

**Part 1        ADDENDUM NO.1**

**1.1            General**

- .1        This Addendum is issued prior to tender closing and shall become an integral part of the Tender, Specifications, Drawings and Contract Documents for this project.
- .2        In the event of conflicts between the various Contract Documents, the order of precedence shall be as stipulated in the General Conditions of the Contract, except that this Addendum shall take overall precedence.

**Part 2        SPECIFICATION**

**2.1            Remove Section 23 34 16 – Centrifugal Fans**

**2.2            Insert Attached Section 23 34 16 – Centrifugal Fans**

**END OF SECTION**

**Part 1            General**

**1.1            SECTION INCLUDES**

- .1    Inline centrifugal fans.
- .2    Motors and drives
- .3    Fan Accessories.

**1.2            RELATED WORK**

- .1    Section 01 33 00 - Administrative Requirements.
- .2    Section 01 61 00 - Common Product Requirements.
- .3    Section 01 78 00 – Closeout Submittals.
- .4    Section 23 07 13 - Duct Insulation.
- .5    Section 23 31 00 - Duct Work.
- .6    Section 23 33 00 - Duct Work Accessories: Backdraft dampers.
- .7    Section 23 73 23 - Air Handling Units.
- .8    Section 26 05 80 - Equipment Wiring: Electrical characteristics and wiring connections.

**1.3            SUBMITTALS**

- .1    Section 01 33 00: Procedures for submittals.
- .2    Shop Drawings: Indicate assembly of cabinet exhaust fans and accessories including fan curves with specified operating point clearly plotted, sound power levels for both fan inlet and outlet at rated capacity, and electrical characteristics and connection requirements, and dimensional data.
- .3    Manufacturer's Installation, Operation and Maintenance Manual.

**1.4            OPERATION AND MAINTENANCE DATA**

- .1    Section 01 78 10: Submittals for project closeout.
- .2    Maintenance Data: Include instructions for lubrication, motor and drive replacement, spare parts list, and wiring diagrams.

**1.5            DELIVERY, STORAGE, AND HANDLING**

- .1    Section 01 61 00: Transport, handle, store, and protect products.

- .2 .Protect motors, shafts, and bearings from weather and construction dust.

## **1.6 ENVIRONMENTAL REQUIREMENTS**

- .1 Do not operate fans for any purpose until ductwork is clean, filters in place, bearings lubricated, and fan has been test run under observation.

## **1.7 EXTRA MATERIALS**

- .1 Section 01 78 10: Submittals for project closeout.

## **Part 2 Products**

### **2.1 MANUFACTURERS**

- .1 Greenheck CSP Inline Cabinet Fan.
- .2 Substitutions: Refer to Section 01 61 00.

### **2.2 GENERAL**

- .1 Performance Ratings: Conform to AMCA standard 211, be tested to ANSI/AMCA 210-99, and bear the AMCA Certified Rating Seal.
- .2 Sound Ratings: Conform to AMCA 311, be tested to ANSI/AMCA 300-96, and bear AMCA Certified Sound Rating Seal.
- .3 Fabrication: Conform to AMCA 99.
- .4 Performance Base: Sea level conditions.
- .5 Temperature Limit: Maximum 55.4 degrees C.
- .6 Static and Dynamic Balance: Eliminate vibration or noise transmission to occupied areas.
- .7 Performance
  - .1 See Schedule.

### **2.3 WHEEL AND INLET**

- .1 Double inlet Forward Curved wheel.

### **2.4 HOUSING**

- .1 Corrosion resistant galvanized steel scroll and housing
- .2 Sound insulation
- .3 Rectangular inlet and outlet collar
- .4 Outlet with integral spring loaded backdraft damper.

## **2.5 ELECTRICAL CHARACTERISTICS AND COMPONENTS**

- .1 Electrical Characteristics:
  - .1 KW depends on model.
  - .2 120 volts, single phase, 60 Hz.

## **2.6 ACCESSORIES**

- .1 Access Doors: with quick opening latches and gaskets.
- .2 Speed Control: controls fan's output, can be used to operate more than one fan at a time, fan can be adjusted to 60% of full speed.
- .3 Switch: single pole rocker switch assembly with cover and pilot light.

## **Part 3 Execution**

### **3.1 INSTALLATION**

- .1 Install to manufacturer's instructions.
- .2 Replace existing fans and fit to existing ductwork.

### **3.2 EXHAUST FAN SCHEDULE**

<b>Dwg Code</b>	<b>Mfg</b>	<b>Model</b>	<b>Air Flow (cfm)</b>	<b>Static Pressure (in.wc)</b>	<b>Controls</b>	<b>Accessories</b>
EF-1 Breathalyzer	Greenheck	CSP-A200	145	0.5	Switch	Switch, speed control
EF-2 Cell 1	Greenheck	CSP-A200	145	0.5	Switch	Switch, speed control
EF-3 Cell 4	Greenheck	CSP-A200	145	0.5	Switch	Switch, speed control
EF-4 Cell 3	Greenheck	CSP-A200	145	0.5	Switch	Switch, speed control
EF-8 Cell 2	Greenheck	CSP-A200	145	0.5	Switch	Switch, speed control

**END OF SECTION**