

FUTURE EXPOSED AREAS. SEE ARCHITECTURAL DRAWINGS FOR EXACT CEILING

HVAC, PLUMBING GENERAL

SECTION 23010

1.0 GENERAL

1.01 DESCRIPTION

- A. This Division 21, 22 and 23 and the accompanying drawings cover the provision of all labor, equipment, appliances, and materials and performing all operations in connection with the construction of the air conditioning, ventilating, and heating systems as specified herein and as shown.
- B. The General Provisions and Division 1, including the general, supplementary and other conditions and other Divisions, as appropriate, apply to work specified in this Division.

1.02 EXISTING CONDITIONS

- A. Attention is called to the fact that the work is to be performed within an existing, operational facility. Prior to the submission of bids, each bidder shall visit the project site, thoroughly investigate and be familiar with all existing conditions which will affect their work; especially the work to be performed above the existing ceilings.
- B. Connect new work to existing work in a neat and workmanlike manner. Where an existing structure must be cut or existing utilities interfere, such obstructions shall be bypassed, removed, replaced or relocated, patched and repaired. Work disturbed or damaged shall be replaced or repaired to its prior condition.
- C. Prior to the start of any demolition or construction, secure the services of a qualified, EPA Certified asbestos abatement agency to check the existing insulation, etc. for asbestos. Should asbestos be found, <u>do not</u> proceed with demolition or construction; notify the Architect in any case in writing of the agency's findings.

1.03 INTENT OF DRAWINGS AND SPECIFICATIONS

- A. The implied and stated intent of the drawings and specifications is to establish minimum acceptable standards for materials, equipment and workmanship, and to provide operable mechanical systems complete in every respect.
- B. The engineering drawings are diagrammatic, intended to show general arrangement and sizes of system components, and shall not be scaled. Rather, the architectural and structural drawings shall govern space constraints, dimensions and finishes. All offsets and fittings which will be necessary to accomplish the finished installation shall be provided at no additional cost or increase in the Contract.

1.04 COORDINATION

A. Coordinate all work under this Division 21, 22 and 23 with work under all other Divisions, providing adjustment as necessary.

1.05 CODE COMPLIANCE

- A. All workmanship and materials provided under this Division 23 shall comply with all laws, ordinances, codes and regulations of all Federal, State and Local Authorities having jurisdiction.
- B. All fire suppression, plumbing, heating, ventilating, and air conditioning materials and workmanship shall comply with the following codes and standards as minimum

1. NEC - 2012 edition

- 2. Life Safety Code (NFPA 101) 2012 edition.
- 3. All other NFPA Codes and Standards 2012 edition.
- 4. International Building Code 2009 edition.
- 5. International Energy Code 2012 edition.
- 6. International Fire Prevention Code 2009 edition.
- 7. International Mechanical Code 2009 edition.
- 8. International Plumbing Code 2009 edition.

9. American with Disabilities Act.

- C. Secure and pay all fees associated with all permits and licenses required for execution of the Contract. Arrange for all inspections required by city, county, state and other authorities having jurisdiction, and deliver certificates of approval to the Architect .
- D. The code requirements are strictly a minimum and shall be met without incurring additions to the Contract. Where requirements of the drawings or specifications exceed the code requirements, the work shall be provided in accordance with these drawings or specifications. In the event of conflict or ambiguity between the various codes, the most stringent requirement shall govern.

1.09 FIRE-STOPS

- A. Where ductwork, piping, conduit, etc. pass through fire partitions, fire walls and floors, a fire—stop shall be provided that will ensure an effective barrier against the spread of fire, smoke and gases. Fire—stop material shall be packed tight and completely fill gaps between the ductwork, piping, conduit, etc. and the perimeter of their rough
- B. Fire—stopping material shall maintain its dimensions and integrity while preventing the passage of flame, smoke and gases under conditions of installation and use when exposed to the ASTM E119 time—temperature curve for a time period equivalent to the rating of the assembly penetrated. Fire—stopping material shall be noncombustible as defined by ASTM E136; and, for insulation materials, melt point shall be a minimum of 1700 degrees F. for 1—hour protection and 1850 degrees F. for 2—hour protection. Fire—stopping material shall be Dow—Corning RTV Foam or 3M Fire Barrier Products or Sohio Carborundum Fyre Putty.

2.0 PRODUCTS

H. All leaks shall be repaired by tightening, remaking joints, or replacing pipe and

A. All work provided under this Division 23 shall be subject to a minimum one year

warranty. The warranty shall include prompt repair or replacement of equipment or system failures and shall include all parts and labor. In addition, all reciprocating air

conditioning compressors shall carry an additional four year parts—only warranty. Extended warranties shall be provided on all other equipment so specified in other

fittings. Caulking of joints shall not be permitted.

3.10 WARRANTY

END OF SECTION

2.01 MINIMUM STANDARDS

- A. Every piece of energy consuming equipment, all fire suppression products and life safety equipment shall comply with the following standards as applicable; especially in regard to prevailing codes:
 - 1. Factory Mutual Laboratories (FM)
- 2. Industrial Risk Insurers (IRI)
- 3. Underwriters Laboratories, Inc. (UL)
- 4. ADC: Air Diffusion Council
- 5. AGA: American Gas Association
- 6. AMCA: Air Moving and Conditioning Association, Inc.
- 7. ANSI: American National Standards Institute
- 8. API: American Petroleum Institute

9. ARI: American Refrigeration Institute

- 10. ASHRAE: American Society of Heating, Refrigerating and Air Conditioning
- 11. ASME: American Society of Mechanical Engineers
- 12. ASTM: American Society of Testing and Materials 13. AWWA: American Water Works Association
- 14. IBR: Institute of Boiler and Radiator Manufacturers
- 15. MSS: Manufacturers Standardization Society
- 16. NBBPVI: National Board of Boiler and Pressure Vessel Inspectors
- 17. NEMA: National Electrical Manufacturer's Association
- 18. OSHA: Occupational Safety & Health Administration
- 19. PDI: Plumbing Drainage Institute
- 20.PPI: Plastic Pipe Institute
- 21. SMACNA: Sheet Metal and Air Conditioning Contractors National Association,

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Unum Workplace Transformation

- Phase 2 & 3 (HO2 & HO3) Project Number

59.6481.003

Description 1ST FLOOR PLAN - HVAC AND

PLUMBING DEMO

Scale

MD2.101

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