

Order Plans

VENTILATION SCHEDULE PER 2012 INTERNATIONAL MECHANICAL CODE														
ROOM No.	ROOM NAME	CATEGORY	FLOOR AREA SQ. FT.	ORDINANCE REQUIREMENT				ACTUAL VENT.				REMARKS		
				NUMBER OF OCCUPANTS AND/OR FIXTURES	AREA OUTDOOR AIRFLOW RATE	PEOPLE OUTDOOR AIRFLOW RATE	REQUIRED VENTILATION OR EXHAUST (CFM)	SUPPLY CFM	OUTSIDE AIR CFM	EXHAUST CFM	EXHAUST FAN NUMBER		SUPPLY UNIT NUMBER	
100	CUSTOMER SHOWROOM	RETAIL	1075	16	0.12 CFM PER SQUARE FEET	7.5 CFM PER PERSON	249	2200	300	---	---	---	RTU-1	
101	IT-RACK ROOM	CORRIDOR / UTILITY	31	---	0.06 CFM PER SQUARE FEET	---	2	---	5	---	---	---	RTU-1	
102	OFFICE	OFFICE	131	1	0.06 CFM PER SQUARE FEET	5 CFM PER PERSON	13	200	15	---	---	---	RTU-1	
103	UNISEX TOILET ROOM	TOILET ROOMS	56	1 FIXTURE	70 CFM PER FIXTURE	---	70	75	---	100	EF-2	RTU-1	EF-2 CONTROLLED BY TOILET ROOM LIGHTS	
104/105/111	CLEAN UP / BREAK AREA / UTILITY AREA	DINING ROOM	260	4	0.18 CFM PER SQUARE FEET	7.5 CFM PER PERSON	77	450	80	---	---	---	RTU-1	
106/107	SHOP TOILET	TOILET ROOMS	40	1 FIXTURE	70 CFM PER FIXTURE	---	70	75	---	100	EF-2	RTU-1	EF-2 CONTROLLED BY TOILET ROOM LIGHTS	
108	SERVICE AREA	AUTOMOTIVE SERVICE STATION	3723	---	1.5 CFM PER SQUARE FEET	---	5585	---	---	5700	EF-3	---	EF-3 CONTROLLED BY CO SENSOR	
109	INVENTORY	WAREHOUSE	1716	---	0.06 CFM PER SQUARE FEET	---	103	---	---	300	EF-1	---	EF-1 CONTROLLED BY MOTION SENSOR	
110	USED INVENTORY	WAREHOUSE	225	---	0.06 CFM PER SQUARE FEET	---	14	---	---	---	---	---	UNOCCUPIED - NO REQUIREMENT	
TOTAL			---	---	---	---	6183	3000	400	6200	---	---	---	

AIR DISTRIBUTION DEVICE SCHEDULE							
MARK	TYPE	MANUFACTURER	MODEL #	FACE	STYLE	BORDER TYPE	FINISH
S-1	SUPPLY	TITUS	300RL	18x8	LOUVERED	DUCT MOUNT	PAINT PER ARCHITECTURAL PLANS
S-2	SUPPLY	TITUS	TMS	12x12	LOUVERED	SURFACE MOUNT (TYPE 1)	PAINT PER ARCHITECTURAL PLANS
S-3	SUPPLY	AES	ADB-1	6x18	DROP BOX	DUCT MOUNT	PAINT PER ARCHITECTURAL PLANS
T-1	TRANSFER	TITUS	350RL	18x18	LOUVERED	SURFACE MOUNT (TYPE 1)	PAINT PER ARCHITECTURAL PLANS
T-2	TRANSFER	TITUS	350RL	10x10	LOUVERED	SURFACE MOUNT (TYPE 1)	PAINT PER ARCHITECTURAL PLANS
E-1	EXHAUST	TITUS	350	12x12	LOUVERED	SURFACE MOUNT (TYPE 1)	PAINT PER ARCHITECTURAL PLANS

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
 KRUEGER TUTTLE BAILEY
 MESTEK CARNES

NOTES:
 -ROUND CONNECTION TO MATCH ROUND DUCT DIMENSION AS SHOWN ON FLOOR PLAN.
 -SUPPLY AND RETURN AIR DIFFUSERS SHALL BE SELECTED AT A MAX NOISE CRITERIA OF 30.

GAS FIRED UNIT HEATER SCHEDULE											
TAG	AREA SERVING	MFR.	MODEL	MBH INPUT	MBH OUTPUT	AFUE	WEIGHT	MOTOR			
								FLA	MOCP	VOLTS	
UH-1	INVENTORY	REZNOR	UDAS30	30	26.4	82	45	1.9	15	1	115
UH-2	INVENTORY	REZNOR	UDAS30	30	26.4	82	45	1.9	15	1	115

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
 STERLING LENNOX
 MODINE

NOTES:
 1. UNIT SHALL BE COMPLETE WITH CONTROL TRANSFORMER RELAY PACKAGE, 24V REVERSE ACTING THERMOSTAT WITH NIGHT SETBACK.
 2. PROVIDE SHUTOFF COCK AT EACH BURNER.
 3. UNIT TO HAVE VERTICAL VENT TERMINAL AND CONCENTRIC ADAPTER.
 4. VIBRATION ISOLATION HANGERS RODS FOR APPROXIMATE EQUAL.

