

Seventh Avenue at 27 Street New York City 10001-5992 www.fitnyc.edu Purchasing Department 227 West 27<sup>th</sup> Street New York, NY 10001 Purchasing Dept. Tel. 212-217-3630 Purchasing Dept. Fax 212-217-3631 **Purchasing@fitnyc.edu** 

## 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 <u>December 18, 2023,</u> <u>12:00 PM</u>. Your bid must be emailed to <u>Purchasingbids@fitnyc.edu</u> by <u>December 18,</u> <u>2023, on or before 12:00 PM</u>.
- 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 APPRORIATE ADJUSTMENTS IN YOUR PROPOSAL AND CALCULATIONS.

Signature

Print Name and Title of Authorized Representative

Print Name of Company/Partnership/Individual

Date

SECTION 051200 - STRUCTURAL STEEL FRAMING

### 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. 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:
  - 1. Structural-steel materials.
  - 2. High-strength, bolt-nut-washer assemblies.
  - 3. Galvanized-steel primer.
  - 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

- 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.

# Replacement of East Courtyard and Pomerantz Center AHUs DCAS ACE Round 10

#### 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.
  - 3. Surfaces of high-strength bolted, slip-critical connections.
  - 4. Surfaces to receive sprayed fire-resistive materials (applied fireproofing).
  - 5. Galvanized surfaces.
  - 6. Surfaces enclosed in interior construction.
- 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.

Replacement of East Courtyard and Pomerantz Center AHUs DCAS ACE Round 10

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.
  - 2. Bolted Connections: Inspect and test shop-bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."
  - 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.
- B. Baseplates and Leveling Plates: Clean concrete- and masonry-bearing surfaces of bondreducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
  - 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.
  - 1. Comply with ANSI/AISC 303 and ANSI/AISC 360 for bearing, alignment, adequacy of temporary connections, and removal of paint on surfaces adjacent to field welds.

#### 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.
  - 1. Bolted Connections: Inspect and test bolted connections in accordance with RCSC's "Specification for Structural Joints Using High-Strength Bolts."
  - 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.
      - 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 200lbf applied in any direction.
    - c. Uniform and concreated 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 <sup>1</sup>/<sub>2</sub>" 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.
  - Tread depth shall be not less than 8 inches inclusive of nosing and no greater than 11 inches inclusive of noising, and riser height shall be not less than 6 <sup>1</sup>/<sub>2</sub> inches and no more than 9 <sup>1</sup>/<sub>2</sub> 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 <sup>1</sup>/<sub>4</sub> inches.

#### MISCELLANEOUS METAL FABRICATIONS

- 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



10. IF THE ENGINEER'S SEAL AND SIGNATURE IS NOT AFFIXED TO THESE DRAWINGS, THESE DRAWINGS ARE INTENDED FOR PRELIMINARY PURPOSES ONLY AND SHALL NOT BE USED FOR CONSTRUCTION.

