

three inches = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

one eighth inch = one foot

0.0016 (1/6400) CAD Mechanical (3.948.16-006.M3.dwg 4-18-18 10:06:24 AM bjk)

ROOFTOP UNIT SCHEDULE													
MARK	SERVES	TOTAL CFM	TOTAL S.P. (WC)	EXT. S.P. (WC)	O.A. CFM	ECONOMIZER	ECONOMIZER CTRL	COOLING CAP. MBH		HEATING CAP. KW	HEATING CONTROL TYPE	MANUFACTURER & MODEL NO.	REMARKS
								TOTAL	SENSIBLE	INPUT			
RTU-1	POLICE STATION	2,300	2.20"		0-100%	YES	ENTHALPY	62.7	52.9	18 kW	SCR	DAIKIN DPS006A	1,2,3,4,5,6,7,8,9

- REMARKS:
- SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL DATA.
 - PROVIDE ROOF TOP UNIT MEETING COOLING CAPACITIES BASED ON AN AMBIENT TEMPERATURE OF 105 DEG F, 55 DEG F DISCHARGE SUPPLY AIR TEMPERATURE, ELECTRIC HEAT AND DX COOLING.
 - PROVIDE ECM RATED SUPPLY FAN MOTOR DIRECT DRIVE TYPE, CONDENSING SECTION WITH INVERTER SCROLL TYPE OPERATION, MODULATING CONTROL, WITH INVERTER TYPE COMPRESSORS.
 - SCOR RATING OF MECHANICAL CONTROLS EQUIPMENT SHALL EXCEED SCOR RATINGS AS INDICATED IN SCHEDULE AND EXCEED AIC RATING OF PANELBOARD FEEDING LOAD. ELECTRICAL CONTRACTOR MUST PROVIDE ENGRAVED LABEL ON FRONT OF MECHANICAL CONTROL EQUIPMENT INDICATING AVAILABLE FAULT CURRENT RATING AND MECHANICAL EQUIPMENT PROVIDER MUST INDICATE SCOR RATING OF EQUIPMENT VISIBLE ON FRONT OF CONTROL EQUIPMENT.
 - PROVIDE FACTORY 5 YEAR COMPRESSOR WARRANTY AND EXTENDED PARTS WARRANTY.
 - PROVIDE VARIABLE AIR VOLUME ROOFTOP UNIT WITH 0-100% ENTHALPY CONTROLLED ECONOMIZER CONTROL AND OPERATION, DX COOLING AND ELECTRIC RESISTANCE HEAT, BOTTOM SUPPLY AIR CONNECTION AND BOTTOM RETURN AIR OPENINGS, 1" INJECTED FOAM WALLS, R-7 INSULATION RATING, GALVANIZED STEEL LINER.
 - PROVIDE ROOFTOP UNIT CONTROLS COMPATIBLE WITH MODBUS OR OTHER CONTROL INTERFACE APPROVED BY JOHNSON CONTROLS. CONTACT JOHNSON CONTROL REPRESENTATIVE FOR ADDITIONAL CONTROL REQUIREMENTS AND CONTROL NEEDS.
 - PROVIDE A 14" ROOF CURB AND A VIBRO-ACOUSTICS SPRING ISLOATION CURB CONSISTING OF GALVANIZED CURB SECTIONS WITH INTEGRAL VERTICAL AND Laterally RESTRAINED ISOLATORS FORMED TO FOR THE SUPPLIED ROOF-TOP UNIT.
 - PROVIDE UNIT WITH INTEGRATED VFD CONTROL PANEL.

