FAN SCHEDULE

GENERAL													
DRAWING SYMBOL	EF-82R	EF-83R	EF-84R	EF-87R	EF-88R	EF-89R	EF-90R	EF-92R	EF-93R	EF-102R	EF-103R	EF-103AR	EF-2AR
SERVED	CLINICAL LAB.	CLINICAL LAB.	GENERAL EXH.	RECOVERY	GENERAL OR	ANIMAL OR	LOCKERS RM	SPD HOOD	MORGE	ROOM 121 MEDIA ROOM	ROOM 115 HEMATOLOGY		
MANUFACTURER	TWIN CITY	VIRON	TWIN CITY	TWIN CITY	TWIN CITY	TWIN CITY	TWIN CITY	TWIN CITY	TWIN CITY	VIRON	VIRON	STROBIC	TWIN CITY
MODEL	BC	VCB	BC	BCJ	BC	BC	BC	TSL-TFE	BC	VCB	VCB	TRI-STACK	BCJ
SIZE	122	1115	150	105	402	165	200	122	222	1115	1115	BS-002	105
TYPE	SWSI	SWSI	SWSI	SWSI	SWSI	SWSI	SWSI	FUMEX-EXHAUST	SWSI	SWSI	SWSI	SINGLE	SWSI
ARRANGEMENT	10	9	10	10	9	10	10		10	9	9		10
ROTATION	CLOCKWISE	CLOCKWISE	CLOCKWISE	CLOCKWISE	CLOCKWISE	COUNTERCLOCKWISE	CLOCKWISE		CLOCKWISE	CLOCKWISE	CLOCKWISE		CLOCKWISE
DISCHARGE	UPBLAST	UPBLAST	UPBLAST	UPBLAST	UPBLAST	UPBLAST	UPBLAST	UPBLAST	UPBLAST	UPBLAST	UPBLAST		TOP HORIZ
DRIVE	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	FIXED	BELT	FIXED	FIXED	FIXED	FIXED	FIXED
WHEEL	BI	BI	BI	BI	BI	BI	BI	TUBULAR	BI	BI	BI		BI
CAPACITY													
CFM	580	1260	2280	410	25500	3360	4140	1000	7550	600	1510	435	1310
TSP. IN. W. G.	3	3	.5	5	3	3.5	.5	1	4.5	3	3	1	.5
RPM								1679					
BHP													
ELECTRICAL DATA													
MOTOR HP	2	2	1	2	20	5	1	.5	10	2	2	.25	.5
VOLTS/PH/HZ	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	120/1/60	460/3/60	460/3/60	460/3/60	115/1/60	120/1/60
MOTOR TYPE	HE, TEFC	HE, TEFC	HE, TEFC	HE, TEFC	HE, TEFC	HE, TEFC	HE, TEFC	EXP. PROOF	HE, TEFC	HE, TEFC	HE, TEFC	HE, TEFC	HE, TEFC
OPTIONS													
CURB													
VFD COMPATIBLE					YES								
DISCHARGE CAP								YES					
FLG CONNETIONS													
STACK EXTENSION								YES					
SHAFT SEAL	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SPARK RESIST CONST.	YES							YES					
CONST. MAT.		FRP								FRP	FRP	FRP	
BELT-SHAFT GUARD	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SPRING VIB ISO.	YES	YES	YES	YES	YES	YES	YES		YES	YES	YES	YES	YES
WEATHER COVER		YES								YES	YES		
HEAVY DUTY CURB CAP								YES					
CURB DIMENSIONS													
OUTSIDE (IN)													
INSIDE (IN)													
REMARKS													
	EXP. PROOF MOTOR							EXP. PROOF MOTOR					

FILTER HOUSING SCHEDULE

GENERAL	
DRAWING SYMBOL	FH-1R
MANUFACTURER	FLANDERS OR EQUAL
MODEL	C-4
CFM	7700
WIDTH (FT)	4
HEIGHT (FT)	4
PRE-FILTER TYPE	30% ASHRAE PLEATED
FILTER TYPE	99.99% DOP CART
PD (IN WG) DIRTY	2.5
OPTIONS	
ACCESS DOOR	ONE SIDE
DRILLED FLANGES	NO

FANS TO BE REPLACE THAT ARE CURRENTLY CONNECTED TO THE BMS

THE ONLY FANS TO BE CONNECTED TO THE BMS ARE THE FANS THAT ARE ALREADY CONNECTED TO THE BMS AND THAT WILL BE REPLACED. (SEE LIST). CONNECT TO THE EXISITNG CONTROL PANELS THAT THE FANS TO BE REPLACED ARE CURRENTLY CONNECTED.