	EXISTING CONDITIONS	STATEMENT OF SPECIAL INSPECTIONS
UIREMENTS OF THE 2022 NEW	<ol> <li>CONTRACTOR IS TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ALL WORK AND MATERIALS NECESSARY TO INSTALL NEW WORK IN EXISTING BUILDING(S) SHALL BE INCLUDED.</li> </ol>	1. IN ACCORDANCE WITH IBC, SECTION 1704, THE OWNER'S REPRESENTATIVE SHALL OR MORE QUALIFIED SPECIAL INSPECTORS AND/OR TESTING AGENCIES TO PERE
Version USE The Of the Permit	<ol> <li>CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AND SHALL CONTACT THE ENGINEER IF ANY DISCREPANCIES ARE FOUND BEFORE PROCEEDING. NOTIFY ENGINEER IMMEDIATELY IF EXISTING CONDITIONS DO NOT MATCH, OR SEEM IN CONFLICT WITH, INFORMATION SHOWN ON DRAWINGS.</li> </ol>	<ol> <li>STRUCTURAL TESTS AND SPECIAL INSPECTIONS ON THE TYPES OF WORK LISTED STATEMENT OF SPECIAL INSPECTIONS.</li> <li>THE DESIGNATED ENGINEER OF RECORD FOR SPECIAL INSPECTIONS SHALL BE RE</li> </ol>
	<ol> <li>DIMENSIONS INDICATED ON PLAN AS FIELD VERIFY, OR "FV", ARE DIMENSIONS THAT MAY BE REQUIRED FOR FABRICATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF DIMENSIONS IN THE FIELD NECESSARY FOR FABRICATION OF MEMBERS AND PRIOR TO SUBMISSION OF SHOP DRAWINGS.</li> </ol>	DEFINING THE ACTIVITIES OF THE INSPECTORS, FOR CERTIFYING THE QUALIFICAT INSPECTORS WITH THE AHJ, AND TO ATTEND THE PRE-CONSTRUCTION MEETING SCOPE OF SERVICES AND THE TESTING OR TEST PROCEDURES THAT ARE REQUIF OUTLINED IN THE BUILDING CODE.
	<ol> <li>CONTRACTOR TO PROVIDE PROTECTION FOR ALL EXISTING BUILDING MATERIALS AND EQUIPMENT TO REMAIN FROM DAMAGE DUE TO DEMOLITION OR CONSTRUCTION OPERATIONS PERFORMED UNDER THIS CONTRACT.</li> </ol>	<ol> <li>THE INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO VERIFY CONFORMANC APPROVED CONTRACT DOCUMENTS.</li> <li>THE INSPECTOR SHALL FURNISH DAILY INSPECTION REPORTS ON THE WORK TO T</li> </ol>
	5. THE SEQUENCE OF CONSTRUCTION SHALL BE THE RESPONSIBILITY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY GUYS, BRACING, AND OTHER SUPPORTS AS NEEDED TO SAFELY RESIST ALL GRAVITY AND LATERAL LOADS TO WHICH THE EXISTING OR PROPOSED STRUCTURE MAY BE SUBJECTED. INCLUDING LOADS FROM FRECTION	IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, AND, IF UNCORF ENGINEER AND THE AHJ.
	EQUIPMENT AND ERECTION OPERATIONS, AND WIND OR SEISMIC FORCES COMPARABLE IN INTENSITY FOR WHICH THE STRUCTURE IS DESIGNED. LOAD VERIFICATION OF EXISTING MEMBERS TO RECEIVE TEMPORARY SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR'S ENGINEER.	<ul><li>SEAL A FINAL REPORT CERTIFYING THAT TO THE BEST OF THEIR KNOWLEDGE, TH CONFORMANCE WITH THE APPROVED CONTRACT DOCUMENTS.</li><li>6. SPECIAL INSPECTION IS TO BE PROVIDED IN ADDITION TO THE INSPECTIONS CONE</li></ul>
	<ol> <li>ALL ERECTION AND CONSTRUCTION PROCEDURES SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE CODES AND ORDINANCES.</li> </ol>	AHJ AND SHALL NOT BE CONSTRUED TO RELIEVE THE OWNER OR AUTHORIZED AG REQUESTING THE INSPECTIONS REQUIRED BY IBC SECTION 110.
	<ol> <li>ALL FRAMING CONNECTIONS TO EXISTING STRUCTURE SHALL BE FIELD VERIFIED PRIOR TO SHOP DRAWING PRODUCTION AND FABRICATION. FIELD VERIFIED DIMENSIONS SHALL BE INCLUDED ON FIRST SHOP DRAWING SUBMITTAL AND NOTED AS SUCH.</li> </ol>	<ol> <li>CONCRETE: PER IBC SECTION 1705.3 AND TABLE 1705.3 WITH EXCEPTIONS. THE FORE REQUIRE SPECIAL INSPECTION: ALL CONCRETE, EXCEPT; SLAB-ON-GRADE, SIDE V PAVEMENT.</li> </ol>
	8. CONTRACTOR SHALL LOCATE REBAR IN EXIST. CONSTRUCTION PRIOR TO DRILLING OF HOLES AND SHALL TAKE CARE NOT TO DAMAGE EXIST. BARS. IF DAMAGE TO EXIST. REBAR OCCURS DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE. REPAIR PROCEDURES NOT DETAILED IN THE CONTRACT DOCUMENTS WILL REQUIRE PREPARATION BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED AND MUST DE ADDROVED BY THE ENCINEER	<ol> <li>STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STRUCTURAL STEEL SHALL B ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AI PROVIDE INSPECTION PER IBC SECTION 1704.2.5 FOR STRUCTURAL LOADING-BEAF AND ASSEMBLIES FABRICATED ON THE PREMISES OF A FABRICATOR'S SHOP. THE SHALL BE AT CONTRACTOR'S EXPENSE IF THE FABRICATOR IS NOT AN APPROVED PER SECTION 1704.2.5.1.</li> </ol>
E) NE5)	EXISTING DOCUMENTATION	9. WELDING: WELDING INSPECTION SHALL BE IN COMPLIANCE WITH AWS D1.1. THE B WELDING INSPECTOR QUALIFICATIONS SHALL BE AWS D1.1. PROVIDE SPECIAL INS
24.73	<ol> <li>THE FOLLOWING DOCUMENTS WERE USED TO REPRESENT EXISTING STRUCTURE IN THE CONSTRUCTION DOCUMENTS. NOT ALL ELEMENTS AND INFORMATION HAS BEEN PROVIDED. COPIES OF THE EXISTING DRAWINGS MAY BE AVAILABLE AT THE CONTRACTOR'S REQUEST.</li> <li>ARCHITECTURAL DRAWINGS CREATED BY KEVIN HOM + ANDREW GOLDMAN ARCHITECTS, PC DATED MARCH 29, 2002.</li> <li>STRUCTURAL DRAWINGS CREATED BY WAYMAN C. WING CONSULTING ENGINEERS, PC DATED MARCH 2002020</li> </ol>	<ol> <li>STEEL DETAILING: AN INSPECTION OF THE STEEL FRAME SHALL BE PERFORMED T COMPLIANCE WITH THE DETAILS SHOWN ON THE APPROVED CONSTRUCTION DOC AS BRACING, STIFFENING, MEMBER LOCATIONS AND PROPER APPLICATION OF JOI EACH CONNECTION.</li> </ol>
DNE5) 100 FT <sup>2</sup> DSE)	DATED MARCH 29, 2002. <u>STRUCTURAL STEEL</u>	<ol> <li>SPRAY-APPLIED FIREPROOFING: PER SECTION 1705.14.</li> <li>FIRE-RESISTANT PENETRATIONS AND JOINTS: PER SECTION 1705.17.</li> </ol>
30.19	1. FABRICATOR QUALIFICATIONS: FABRICATOR SHALL BE AISC CERTIFIED OR AN "APPROVED FABRICATOR" IN ACCORDANCE WITH THE BUILDING CODE AND APPROVED BY THE AHJ. IN LIEU OF	
	THE PREVIOUS, FABRICATOR SHALL INCLUDE IN THEIR BID THE SERVICES OF A SPECIAL INSPECTOR TO PROVIDE INSPECTION/TESTING SERVICES FOR WORK COMPLETED ON THE FABRICATOR'S PREMISES TO MEET BUILDING CODE REQUIREMENTS. AT THE COMPLETION OF WORK, FABRICATOR	IBC — TABI E 1705 3
	SHALL SUBMIT A "CERTIFICATE OF COMPLIANCE" TO THE ARCHITECT AND AHJ STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS.	REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCT
	<ol> <li>STRUCTURAL STEEL SHAPES AND CONNECTING COMPONENTS SHALL CONFORM TO THE FOLLOWING MATERIAL SPECIFICATIONS UNO: FOLLOWING MATERIAL SPECIFICATIONS;</li> </ol>	TYPE CONTINUOUS PERIODIC REFERENCE STANDARD
	FOLLOWING MATERIAL SPECIFICATIONS:         WIDE FLANGE SHAPES       ASTM A992, Fy = 50 KSI         HOLLOW STRUCTURAL SECTIONS (HSS)         ROUND       ASTM A500, GRADE C, Fy = 46 KSI         OTHER STEEL SHAPES AND PLATES       ASTM A36, Ey = 36 KSI	1.       Inspect reinforcement, including prestressing tendons, and verify placement.       ACI 318: Ch. 25.2, 25.3 26.6.1-26.6         2.       Reinforcing bar welding:       ACI 318: Ch. 25.2, 25.3 26.6.1-26.6
	HIGH STRUCTURAL BOLTS ASTM F3125, GRADE A325N MACHINE BOLTS ASTM F3125, GRADE A325N MACHINE BOLTS ASTM A307	a. Verify weldability of reinforcing bars other X
	<ol> <li>CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE BUILDING SYSTEM AT ALL TIMES DURING THE ERECTION PROCESS. ELEMENTS HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION</li> </ol>	b. Inspect single-pass fillet welds, maximum 5/16"; and c. Inspect all other welds. X — X ACI 318: 26. X —
	AND HAVE NOT BEEN INVESTIGATED FOR TEMPORARY LOADING DURING CONSTRUCTION. INVESTIGATION OF THE STRUCTURAL ELEMENTS FOR ADEQUACY DURING THE STEEL ERECTION AND CONSTRUCTION PROCESS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO	3.     Inspect anchors cast in concrete.     —     X     ACI 318: 17.       4.     Inspect anchors post-installed in hardened concrete members. (b)     —     X
	<ol> <li>PROVIDE TEMPORARY SUPPORTS AS REQUIRED TO MAINTAIN STABILITY.</li> <li>COLUMNS AND BEAMS WITH BASE, CAP OR END PLATES SHALL HAVE SQUARE CUT OR MILLED ENDS.</li> </ol>	a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist x ACI 318:
	<ol> <li>NON-METALLIC, NON-SHRINK, CHLORIDE FREE GROUT SHALL CONSIST OF A PRE-MIXED PRODUCT COMPLYING WITH ALL REQUIREMENTS OF ASTM C1107. THE 28-DAY COMPRESSIVE STRENGTH OF THE GROUT SHALL BE 5,000 PSI MINIMUM.</li> </ol>	b. Mechanical anchors and adhesive anchors not defined in 4.a.     A     17.8.2.4
	6. ALL STRUCTURAL STEEL PERMANENTLY EXPOSED TO THE WEATHER SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123. ALL DAMAGED GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780. STAINLESS AND WEATHERING STEELS, WHERE	5.       Verify use of required design mix.       —       X       ACI 318: Ch. 26.4.3, 26.4         6.       Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content       ASTM C3
	<ol> <li>WHERE CONNECTIONS ARE NOTED TO BE SLIP CRITICAL (EXAMPLE: A325-SC), BOLTS SHALL BE TIGHTENED TO THE MINIMUM PRETENSION FOR FULLY TIGHTENED BOLTS BY ONE OF THE AISC APPROVED METHODS. SUB-CRITICAL BOLTS SHALL HAVE CLASS "A" FAYING SUBFACES</li> </ol>	tests, and determine the temperature of the concrete.     X     —     ACI 318: 26 26.12       7. Inspect concrete and shotcrete placement for proper application techniques     X     —     ACI 318: 26 26.12
	<ol> <li>ALL BOLTS (HIGH STRENGTH, ANCHOR BOLTS, EXPANSION BOLTS, ADHESIVE ANCHORS, ETC.) SHALL BE INSTALLED WITH STEEL NUTS AND WASHERS. NUTS AND WASHERS FOR HIGH STRENGTH BOLTS</li> </ol>	8. Verify maintenance of specified curing temperature and techniques.     —     X     ACI 318: 26.5.3-26.5
	<ul> <li>SHALL CONFORM TO ASTM A563 AND TO ASTM F436, RESPECTIVELY.</li> <li>9. WELDING PROCEDURES, ELECTRODES, AND WELDER QUALIFICATIONS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE D1 1, AISC STANDARDS, AND LOCAL CODE REQUIREMENTS.</li> </ul>	9.     Inspect prestressed concrete for:       a.     Application of prestressing forces; and       b.     Grouting of bonded prestressing tendons.       X     —       ACI 318:       26.10
	10. ALL WELDS SHOWN ON THE DRAWINGS SHALL BE SHOP WELDS, UNO. WHERE SHOWN, FIELD WELDING SHALL BE USED. CONTRACTOR MAY SUBSTITUTE FIELD WELDS FOR SHOP WELDS AT	10. Inspect erection of precast concrete members.       —       X       ACI 318: 26         11. For precast concrete diaphragm connections or reinforcement at joints classified as moderate or       —       X       ACI 318: 26
YEXISTING	<ul> <li>THEIR DISCRETION. SHOP DRAWINGS SHALL CLEARLY NOTE ALL WELDING USING AWS A2.4 SYMBOLS.</li> <li>11. WHERE CONTINUOUS ANGLES OR BENT PLATES ARE INDICATED, PROVIDE A CONTINUOUS BUTT WELD OR FULL PENETRATION WELD AT THE SPLICE POINTS, UNO. THE STEEL FABRICATOR MAY</li> </ul>	high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category C, D, E or F, inspect such connections and reinforcement in the field for:       ACI 318: 26.13.1.3
TRUCTION. THE ERECT AND ONNECTIONS	12. COORDINATE WITH ALL OTHER TRADES WHICH STEEL INTERACTS. THIS INCLUDES BUT IS NOT LIMITED TO COORDINATING WITH MASONRY, PRECAST CONCRETE, CAST-IN-PLACE CONCRETE, JOIST, AND METAL DECK SUPPLIERS	a.     Installation of the embedded part     X     —     ACI 550.8       b.     Completion of the continuity of reinforcement across joints.     X     —
NSIBILITY OF	STRUCTURAL STEEL DELEGATED CONNECTION DESIGN	c.     Completion of connections in the field.     X        12.     Inspect installation tolerances of precast concrete
ethods, RM The Work.	1. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHICH THE PROJECT IS LOCATED TO DESIGN ALL STEEL CONNECTIONS NOT FULLY DETAILED IN THE DRAWINGS. CONNECTION DESIGN CALCULATIONS BEARING THE SEAL AND SIGNATURE OF THE ENGINEER DESDONSIPILE FOR THEIR DREPARATION SHALL BE SUBMITTED WITH THE SHOP DRAWING	diaprragm connections for compliance with ACI     —     X     26.13.1.3       13. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and     —     X     ACI 318: 26.
RAM. THE ONS AND DIRECTION, AS NOT INVOLVE	<ol> <li>CONNECTIONS SHOWN ON CONSTRUCTION DOCUMENTS ARE FOR CONCEPTUAL PURPOSES ONLY.</li> <li>CONNECTIONS SHOW ON CONSTRUCTION DOCUMENTS ARE FOR CONCEPTUAL PURPOSES ONLY.</li> </ol>	14. Inspect formwork for shape, location and dimensions of the concrete member being     —     X     ACI 318: 26 11 1 20
BE INSTALLED	SHOWN IN ACCORDANCE WITH AISC LRFD OR AISC ASD SPECIFICATIONS, RESPECTIVELY, AS INDICATED ON THE DRAWINGS. WHERE NO REACTION HAS BEEN PROVIDED, THE CONNECTION CAPACITY SHALL NOT BE LESS THAN ONE-HALF THE MAXIMUM FACTORED UNIFORM LOAD LISTED IN THE AISC CONSTRUCTION MANUAL FOR THE GIVEN BEAM, SPAN, AND GRADE OF STEEL SPECIFIED.	<ul> <li>a. Where applicable, see also Section 1705.13, Special inspections for seismic resistance.</li> <li>b. Specific requirements for special inspection shall be included in the research report for the and approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. When requirements are not provided, special inspection requirements shall be specified by the regist</li> </ul>
RING THE CTURE NOTED NOR APPROVE, N OR NG CTOR SHALL RY FOR	<ol> <li>ALL MEMBER FORCES SHOWN ARE TO BE TRANSFERRED TO THE WORK POINT. THE WORK POINT IS DEFINED AS THE INTERSECTION OF ALL CENTROIDS OF THE MEMBERS FRAMING INTO THE JOINT. AT BRACED FRAMES WHERE HORIZONTAL MEMBERS FRAMING INTO THE JOINT HAVE VARYING DEPTHS, AND SIMILAR TOP OF STEEL ELEVATIONS, THE WORK POINT SHALL BE BASED ON THE CENTER LINE OF THE HORIZONTAL MEMBER OF LEAST DEPTH (IE, THE WORKPOINT WILL NOT NECESSARILY CORRESPOND TO THE DEEPER MEMBER).</li> <li>SUBMITTALS</li> </ol>	professional and shall be approved by the building official prior to the commencement of the w
ED TO THE	1. THE FOLLOWING ITEMS ARE REQUIRED STRUCTURAL SUBMITTALS AS DESCRIBED IN THE SPECIFICATIONS	
AY NOT BE CUT M TO SIMILAR	a. 051200 STRUCTURAL STEEL FRAMING	
	2. THE FOLLOWING ITEMS ARE DELEGATED DESIGN (DEFERRED SUBMITTALS PER THE BUILDING CODE)	
DISCREPANCIES PECIFICATIONS, /ISE BY THF	a. 051200 STRUCTURAL STEEL CONNECTIONS b. 055000 METAL FABRICATIONS c. 055113 METAL GRATING STAIRS	
	d. 055213 PIPE AND TUBE RAILINGS	

3. DELEGATED DESIGN SUBMITTAL CALCULATIONS AND/OR SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE ENGINEER RESPONSIBLE FOR THEIR PREPARATION AND SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW WITH THE SHOP DRAWING SUBMITTAL. ONCE REVIEWED, CONTRACTOR SHALL FORWARD TO THE AHJ FOR APPROVAL. FABRICATION AND INSTALLATION OF THE DELEGATED DESIGN SUBMITTAL ITEMS SHALL NOT OCCUR UNTIL APPROVAL OF THE AHJ IS RECEIVED.

