CR15 MECHANICAL

1. Air Conditioning

a. General

Provide mechanical systems which will assure safety of operation, convenience and comfort, protection from destructive elements reasonable durability and economy, and adequate capacity and quality.

(1) Work Included:

(a) Complete air conditioning system (heating, cooling and ventilating).

(b) Providing starters for electric motors furnished under "Mechanical".

(c) Temporary heat during construction.

(d) Maintaining system for 1 year after Substantial Completion.

(2) Work Not Included

(a) Wood platforms and curbs for fans and mechanical units.

(b) Plumbing services and connections to units.

(c) Electrical line voltage to units.

(d) Openings, cutting and patching walls, roofs and ceilings for ductwork and piping.

(e) Paying for temporary heat during construction, unless noted otherwise.

(f) Changing filters after date of Substantial Completion (Owner's responsibility).

(3) Submittals

(a) Within 15 days after contract execution, submit in manila-bound folders 3 brochures of the complete list of equipment and material.

(b) Provide three O & M manuals describing operation, servicing and maintenance requirements for each piece of equipment and material.

b. Standards

Except as modified on the drawings, the design, construction, installation, adjusting and labeling of all equipment, accessories and appurtenances for heating, cooling and ventilation shall comply with recognized standards, including the National Standards for Field Measurements Instrumentation.

c. Electrical Equipment

Work shall be installed in accordance with the National Electrical Code, enforced edition, and NFPA 70.

d. Warm Air Heating System

Work shall be installed in accordance with NFPA Standards 90A, 31 and 54.

e. Electric Heating

Work shall be installed in accordance with the National Electrical Code, enforced edition. When a recognized industry certification of testing program is available for heating units, systems and components (e.g. NEMA and UL), such equipment shall be labeled to show conformance.

f. Gas Fired Equipment

(1) Equipment, including conversion burners, shall be labeled, listed and installed in conformance with the appropriate ANSI, AGA or UL requirements.

(2) All gas fired heaters shall be vented.

(3) Vent materials including connectors shall be UL labeled and listed. They shall be installed in accordance with the listing, NFPA requirements and the manufacturer's instructions.

(4) No gas vent shall terminate less than 5 ft. above the highest draft hood on connected appliances, except as provided above.

g. Mechanical Cooling

(1) General

Suitable and durable means shall be provided to prevent transmission of objectionable noise or vibration generated by the system or equipment.

(2) Air Distribution Systems

Duct systems shall be designed and installed in accordance with a recognized and acceptable method such as contained in the SMACNA and NESCA manuals, and shall comply with NFPA 90A or 90B.

(3) Coolant Distribution System

(a) Distribution systems employing liquid media for cooling shall be designed in accordance with the applicable criteria contained in the ASHRAE Guide and shall be capable of producing summer comfort conditions within the concept of this standard. Refrigerant lines shall be insulated with a minimum 3/8 inch thick material having a moisture and thermal transmission rate not in excess of 0.1 and 0.28 respectively. Insulate chilled water lines with maximum conductance C of 0.6.

(b) All exposed refrigeration piping located less than 6 ft. above any floor or outside grade shall be suitably protected to prevent damage to piping or injury to persons.

(c) Where condenser cooling water is known to cause excessive corrosion, scaling or obstruction within the piping or equipment, suitable approved water treatment means will be required. Dielectric connectors shall be used between ferrous and non-ferrous piping in the cooling water circuit.

(d) Suitable means shall be provided for the collection and disposal of condensate from cooling equipment. The condensate drain shall be constructed of at least 3/4" nominal pipe size copper, plastic or other corrosion-resistant material.

(e) Where the cooling coil or air-conditioning unit is located above a habitable space, or where structural damage may result from condensate overflow, an additional watertight pan of corrosion-resistant metal shall be installed beneath the cooling coil or unit to catch overflow condensate due to a clogged condensate drain; or one pan with standing overflow and separate drain may be provided in lieu of the second drain pan. The additional pan, or the standing overflow, shall be provided with a drain pipe, min. 3/4" nominal pipe size, discharging at a point which can be readily observed.

h. Electric Equipment

(1) Motors shall conform to Standard for Air Conditioners, Central Cooling UL 465.

(2) All moving machinery shall be protected and guarded to comply with the current safety standards of ANSI B 15.1.

(3) Manufacturer's wiring diagram shall be furnished for packaged units. For split systems a complete wiring diagram shall be furnished.

i. Gas Equipment

All gas piping and gas fuel burning devices shall comply with NFPA 31.

j. Guarantee

(1) Operating instructions and a performance guarantee shall be furnished by the installer.

(2) Standard manufacturer's warranty shall be provided for all equipment and remain effective regardless of change of ownership.

