Part 1 GENERAL

1.1 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.

.2 Shop drawings: submit drawings stamped and signed for approval by Departmental Representative.

.3 Submit shop drawings and product data for following items:

- .1 Filters, fan accessibility.
- .2 Suspension of cabinet.
- .3 Thermostat, transformer, controls where integral.
- .4 kW rating, voltage, phase.
- .5 Cabinet material thicknesses.

.4 Quality assurance submittals: submit following in accordance with Section 01 33 00 - Submittal Procedures.

- .1 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
- .2 Instructions: submit manufacturer's installation instructions.
  - .1 Departmental Representative will make available 1 copy of systems supplier's installation instructions.

.5 Closeout Submittals:

- .1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals

1.2 DELIVERY, STORAGE AND HANDLING

.1 Packing, shipping, handling and unloading:

- .1 Deliver, store and handle in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver, store and handle materials in accordance with manufacturer's written instructions.

.2 Waste Management and Disposal:

- .1 Construction/Demolition Waste Management and Disposal: separate waste materials for reuse and recycling in accordance with Section 02 41 13 Selective Site Demolition

Part 2 PRODUCTS

2.1 VRF INDOOR FAN COIL UNITS

.1 Cabinet: steel, 1.2 mm thick, ceiling mounting, recessed. Back inlet/ front outlet.

.2 Coil: nonferrous constructions with smooth plate fins on copper tubing. Tubing shall have inner grooves. All tube joints shall be brazed with phos-copper or silver alloy. Condensate pan and drain shall be provided with unit. Refrigerant lines to coil shall be insulated.

.3 Fan: assembly with one or two Sirocco fans direct driven by a single motor. Shall be statically and dynamically balanced to run on a motor with permanently lubricated bearings.

.4 Wall mounted thermostats: type low voltage, to Section 23 09 33 - Electric and Electronic Control System for HVAC.

.5 Fan delay switch.

.6 Electronic modulating linear expansion device.

.7 External static pressure settings up to 199 Pa.

.8 Supplemental heat control capability

.9 Ducted air outlet system and ducted return air system.

.10 Filter: return air filtered with field supplied filter.

.11 Assembly fully wired to one outlet location.

.12 Multiple knockouts for up to 38 mm diameter conduit.

.13 Performance data: as indicated on drawings.

Part 3 EXECUTION

3.1 EXAMINATION

.1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for fan coil units installation in accordance with manufacturer's written instructions.

.1 Visually inspect substrate in presence of Departmental Representative.

.2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 INSTALLATION

.1 Mount units.

.2 Make electrical and control connections.

.3 Co-ordinate ducting of fresh air with Division 23.

.4 Pipe condensate to nearest drain. Install external trap in a heated space for proper condensate drainage for each indoor fan coil unit.

3.3 FIELD QUALITY CONTROL

.1 Perform tests in accordance with Section 26 05 00 - Common Work Results for Electrical.

3.4 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

END OF SECTION