			AISC 360 — TABLE N5.4-3	
ATIVE	E SHALL EMI	PLOY ONE	INSPECTION TASKS AFTER WELDING	
ES TO ORK L	) PERFORM LISTED IN TI	ΗE	INSPECTION TASKS AFTER WELDING	QC
-			Size, length and location of welds	P
SHAL QUAL	L BE RESPO	ONSIBLE FOR	<ul><li>Welds meet visual acceptance criteria</li><li>Crack prohibition</li></ul>	
MEI RE I	ETING TO D	EFINE THEIR AS	<ul> <li>Weld / base-metal fusion</li> <li>Crater cross section</li> </ul>	-
			Weld profiles     Weld size	
ONFO	RMANCE W	ITH THE	Undercut     Porosity	
E WOF	RK TO THE (	OWNER'S	Arc strikes	Р
e Brc ), if ui	DUGHT TO T	HE ED, TO THE	k-area [a] Weld access holes in rolled heavy shapes and build-up heavy shapes [b]	P P
			Backing removed and weld tabs removed (if required)	P
SHAL NLED	L COMPLET	'E, SIGN AND DRK IS IN	Repair activities Document acceptance or rejection of welded joint or member	P P
			No prohibited welds have been added without the approval of the EOR	O dha kana a
TIONS	S CONDUCT	ED BY THE FROM	the web k-area for cracks within 3 inches (75 mm) of the weld.	the K-area, V
			[b] After rolled heavy shapes (see Section A3.1c) and built-up heavy shapes (see Section inspect the weld access hole for cracks.	n A3.1d) are
IONS. RADE	. The follo , side walk	OWING ITEMS (S, AND	O - Observe these items on a random basis. Operations need not be delayed pending thes	e inspection
EEL S	SHALL BE IN			
MENT DADIN	IS OF AISC 3	60-16. MEMBERS	AISC 360 — TABLE N5.6-1	
S SHO I APPI	OP. THESE IN ROVED FAB	ISPECTIONS RICATOR		00
-	<b></b>		Manufacturer's certifications available for fastener materials	0
D1.1 PEC	I. THE BASIS CIAL INSPEC	FOR TION IN	Fasteners marked in accordance with ASTM requirements	0
2			Proper tasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	0
FOF ارت		RIFY	Proper bolting procedure selected for joint detail	0
FION	NOF JOINT E	DETAILS AT	Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	0
			Pre-installation verification testing by installation personnel observed and documented for	P
			Proper storage provided for bolts nuts washers and other fastener components	
			O - Observe these items on a random basis. Operations need not be delayed pending thes	e inspectior
			P - Perform these tasks for each bolted connection.	
ONS	STRUCTION		AIGU 300 — TABLE N5.6-2 INSPECTION TASKS DURING BOLTING	
REF	ERENCED	IBC	INSPECTION TASKS DURING BOLTING	QC
STA	ANDARD (a)	REFERENCE	Fastener assemblies placed in all holes and washers and nuts are positioned as required	0
ACI 3 25	318: Ch. 20, 5.2, 25.3,	_	loint brought to the spug-tight condition prior to the pretensioning operation	
26.	.6.1-26.6.3		Fastener component not turned by the wrench prevented from rotating	0
			Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges	0
•			O - Observe these items on a random basis. Operations need not be delayed pending these	e inspection
ACI	318: 26.6.4	-	P - Perform these tasks for each bolted connection.	I
ACI	318: 17.8.2	_	AISC 360 — TABLE N5.6-3	
			INSPECTION TASKS AFTER BOLTING	
A	ACI 318:	_	INSPECTION TASKS AFTER BOLTING	QC
	17.0.2.4		O - Observe these items on a random basis. Operations need not be delayed pending thes	e inspections
ACI	318: 17.8.2	—	P - Perform these tasks for each bolted connection.	
ACI 3 26.4	318: Ch. 19, .4.3, 26.4.4	1904.1, 1904.2		
ACI 3 26.4 AS	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172	1904.1, 1904.2	AISC 360 — TABLE N5.4-1	
ACI 3 26.4 AS AS	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12	1904.1, 1904.2 —	AISC 360 — TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING	
ACI 3 26.4 AS ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12	1904.1, 1904.2 	AISC 360 — TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING INSPECTION TASKS PRIOR TO WELDING Welder qualification records and continuity records	QC
AS ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318:	1904.1, 1904.2 — —	AISC 360 — TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING INSPECTION TASKS PRIOR TO WELDING Welder qualification records and continuity records Welding procedure specifications (WPS) available	QC P P
ACI 3 26.4 AS ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5	1904.1, 1904.2 — — —	AISC 360 — TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING INSPECTION TASKS PRIOR TO WELDING Welder qualification records and continuity records Welding procedure specifications (WPS) available Manufacturer certifications for welding consumables available Material identification (type / grade)	QC P P P
ACI (26.4 AS ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5	1904.1, 1904.2 — — —	AISC 360 — TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING INSPECTION TASKS PRIOR TO WELDING Welder qualification records and continuity records Welding procedure specifications (WPS) available Manufacturer certifications for welding consumables available Manufacturer certification (type / grade) Welder identification (type / grade)	QC P P P O O
ACI ( 26.4 AS ACI ACI 26. 26.	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10	1904.1, 1904.2 — — — — —	AISC 360 — TABLE N5.4-1 INSPECTION TASKS PRIOR TO WELDING INSPECTION TASKS PRIOR TO WELDING Welder qualification records and continuity records Welding procedure specifications (WPS) available Manufacturer certifications for welding consumables available Material identification (type / grade) Welder identification system [a] Fit-up of groove welds (including joint geometry) • Joint preparations	QC P P P O O
ACI ( 26.4 AS ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9	1904.1, 1904.2 — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)	QC P P P O O O
ACI ( 26.4 AS ACI ACI 26. ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9	1904.1, 1904.2 — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing tupe and fit (if engligeble)	QC P P P O O O
ACI 3 26.4 AS ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9	1904.1, 1904.2 — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including ioint	QC P P P O O O
ACI ( 26.4 AS ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9 ACI 318: 26.12	1904.1, 1904.2 — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)	QC P P O O O
ACI ( 26.4 AS ACI ACI ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9 ACI 318: 26.10 CI 318: 26.9	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)	QC P P P O O O
ACI ( 26.4 AS ACI ACI ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9 ACI 318: 26.10 CI 318: 26.9	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Dimensions (alignment, root opening, root face, b	QC P P P O O O
ACI ( 26.4 AS ACI ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9 ACI 318: 26.10 CI 318: 26.9	1904.1, 1904.2 	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Cleanliness (condition of st	QC P P O O O P P
ACI ( 26.4 AS ACI ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: .5.3-26.5.5 ACI 318: 26.10 CI 318: 26.9 ACI 318: 26.13.1.3 ACI 318: 27.13.1.3 ACI 318.1.3 ACI 318.1.3 ACI 318.1.3 ACI 318.1.3 ACI 318.1.	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         Configuration and finish of access holes </td <td>QC P P O O O P P</td>	QC P P O O O P P
ACI ( 26.4 AS ACI ACI ACI ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19, .4.3, 26.4.4 STM C31 STM C172 I 318: 26.5, 26.12 CI 318: 26.5 ACI 318: 26.10 CI 318: 26.9 ACI 318: 26.10 CI 318: 26.9 ACI 318: 26.13.1.3 ACI 318: 26.13.1.3	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         Configuration and finish of access holes         Fit-up of fillet welds         • Dimensions (alignment, gaps at root)         • Cleanliness (condition of steel surfaces)	QC P P O O O P P O
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ACI ( 26.4 AS ACI ACI 26. ACI ACI ACI ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19,         .4.3, 26.4.4         STM C31         STM C172         I 318: 26.5,         26.12         I 318: 26.5         ACI 318:         .5.3-26.5.5         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         26.13.1.3         STM CI 318:         26.13.1.3         ACI 318:         26.13.1.3         STM CI 318:         26.13.1.3	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1           INSPECTION TASKS PRIOR TO WELDING           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (WPS) available           Manufacturer certifications for welding consumables available           Material identification (type / grade)           Welder identification system [a]           Fit-up of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (if applicable)           Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           Fit-up of fillet welds           • Dimensions (alignment, gaps at root)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Cherk welding equipment           [a]         The fabri	QC P P O O O O P O O O O O Io has welde e inspection
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ACI 3 26.4 AS AS ACI ACI ACI ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19,         .4.3, 26.4.4         STM C31         STM C172         I 318: 26.5,         26.12         I 318: 26.5         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.13.1.3         ACI 318:         26.13.1.4         Sint.1.2         b: of the anchor is         es. Where spine         r the anchor is         r the anchor is         soft the work.	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4.1           INSPECTION TASKS PRIOR TO WELDING           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (WPS) available           Manufacturer certifications (WPS) available           Material identification (type / grade)           Welder identification system [a]           Fit-up of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (if applicable)           Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           Fit-up of fillet welds           • Dimensions (alignment, gaps at root)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Check welding equipment           [a] The fabricator or erector, as applicable, shall maintain	QC P P P O O O O O O O O O O O O O O O O
ACI 3 26.4 AS AS ACI ACI ACI ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19,         .4.3, 26.4.4         STM C31         STM C172         I 318: 26.5,         26.12         I 318: 26.5         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         S.11.1.2(b)         xe.         r the anchor is         es. Where sp         he registered         xof the work.	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1           INSPECTION TASKS PRIOR TO WELDING           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (WPS) available           Manufacturer certifications for welding consumables available           Material identification (type / grade)           Welder identification system [a]           Fit-up of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (if applicable)           Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           Fit-up of fillet welds           • Dimensions (alignment, gaps at root)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Check welding equipment           [a] The fabricator or erector, as applicab	QC P P O O O O O O O O O O O O O O O O O
ACI 3 26.4 AS AS ACI ACI ACI ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19,         .4.3, 26.4.4         STM C31         STM C172         I 318: 26.5,         26.12         I 318: 26.5         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         20.13.1.3         318: 26.11.2         ACI 318:         20.13.1.3         318: 26.11.2         ACI 318:         3.11.1.2(b)         xe.         r the anchor is         es. Where sp         he registered         xof the work.	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4.1           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (WPS) available           Manufacture certifications for welding consumables available           Material identification (type / grade)           Welder identification system [a]           FILup of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (if applicable)           FILup of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           FILup of filler welds           • Dimensions (alignment, gaps at root)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Check weldig equipment           [a]           The fabricator or rerector, as applicable, shall maintain a system by which a	QC P P P O O O O P O O O O O O O O O O O
ACI 3 26.4 AS AS ACI ACI 26. ACI ACI ACI ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19,         .4.3, 26.4.4         STM C31         STM C172         I 318: 26.5,         26.12         I 318: 26.5         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         20.13.1.3         318: 26.11.2         ACI 318:         318: 26.11.2         ACI 318:         318: 26.11.2         ACI 318:         318: 26.11.2	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1         INSPECTION TASKS PRIOR TO WELDING         INSPECTION TASKS PRIOR TO WELDING         Welder qualification records and continuity records         Welding procedure specifications (WPS) available         Manufacturer certifications for welding consumables available         Material identification (type / grade)         Welder identification system [a]         Fit-up of groove welds (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         • Backing type and fit (if applicable)         Fit-up of CLP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)         • Joint preparations         • Dimensions (alignment, root opening, root face, bevel)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         Configuration and finish of access holes         Fit-up of fillet welds         • Dimensions (alignment, gaps at root)         • Cleanliness (condition of steel surfaces)         • Tacking (tack weld quality and location)         Check weldig ality and location)          Check weldig ality and beat	QC P P P O O O O O O O O O O O O O O O O
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ACI 3 26.4 AS ACI ACI ACI ACI ACI ACI ACI ACI	318: Ch. 19,         .4.3, 26.4.4         STM C31         STM C172         I 318: 26.5,         26.12         I 318: 26.5         ACI 318:         .5.3-26.5.5         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         5.11.1.2(b)         xe.         r the anchor is         es. Where sp         he registered         xof the work.	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1           INSPECTION TASKS PRIOR TO WELDING           Welding procedure specifications (WPS) available           Manufacture certification records and continuity records           Welding procedure specifications (WPS) available           Manufacture certification (type / grade)           Welder identification system [a]           Fit-up of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (if applicable)           Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           Fit-up of fillet welds           • Tacking (tack weld quality and location)           Check welding aquipment           (a)         The fabricator or erector, as applicable, shall maintain a system by which a welder whintere can be identified. Stamps, if used, shall be the low-stress type.           O - Observe these items on a random basis. Op	QC P P P O O O O O O O O O O O O O O O O
13. 43.90  = 0   A3.    A    0    A   0   A    0   A    0   A    0   A    0   A    0   A    0   A    0   A     A    A    A    A    A    A    A	318: Ch. 19,         .4.3, 26.4.4         STM C31         STM C172         I 318: 26.5,         26.12         I 318: 26.5         ACI 318:         .5.3-26.5.5         ACI 318:         26.10         CI 318: 26.9         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         26.13.1.3         318: 26.11.2         ACI 318:         26.13.1.3	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4-1           INSPECTION TASKS PRIOR TO WELDING           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (MPS) available           Manufacture certifications for welding consumables available           Material identification (type / grade)           Welder identification system [a]           FI-up of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (if applicable)           FI-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           FI-up of fillet welds           • Dimensions (alignment, gaps at root)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Check welding equipment           [a]         The fabricact	QC P P P O O O O O O O O O O O O O O O O
	18: Ch. 19,         4.3, 26.4.4         STM C31         TM C172         318: 26.5,         26.12         318: 26.5         CI 318:         5.3-26.5.5         CI 318:         26.10         318: 26.9         CI 318:         5.13.1.3         CI 318:         5.13.1.3         CI 318:         3.13.1.3         18: 26.11.2         CI 318:         3.13.1.3         18: 26.11.2         CI 318:         3.13.1.3         18: 26.11.2         CI 318:         3.13.1.3	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4.1           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (WPS) available           Manufacturer certifications for welding consumables available           Material identification (type / grade)           Welder identification system [a]           FI-tup of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (fapplicable)           FI-tup of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           FI-tup of filter welds           • Dimensions (alignment, root applicable, shall maintain a system by which a welder whith member can be identified. Stamps, if used, shall be the low-stress type.           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Check welding equipment	QC P P O O O O O O O O O O O O O O O O O
	318: Ch. 19,         4.3, 26.4.4         STM C31         STM C172         318: 26.5,         26.12         1318: 26.5         XCI 318:         5.3-26.5.5         XCI 318:         26.10         1318: 26.9         XCI 318:         6.13.1.3         CI 318:         6.13.1.3         XCI 318:         6.13.1.3         XCI 318:         6.13.1.3         XI8: 26.11.2         XCI 318:         6.13.1.3         XI8: 26.11.2         XCI 318:         .11.1.2(b)         3.         the anchor is:         s. Where spie         e registered of the work.	1904.1, 1904.2 — — — — — — — — — — — — — — — — — — —	AISC 360 — TABLE N5.4.1           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (WPS) available           Manufacturer certifications for welding consumables available           Material identification (type / grade)           Welder identification system [a]           Fit-up of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (fa applicable)           Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           Fit-up of fillet welds           • Dimensions (alignment, gaps at root)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Charliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Chearliness (con	QC P P P O O O O O O O O O O I O I O I O I
	18: Ch. 19, .3, 26.4.4 TM C31 TM C172 318: 26.5, 26.12 318: 26.5 CI 318: 5.3-26.5.5 CI 318: 26.10 318: 26.9 CI 318: 5.13.1.3 CI 318: 5.13.1.3 CI 318: 5.13.1.3 CI 318: 5.13.1.3 CI 318: 11.1.2(b) the anchor is s. Where sp ergistered of the work.	1904.1, 1904.2 	AISC 360 — TABLE N5.4.1           INSPECTION TASKS PRIOR TO WELDING           Welder qualification records and continuity records           Welding procedure specifications (WPS) available           Manufacture cretifications for welding consumables available           Material identification system [a]           Flup of groove welds (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           • Backing type and fit (ff applicable)           Fitup of CJP groove welds of HSS T., Y- and K-joints without backing (including joint geometry)           • Joint preparations           • Dimensions (alignment, root opening, root face, bevel)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Configuration and finish of access holes           Fitup of filler welds           • Dimensions (alignment, gaps at root)           • Cleanliness (condition of steel surfaces)           • Tacking (tack weld quality and location)           Chear these tasks for each welded joint or member.           • Observe these items on a random basis. Operations need not be delayed pending these           • Perform these tasks for each welded joi	QC P P P O O O O P O O O O O O O O O O O

