1 General

1.01 Submittals

.1 Submit shop drawings/product data sheets for all products specified in this Section. Include motor data sheets and all required information.

1.02 Closeout Submittals

.1 Submit a site inspection and start-up report from manufacturer's representative as specified in Part 3 of this Section.

.2 Training attendance records.

1.03 Quality Assurance

.1 Fan coil units are to be CSA or cETL listed and labelled, factory assembled and tested, shipped to site in one-piece, and are to be in accordance with requirements of following codes and regulations:

.1 CAN/CSA-C22.2 No. 236, Heating and Cooling Equipment;

.2 UL/ANSI 1995, Heating and Cooling Equipment;

.3 ANSI/AHRI Standard 350, Sound Performance Rating of Non-Ducted Indoor Air-Conditioning Equipment;

.4 ANSI/AHRI Standard 440, Performance Rating of Room Fan-Coils;

.5 Applicable Provincial Codes and Regulations.

2 Products

2.01 Horizontal Fan Coil Units

.1 AHRI rated and certified capacity fan coil units in accordance with drawing schedule and complete with components specified below.

.2 Cabinet constructed of heavy-gauge galvanized steel with all exterior panels insulated with minimum 15 mm (½") thick neoprene spray coated glass fibre lining material secured in place with adhesive and with all exposed edges treated and sealed to prevent any fibres from entering airstream, all meeting NFPA 90A requirements and 25/50 flame spread/smoke developed fire hazard ratings when tested to CAN/ULC-S102. Each cabinet is to be complete with:

.1 accessible galvanized steel filter holding frame and glass fibre, 25 mm (1") thick, disposable, UL Class 1, 25-30% efficient MERV 7 filters in accordance with requirements of UL 900, Air Filter Units, and complete with a cardboard frame;

.2 factory tested coils consisting of 12 mm (½") O.D. seamless copper tubes mechanically expanded into plate type aluminium fins and equipped with copper pipe headers, a manual air vent, and a drain plug;

.3 full width, watertight stainless steel primary drain pans sloped for positive drainage and equipped with 2, 20 mm (¾") O.D. drain connections, and factory insulated with 25/50 flame spread/smoke developed rated closed cell insulation when tested to CAN/ULC-S102 and NFPA 90A requirements, with secondary drain pans, constructed and insulated as for primary drain pans, to be provided where required to collect condensate from pipe headers and field supplied valves.

.3 Centrifugal, forward curved, double width and inlet galvanized steel fan wheel, each dynamically balanced, complete with a 3-speed, resiliently mounted, thermal overload protected, permanent split

capacitor motor conforming to requirements specified in Section 20 05 00 – Common Work Results for Mechanical, and complete with a 3-speed plus "off" motor control switch with faceplate factory mounted in an electrical box secured to unit in an accessible location and factory connected to motor. Fan assemblies are to be accessible and easily removable.

.4 Horizontal units are to be suspended, equipped with 4 top casing holes for hanger rod connections, and following:

.1 rubber-in-shear vibration isolation elements factory supplied with each unit for each suspension point;

.2 double deflection discharge grille or flanged discharge duct connection collar as indicated, and either a bottom or rear single deflection return air grille as shown;

.3 removable bottom and side panels, and bottom access to filter holding frame;

.4 for exposed units, a fused powder epoxy finish on casing and grilles.

.5 Manufacturers:

.1 Johnson Controls Co. ENVIRO-TECH;

.2 Daikan Industries Inc.;

.3 Trane Canada;

.4 Carrier Corp.;

.5 Greenheck Fan Corp.;

.6 Engineered Air.

3 Execution

3.01 Installation

.1 Provide fan coil units.

.2 Secure each horizontal fan coil unit in place from structure by means of galvanized steel hanger rods, and vibration isolation elements supplied with fan coil units. Provide additional structural steel for fan coil unit support installation as required.

.3 Provide shut-off valves and install a control valve in piping for each coil. Refer to drawing detail and piping schematic.

3.02 System Startup

.1 For equipment/system manufacturer certification requirements, refer to Section 20 05 00 – Common Work Results for Mechanical.

.2 For equipment/system start-up requirements, refer to Section 20 05 00 – Common Work Results for Mechanical.

3.03 Training

.1 Include for a 1/2 day on-site operation demonstration and training session. Training is to be a full review of all components including but not limited to a full operation and maintenance demonstration, with abnormal events.

End of Section