

**SECTION 15010****BASIC MECHANICAL REQUIREMENTS****PART 1 - GENERAL****1.01 WORK INCLUDED:**

Drawings and Specifications: The Drawings and Specifications shall be considered as complementary, one to the other, so that materials and work indicated, called for, or implied by the one and not by the other shall be supplied and installed as though specifically called for by both. The Drawings are to be considered diagrammatic, not necessarily showing in detail or to scale all of the equipment or minor items. In the event of discrepancies between the Drawings and the Specifications, or between either of these and any regulations or ordinances governing mechanical work, the Contractor shall notify the Engineer of Record in ample time to permit revisions.

**1.02 SITE INVESTIGATION:**

It shall be the responsibility of the Contractor to visit the site of the work and become familiar with all available information regarding the location of existing facilities. Failure of the Contractor to fully inform himself of all existing conditions will not be cause for additional compensation.

**1.03 FEES, PERMITS, AND INSPECTIONS:**

- A. The Contractor shall obtain all permits for work under this contract and shall pay all expenses in conjunction therewith. He shall also procure and deliver to the Engineer of Record all certificates issued by the authorities having jurisdiction.
- B. The Department will inspect the work during the course of construction. The Contractor shall provide provision for inspection by the Department and others having jurisdiction.

**1.04 NEW EQUIPMENT AND MATERIALS:**

- A. All equipment and materials used in this installation shall be new, of the best quality and, unless otherwise noted, shall be standard catalog items of the various manufacturers.

**1.05 STANDARDS:**

- A. The codes and standards covering mechanical work include, but are not limited to:
  - 1) American National Standards Institute (ANSI)
  - 2) American Society for Testing Materials (ASTM)
  - 3) American Society of Mechanical Engineers (ASME)
  - 4) American Welding Society (AWS)

- 5) National Fire Protection Association (NFPA)
- 6) National Electrical Manufacturers Association (NEMA)
- 7) American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- 8) National Sanitation Foundation (NSF)
- 9) Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
- 10) South Florida Building Code (SFBC)
- 11) Codes, Regulations, Ordinances, etc., of the State, County, and/or Municipality, in which the construction is located, and any political division having jurisdiction over this work.

B. These codes, society and association recommendations constitute minimum requirements and no reductions from design requirements will be permitted, even if allowed by the applicable codes, without expressed written permission of the Engineer of Record. References are to the editions current at time of bidding.

#### 1.06 SPACE AND ACCESS:

All equipment shall fit the allotted space and shall leave reasonable access room for servicing and repairs. Greater space and room required by substituted equipment shall be provided by the Contractor at his expense.

#### 1.07 CUTTING AND PATCHING:

All cutting and patching necessary for the work shall be performed by the Contractor. Where interferences occur, and departures from indicated arrangements are required, the Contractor shall coordinate the mechanical work with the other trades involved and make a determination as to changed locations and elevations of the ductwork and/or piping and shall obtain approval from the Engineer of Record for the proposed changes.

#### 1.08 SAFETY REQUIREMENTS:

In addition to the components specified and shown on the Drawings and necessary for the specified performance, the Contractor shall incorporate in the design and show on the shop drawings all the safety features required by the current codes and regulations, including but not limited to those of the Occupational Safety and Health Act of 1970, and Amendments thereto.

#### 1.09 Electrical Work:

The Contractor shall furnish all electrical and control equipment associated with mechanical work including electrical controls, switches, contactors and starters for all equipment items requiring same. All work shall conform in all respects to the requirements of the applicable articles of Division 16.

**1.10 METAL FASTENERS:**

Unless otherwise indicated, metal fasteners and related parts shall be of aluminum or stainless steel and shall be of adequate strength for the purpose intended.

**1.11 PREVENTION OF ELECTROLYSIS:**

Where the contact of dissimilar metals may cause electrolysis and where aluminum will contact concrete, mortar or plaster, the contact surface of the metals shall be separated using not less than one coat of zinc chromate primer and one heavy coat of aluminum pigmented asphalt paint on each surface; or where deemed necessary by the Engineer of Record, not less than one course of asphalt saturated cotton fabric cemented to both metals with flashing cement, shall be used. Finished works shall be cleaned and excess cement removed.

**1.12 FACTORY TESTS:**

When equipment is required to be factory tested, the results of the tests shall be submitted to the Engineer of Record and approval of the test results shall be obtained before shipment of the equipment.

**1.13 CLEANING AND ADJUSTMENTS:**

Upon completion of work, the Contractor shall clean, oil and grease fans, motors compressors, pumps, and other running equipment and apparatus and mechanisms which he installs and shall make certain such apparatus and mechanisms are in proper working order and ready for test.

**1.14 WARRANTY AND MAINTENANCE BOND:**

The Developer shall warrant that all work, materials, equipment or facility shall be free from defects for a period of one year from the date of the final acceptance, that all the equipment has the capacity specified and that it will operate without excess noise or vibration caused by improper installation. In addition, the Developer shall provide the County with a Maintenance Bond in accordance with its agreement with the County.

**PART 2 - PRODUCTS**

(Not Used)

**PART 3 - EXECUTION**

(Not Used)

END OF SECTION