P - Perform these tasks for each welded joint or member.

ABBREVIAT	TIONS ARE AS SHOWN IN THE CONTRACT E	DOCUN
# @ Ø	REINFORCING BAR SIZE, SHEET METAL SCREW SIZE AT (SPACING) DIAMETER	LB(S) Ld Ldh
AB ABC ADDL AFF AHJ ALT ANCH APPROX AR ARCH	ANCHOR BOLT AGGREGATE BASE COURSE ADDITIONAL ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION ALTERNATE ANCHOR APPROXIMATE ANCHOR ROD ARCHITECTURAL	LF LFRS LIN LL LLBB LLH LLV LONG LS LSH LVL
B/ BOD BLDG BLKG BM(S) BOF BOL BOS BOT BRBF BRG BTWN	BOTTOM OF BOTTOM OF DECK BUILDING BLOCKING BEAM(S) BOTTOM OF FOOTING BOTTOM OF LINTEL BOTTOM OF STEEL BOTTOM BUCKLING RESTRAINED BRACED FRAME BEARING BETWEEN	LW LWC MAX MECH MF MFR MIN MISC MIN MISC MTL MWFF (N)
C CANT'L CFMF CJ CJP CL CLR CMU COL CONP CONC CONN(S) CONST CONT CONTR CSTJ CTR	CHANNEL CANTILEVER COLD-FORMED METAL FRAMING CAST-IN-PLACE CONTROL JOINT COMPLETE JOINT PENETRATION CENTERLINE CLEAR CONCRETE MASONRY UNIT COLUMN COMPOSITE CONCRETE CONNECTION(S) CONSTRUCTION CONSTRUCTION CONTINUOUS CONTRACT(OR) CONSTRUCTION JOINT CENTER	NA NIC NO NS NTS NWC OCBF OCCS OD OF OH OMF OPP OWJ PAF
(D) DBA DCW DEG DIA DIAG DIM DL DO DT DTL DWG(S) DWL(S)	DEMOLISH DEFORMED BAR ANCHOR DEMAND CRITICAL WELD DEGREE DIAMETER DIAGONAL DIMENSION DEAD LOAD DITTO PRESTRESSED PRECAST DOUBLE TEE DETAIL DRAWING(S) DOWEL(S)	PC PCBE PCF PERP PJP PL PLF PLWD PREF, PROJ PSF PSI
(E) EA EBF EE EF EJ EL ELEC ELEV EMBED EN ENG EOD EOR EOS EQ EQUIP EQUIV EW EXP EXT	EXISTING EACH ECCENTRICALLY BRACED FRAME EACH END EACH FACE EXPANSION JOINT ELEVATION ELECTRICAL ELEVATOR EMBEDMENT, EMBEDDED EDGE NAILING ENGINEERED WOOD PRODUCT ENGINEER EDGE OF DECK ENGINEER OF RECORD EDGE OF SLAB EQUAL EQUIPMENT EQUIVALENT EACH WAY EXPANSION EXTERIOR	PTW RAD RC REF REINF REQ(I REV(S RTU SCBF SCCS SCHE SDL SDS SCHE SDS SCHE SDS SSH SECT SEOR SFRS SFRS SIM SI
fc fm FD FDN FRT FS FT FTG FV FV Fy	SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE SPECIFIED COMPRESSIVE STRENGTH OF MASONRY FLOOR DRAIN FOUNDATION FIRE RESISTANCE TREATED FAR SIDE FEET (FOOT) FOOTING FIELD VERIFY YIELD STRENGTH	SL SMF SOG SPA SPEC SST STAG STD STIFF STL STRU SYM t
GA GALV GB GC GLB GR	GAGE, GAUGE GALVANIZED GRADE BEAM GENERAL CONTRACTOR GLUE LAMINATED BEAM GRADE	T&B T&G TC TCW TEMP THRD T/ T/
H HC HDR HORIZ HS	HEIGHT PRESTRESSED PRECAST HOLLOW CORE HEADER HORIZONTAL HEADED STUD	TOC TOF TOS TOW TPE
ID IF IMF IN INC INT	INSIDE DIAMETER INSIDE FACE INTERMEDIATE MOMENT FRAME INCH INCLUDE(ING) INTERIOR	TSE TWE TYP UNO VERT VFY
JBE JST	JOIST BEARING ELEVATION JOIST	W/O WD

ABBREVIATIONS

JOINT

KIP (1.000 LBS)

KIPS PER SQUARE FOOT

WFRS

WGT

WP

WPS

WWR

X-STR

WТ

KSF





			К К.9		5) (J.9	<ul> <li>A. EXISTING ROOF CONSTECONCRETE ON 1 1/2"X20 3/4" TOTAL THICKNESS) &amp; WIDE FLANGE BEAMS AN STEEL GIRDERS.</li> <li>B. 1" GALVANIZED MANUFACTURED BY MCI GRATING TO SUPPORT S PROVIDE GALVANIZED S BAR GRATING SPECIFIEI</li> <li>C. APPROXIMATE A LIGHT-WEIGHT CEMENTI SLOPE ROOF TOWARDS NOT EXCEED 2" IN THICK</li> <li>D. P-1 DENOTES (N) GALVA STRUCTURAL DESIGN IN INSTALLED AND ANCHOF SEE TYPICAL DETAIL ON</li> </ul>
2"	±	1' - 9" ±		9' - 5 1/4" ±	 	E. ALL STRUCTURAL STEEL TOUCH-UP STRUCTURAL GALVANIZED FINISH IS B STRUCTURAL STEEL.
	(E) C12X20.7		(E) C12X20.7	(E) C12X20.7	(E) C12X20.7	F. SEE ARCHITECTURAL DE EXTENTS OF ROOF SLOE BECESSES BAISES AND
	(E) W16X26		(E) W16X26	(E) W14X22 —	(E) W14X22	G. SEE MEP DWGS FOR DU
			$\otimes$			ROOF PENETRATIONS, V DRAWINGS OR NOT.
			$\otimes$			FOLLOWING, WHETHER DRAWINGS OR NOT: a. PIPE RUNS, SLEEVES b. CONDUIT RUNS, BOX c. EMBEDS, ANCHORAC DUCTS, PIPING, ETC.
	(E) W14X22 (HI+LO)		(E) W12X19 (HI+LO)		(E) W12X22	J. EQUIPMENT SIZES, LOCA STRUCTURAL DRAWING CHANGE. COORDINATE WITH CERTIFIED FOLIDA
						STRUCTURAL ANALYSIS MODIFICATIONS TO THE FOR THE ROOF TO NO L DIRECTION OF THE OWN STRUCTURAL DRAWING WING CONSULTING ENG THE EXISTING ROOF SHO DESIGNED FOR 100 PSF LOAD CAPACITIES ARE L ON SHEET SO.1.
			(E) W12X19 (HI+LO)			
	(E) STAIR		(E) C12X20.7			
	19					

TRUCTION: 3 1/4" NORMAL WEIGHT 20GA GALVANIZED COMPOSITE DECK (4 6) SUPPORTED BY COMPOSITE STEEL AND NON-COMPOSITE WIDE FLANGE

PLAN NOTES

ED TYPE GW STEEL BAR GRATING MCNICHOLS (MAX SPAN 4'-0"). FASTEN BAR IT STEEL W/ SADDLE CLIPS @ 12" OC & D STEEL SHIMS TO LEVEL AS NECESSARY. FIED LIVE LOAD IS 40 PSF.