VAV SUPPLY TERMINAL UNIT SCHEDULE												
MARK	SERVES (ROOM NO'S)	MAX. CFM	MIN. CFM COOL	MIN. CFM HEAT	MAX. NC @ 1.5 INLET S.P.	HEATING COIL			MANUFACTURER & MODEL NO.		REMARKS	
						GPM	ROWS	MBH	APD			
VAV-1	CORRIDOR 1CW04	200	60	120	0.241	0.75	2	5208.0	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-2	SCREENING VESTIBULE 1CW07A	300	90	180	.092-.472	1	2	7812.0	0.39	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-3	PASSAGEWAY 1W70	300	90	180	.092-.472	1	2	7812.0	0.39	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-4	STORAGE 2W36A/STORAGE 2W36/ CORRIDOR 2CW06	200	60	120	0.241	0.75	2	5208.0	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-5	ISOLATION 7W19	470	141	282	.147-.452	1.25	2	12238.8	0.39	TITUS MODEL ESV SINGLE DUCT BOX, 8 INCH INLETSIZE	1,2,3,4	
VAV-6	ISOLATION 7W20	380	114	228	.092-.472	1	2	9895.2	0.36	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-7	CORRIDOR/TOILET 8W25E	200	60	120	0.241	0.75	2	5208.0	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-8	ISOLATION 8W18B	530	159	318	.147-.452	1.5	2	13801.2	0.39	TITUS MODEL ESV SINGLE DUCT BOX, 8 INCH INLETSIZE	1,2,3,4	
VAV-9	ISOLATION 8W18C	425	128	255	.147-.452	1.25	2	11067.0	0.39	TITUS MODEL ESV SINGLE DUCT BOX, 8 INCH INLETSIZE	1,2,3,4	
VAV-10	ISOLATION 9W31	355	107	213	.092-.472	1	2	9244.2	0.36	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-11	ISOLATION 9W30	355	107	213	.092-.472	1	2	9244.2	0.36	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-12	STORAGE 10W27/CORRIDOR	200	60	120	0.241	0.75	2	5208.0	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-13	MEN LOCKER/1W79B/WOMEN LOCKER 1W79A/ EVIDENCE 1W78	285	86	171	.092-.472	0.75	2	7421.4	0.36	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-14	ARMORY 1W77/HOLDING 1176	145	44	87	0.241	0.5	2	3775.8	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-15	INTERVIEW 1W75	110	33	66	0.241	0.5	2	2864.4	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-16	SQUAD RM/WORKSTATIONS 1W74	300	90	180	.092-.472	1	2	7812.0	0.36	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-17	ASST. CHIEF/CAPTAIN OFFICE 1W73	130	39	78	0.241	0.5	2	3385.2	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-18	CHIEF OFFICE 1W72	130	39	78	0.241	0.5	2	3385.2	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	
VAV-19	OPERATIONS/CLERICAL 1W71/	900	270	540	.134-.449	2.5	2	23436.0	0.45	TITUS MODEL ESV SINGLE DUCT BOX, 10 INCH INLETSIZE	1,2,3,4	
VAV-20	CORRIDOR 1CW07	400	120	240	.092-.472	1	2	10416.0	0.39	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4	
VAV-21	WAITING 1W39	200	60	120	0.241	0.75	2	5208.0	0.08	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4	

- REMARKS:
- TERMINAL UNITS TO BE FURNISHED WITH FIBRE FREE DUCT LINER AND SOUND ATENUATOR.
 - TERMINAL UNITS TO BE FURNISHED LESS CONTROLS, AND ACTUATORS.
 - FLOW SENSOR TO BE FACTORY MOUNTED , AND READY FOR CONNECTION TO FIELD INSTALLED CONTROL SYSTEM AND ACTUATORS.
 - HOT WATER REHEAT COIL TO BE SHIPPED INTEGRAL TO UNIT. PROVIDE ACCESS DOOR IN BOTTOM OF BOX

VAV EXHAUST TERMINAL UNIT SCHEDULE							
MARK	SERVES (ROOM NO'S)	MAX. CFM	MIN. CFM	MAX. NC @ 1.5 INLET S.P.	MAX. S.P. LOSS	MANUFACTURER & MODEL NO.	REMARKS
EVAV-2	ISOLATION 7W19	525	315	25	0.338	TITUS MODEL ESV SINGLE DUCT BOX, 8 INCH INLETSIZE	1,2,3,4,5
EVAV-3	ISOLATION 7W20	425	255	25	0.338	TITUS MODEL ESV SINGLE DUCT BOX, 8 INCH INLETSIZE	1,2,3,4,5
EVAV-4	ISOLATION 8W18B	470	282	25	0.338	TITUS MODEL ESV SINGLE DUCT BOX, 8 INCH INLETSIZE	1,2,3,4,5
EVAV-5	ISOLATION 8W18C	380	228	25	0.368	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4,5
EVAV-6	ISOLATION 9W31	315	189	25	0.368	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4,5
EVAV-7	ISOLATION 9W30	315	189	25	0.368	TITUS MODEL ESV SINGLE DUCT BOX, 6 INCH INLETSIZE	1,2,3,4,5
EVAV-8	ANTE 7W20B	100	60	25	0.368	TITUS MODEL ESV SINGLE DUCT BOX, 5 INCH INLETSIZE	1,2,3,4,5

- REMARKS:
- TERMINAL UNITS TO BE FURNISHED WITH FIBER-FREE DUCT LINER.
 - TERMINAL UNITS TO BE FURNISHED LESS CONTROLS, AND ACTUATORS.
 - FLOW SENSOR TO BE FACTORY MOUNTED, AND READY FOR CNNECTION TO FIELD INSTALLED CNTROL SYSTEM AND ACTUATORS.
 - UNIT DOES NOT HAVE REHEAT CAPABILITIES.
 - MANUFACTURER & MODEL NO. SHOWN AS BASIS OF DESIGN. PROVIDE MODEL OR UNIT EQUAL IN PERFORMANCE AND CONSTRUCTION.