ALL NEW CONTROLS SHALL BE CONNECTED TO THE EXISTING BMS (TRANE TRACER SUMMIT). THE MAIN BMS HMI IS LOCATED AT THE BUILDING 1 ECC. ALL CONTROL PANELS AND VARIABLE FREQUENCY DRIVES SHALL COMMUNICATE TO THE BMS TROUGH BACNET PROTOCOL.

CONTROLS CONTRACTOR SHALL PROVIDE DETAILED CONTROLS DRAWINGS AND THEIR VERSION OF THE CONTROL SEQUENCES FOLLOWING THE BID DOCUMENTS SET DRAWINGS (CONTROL DIAGRAMS, CONTROL SEQUENCES AND POINT SCHEDULE.

CONTROLS PANELS SHALL BE STAINLESS STEEL 304, HAVE KEY LOCKS. ALL GAGES SHALL BE PROPERLY IDENTIFIED USING NAMEPLATES. ALL WIRING SHALL BE PROPERLY STAMPED AND LABELED. ALL WORK COMPONENTS WITHIN PANELS SHALL COMPLY WITH NFPA. PANELS CAN BE SELF STANDING, WALL MOUNTED OR MOUNTED ON WALL OF THE AHU. COMPONENTS OF THE SAME SYSTEM SHALL BE GROUPED ON THE SAME PANEL UNLESS BECOMES IMPRACTICAL FOR OPERATION. PANEL LAYOUT, LOCATION AND MOUNTING DETAIL SHALL BE INCLUDED ON CONTROLS SUBMITTALS FOR A/E REVIEW AND APPROVAL.

FOR THIS FANS STARTER PILOT DEVICES SHALL BE CONNECTED TO THE ECC THROUGH DIGITAL INPUT DEVICES AND INTERLOCKED TO START AND STOP WITH THE AHU THE AREA. FANS SHALL BE STARTED AND STOP THROUGH THE LOCAL CONTROL MODULE MICROPROCESSOR START-STOP PROGRAM.

AN ANALOG CURRENT SENSOR SHALL BE CONNECTED TO EACH FAN MOTOR POWER CONNECTION. ANALOG SENSOR SHALL BE CONNECTED TO THE ECC THROUGH AN ANALOG INPUT DEVICE TO THE ECC. FAN MOTOR CURRENT SHALL BE DISPLAYED AT THE ECC. MOTOR STATUS (ON/OFF) SHALL BE DISPLAYED AT THE ECC HMI.

OTHER SYSTEM RELATED ACV COMPONENTS SUCH AS DUCTWORK REHEAT COILS, ROOMS SENSORS ETC. ARE NOT INCLUDED ON THIS WORK. THESE COMPONENTS PROGRAMING OR INSTALLATION SHALL REMAIN AS-IS. ALL NEW AHU PROGRAMING AND GRAPHICS SHALL BE INCORPOTATED INTO THE EXISTING BMS.

FILTER HOUSING FH-1R

A MAGNAHELIC GAUGE SHALL INDICATE PRESSURE DROP FOR EACH FILTER. A DIFFERENTIAL PRESSURE TRANSMITTER SHALL BE INSTALLED IN PARALLEL WITH EACH MAGNAHELIC GAUGE. DIFFERENTIAL PRESSURE TRANSMITTER SHALL BE CONNECTED TO THE ECC WITH AN ANALOG INPUT. 30% BANK SHALL BE .75 IN WG. RANGE WITH A DIRTY SET POINT OF .5 IN WG.. 90 % BANK SHALL BE 1.5 IN WG. RANGE WITH A DIRTY SET POINT OF 1 IN WG.. DIRTY FILTER PRESSURE DROP SHALL BE ALARMED AT THE ECC HMI. FILTERS MAGNAHELIC GAUGES SHALL BE MOUNTED ON AN 304 STAINLESS STEEL PANEL. ALL ASSOCIATED GAUGE VALVES SHALL INSTALLED WITHIN THE PANEL.

LIST OF FANS TO BE REPLACED THAT ARE CUEEENTLY CONNECTED TO THE BMS

EF-1R
EF-2R
EF-2AR
EF-81R
EF-82R
EF-83R
EF-84R
EF-87R
EF-88R
EF-90R
EF-92R
EF-93R
EF-102R
EF-103R
EF-103A

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100% DRAWINGS
Date: September 25, 2015

Revisions	Date

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100% DRAWINGS
9/25/15

ARCHITECTS / ENGINEERS

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Approved: Project Director: Eng. Sixto Ortiz Diaz

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