE UNIT. SUBMIT REPORT TO ENGINEER.

CONTRACTOR SHALL CONNECT ALL THE REFRIGERANT PIPES AND CHARGE THE SYSTEM WITH THE REQUIRED TYPE AND QUANTITY OF REFRIGERANT AND ACCORDING TO THE MANUFACTURER INSTALLATION INSTRUCTIONS. CONNECT ALL ELECTRICAL CONTROLS. COMPLETE START UP AND INSTALLATION INSTRUCTIONS. CONNECT ALL ELECTRICAL CONTROLS. COMPLETE START UP AND REQUIRED TYPE AND QUANTITY OF REFRIGERANT AND ACCORDING TO THE MANUFACTURER INSTALLATION INSTRUCTIONS. CONNECT ALL ELECTRICAL CONTROLS. COMPLETE START UP AND INSTALLATION INSTRUCTIONS. CONNECT ALL ELECTRICAL CONTROLS. COMPLETE START UP AND INSTALLATION INSTRUCTIONS.