FAN COIL UNIT SCHEDULE												
MARK	TYPE	SERVES	CFM	EXT. S.P.	COOLING CAP MBH		HEATING CAP. MBH	GPM	P.D. (FT)	MANUFACTURER & MODEL NO.	REMARKS	
					SENSIBLE	TOTAL						
FC-1	DUCTED HORIZONTAL	OFFICE BW25	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-2	DUCTED HORIZONTAL	CORRIDOR BCW05	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-3	NON-DUCTED HORIZONTAL	STAIRWELL 1ST13	300	0.25"	-	-	21.3	2.4	0.90	DAIKIN FHHC203	1,7,8,9	
FC-4	NON-DUCTED HORIZONTAL	STAIRWELL 3ST13	300	0.25"	-	-	21.3	2.4	0.90	DAIKIN FHHC203	1,7,8,9	
FC-5	DUCTED HORIZONTAL	STORAGE 3W19H	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-6	DUCTED HORIZONTAL	STORAGE 5W35	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-7	NON-DUCTED HORIZONTAL	STAIRWELL 5ST13	300	0.25"	-	-	21.3	2.4	0.90	DAIKIN FHHC203	1,7,8,9	
FC-8	DUCTED HORIZONTAL	STORAGE 6W35	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-9	DUCTED HORIZONTAL	PATIENT ROOM 7W33	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-10	DUCTED HORIZONTAL	PATIENT ROOM 7W34	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-11	DUCTED HORIZONTAL	STORAGE 7W32	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-12	NON-DUCTED HORIZONTAL	STAIRWELL 7ST13	300	0.25"	-	-	21.3	2.4	0.90	DAIKIN FHHC203	1,7,8,9	
FC-13	NON-DUCTED HORIZONTAL	STAIRWELL 9ST13	300	0.25"	-	-	21.3	2.4	0.90	DAIKIN FHHC203	1,7,8,9	
FC-14	CONSOLE	STAIRWELL 1ST13	300	0.25"	-	-	21.2	2.1	1.00	DAIKIN FHVH103	1,2,3,4,5,6	
FC-15	DUCTED HORIZONTAL	PATIENT ROOM 5W33	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-16	DUCTED HORIZONTAL	PATIENT ROOM 5W34	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	
FC-17	DUCTED HORIZONTAL	GROUP ROOM 9W42	200	0.25"	6.2	6.6	16.0	1.6	7.00	DAIKIN FCHH202	1,2,3,4,5,6	

- REMARKS:
- SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE FOR ELECTRICAL DATA.
 - PROVIDE 1/2" THICK FIBERGLASS INSULATED CABINET, 18 GAUGE CABINET MATERIAL, REAR FILTERED RETUN AIR PLENUM.
 - PROVIDE FACTORY MOUTED AND SUPPLIED DISCONNECT SWITCH, EXTENDED WARRANTY, CONDENSATE OVERFLOW SWITCH.
 - PROVIDE CEILING HANGERS WITH A MINIMUM 1" DEFLECTION, VIBRATION ISOLATION CONNECTIONS.
 - PROVIDE ECM SUPPLY FAN MOTORS, CONTROLS BY JCI
 - PROVIDE DELUXE HOSE KIT PIPING PACKAGE CONSISTING OF MANUAL ISOLATION VALVES, 2-WAY N.C. VALVE, PT PORTS, BYPASS BALANCING VALVE, MANUALLY ADJUSTABLE CIRCUIT SETTER WITH INTEGRATED SHUTOFF VALVE, FLEXIBLE HOSE CONNECTIONS.
 - PROVIDE CEILING HUNG CABINET UNIT HEATER WITH BOTTOM RETURN GRILLE FRONT SUPPLY REGISTER, BOTTOM HINGED ACCESS PANEL, PREMIUM HEATING HOT WATER HOSE KITS WITH STRAINER, 2-WAY N.C. VALVE, PT PORTS, BYPASS BALANCE VALVE, ISOLATION VALVES AND FLEXIBLE CONNECTIONS.
 - PROVIDE CEILING MOUNTING KITS WITH SPRING ISOLATORS FOR VIBRATION ISOLATION FROM THE STAIRWELL STRUCTURE
 - PROVIDE AN EXTENDED WARRANTY ON ALL FAN AND ELECTRICAL COMPONENTS.