E AREA OF EXISTING ROOF TO RECIEVE TITIOUS LEVELING COMPOUND TO RE-S DRAINS. LEVELING COMPOUND MAY XNESS (22 PSF TOTAL).

VANIZED ROUND HSS4.00X0.313 POST-UP. I INTENT IS FOR (N) POSTOUPS TO BE HORED TO EXISTING STEEL ROOF BEAMS. ON SHEET S2.1 FOR ADDITIONAL INFO. EEL IS TO BE HOT DIPPED GALVANIZED. RAL STEEL WITH ZINC-RICH PAINT IF S BLEMISHED AFTER INSTALLATION OF

DRAWINGS FOR LOCATIONS AND DPES, ELEVATION CHANGES, AS WELL AS D DEPRESSIONS.

DUCT SUPPORT LOCATIONS & DETAILS. AND MEP DRAWINGS FOR SLAB AND S, WHETHER INDICATED ON STRUCTURAL

SPECIALTY DRAWINGS FOR THE ER INDICATED ON STRUCTURAL VES, HANGERS, AND TRENCHES. BOXES, AND OUTLETS. RAGE AND BRACING FOR EQUIPMENT,

DCATIONS AND WEIGHTS INDICATED ON NGS ARE SCHEMATIC AND SUBJECT TO TE FINAL SELECTION AND PLACEMENT IPMENT MANUFACTURER DRAWINGS. FINAL SELECTION DIFFERS FROM THOSE







ADDENDUM #4 12/06/23 REVISIONS

57-23106



S1.1





6 SECTION S2.1 SCALE: 3/4" = 1'-0"





D



# FASHION INSTITUTE of TECHNOLOGY State University of New York 300 7TH AVENUE NEW YORK, NY 10001 **REPLACEMENT OF EAST COURTYARD &** POMERANTZ AC UNITS

PROJECT DATA LOCATION 300 7TH AVENUE NEW YORK, NY 10001 PROPERTY IS NOT LOCATEI IN SPECIAL FLOOD HAZARD



NOT TO SCALE



P 212.643.905

DRAWING NAME	DRAWING TITLE
T-001.00	COVER SHEET
EN-001.00	MECHANICAL ENERGY COMPLIANCE
MECHANICAL	
M-001.00	MECHANICAL SYMBOL LIST, NOTES, AND ABBREVIATIONS
M-011.00	EAST COURTYARD CELLAR MECHANICAL DEMOLITION VAV CONTROLLER NETWORK PLAN
M-012.00	EAST COURTYARD CELLAR MECHANICAL DEMOLITION PLAN
M-013.00	EAST COURTYARD ROOF MECHANICAL DEMOLITION PLAN
M-014.00	POMERANTZ SUBCELLAR MECHANICAL DEMOLITION PLAN
M-015.00	POMERANTZ CELLAR MECHANICAL DEMOLITION PLAN
M-016.00	POMERANTZ ROOF MECHANICAL DEMOLITION PLAN
M-101.00	EAST COURTYARD CELLAR MECHANICAL NEW WORK VAV CONTROLLER NETWORK PLAN
M-102.00	EAST COURTYARD CELLAR MECHANICAL NEW WORK PIPING PLAN
M-103.00	EAST COURTYARD FIRST FLOOR MECHANICAL EXISTING PIPING PLAN
M-104.00	EAST COURTYARD FIRST FLOOR MECHANICAL EXISTING DUCTWORK PLAN
M-105.00	EAST COURTYARD ROOF MECHANICAL NEW WORK PLAN
M-106.00	POMERANTZ SUBCELLAR MECHANICAL NEW WORK PLAN
M-107.00	POMERANTZ CELLAR MECHANICAL NEW WORK PLAN
M-108.00	POMERANTZ ROOF MECHANICAL NEW WORK PLAN
M-109.00	POMERANTZ ROOF MECHANICAL TEMPORARY WORK PLAN
M-301.00	EAST COURTYARD ROOF MECHANICAL DEMOLITION SECTION "A-A"
M-302.00	EAST COURTYARD ROOF MECHANICAL DEMOLITION SECTION "B-B"
M-303.00	POMERANTZ SUB-CELLAR MECHANICAL DEMOLITION SECTION "C-C"
M-304.00	POMERANTZ ROOF MECHANICAL DEMOLITION SECTION "D-D" & "E-E"
M-305.00	EAST COURTYARD ROOF MECHANICAL NEW WORK SECTION "A-A"
M-306.00	EAST COURTYARD ROOF MECHANICAL NEW WORK SECTION "B-B"
M-307.00	POMERANTZ SUB-CELLAR MECHANICAL NEW WORK SECTION "C-C"
M-308.00	POMERANTZ ROOF MECHANICAL NEW WORK SECTIONS "D-D" & "E-E"
M-401.00	POMERANTZ AC-2D RIGGING PATH
M-501.00	MECHANICAL DETAILS 1
M-502.00	MECHANICAL DETAILS 2
M-503.00	MECHANICAL DETAILS 3
M-504.00	MECHANICAL DETAILS 4
M-505.00	EAST COURTYARD AIR HANDLING UNITS DETAILS AND NOTES
M-506.00	POMERANTZ AIR HANDLING UNITS DETAILS AND NOTES
M-601.00	EAST COURTYARD MECHANICAL AIR FLOW RISER DIAGRAM
M-602.00	EAST COURTYARD HOT WATER FOR REHEAT COILS & STEAM FLOW DIAGRAM
M-603.00	POMERANTZ MECHANICAL AIR FLOW DIAGRAM
M-604.00	POMERANTZ MECHANICAL AIR FLOW RISER DIAGRAM
M-701.00	EAST COURTYARD MECHANICAL SCHEDULES
M-702.00	POMERANTZ MECHANICAL SCHEDULES
M-801.00	EAST COURTYARD AC-1ECY MECHANICAL CONTROL DIAGRAM
M-802.00	EAST COURTYARD AC-2ECY MECHANICAL CONTROL DIAGRAM
M-803.00	EAST COURTYARD AC-3ECY MECHANICAL CONTROL DIAGRAM
M-804.00	POMERANTZ AC-2D MECHANICAL CONTROL DIAGRAM
M-805.00	POMERANTZ AC-3D MECHANICAL CONTROL DIAGRAM
M-806.00	MECHANICAL CONTROL DIAGRAMS
M-807.00	EAST COURTYARD CELLAR MECHANICAL CONTROL WIRING PLAN
M-808.00	EAST COURTYARD BAS ARCHITECTURE

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M-809.00

POMERANTZ BAS ARCHITECTURE

LIST OF DRAWINGS

NEW YORK CITY ENERGY CONSERVATION CODE TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 NEW YORK CITY ENERGY CONSERVATION CODE.

12/08/2023



ELECTRICAL		
E-001.00	ELECTRICAL SYMBOLS AND NOTES	
E-010.00	EAST COURTYARD ELECTRICAL CELLAR DEMOLITION PLAN	
E-011.00	EAST COURTYARD ROOF ELECTRICAL DEMOLITION PLAN	
E-012.00	POMERANTZ SUBCELLAR ELECTRICAL DEMOLITION PLAN	
E-013.00	POMERANTZ CELLAR ELECTRICAL DEMOLITION PART PLAN	
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E-100.00	EAST COURTYARD CELLAR ELECTRICAL POWER PLAN	
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FA-104.00	POMERANTZ ROOF FIRE ALARM PLAN	
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Г-100.00	STRUCTURAL STEEL NOTES	
<b>4</b> -100.00	CELLAR PLAN - AREA OF WORK	
4-200.00	EXISTING FRAMING CONDITIONS	
A-300.00	PROPOSED & EXISTING PLATFORMS	
A-400.00	PROPOSED STEEL FRAME	
A-500.00	PROPOSED STEEL FRAME / SECTION A	
A-600.00	STEEL DETAILS	
		$\frown$
50.1	STRUCTURAL GENERAL NOTES	
S1.1	PARTIAL EXISTING ROOF FRAMING PLAN	
S2.1	TYPICAL ROOF FRAMING DETAILS AND SECTIONS	

rev. no.	date revisions	3	
	12/08/23 AD 10/27/23 ISS WEST 20TH STR B B B B B B B B B B B B B B B B B B B	DENDUM #4 SUED FOR BID EET C Nogion REET BLOCK: 111 LOT: 31	
Fash	ion Institute /est 27th Stre /ork, NY 10001 Consultant ///////////////////////////////////	e of Tec oet S S E E gineer success York, N.Y. 10001 www.mgedpc.net	hnology
Envir EPM, 983 M Lake S Struc Dariu 236 W	onmental Inc. arcus Ave. Suite Success, NY 1104 tural Cons <b>s Toraby Ar</b> e est 27th Street	Consulta 109 2 / (516) 328 sultants <b>chitects P</b> 1401	nts 3-1194 <b>P.C.</b>
New Y	ork, NY 10001 / (	(212) 242-295	5

PROJECT: EAST COURTYARD & POMERANTZ 300 7TH AVENUE AC UNITS REPLACEMENT DCAS R10

DRAWING TITLE: COVER SHEET

## DOB NOW JOB.

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DATE:	10/27	/2023
PROJECT No:	8969	.31
DRAWING BY:	ASB	
CHK BY:	DN	
DWG No:		
T-001.	00	)
SCALE: NTS		1 OF 1