(3) Parts and service shall be provided without charge during the first year after Substantial Completion of the project.

2. PLUMBING

a. General

Except as modified herein, equipment and material shall be installed in accordance with the prevailing model plumbing code having jurisdiction in the project area.

(1) Work included

(a) Complete plumbing system.

(b) Gas supply piping and connections to gas-fired equipment.

(c) Sanitary sewer.

(d) Storm sewer within 5 ft. of the building.

(e) Plumbing fixtures.

(f) Providing of items requiring installation by other Divisions of the specifications.

(g) Securing and paying for all plumbing and sanitary sewer permits.

(h) Roof flashing for vent piping.

(2) Work Not Included:

(a) Paying for temporary water and sewer facilities, unless noted otherwise.

(b) Concrete foundations and steel supports not indicated on the "Plumbing Drawings".

(c) Sheet metal gutters, leaders and downspouts.

(d) Storm sewer more than 5 ft. beyond the building.

b. Fixtures

All Fixtures shall be securely supported so that no strain is placed on the connected piping. Unless otherwise recommended by the manufacturer, bath tub rims at the wall shall be supported on metal hangers or wood blocks secured to the wall construction.

c. Piping

(1) Water service pipe shall be laid on solid ground below frost line. Service pipe may be laid in the same trench with sewer pipe provided it is laid on a shelf of solid earth at least 1 ft. above the sewer pipe. Service trenches shall be filled with earth free of cinders, wood, rocks or other debris. Compact well.

(2) Piping installed in corrosive soil shall be either of a material unaffected by such soil or shall be isolated from it by a protective coating. The coating and its application shall also conform with AWWA C-203.

(3) Underground threaded joints in ferrous pipe shall be coated and wrapped. Coating and wrapping material and its application shall also conform with AWWA C-203.

(4) Piping shall be installed without critical damage to structural members.

(5) Pipe hangers and supports shall be of material similar to that of the piping. Dielectric insulation fittings shall be used where pipe of dissimilar metals are connected.

(6) Piping shall be properly sloped and arranged for draining.

(7) Cold water piping installed in locations of the building subject to freezing temperatures, or where pipe sweating may create a problem, and all circulating domestic hot water piping shall be insulated with a minimum C value of 0.45.

d. Domestic Water Heating System and Storage

(1) General

(a) Domestic hot water system shall be equipped with means for limiting the temperature of the hot water for personal use at the fixtures to 110 deg. F, unless required otherwise.

(b) All water heaters and water heating system shall be valved to provide shutoff from the cold water supply system.

(2) Central Domestic Hot Water Piping

All piping between heaters , boilers and storage tanks, including circulating lines, shall be maintained throughout at the full size of the heater tappings, and shall be thermally insulated with a minimum C value of 0.45.

(3) Special Piping Systems

(a) Gas service piping shall be installed in a separate trench. Joints between lines of dissimilar metals shall electrically isolate one metal from the other.

(b) Steel and iron piping for gas service shall be coated and protected against corrosion as recommended in AWWA C-203.

(C) Dielectric insulating fittings shall be provided on service side of gas meters when dissimilar metals are connected.

CR16 ELECTRICAL

1. General. Provide an electrical system which will assure a safe and adequate source of energy for satisfactory illumination and for efficient and convenient operations of appliances and mechanical equipment.

a. Work Included

(1) Secondary Service.

(2) Distribution, Lighting and Power Panels.

(3) Lighting and Power Feeders.

(4) Lighting Fixtures.

(5) Conduit for Phone System, Security System and TV System.

(6) Fire Alarm System.

(7) Connections for other Divisions of the specifications.

(8) Installing items furnished by Owner.

(9) Temporary services during construction.

b. Work Not Included

(1) High voltage electric service.

(2) Metering.

(3) Paying for temporary services during construction, unless noted otherwise.

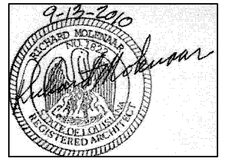
c. Connecting equipment furnished by others:

Furnish all switches, push buttons and selector switches.

2. Standards: All electrical equipment shall be installed in accordance with the current National Electrical Code, NFPA 70.

3. Excavations. Conduit shall be laid on solid ground below frost line, and 18 inches (minimum) below grade. Service trenches shall be filled with earth free of cinders, wood, rocks or other debris. Compact well.

4. Distribution System. Entire electrical system shall be installed in wireways and conduit.



PROJECT NAME:

Hampton Inn

Mane Street
West Monroe, Louisiana

SHEET TITLE:

Specications

PROJECT NO. 09017

LATEST REVISION:

DRAWN BY: cj

CHECKED BY: rm

DATE: 9/13/10

SHEET NUMBER: SPEC5