

SECTION 15050 - BASIC MECHANICAL MATERIALS AND METHODS

PART I - GENERAL

1.01 MECHANICAL GENERAL REQUIREMENTS

- A. This section applies to all mechanical work. The contractors involved shall check all sections of the specifications in addition to the particular section covering their specific trade. Each distinct section of the specifications aimed for one trade may have detailed information with regard to other trades. Therefore, it is imperative that all sections be reviewed to get a complete picture of all other trades' functions and work required.
- B. The Walgreen Co. drawings, which constitute an integral part of this contract, shall serve as the working plans. They indicate the general layout of the complete mechanical systems.
1. "Field verification of scaled dimensions on plans is advised since actual locations, distances, and levels will be governed by actual field conditions." All measurements shall be verified at the site.
 2. The mechanical and electrical contractors shall check architectural, structural, plumbing, heating, ventilation, air conditioning, and electrical plans to avoid possible installation conflicts. Should drastic changes from original plans be necessary to resolve such conflict, the contractor shall notify the architect and Walgreen Co. - Facilities Planning and Design Department, and secure written approval and agreement on necessary adjustment before the installation is started.
 3. Discrepancies shown between plans, or, between plans and actual field conditions, or between plans and specifications, shall be brought promptly to the attention of Walgreen Co. for a decision.
 4. Drawings and specifications are intended to cover the completed installation of systems to function as described. The omission of the expressed reference to any item of labor and material necessary to comply with practice codes, ordinances, etc. shall not relieve the contractor from providing such additional labor and material.
 5. The contract drawings serve as working drawings for the general layout of the various services. However, layout of equipment accessories, specialties, piping systems, and conduit runs are diagrammatic unless specifically dimensioned and do not necessarily indicate every required valve, fitting, transition, turning vane, junction box, pull box, conduit size, etc. It is the contractor's responsibility to provide all systems complete and operable. The contractor to make field verification of all services, systems, etc. as part of the total work required. The cost to be included in this base bid.
- C. Accessibility: Do not locate traps, controls, unions, pull boxes, etc. in any system at a location that will be inaccessible after construction has been completed. Maintain accessibility for all components in mechanical, electrical, and plumbing systems.

- D. Cutting and Patching: All required cutting required shall be done by the contractor whose work is involved, without extra cost to Walgreen Co. All patching and restoration, including the furnishing and installation of access panels in ceiling, walls, etc. within the building lines, shall be done by the respective, responsible contractor. No cutting of structural steel, concrete, or wood shall be done without prior approval and explicit directions from the architect and Walgreen Co. All duct openings in walls, floors, ceiling, and roof shall be cut and patched by the respective, responsible contractor.
- E. Relocation of Existing Ducts, Conduits, Pipes, and Utilities: The contractor, under whose jurisdiction the work may fall, shall provide labor, material, and tools required to cut, repair, protect, cap, or relocate existing pipes, conduits, or utilities interfering with or uncovered during work, per regulations of the authorities having jurisdiction.
- F. Excavation and Backfill: Excavation and removal of material, shoring, dewatering, and backfilling required for the proper laying of all pipes and conduits inside the building and premises, and outside as may be necessary, shall be done by the contractor whose work is involved, without incurring extra cost to Walgreen Co.
- G. Vibration Eliminators: Rotating or reciprocating equipment, ducts, piping, etc. shall be isolated from the structure by means of approved vibration absorbing units as provided or recommended by the equipment manufacturer or architect.
- H. Sleeves: Each contractor shall furnish required sleeves. Sleeves shall be extended 2 inches above the floor, wall, etc. unless noted otherwise, and shall be Schedule 40 galvanized steel pipe and of the required size and location. The contractor responsible for running pipes in the sleeve shall caulk the space between the pipe and sleeve with oakum and seal with mastic cement or other approved material.
- I. Electric Motors: See Section 16050, Basic Electrical Materials and Methods.
- J. Damage to Other Work: Each contractor shall be held rigidly responsible for all damages to their own or any other trades' work resulting from the execution of the involved contractor's work.
- K. Concrete Foundation: Concrete foundation for all mechanical equipment shall be provided by the general contractor, but the respective mechanical contractor shall furnish foundation bolts and all essential information and shall check the work prior to the pouring of concrete to insure acceptable results. The foundation shall be as indicated or as recommended by the equipment manufacturer.
- L. Large Equipment: All large equipment which is and that may be too large to enter through stairways, doorways, or shaft, to be installed in the building shall be brought on the job and placed in the proper space before the enclosing structure is completed, unless arrangements are made with other contractors to permit access at a later date, without additional cost to Walgreen Co.
- M. Rough-in for Connection to Equipment: It shall be the responsibility of each contractor to study the architectural, structural, electrical, and mechanical drawings, confer with the various trades involved, and check with the supplier of equipment in order to properly rough-in for all equipment.