		DECODIDITION
ABBREV.		DESCRIPTION
(E)		EXISTING WORK TO REMAIN
		NEW WORK
	\$ <del>//////////</del>	EXISTING WORK TO BE REMOVED
	۶ <b></b> ۶	DIRECTION OF FLOW
		RETURN OR EXHAUST DUCT DOWN
		RETURN OR EXHAUST DUCT UP
		SUPPLY DUCT DOWN
МП		
)/AD, FD/AD,		FIRE & SMOKE DAMPERS W/ACCESS DOOR
SD/AD	FC .	IN DUCT AT WALL
FC		FLEXIBLE CONNECTION
		ACOUSTICALLY LINED DUCT
	SD	DUCT MOUNTED SMOKE DETECTOR W/AD
		THERMOSTAT WITH DISPLAY
	H	HUMIDISTAT WITH DISPLAY
	•	CONNECT NEW TO EXISTING WORK
		POINT OF DISCONNECTION. CAP IF NOT TO
те		
15		
	<u>ب</u> ب	
	\$ <b></b> \$	WATER PRESSURE GAUGE
	<u>ک</u>	STEAM PRESSURE GAUGE WITH SYPHON
AAV	<u>ک</u>	AUTOMATIC AIR VENT
CV	بــــــ	TWO WAY CONTROL VALVE
	<u>ب کل</u>	THREE WAY CONTROL VALVE
	۶ ۶۶	BUTTERFLY VALVE
		BUTTERFLY CONTROL VALVE
PSV	<u>ب کل</u>	SAFETY RELIEF VALVE
	' ⊱\∕	GATE VALVE / SHUT-OFF VALVE
		GLOBE VALVE
		CHECK VALVE
	·····································	PLUG VALVE
	<u> </u>	COMBINATION FLOW MEASURING AND
	, <b>µ</b> , , ,, , , , , , , , , , , , , , ,	
	۲۳۲ ۲۰۲۲	STRAINER WITH CAPPED BLOW-DOWN
	<b>R</b> 3	
TDV		TRIPLE DUTY VALVE
		ECCENTRIC REDUCER
	← CHWS ← S	CHILLED WATER SUPPLY
	<b>└</b> ₽С <b>───</b>	LOW PRESSURE CONDENSATE RETURN
	⊱ LPS⊀	LOW PRESSURE STEAM
	≤ cw ≤	COLD (CITY) WATER
		END CAP
	\$\$	PUMP
	<b></b>	1 HR. FIRE RATED WALL
	<u></u>	

	ABBREVIATIONS	
	ABOVE AIR CONDITIONING	
	AIR COOLED CONDENSER ACCESS DOOR	
	ABOVE FINISHED FLOOR AIR FLOW MEASURING STATION	
	AIR HANDLING UNIT ACOUSTIC LINING	
	AIR PRESSURE DROP AUTOMATIC TEMPERATURE CONTROL	
	BOTTOM GRILLE BUIL DING MANAGEMENT SYSTEM	
	BOTTOM OF DUCT BOTTOM OF PIPE	
	BOTTOM REGISTER BRITISH THERMAL UNITS	
	CONSTANT AIRFLOW REGULATOR CONDENSATE DRAIN	
S/R	CUBIC FEET OF AIR PER MINUTE CHILLED WATER SUPPLY AND RETURN	
	COEFFICIENT OF PERFORMANCE CEILING REGISTER	
	COOLING TOWER CONNECT TO EXISTING	
/R	DOMESTIC COLD WATER MAKE-UP CONDENSER WATER SUPPLY AND RETURN	
	DRY BULB (TEMPERATURE) DIRECT DIGITAL CONTROL	
	DOWN DIFFERENTIAL PRESSURE DRAIN	
	DRAWING EXISTING	
	ENTERING AIR TEMPERATURE ELECTRIC BASEBOARD HEATER	
'	ELEVATION EXTERNAL STATIC PRESSURE	
	ELECTRIC UNIT HEATER ENTERING WATER TEMPERATURE	
	FLEXIBLE CONNECTION FIRE DAMPER COMBINATION FIRE/SMOKE DAMPER	
	FULL LOAD AMPERES	
	FUEL OIL FILL FUEL OIL RETURN	
	FUEL OIL SUPPLY FUEL OIL VENT	
	FEET FEET HOT WATER FINNED TUBE RADIATION	
	GAUGE GALLONS	
	GALLONS PER MINUTE GLYCOL SUPPLY AND RETURN	
LS/R	HORSEPOWER HEAT PUMP LOOP SUPPLY AND RETURN	
κ	HOT WATER SUPPLY AND RETURN HERTZ KILOWATT	
	LEAVING AIR TEMPERATURE POUNDS	
	LINEAR DIFFUSER LOCKED ROTOR AMPS	
	LEAVING WATER TEMPERATURE MAXIMUM	
	MINIMUM CIRCUIT AMPACITY	
	MECHANICAL EQUIPMENT ROOM MAXIMUM FUSE SIZE	
	MOTOR HORSEPOWER MINIMUM	
Ρ	MAXIMUM OVERCURRENT PROTECTION NORMALLY CLOSED	
	NOT IN CONTACT NORMALLY OPEN NOT TO SCALE	
	OUTSIDE AIR OUTSIDE AIR INTAKE	Г
	OPEN ENDED DUCT PRESSURE DROP	
	PHASE PRESSURE REDUCING VALVE	
	RETURN GRILLE REFRIGERANT LIQUID PIPING RUNNING LOAD AMPS	
	REVOLUTIONS PER MINUTE RETURN REGISER	
	REFRIGERANT SUCTION PIPING SMOKE DAMPER	
	SENSIBLE SUPPLY REGISTER	
	SMOKE PURGE EXHAUST FAN TOP GRILLE	
-	TRANSFER OPENING TOP REGISTER TRASH ROOM EXHAUST FAN	
	TOTAL STATIC PRESSURE TOILET EXHAUST	
	TYPICAL UNIT HEATER	
	UNLESS OTHERWISE NOTED VENT	
	VARIABLE AIR VOLUME VOLUME DAMPER VARIABLE ERECUENCY DRIVE	
	VARIABLE REFRIGERANT FLOW VARIABLE REFRIGERANT VOLUME	
	WET BULB (TEMPERATURE) WATER COLUMN	
	WATER COOLED CONDENSER WIRE MESH SCREEN	
	WATER PRESSURE DROP WEIGHT	

## N.Y.C. BUILDING DEPARTMENT NOTES

 ALL WORK SHALL COMPLY WITH THE APPLICABLE SECTIONS OF THE BUILDING CODE, NEW YORK CITY, EFFECTIVE NOVEMBER 7, 2022 AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE, AND MATERIALS AND EQUIPMENT SUBJECT TO SPECIAL INSPECTION.

2. THE FOLLOWING SPECIAL INSPECTIONS ARE REQUIRED BY THE NYC BUILDING CODE FOR HVAC SYSTEMS:

- a. MECHANICAL SYSTEMS. BC 1705.21
- b. MECHANICAL AND ELECTRICAL COMPONENTS 1705.12.3
  c. ENERGY CODE COMPLIANCE INSPECTIONS BC 110.3.5
- d. FINAL INSPECTIONS UNDER DIRECTIVE 14

3. THE FOLLOWING ENERGY CODE INSPECTIONS ARE REQUIRED BY THE NYC ENERGY CONSERVATION CODE FOR HVAC SYSTEMS:

- a. SHUTOFF DAMPERS (IIB2)b. HVAC-R AND SERVICE WATER HEATING SYSTEM CONTROLS -
- (IIB4)
- c. HVAC-R AND SERVICE WATER PIPING DESIGN AND INSULATION - (IIB5)
- d. DUCT LEAKAGE TESTING, INSULATION AND DESIGN (IIB6)
- e. ELECTRICAL MOTORS (IIC6) f. MAINTENANCE INFORMATION - (IID1)

4. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC., SHALL COMPLY WITH THE FOLLOWING CODE REFERENCE.

- a. TEMPERATURE CONTROL MC 309b. NOISE CONTROL AND VIBRATION ISOLATION REQUIREMENTS
- MC 313
- c. DUCT CONSTRUCTION, SUPPORT MC 603 d. AIR INTAKE, EXHAUSTS AND RELIEFS - MC 401.4
- AIR FILTERS MC 605
- f. FIRE DAMPERS AND SMOKE DAMPERS AND SMOKE DETECTORS - MC 607
- g. PIPING AND INSULATION MC 1201

5. ALL FIRE DAMPERS SHALL BE APPROVED BY THE NEW YORK CITY DEPARTMENT OF BUILDINGS AND SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH UL 555, STANDARD FOR FIRE DAMPERS AND CEILING DAMPERS.

 COMBINATION FIRE/SMOKE DAMPERS AND SMOKE DAMPERS SHALL BE ACCEPTED FOR USE BY THE NEW YORK CITY DEPARTMENT OF BUILDINGS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH UL 555S.

7. SMOKE DETECTORS, COMBINATION FIRE/SMOKE DAMPERS AND SMOKE DAMPERS SHALL BE INSTALLED AS REQUIRED TO CLOSE DAMPERS AND AUTOMATICALLY SHUT DOWN THE FAN-MC 606.

8. REFER TO DRAWINGS FOR FIRE RATED WALL LOCATIONS AND RATED CONSTRUCTION.

## NOTE

SYMBOLS AND ABBREVIATIONS LISTED IN THE TABLES ABOVE ARE TYPICAL FOR HVAC AIR AND WATER DISTRIBUTION SYSTEMS. NOT ALL OF LISTED SYMBOLS OR ABBREVIATIONS WERE USED IN THIS PROJECT.

