

SECTION 23 0501 - GENERAL PROVISIONS

PART 1 - GENERAL

1.1 FIRE UNDERWRITER SEAL:

- A. Where applicable, all material shall bear the National Board of Fire Underwriters' Seal of Approval. Certificates to this effect to be furnished to Architect upon request.

1.2 CONCRETE AND MASONRY WORK:

- A. The Contractor shall furnish and install all concrete bases, reinforcing, etc. required to install the Mechanical Work, unless otherwise noted.
- B. The Contractor, prior to installing any forms, reinforcing or concrete, shall notify all other Contractors or subcontractors, in ample time for them to install any portion of their work which is to be concealed in the concrete. No such work shall be placed in a manner to interfere with the proper placing of the reinforcement unless so authorized by the Architect.

1.3 ANCHOR BOLTS:

- A. Each Contractor shall provide and set in place at the time the foundations, bases, or curbs are poured, all necessary anchor bolts as required for the various equipment specified herein, to be furnished by him under these Specifications. Anchor bolts must be of the hook type and of the proper sizes and length to suit the apparatus. The bolts shall be set in pipe sleeves of approximately twice the bolt diameter and as long as the imbedded length of the bolt.
- B. When the equipment is set in its proper position, the bolt sleeves and the space between the rough foundations, bases or curbs of the equipment shall be completely filled with one inch of non shrinking cement grout.
- C. Each Contractor shall assume all responsibility for the location of all anchor bolts for the equipment furnished by him under these Specifications, and must have a man present at the time the foundation, bases, or curbs are poured.

1.4 SLEEVES:

- A. Each Contractor shall furnish and set all sleeves required for the installation of his work and shall be responsible for their final and permanent locations.

- B. All pipes passing through masonry construction shall be fitted with sleeves. Each sleeve shall extend through its respective floor or wall and shall finish flush with each surface unless otherwise required. Unless otherwise specified or shown, sleeves shall be one pipe size larger than the overall outside diameter of the pipe when insulated. Sleeves in bearing and masonry walls shall be made of standard weight steel pipe. Sleeves through concrete floor slabs and other partitions shall be No. 2 U.S.S. gauge sheet metal.
- C. Where sleeves pass through foundation walls, the space between such sleeves and passing pipes shall be caulked with graphite packing and an approved plastic and waterproof caulking compound as approved by the Architect. In lieu of caulking materials, Contractor has option of using preassembled "Link-Seals" as manufactured by Thunderline Corporation, 5495 Treadwell, Wayne, Michigan 48184.
- D. All sleeves shall be properly installed and securely cemented in place. Where pipes pass through waterproofed floor or walls, design of sleeves shall be such that the waterproofing can be properly flashed around the sleeves, and of such height that the water will be restrained from entering sleeves and dripping to any finished areas below.
- E. Where pipes pass through fire resisting portions of the structure, the annular space between the sleeve and the pipe shall be filled with an approved fireproof material.

1.5 ESCUTCHEONS:

- A. All exposed pipes, except as otherwise described, passing through walls, floors, ceilings, etc. in finished spaces, shall be provided with solid pattern heavy ceiling, floor or wall escutcheons with set screw. Escutcheons and plates shall be of steel or malleable iron with prime coat ready for painting. Escutcheons will not be provided where sleeves intentionally extend above finished floor.

1.6 ACCESS DOORS AND PANELS:

- A. All ceiling and wall access panels required shall be furnished by this Contractor and set by this Contractor (this contractor has the option of employing the General Contractor on the job to set the panels). The location of these access panels must be approved by the Architect prior to their installation. The Contractor shall furnish an access panel where fire dampers, valves, specialties, junction boxes, and other serviceable items are installed behind plaster, tile, or similar type non-removable surfaces.
- B. Panels shall be of suitable size and construction for each specific location. Doors shall be flush and shall open 175 degrees on concealed hinges. All assemblies shall be rustproof and exposed finished edges and surfaces shall be prime-coated with rust inhibitive paint. Doors to be installed in ceilings shall be with screw driver operated cam locks. Doors for wall installation shall have master-keyed cylinder locks. Doors shall be Milcor, or equal, as follows:

- | | |
|-----------------|--------------|
| 1. Construction | Milcor Model |
| a. Masonry | Style M |
| b. Plaster | Style K |

1.7 CUTTING AND PATCHING:

- A. Each Contractor shall give the General Contractor complete information as to size of openings to be provided by the General Contractor in new floors, and walls, etc., so that such openings may be provided as the project progresses.
- B. If openings are omitted or are incorrect through failure of Mechanical Contractors to follow these instructions, the respective Contractors shall, at their own expense, engage the trade which originally installed the work, to cut and patch to the satisfaction of the Architect.
- C. All cutting and patching of every nature required in connection with these Contracts shall be done by each Contractor with mechanics experience in their respective lines of work. All patching shall match adjacent finishes.
- D. All cutting in the building shall be done with great care so as not to leave an unsightly surface which may not be concealed by plates, escutcheons, or other normal concealing construction. If such unsightly conditions occur through the fault of the Contractor, he shall be required at his own expense, to engage the General Contractor to replace the damaged materials with new materials.
- E. Cutting and patching of the existing building shall be done by this Contractor. All holes cut shall be in a manner approved by the Architect and all patching shall be done so as to match the existing construction and finish. The Contractor shall patch all openings left in present walls, floors and ceilings when ductwork, piping and other materials are removed.
- F. Where it becomes necessary to cut out any portions of walls, floors, ceilings, roof or other portions of the building for the installation of work as may be required to perform and complete the work under this Contract, the Contractor shall do all necessary cutting and fitting, shall remove all excess material, and shall replace all work damaged so as to leave the entire premises in a finished condition.
- G. No cutting shall be done which may in any way affect the building structurally or architecturally. Any damage incident to cutting or other causes in the performance of this Contract shall be made good by replacement or repairs. Cutting shall be done only with the prior approval of the Architect.

1.8 GUARANTEE:

- A. Each Contractor shall unconditionally guarantee in writing all materials, equipment, and workmanship for a period of one year from date of final acceptance. The Contractor shall provide free service for all equipment involved in his Contract during this guarantee period.
- B. The guarantee shall include restoration to its original condition of all adjacent work that must be disturbed in fulfilling this guarantee.
- C. All such repairs and/or replacements shall be made without delay and at the convenience of the Owner.

1.9 SUBSTITUTIONS:

- A. Various items of equipment and materials that have been used as the basis for mechanical system design have been specified by a manufacturer's name and model number. Another manufacturer's product may be submitted for consideration as a substitute. The Architect shall be the sole judge as to the comparability of an item of equipment that is submitted for approval as a substitute for that which is specified. Each of the Contractor's substitute proposals shall include all labor and materials that will be required to install the equipment and make it operate satisfactorily in accordance with the original design concept. He shall include such things as changes in piping, valves, supports, fittings, ductwork, motors, controls, electrical wiring, and thermal insulation. It shall be the responsibility of the Contractor to make certain that substitute equipment, which has been accepted by the Architect will fit into the designated spaces. He shall make the necessary field measurements in order to determine that there is adequate space for the equipment, taking into consideration the clearances that are required for connections and servicing. All equipment other than the basis of design manufacturer shall be considered a substitution.

1.10 ALIGNMENT:

- A. Where several receptacles, devices, bells, alarms, thermostats, switches, handles, etc., are to be installed in a common location, this equipment shall be lined up in a vertical plane. It is the Contractor's responsibility to confer with the Architect on this alignment.
- B. The Mechanical, Sprinkler, and Electrical Contractors shall carefully check all the Drawings and coordinate their work with all trades to provide for a symmetrical and coordinated ceiling. Ceiling T-bars, lights, registers, and other equipment shall all be symmetrically installed with provisions made for integrating the T-bars and this equipment. Failure to coordinate will result in relocation of ceiling components as directed by the Architect at the Contractor's expense.

1.11 PAINTING:

- A. Provide corrosion inhibiting prime coating on all ferrous materials.

END OF SECTION