- N. **Material and Equipment:** All material and equipment shall be new and of the best quality used for the purpose in good commercial practice, and shall be the standard product of reputable manufacturers. The material and equipment must meet approval of state and local codes in the area it is being used.
- O. **Construction Superintendent:** The term "construction superintendent" shall herein be referred to synonymously as a Walgreen Co.'s construction superintendent.
- P. **Performance of Work:** All work outlined in the various mechanical and electrical sections shall be done by the contractor under whose jurisdiction the work may fall. See drawings and specifications.
- Q. **Roof decks shall not be used to support piping, conduit, equipment, devices, etc. Bar joist panel points and beams shall be used to support loads unless otherwise directed by the structural engineer.**
- R. **Electrical Wiring:** See Electrical Specifications, Division 16.
- S. **Testing:** All testing results shall be documented in the form of written reports.

1.02 SUPPLEMENTARY CONDITIONS

- A. Refer to other requirements of mechanical and electrical work in Division 1 without exception.
- B. **Permits, Inspections, and Tests:** All work is to be executed in compliance with, and each contractor is to observe and abide by, all applicable laws, regulations, ordinances, and rules of the national, state, county, and local governing agencies, or any other duly constituted public authority. Each contractor shall, at all times, maintain proper facilities and provide safe access for inspection to all parts of the work and to the shops wherein the work is in preparation. No work shall be enclosed or covered until approved by the architect, and should any work be enclosed or covered before all necessary inspections are completed, same will be opened for examination at the contractor's expense. All fees, licenses, tests costs, etc. are the contractor's responsibility.
- C. **Rules, Regulations, and Codes:**
 - 1. All material and equipment shall conform to the standards, where available, of the National Electrical Manufacturers Association (N.E.M.A.), National Fire Protection Association (N.F.P.A.), National Electrical Code (N.E.C.), Underwriters Laboratories (U.L.), American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), Sheet Metal and Air Conditioning Contractor's National Association (SMACNA), and American Water Works Association (AWWA).
 - 2. All work shall conform to all applicable federal, state, and local codes and utility companies' regulations.
- D. **Workmanship and Installation:** Walgreen Co. shall decide whether or not the finished work is satisfactory in their judgment. If any material and/or equipment has not been properly installed or finished, this contractor is obligated to replace the material and/or equipment wherever required and to reinstall the material and equipment in a manner entirely satisfactory at this contractor's expense (without additional cost to Walgreen Co.).

- E. Guarantee: Each contractor shall guarantee each complete system for a period of one (1) year from the date of acceptance of the work by Walgreen Co. to be free of defects of material and workmanship and that any faulty material or workmanship shall be repaired or replaced without additional cost to Walgreen Co.
- F. Cooperation: There shall be complete cooperation with all trades in the matter of planning and execution of the work. Every reasonable effort shall be made to prevent conflict as to space requirements, dimensions, locations, leaving of opening, or other matters that would obstruct or delay the work.

1.03 SUBSTITUTIONS

- A. The name of an article or its make, as given in the specifications and/or drawings, is used to establish a standard for the guidance of the contractor. He may propose substitution of other material or equipment (unless specifically stated, no substitutions accepted).
- B. Should the contractor propose to furnish materials and equipment other than those specified, as permitted by the "acceptable alternate" clause, he shall submit a written request for any or all substitutions to Walgreen Co. Such a request shall be accompanied with complete descriptive and technical data for all items (manufacturer, brand name, catalog number, descriptive literature, and capacity tables), stating in each case what addition to or deduction from the main bid is to be made if such alternates are accepted.
- C. Acceptance or rejection of the proposed substitutions shall be subject to approval of Walgreen Co., and if specific approval in writing is not received, it is understood that the requirements as outlined in the Walgreen Co. plans are to be met.
- D. Where such substitutions alter the design or space requirements indicated on the plans, the contractor shall include all items of cost for the revised design and construction including cost of all allied trades involved.

Mail to: Walgreen Co. Facilities Planning, Design & Engineering MS 1620 106 Wilmot Road Deerfield, IL 60015-5105
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1.04 INSTALLATION

- A. All equipment and materials shall be installed according to manufacturer's instructions unless otherwise specifically directed by the Trade Contract Documents. All piping, valves, connections, and other like items recommended by the manufacturer or required for proper operation shall be provided without additional cost to Walgreens.

END OF SECTION