## GENERAL NOTES

- 1. ANY EXISTING LEAD-BASED PAINT AREAS OF THE BUILDING WHERE THE CONTRACTOR AND ITS SUBCONTRACTORS ARE REQUIRED TO WORK SHALL BE MITIGATED PRIOR TO BEGINNING WORK. SUCH MITIGATION MAY INCLUDE FIT DIRECTING THE CONTRACTOR TO TAKE NECESSARY PRECAUTIONS AND WEAR PROTECTIVE GEAR TO WORK IN THE VICINITY OF THE LEAD PAINT. CONTRACTOR WILL NOT BE RESPONSIBLE FOR DELAYS CAUSED BY THE MITIGATION ACTIVITIES OR ANY ASSOCIATED COSTS.
- 2. ALL PIPING AND DUCTWORK SHALL BE SUSPENDED FROM BUILDING STRUCTURE ONLY, EXCEPT AS SPECIFICALLY ALLOWED IN THE SPECIFICATIONS. HVAC CONTRACTOR SHALL PROVIDE SUPPLEMENTARY STEEL AS NECESSARY TO SUPPORT PIPES AND DUCTS FROM BUILDING STRUCTURE. THE ARCHITECT AND STRUCTURAL ENGINEER SHALL BE THE SOLE DETERMINANT AS TO PERMISSIBILITY OF HANGING NEW WORK FROM BUILDING STRUCTURE AND SLABS.
- 3. PIPING AND DUCTWORK PROVIDED UNDER THIS CONTRACT SHALL BE COORDINATED UNDER THIS CONTRACT WITH WORK BEING PROVIDED BY OTHER TRADES.
- 4. WHILE THE DRAWINGS SHALL BE ADHERED TO AS CLOSELY AS POSSIBLE, THE ARCHITECT'S RIGHT IS RESERVED TO VARY THE RUN AND SIZE OF DUCTS DURING THE PROGRESS OF THE WORK IF REQUIRED TO MEET CEILING HEIGHTS, TO MEET STRUCTURAL AND FIELD CONDITIONS. CONTRACTOR SHALL PROVIDE REDRAWING OF SHOP DRAWINGS AS NECESSARY TO ACCOMMODATE THE ARCHITECT'S REQUIREMENTS, AT NO ADDITIONAL COST TO THE OWNER. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR REQUIRED CEILING HEIGHTS.
- 5. INSTALL ALL DUCTWORK IN STRICT ADHERENCE TO THE CEILING HEIGHTS INDICATED ON THE ARCHITECT'S DRAWINGS. CONSULT WITH OTHER CONTRACTORS AND IN CONJUNCTION WITH THE OTHER CONTRACTORS, ESTABLISH THE NECESSARY SPACE REQUIREMENTS FOR EACH TRADE.
- 6. 6. THE SHEET METAL DUCTWORK SHALL, WHETHER INDICATED OR NOT, RISE AND/OR DROP AND/OR CHANGE IN SHAPE TO CLEAR ANY AND ALL OTHER DUCTWORK, CONDUITS, LIGHTING FIXTURES, PLUMBING AND HEATING/COOLING MAINS TO MAINTAIN THE DESIRED CEILING HEIGHTS AND TO PROVIDE ADEQUATE MAINTENANCE ROOM AND HEADROOM IN MECHANICAL EQUIPMENT ROOMS. THE DRAWINGS, IN GENERAL, DO NOT SHOW ALL RISES, DROPS AND DUCT TRANSITIONS REQUIRED. THE DRAWINGS SHOW GENERAL ROUTING REQUIREMENTS ONLY.
- 7. ALL RECTANGULAR DUCTWORK, UNLESS OTHERWISE NOTED, SHALL BE BUILT FROM GALVANIZED SHEET STEEL AND THOROUGHLY BRACED AND STIFFENED.
- 8. PROVIDE 12" x 12" ACCESS DOORS EVERY 50'-0" RUN OF SUPPLY AND RETURN AIR DUCT FOR CLEANING PURPOSES, EXCEPT IN DUCT ABOVE SOUND CONTROL CEILING. PROVIDE 18" x 18" ACCESS DOORS UPSTREAM AND DOWNSTREAM OF EACH REHEAT COIL, AT EACH FIRE AND FIRE/SMOKE DAMPER, AT EACH MOTORIZED DAMPER, AT EACH CV AND VAV TERMINAL BOX AND WHEREVER ELSE INDICATED IN THE SPECIFICATION. IF THE DUCT IS TOO SMALL TO PROVIDE AN 18" x 18" ACCESS DOOR, A 12" x 12" ACCESS DOOR SHALL BE PROVIDED. SEE SPECIFICATIONS FOR ADDITIONAL ACCESS DOOR REQUIREMENTS.
- 9. SEE SPECIFICATION FOR DUCTS REQUIRED TO BE ACOUSTICALLY LINED. DIMENSIONS GIVEN ON PLANS ARE INSIDE CLEAR DIMENSIONS. INCREASE SIZE OF SHEET METAL DUCT TO PROVIDE THE SPECIFIED INSIDE CLEAR DIMENSION WITH ACOUSTICAL LINING ADDED.
- 10. PROVIDE ISOLATION VALVES WHERE TYING NEW PIPING INTO THE EXISTING SYSTEM. REFER TO THE VALVES SPECIFICATIONS FOR THE PROPER VALVE TYPE FOR THE SERVICE. REFER TO THE DRAWINGS FOR THE PIPE/VALVE SIZE. IN ADDITION TO THE ISOLATION VALVES AT THE TIE-IN POINTS, ALSO PROVIDE A BALANCING VALVE ON THE SUPPLY SIDE FOR CHILLED WATER, CHILLED GLYCOL/BRINE, CONDENSER WATER AND HEATING/REHEAT HOT WATER SYSTEM TIE-INS.
- 11. SYMBOLS AND ABBREVIATIONS SHOWN ON THE DRAWINGS ARE FOR MECHANICAL DRAWINGS ONLY. SEE OTHER TRADES DRAWINGS FOR THEIR RESPECTIVE SYMBOLS AND ABBREVIATIONS.
- 12. PRIOR TO PERFORMING ANY CORE DRILLING OR CUTTING OF EXISTING FLOOR OR ROOF SLAB, CONTRACTOR SHALL PERFORM A SCAN OF THE SLAB USING GROUND PENETRATING RADAR (GPR) TO CONFIRM THAT THERE ARE NO EXISTING CONDUITS OR PIPES IN THE AREA OF CORE DRILL OR CUTTING OF THE SLAB.

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- DEMOLITION OF HVA CONTRACT.
- 2. LOCATION OF THE E DRAWINGS IS APPR
- 3 PROVIDE TEMPORA
- 4. DURING DEMOLITIC
- 5. WHERE EXISTING IN REQUIREMENTS OF
- 6. DEMOLISH ALL EQU MISCELLANEOUS A
- EQUIPMENT, PIPING WORK SHALL BE PE OF WORK AND SHAI REGARDS TO THE S EMPLOYEES OF THI POSSIBLE.
- MATERIALS RESULT BE ALLOWED TO AC EXTERIOR GRADE S SHALL BE PROMPTI PREMISES.
- 8. INCLUDE ALL DEMC SYSTEMS SHALL BE AND SPECIFICATIO THE INTENT OF THI DISCONNECT, DEM WORK WHERE BEIN
- 9. COORDINATE ELEC WITH ELECTRICAL (

10. PROTECT ALL HVAC REMAIN, EROM DAM

11. ALL PIPING AND DU A NEAT MANNER RI ENDS OF PIPING S SCREWED JOINT. F WELDED PIPING SF CAP WELDED TO T UNDER A SEPARAT

12. REMOVAL OF EQUIF HANGERS & SUPPO DUCTWORK TO BE

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. RENOVATION OF EA AND AIR COOLED C STEAM HEAT RECO COURTYARD.)

- 2. INSTALLATION OF 1 CHWS/R PIPING TO
- 3. REMOVE EXISTING CONTROLLERS. EX REPLACED WITH NI AUTOMATION SYST
- 4. THE HVAC CONTRA TEMPORARY PROT WITH THE ROOFING

5. RENOVATION OF PO NEW AC UNITS AND

DEMOLITION NOTES	
VAC ITEMS SHALL BE PERFORMED UNDER THE HVAC	rev. no. date revisions
EXISTING DUCTWORK & PIPING AS SHOWN ON ROXIMATE.	
ARY SUPPORTS WHERE REQUIRED. ON, PROPERLY CAP AND PROTECT ALL EQUIPMENT, AND REMAIN IN OPERATION. REMAINING DUCTWORK WILL BE TECTED UNDER A SEPARATE CONTRACT BY THE	
INSULATION TO REMAIN IS DAMAGED BY THE F THE WORK, REPLACE ANY DAMAGED INSULATION TO	
UIPMENT AS INDICATED, FIXTURES AND/OR ARTICLES IN THEIR ENTIRETY INCLUDING AUXILIARY IG, WIRING, CONDUIT AND DUCTWORK. DEMOLITION PERFORMED BY WORKMEN EXPERIENCED IN THIS TYPE ALL BE CARRIED THROUGH TO COMPLETION WITH DUE SAFETY OF ALL BUILDING OCCUPANTS AND THE HE CONTRACTOR WITH AS LITTLE DISTURBANCE AS LTING FROM THE DEMOLITION OPERATIONS SHALL NOT ACCUMULATE ON THE FLOORS AND ROOF SURFACES, SURFACES OR OTHER PARTS OF THE PREMISES, AND TLY REMOVED AND DISPOSED OF AWAY FROM THE BE REPLACED BY NEW WORK. REFER TO THE DRAWINGS DNS FOR THE SCOPE OF NEW AND RECONNECTED WORK. IIS REQUIREMENT IS TO HAVE THE CONTRACTOR	AREA OF NEST 20TH STREET NEST 20TH STREET
INCLISH AND REMOVE ALL EXPOSED AND CONCEALED ING REPLACED OR CONNECTED TO THE NEW LAYOUTS.	Fashion Institute of Technology
CONTRACTOR.	
MAGE DURING DEMOLITION. UCTWORK TO REMAIN SHALL HAVE ENDS TERMINATED IN READY FOR CONNECTION OF NEW WORK. ALL EXPOSED SHALL BE CAPPED. SCREWED PIPING SHALL END ON A FLANGED PIPE SHALL END WITH A FLANGED JOINT. HALL BE MECHANICALLY CUT, CLEANED OF BURRS AND A THE PIPE. DUCTWORK IS CAPPED AND PROTECTED TE CONTRACT.	New York, NY 10001 MEP Consultants
IPMENT, PIPING AND DUCTWORK SHALL INCLUDE ALL ORT ASSOCIATED WITH THE EQUIPMENT, PIPING AND E REMOVED.	Environmental Consultants
SCOPE OF WORK	<b>EPM, INC.</b> 983 Marcus Ave. Suite 109 Lake Success, NY 11042 / (516) 328-1194
EAST COURTYARD INCLUDES REMOVING THREE (3) AC UNITS WITH DX CONDENSERS AND INSTALLING NEW AC UNITS WITH CHILLED WATER OVERY AND VFDS. (WORK IS LOCATED ON THE ROOF OF EAST	Structural Consultants Darius Toraby Architects P.C.
TWO NEW CHW BOOSTER PUMPS IN CELLAR AND RUNNING NEW D CONNECT TO EXISTING CAPPED CHWS/R LINES IN CORRIDOR.	236 West 27th Street 1401 New York NY 10001 / (212) 242-2955
S VAV CONTROLLERS IN CELLAR AND REPLACE WITH NEW VAV XISTING THERMOSTATS IN THE CELLAR SERVING THE VAVS SHALL BE IEW THERMOSTATS. CONNECT TO THE EXISTING BUILDING TEM AND UPDATE GRAPHICS. ACTOR SHALL COORDINATE ALL THE ROOF REPAIR WORK AND THE TECTION OF THE ROOF OPENING DURING THE AHUS REPLACEMENT IG CONTRACTOR. COORDINATE WITH FIT FOR CONTACT INFORMATION. POMERANTZ INCLUDES REMOVING TWO (2) AC UNITS AND INSTALLING D VFDS.	
	PROJECT: EAST COURTYARD & POMERANTZ 300 7TH AVENUE AC UNITS REPLACEMENT DCAS R10 DRAWING TITLE:
	MECHANICAL SYMBOL LIST, NOTES, AND ABBREVIATIONS
ERGY CONSERVATION CODE DWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, ICATIONS ARE IN COMPLIANCE WITH THE 2020 NEW	SEAL & SIGNATURE:       DATE: 10/27/2023         PROJECT No: 8969.31         DRAWING BY: ASB         CHK BY: DN         DWG No:         M-001.00

116 West 32nd Street, 12th Floor, New York, N.Y. 10001

www.mgedpc.net

P 212.643.9055

1 OF 46

SCALE: NTS

## FIRE DAMPER NOTE:

MECHANICAL CONTRACTOR SHALL PROVIDE APPROVED FUSIBLE LINK FIRE-DAMPERS & ACCESS DOORS IN ALL DUCTS, WHICH PENETRATE FIRE WALLS OR PARTITIONS INDICATED ON THE DRAWINGS.