REGISTER - GRILLE - DIFFUSER SCHEDULE												
MARK	FUNCTION	TYPE	CFM RANGE	MAX N.C.	SIZE (INCHES)	BORDER OR FRAME	MATERIAL ALUM.	STEEL	FINISH	ACCESS.	MANUFACTURER & MODEL NO.	REMARKS
A	SUPPLY	SQUARE FACE NOMINAL PNL.	0-100	25	6" Ø NECK	12 x 12 LAY-IN		X	STND. WHITE	-	TITUS OMNI	1, 2, 3
B	SUPPLY	SQUARE FACE NOMINAL PNL.	100-150	25	6" Ø NECK	24 x 24 LAY-IN		X	STND. WHITE	-	TITUS OMNI	1, 2, 3
C	SUPPLY	SQUARE FACE NOMINAL PNL.	151-270	25	8" Ø NECK	24 x 24 LAY-IN		X	STND. WHITE	-	TITUS OMNI	1, 2, 3
D	RETURN / EXHAUST	PERF. PANEL 12 x 24 FACE	0-700	20	10 x 22 NECK	12 x 24 LAY-IN	X		STND. WHITE	-	TITUS PAR-AA	1, 2, 3
E	RETURN / EXHAUST	PERF. PANEL 24 x 24 FACE	701-2000	20	22 x 22 NECK	24 x 24 LAY-IN	X		STND. WHITE	-	TITUS PAR-AA	1, 2, 3
F	SUPPLY	SQUARE FACE NOMINAL PNL.	0-100	25	6" Ø NECK	12 x 12 SURFACE		X	STND. WHITE	-	TITUS OMNI	1, 2, 3
G	RETURN / EXHAUST	SINGLE DEFL. 35" BLADE	0-225	25	12 x 6 NECK	12 x 6 SURFACE	X		STND. WHITE	-	TITUS 350RL	1, 2, 3
H	SUPPLY	SQUARE FACE NOMINAL PNL.	0-150	25	6" Ø NECK	12 x 12 LAY-IN	X		STND. WHITE	-	TITUS OMNI-AA	1, 2, 3
J	SUPPLY	SQUARE FACE NOMINAL PNL.	150-225	25	8" Ø NECK	24 x 24 SURFACE		X	STND. WHITE	-	TITUS OMNI	1, 2, 3
K	RETURN / EXHAUST	SINGLE DEFL. 35" BLADE	226-350	25	12 x 6 NECK	12 x 6 SURFACE	X		STND. WHITE	-	TITUS 350RL	1, 2, 3
L	SUPPLY	SQUARE FACE NOMINAL PNL.	100-150	25	6" Ø NECK	24 x 24 SURFACE		X	STND. WHITE	-	TITUS OMNI	1, 2, 3
M	RETURN / EXHAUST	PERF. PANEL 12 x 24 FACE	0-700	20	10 x 22 NECK	12 x 24 LAY-IN	X		STND. WHITE	-	TITUS 8FF	1, 2, 3, 4

- REMARKS:
- PROVIDE SPECIFIC NOISE CRITERIA (NC) DATA FOR EACH LINE ITEM WITH SHOP DRAWINGS.
 - VERIFY CEILING TYPE WITH ARCHITECTURAL REFLECTED CEILING PLAN.
 - EQUIPMENT SPECIFIED FOR DESIGN PURPOSES. PROVIDE SPECIFIED EQUIPMENT OR EQUAL.
 - GRILLE TO BE PROVIDED WITH 1" FILTER FRAME.

VARIABLE FREQUENCY DRIVE SCHEDULE							
MARK	SERVES	MOTOR DATA			BYPASS	MANUFACTURER & MODEL NO.	REMARKS
		HP	FLA	VOLTAGE			
VFD-EF1-102	VEKTOR FUME EXHAUST FAN SYSTEM	5	16.7	208	NA	TOSHIBA MODEL Q9 SERIES	1,2,3,4
VFD-AHU1-102	AIR HANDLER ON ROOF OF 9TH FLOOR	5	13.9	208	YES	TOSHIBA MODEL Q9 SERIES	1,2,3,4

- REMARKS:
- PROVIDE VFD RATED FOR EXTERIOR EXPOSURE, 5% IMPEDENCE, SCOR OF 100Ka.
 - PROVIDE VFD WITH MANUAL BY-PASS, MSTP/BACNET CONNECTION, INTEGRAL DISCONNECTION.
 - VFD UNITS TO BE PROVIDED BY JOHNSON CONTROLS.
 - PROVIDE VFD CAPABLE OF RECEIVING 0-10 VDC CONTROL SIGNAL.


CONSULTANTS:

**FARRIS ENGINEERING**
OMAHA | LINCOLN | DES MOINES | COLORADO SPRINGS
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Drawing Title
MECHANICAL SCHEDULES

Approved Project Director
-
VAPAHCS PLANNING AND ENGINEERING

Project Title
CORRECT LIFE SAFETY DEFICIENCIES

Location
IOWA CITY VA HEALTH CARE SYSTEM

Date
19 SEPTEMBER 2017

Checked
JMM

Drawn
HDS

Project Number
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Dwg. 112 of 176

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