

## **SECTION 15010 - GENERAL PROVISIONS**

### **PART 1 - GENERAL**

#### **1.01 CONDITIONS:**

- A. Requirements of the conditions of the contract apply to all work under Division 15.
- B. Throughout the specifications, types of materials may be specified by manufacturer's name and catalog number. Approved equals will be accepted.

#### **1.02 DESCRIPTION:**

- A. Provide extensions to existing systems as required to effect complete and operable systems of the following types, usually categorized as PLUMBING work:
  - 1. Sanitary waste.
  - 2. Domestic hot and cold water.
  - 3. Water heaters.
  - 4. Roof drains
  - 5. Piping and insulation to effect foregoing.
- B. Provide complete and operable systems of the following types, usually categorized as HEATING, VENTILATING, AND AIR CONDITIONING work:
  - 1. Air Conditioning Equipment.
  - 2. Fans.
  - 3. Air distribution.
  - 4. Temperature control.
  - 5. Ductwork, piping and insulation to effect foregoing.
  - 6. Natural gas service.
- C. Related work specified elsewhere:
  - 1. Electrical work.
  - 2. Concrete.
  - 3. Ceiling access panels and doors.
  - 4. Finish painting.

#### **1.03 REGULATIONS, CODES, FEES AND PERMITS:**

- A. This work shall be installed to the applicable requirements of the City and State as listed in the documents. If any work shown on the drawings or specified herein, conflicts in any way with any regulations and codes, this sub-contractor shall notify the Architect of same before performing work. In addition all work shall comply fully with the requirements as set for by La Quinta Inn and Suites.
- B. All permits, fees, utility extension costs, etc., required for the work in Division 15 shall be paid for under the sections involved.
- C. In addition to applicable codes, etc., the following industry standards, specifications and codes are minimum requirements. Standards are referred hereinafter in accordance with the following abbreviations:
  - 1. UL - Underwriters' laboratories, Inc. Standards.

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2. ANSI - American National Standards Institute.
3. NFPA - National Fire Protection Association.
4. OSHA - Occupational Safety and Health Act.
5. ASME - American Society of Mechanical Engineers.
6. ASTM - American Society for Testing and Materials.
7. FIA - Factory Insurance Agency.
8. ARI - American Refrigeration Institute.
9. AMCA - Air Moving and Conditioning Society.
10. NBS - National Bureau of Standards.
11. NSF - National Sanitation Foundation.
12. AWWA - American Water Works Association.
13. SAE - Society of Automotive Engineers.
14. AGA - American Gas Association.
15. SMACNA - Sheet Metal and Air Conditioning, Contractors National Association, Inc.
16. ASHRAE - American Society of Heating, Refrigerating and Air Conditioning Engineers.
17. FM - Factory Mutual Insuror's Standards.

### **1.04 UTILITY EXTENSIONS:**

- A. Arrange for all utility extensions required to serve systems included in this Division.
- B. Pay all costs for utility extensions required to serve systems in this Division.

### **1.05 SUBMITTALS:**

#### **A. Submittal Data Brochures:**

1. All equipment with descriptive data shall be submitted to the Architect for approval or rejection. All equipment shall be submitted in an indexed, three ring binder for each mechanical subcontractor with a minimum of four (4) copies. All items in this Division shall be submitted at one time; partial submittals will not be considered.
2. Three of the above copies shall be further prepared as "operating and maintenance" brochures after approval of equipment.
3. Each submittal brochure shall be signed, on the index page, by the subcontractor offering same. This signature shall indicate that the subcontractor has examined all data therein and found the same to be in order.
4. Brochures shall include: All equipment, piping, valves, water specialties, temperature controls, starters, insulation, air distribution items, cleanouts, drains, plumbing fixtures, and subcontractors' names.
5. Brochures describing material and equipment shall be submitted to the Architect within sixty (60) days of signing the contract, for approval or rejection.

#### **B. Operating and Maintenance Manuals:**

1. Deliver to the Architect, for the owner's use, three (3) complete operating and maintenance manuals covering all equipment and systems installed by this Division.
2. Include parts lists and operating instructions for all operating equipment.

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3. Brochures shall be bound and tab indexed in a three ring binder. Label front cover indicating project name, date and responsible parties.