ACCU DEMOLITION NOTES:

- 1. PRIOR TO STARTING DEMOLITION WORK, THE CONTRACTOR SHALL OPERATE THE HVAC EQUIPMENT CONTINUOUSLY FOR A MINIMUM OF 72 HOURS WHEN THE OUTDOOR TEMPERATURE IS ABOVE 80 DEG F.
- 2. PRESSURE AND VACUUM TEST THE PIPES FOR A MINIMUM OF 24 HOURS AS PER SPECIFICATIONS. DOCUMENT THE VACUUM AND PRESSURE VALUES AT THE BEGINNING OF THE TEST AND AT THE END OF THE TEST.
- 3. FOR EQUIPMENT OPERATING WITH REFRIGERANT, THE CONTRACTOR SHALL RECLAIM THE REFRIGERANT FOLLOWING THE MANUFACTURER PROCEDURE AND FOLLOWING EPA REQUIREMENTS.
- 4. TAG ALL THE PIPES, CONTROL WIRES, FIRE ALARM WIRES AND ELECTRICAL WIRES FOR EASY IDENTIFICATION FOR THE LATER RE-INSTALLATION OF THE EQUIPMENT.
- 5. DOCUMENT ALL THE ABOVE STEPS AND SUBMIT THE REPORT TO THE ENGINEER FOR REVIEW. DO NOT BEGIN DEMOLITION BEFORE THE REPORT IS REVIEWED BY THE ENGINEER.

## NOTES

- 1. ROOF REPLACEMENT IS PROVIDED UNDER A SEPARATE CONTRACT AND THE WORK SHALL BE COORDINATED WITH THIS CONTRACT.
- PRIOR TO STARTING THE DEMOLITION WORK AND REMOVAL OF THE AC UNITS, THE 2 CONTRACTOR SHALL SUBMIT THE CONSTRUCTION SCHEDULE WITH THE SHIPPING DATE AND DELIVERY AT THE SITE DATE FOR EACH AC UNIT.
- 3. ALL AC COMPONENTS ARE TO BE REMOVED. THE CONTRACTOR TO REMOVE DUCT SUPPORTS TO 18" ABOVE ROOF. ROOFING CONTRACTOR SHALL REMOVE THE REMAINING PORTION OF SUPPORTS, CURBS, TO WHICH THEY ARE ATTACHED, AND PITCH POCKETS.
- 4. THE CONTRACTOR SHALL COORDINATE THE ENTIRE WORK WITH THE NEW ROOF.
- 5. HVAC CONTRACTOR TO CAP PIPING AND CONDUIT WHERE CUT. HVAC CONTRACTOR TO ADVISE AND COORDINATE WITH ROOFING CONTRACTOR ON SCHEDULE FOR HVAC CONTRACTOR'S REMOVAL OF HVAC UNITS, UNIT CURBS, AND DUCTWORK.
- 6. THE CONTRACTOR SHALL COORDINATE ALL THE DEMOLITION WORK WITH FIT.

## WORK NOTES:

(1) HVAC CONTRACTOR TO CUT OFF PIPING AND CONDUIT WITHIN CONCRETE CURB AREAS EVEN WITH TOP OF CONCRETE CURB, AND OUTSIDE CONCRETE CURB AREAS MIN. 12" ABOVE ROOF. DISCONNECT THE REFRIGERANT LINES, CONTROL WIRES AND ELECTRICAL WIRES AT THE ROOF PENETRATION AND ALLOW ENOUGH PIPE LENGTH FOR LATER CONNECTIONS. CAP THE REMAINING REFRIGERANT LINES GOING THROUGH THE ROOF PENETRATION. CAP THE REFRIGERANT LINES AT THE CONDENSING UNIT. STORE THE UNIT AT A SECURE LOCATION FOR REINSTALLATION.

2 PROTECT THE EXISTING HOT WATER PIPES DURING DEMOLITION WORK.

- 3 DISCONNECT THE DUCTWORK AND EXHAUST FAN. STORE THE UNIT AT A SECURE LOCATION. DISCONNECT THE AIR INTAKE / EXHAUST AND SAVE FOR FUTURE INSTALLATION. DURING CONSTRUCTION, CAP AND PROTECT ALL THE REMAINING PIPES, WIRE, CONDUITS, & EQUIPMENT. THE DUCTWORK IS CAPPED AND PROTECTED UNDER A SEPARATE CONTRACT BY ROOFING CONTRACTOR.
- DISCONNECT THE DUCTWORK . PROTECT THE REMAINING DUCT DURING CONSTRUCTION. THE REMAINING DUCTWORK WILL BE CAPPED UNDER A SEPARATE CONTRACT BY THE ROOFING CONTRACTOR.

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					N.I.C.
21					
N.I.C.			R N.I.C.	ETURN DUC	20x26 T BELOW SUPF ( 36x20 DN - 6500 CFM (AC-2ECY) 20x16 DN - 3000 CFM
		FASHIC	<u>)N BUYIN</u> IANDISIN	IG AND IG LAB	(AC-3ECY)
		E			PREP.P

C1558 CONTRACT SCHEDULE FOR EAST COURTYARD				
DESCRIPTION OF THE WORK	DATE	NOTES		
START DEMOLITION OF THE UNITS	5/31/2024	GREAT HALL, LOWER LEVEL SEMINAR ROOMS WILL BE BACK ON LINE WITH AIR CONDITIONED AND VENTILATION		
SUBSTANTIAL COMPLETION OF THE INSTALLATION OF THE UNITS	8/1/2024	GREAT HALL, LOWER LEVEL SEMINAR ROOMS WILL BE BACK ON LINE WITH AIR CONDITIONED AND VENTILATION		



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WORK NOTES

		WORK NOTES.					
		AT THE END OF THE NEW ROOF INSTALLATION WORK, HVAC CONTRACT TO REMOUNT ON NEW CONCRETE PAVER ROOF SURFACE. ROOFING CONTRACTOR TO SECURE TO PAVERS. HVAC 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 DEMONSTRATE THE OPERATION OF THE UNIT. SUBMIT REPORT TO ENGINEER.	(24)-		47		A
$\left( \right)$	2	INSTALL UNIT ON DUNNAGE PROVIDED UNDER THIS CONTRACT.	$\overline{}$			N.I.C	
>	3	PROVIDE OUTDOOR AND WEATHER RESISTANT JACKET ON PIPING WITH INSULATION. COVER AND PROTECT ALL INSTRUMENTATION INCLUDING PRESSURE AND TEMPERATURE GAUGES AND SENSORS.					
>	4	EXTEND THE EXISTING CURB ABOVE THE NEW FINISHED ROOF BY MINIMUM 6" OR AS REQUIRED TO PROVIDE MINIMUM 12" FOR THE CURB HEIGHT ABOVE THE FINISHED ROOF. REINSTALL STORED EXHAUST FAN AND RECONNECT ALL DUCTWORK & WIRES	23-				
$\rangle$		NOTES					
$\left \right>$		1. INSTALL NEW UNITS ON DUNNAGE. VERIFY FIELD CONDITIONS THE EXACT LOCATION OF THE DUNNAGE.					
>		2. THE ROOF REPAIR AND THE TEMPORARY PROTECTION OF THE ROOF OPENINGS DURING THE AHUS DEMOLITION AND INSTALLATION IS PROVIDED BY THE ROOFING CONTRACTOR UNDER A SEPARATE CONTRACT WITH FIT.	$\left\{ \right\}$				
>		3. THE HVAC CONTRACTOR IS RESPONSIBLE UNDER THIS CONTRACT FOR THE FABRICCATION OF THE DUNNAGE AND THE INSTALLATION OF THE DUNNAGE AND THE AHUS ON DUNNAGE WITH ALL THE CONNECTIONS AND ACCESSORIES.	5				
>		4. THE ROOFING CONTRACTOR UNDER A SEPARATE PROJECT SHALL PROVIDE WATERPROOFING FOR THE PIPE PENETRATIONS, DUCT PENETRATIONS, DUCT SUPPORTS, AND FOR THE ELECTRICAL CONDUIT PENETRATIONS.					
>		5. IS THE HVAC CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE SIZE OF THE UNITS WITH THE NEW DUNNAGE. PROVIDE UNITS TO COMPLY WITH THE DIMENSIONS SHOWN IN THE DESIGN SCHEDULES (M-701-702).	) (22)-			<del>  N.I.C.</del>	
		6. THE NEW AC UNITS SHALL PROVIDE MINIMUM 24 INCHES BETWEEN THE COOLING COIL AND THE STEAM COIL.					
/		7. INSTALL OAT (OUTDOOR AIR TEMPERATURE) SENSOR ON THE WALL INSIDE AN ENCLOSURE TO PROTECT FROM DIRECT SUN RADIATION.	$\langle$				
>		8. CONTRACTOR TO VERIFY AND COORDINATE THE EXACT LOCATION AND DIMENSIONS OF ALL DUCT, PIPING AND ELECTRICAL CONDUITS.	$\langle$				
>		9. 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.	$\left\{ \right.$				1
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# SCOPE OF WORK NOTES FOR REPLACING AC-1ECY, AC-2ECY & AC-3ECY:

- 1. HVAC CONTRACTOR TO CUT OFF PIPING AND CONDUIT WITHIN CONCRETE CURB AREAS EVEN WITH TOP OF CONCRETE CURB, AND OUTSIDE CONCRETE CURB AREAS MIN. 12" ABOVE ROOF. REMOVE STEAM, CONDENSATE DRAIN, CHILLED WATER SUPPLY AND CHILLED WATER RETURN PIPING AT ROOF LEVEL.
- 2. REMOVE UNITS WITH ALL INTERNAL COMPONENTS: COILS, DRAIN PANS, FILTER RACKS, DAMPERS, FAN, MOTOR AND VIBRATION BASE, ELECTRICAL WIRING, LIGHTS AND SWITCHES, PNEUMATIC/ELECTRIC CONTROLS AND ACTUATORS. REMOVE PNEUMATIC CONTROL PANEL.
- 3. INSTALL NEW DUNNAGE AND NEW UNITS AS SCHEDULED.
- 4. INSTALL NEW DDC CONTROLS AND ACTUATORS, ELECTRICAL POWER WIRING FROM NEW FANS TO POWER SOURCE (SEE ELECTRICAL DRAWINGS)
- 5. BRINGING INSTALLED AC UNIT ONLINE. 6. INSTALL NEW DUCTWORK WITH INSULATION TO RECONNECT THE AC TO EXISTING DUCTWORK.

C1558 CONTRACT SCHEDULE FOR EAST COURTYARD				
DESCRIPTION OF THE WORK	DATE	NOTES		
START DEMOLITION OF THE UNITS	5/31/2024	GREAT HALL, LOWER LEVEL SEMINAR ROOMS WILL BE BACK ON LINE WITH AIR CONDITIONED AND VENTILATION		
SUBSTANTIAL COMPLETION OF THE INSTALLATION OF THE UNITS	8/1/2024	GREAT HALL, LOWER LEVEL SEMINAR ROOMS WILL BE BACK ON LINE WITH AIR CONDITIONED AND VENTILATION		