### **C. Test and Inspection Reports:**

1. Provide typewritten reports to owner's representative indicating time, pressure, personnel involved and other pertinent data for all vacuum or pressure testing.
  2. Provide copies of all test or inspection reports by public agencies for systems such as public drainage.
  3. Balancing and testing reports for HVAC systems shall be provided.
- D. Shop Drawings, number of copies required elsewhere in this specification, shall be provided as required by Architect/Engineer and for the following:
1. Entire duct work system, thoroughly coordinated with surrounding construction.
  2. As required for project coordination.

### **1.06 PRODUCT DELIVERY, STORAGE AND HANDLING:**

- A. Make provisions for the delivery and safe storage of all materials, and arrange for the introduction into the building of equipment too large to pass through finished openings.
- B. Arrange to have materials delivered to the job at such stages of the work as will expedite the work as a whole. Mark and store all materials in such a manner as to be easily checked or inspected.
- C. Where materials are indicated to be furnished to this Division for installation, make a complete and careful check of all materials thus received and furnish a receipt acknowledging acceptance of the delivery and condition of the materials received. After such acceptance, assume full responsibility for the safe- keeping of same until such time as the completed installation has been approved and accepted.

### **1.07 JOB CONDITIONS:**

#### **A. Examination of Site:**

1. Bidders upon the work under this heading shall visit the site of the work before submitting bids and satisfy themselves as to the nature and scope of all work to be done; or required by local authorities to be done, to meet with their requirements or codes.
2. The submission of a bid shall be taken as evidence that such an examination has been made and difficulties shall be properly taken care of at no additional expense to the owner.

#### **B. Coordination:**

1. Coordinate all work with that of others on the job and also with that of the owner, in order that there will be no delay in the proper installation and completion of the work. Any cost for extra work of materials resulting from lack of coordination of work performed under this section shall be borne by negligent subcontractor.

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### **C. Openings through walls, floor and roof:**

1. Ascertain that all openings through walls, floors, ceilings and roofs and through any other parts of structure shall be properly sized and located. Prepare and furnish to the General Contractor a sleeve plan for all sleeves required. Set all required sleeves and/or be responsible for same.
2. All framed openings in the structure shall be constructed by another section from details and locations furnished herein under.

### **D. Protection of Work:**

1. Protect installation at all times from danger by freezing, breakage, dirt, water, foreign materials, etc., and replace all work so damaged.
2. Use every precaution to protect the work of others, and be responsible for all damage to other work caused by work or through neglect of workmen under this Division of the Specifications.

## **1.08 USE OF DOCUMENTS:**

- A. Drawings and Specifications together describe the project. Any provisions occurring in one shall be considered to occur in both. Where discrepancies occur between the Drawings and Specifications, the more stringent requirement shall prevail.
- B. The abbreviation "HVAC" where used herein shall mean "Heating, Ventilation and Air Conditioning".
- C. Refer to the various working drawings for other trades in order that work required herein shall conform in detail with the work of others.
- D. No additional compensation will be allowed for any labor or material unless this subcontractor shall clearly show same Drawings and/or Specifications.
- E. The Drawings are diagrammatic; therefore, for all dimensions and exact locations, refer to the Architectural and structural Drawings unless specifically noted otherwise.
- F. In preparation of the Drawings, it is intended that they be utilized by competent mechanics in completing the system installations.
- G. Where equipment is specified to be installed in accordance with manufacturer's recommendations, a copy of these recommendations shall be kept on the job site at all times and shall be made available to the owner's representative upon a request for same.

## **1.09 RECORD (AS-BUILT) DRAWINGS**

- A. Prepare electronic record drawings of all systems installed herein. Drawings shall be prepared utilizing Autocad. Standard symbols and drafting techniques shall be followed. After submitting and obtaining Architect's approval of white prints of the completed record drawings, deliver to owner the approved reproducible drawings and electronic files.
- B. Job site record set of black-line drawings shall be posted neatly to indicate work progress and information for record drawings. Posting shall be done with colored pencils coded to the various systems. Incorporate all changes and departures from bidding drawings. Show principal dimensions of all concealed work. Show all piping encountered in excavation work.

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- C. Bear all costs for printing, drafting, record keeping, etc. involved in preparation of the above record drawings.

### **1.10 GUARANTEE:**

- A. Guarantee to the owner work performed to be free from defects in workmanship and materials for a period of one year from date of final acceptance.
- B. Defects arising during this period shall be promptly remedied at no expense to the owner, upon notice by the owner.

## **PART 2 - PRODUCTS**

### **2.01 GENERAL:**

- A. Materials and workmanship involved in the specified installation shall be of the best for the purpose intended and shall meet with the approval of the owner. The owner deserves the right to reject any materials and workmanship not in accordance with those specified or not meeting with the Architect's approval, either before or after installation.
- B. Materials and/or equipment specified herein to be of certain manufacturer or brand are used as a standard and materials and/or equipment of other manufacture may be submitted for substitution provided that they meet all the space requirements and capacities specified.

### **2.02 SAFETY DEVICES:**

- A. Provide suitable guards on all equipment to enclose belts, pulleys, motor shafts, electrical contacts, etc. Guards shall be cast iron, sheet metal or wire mesh, rigidly secured so as to be readily removable and shall meet OSHA standards.
- B. Pressure and temperature relief devices shall be provided on each item of equipment customarily requiring the same.

## **PART 3 - EXECUTION**

### **3.01 GENERAL:**

- A. Inspect job site thoroughly at commencement of work and plan execution of work around conditions prevailing.
- B. Thoroughly plan execution of the work with respect to all trades. Layout all openings and systems specifically listed herein and otherwise as required.
- C. All equipment shall be placed and arranged so that all items requiring periodic service are accessible. This shall include all motors, oil reservoirs, filters, valves, temperature controls, electrical devices, damper handles and such related items.

### **3.02 WORKMANSHIP:**

- A. All work is to be installed by competent mechanics in their respective fields. The installation is at all times to be under supervision of a supervisor who is thoroughly familiar with all portions of the installation.

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- B. All work is to be accomplished in a finished and workmanlike manner in accordance with best standards of the trade.
- C. All pipe welders shall bear written certification attesting to their experience and in event of questions arising as to the quality pipe welding, bear cost of testing by a certified testing laboratory.

### **3.03 TESTING AND ADJUSTMENTS:**

- A. All piping shall be tested and proven tight before covering is applied or pipe concealed. Isolate all equipment not designed for test pressure.
- B. System balancing and additional testing shall be accomplished as specified elsewhere herein.
- C. Check and adjust all equipment to operate smoothly, quietly and according to manufacturer's recommendations.
- D. Provide all testing equipment.

### **3.04 CLEAN-UP:**

- A. Maintain premises free from accumulation of waste materials or rubbish caused by work herein.
- B. At the completion of the work, remove all surplus materials, tools, etc., and leave the premises "broom-clean". Clean all fixtures and equipment and remove all paste-on tags.

### **3.05 PAINTING:**

- A. Provide a prime coat of paint for all unprotected supports, hangers, frames, etc., furnished and installed under this section of the specifications.
- B. Provide any miscellaneous painting described herein and on the Drawings.
- C. Touch-up equipment finishes where factory finish is damaged.

### **3.06 DRILLING, CUTTING, CHIPPING:**

- A. Accomplish all cutting, chipping, drilling, etc. as may be necessary for the proper installation of Division 15 work specified and/or shown on the Drawings where this Division, through neglect, has failed to provide for installation of work before surrounding work has been completed.
- B. Accomplish all cutting, chipping, drilling, etc. as necessary to install the Division 15 system components. Care shall be taken in such cutting and chipping so as not to cause excessive repair work.

### **3.07 IDENTIFICATION OF EQUIPMENT AND SYSTEMS:**

- A. Identify all systems of equipment and piping systems throughout building.
- B. Equipment shall be identified with painted nomenclature using Stencils having letters approximately 1-1/2" high. Identification nomenclature shall be same as that on contract drawings except where specifically requested otherwise by owner.

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- C. Piping shall be identified with painted nomenclature using brass stencil sheets having letters approximately one inch high. Stencils shall be cut in brass sheets which shall be turned over to owner after paint identification requirements have been met. Identification nomenclature shall be reviewed with owner's representative. Piping shall be identified where exposed as well as concealed with a minimum of one stencil every 20 feet. Flow arrows shall be stenciled adjacent to each identification stencil. White paint shall be used on unfinished or uninsulated piping and black paint on insulated piping.
- D. Valve tags shall be placed on valves at mains, risers and branches of all systems. Tags shall be not less than 1-1/4" x 1- 1/2" oval for HVAC and 1-1/4" round for plumbing, attached with heavy brass Hook to stem of each valve. Each tag shall be stamped clearly with large letters and numbers to designate the valve number and the service. Numbers of each service shall be consecutive, as HWS, STM, DWH, etc. for all services. A typewritten schedule of all valves shall be made which shall give the number, the service and location of each valve, and the room names or equipment which the valve controls. The valves list shall be mounted in fused plastic and placed in location directed by the Architect.

**END OF SECTION 15010**