ELECTRIC UNIT HEATER SCHEDULE										
TAG	AREA SERVING	MFR.	MODEL	BTUH	MOUNTING	ELECTRICAL DATA				
						KW	VOLTS	Ø	AMPS	
EH-1	FIRE/SPRINKLER ROOM	BERKO	FRC4024	10,235	WALL	3	208	1	14.4	1,2,3

NOTES:
 1. PROVIDE FACTORY INSTALLED DISCONNECT SWITCH.
 2. PROVIDE WITH TAMPER-PROOF THERMOSTAT SET TO 65°F.
 3. PROVIDE WITH RECESS MOUNTING ENCLOSURE.

GAS FIRED ROOFTOP UNIT SCHEDULE																	
TAG	MFR.	MODEL	NOMINAL TON	ENTERING AIR CONDITIONS	ARI EER	SUPPLY CFM	RETURN CFM	O.A. CFM	TOTAL S.P.	FAN MOTOR HP	GAS MBH		ELECTRICAL DATA				WT.
											INPUT	OUTPUT	VOLTS	PHASE	FLA	MOCP	
RTU-1	LENNOX	KGA090	7.5	77.6°F DB 64.5°F WB @ 105°F AMBIENT	11.0	3000	2600	400	0.8	2	108	86	208	3Ø	34.9	60	1120

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
 CARRIER YORK
 TRANE

NOTES:
 1. MECHANICAL UNIT SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 2. PROVIDE UNIT WITH UNPOWERED GFCI CONVIENCE OUTLET.
 3. INSTALL NEW FILTERS IN UNIT AFTER ALL DUCTWORK HAS BEEN COMPLETED AND PRIOR TO TEST AND BALANCING OF UNIT.
 4. PROVIDE WITH DIFFERENTIAL ENTHALPY TYPE ECONOMIZER WITH BAROMETRIC RELIEF DAMPER.
 5. PROVIDE UNIT WITH 14" HIGH ROOF CURB WITH SECURITY BARS.
 6. PROVIDE UNIT WITH FACTORY INSTALLED HINGED ACCESS PANELS.
 7. PROVIDE FACTORY MOUNTED DISCONNECT.
 8. PROVIDE DRAIN PAN WITH FLOAT SWITCH, UNIT SHALL SHUT DOWN UPON ALARM FROM FLOAT SWITCH.

GAS FIRED STRAIGHT TUBE RADIANT HEATER SCHEDULE										
TAG	MANUFACTURER	MODEL	INPUT MBH	CONNECTION	VOLTAGE	PHASE	START DRAW	RUN DRAW	TUBE TYPE	TUBE LENGTH

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
 DETROIT RADIANT PRODUCTS-VERBER-RAD
 ROBERTS / GARDNER, INC.

NOTES:
 1. HEATERS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 2. EACH HEATER SHALL BE CONTROLLED BY A MANUFACTURER SUPPLIED LOW-VOLTAGE NIGHT SETBACK DIGITAL THERMOSTAT, MODEL #100-400 ABOVE THE FINISHED FLOOR. SEE MECHANICAL PLAN FOR LOCATIONS.
 3. HEATERS SHALL BE OPERATED UNDER A NEGATIVE PRESSURE (OR VACUUM) THROUGH SYSTEMS WITH CAST IRON BURNERS AND CALORIZING EMITTER TUBES (ALC OPTION). THE EMITTER TUBES SHALL BE CALORIZED FOR LONGEVITY, CORROSION RESISTANCE AND HIGH RADIANT EFFICIENCY. HOT ROLLED EMITTER TUBES ARE NOT ALLOWED.
 4. HEATERS SHALL OPERATE UNDER A NEGATIVE PRESSURE AT ALL TIMES TO PRECLUDE THE ESCAPE OF COMBUSTION GASSES INSIDE OF THE BUILDING.
 5. UNIT SHALL BE SHUT OFF WHEN EXHAUST FAN EF-3 IS ACTIVATED (BY C.O. SENSOR).
 6. HEATERS SHALL BE FURNISHED WITH END REFLECTORS (2 - PAIRS).

EXHAUST FAN SCHEDULE									
TAG	DESCRIPTION	MFR.	MODEL	CFM	ESP	MOTOR			NOTES
						HP / WATTS	PHASE	VOLTS	
EF-1	INVENTORY PROPELLER FAN	COOK	10XP24D103	300	.15	1/20	1	115	1, 6, 8, 9
EF-2	TOILET EXHAUST FAN	COOK	GN-620	200	.375	316 WATTS	1	115	3, 5, 6
EF-3	SERVICE AREA EXHAUST FAN	COOK	245SQN-B	5700	1.0	2.0	3	208	2, 4, 6, 7

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
 GREENHECK PENN

NOTES:
 1. ALL PROPELLER FANS TO BE COMPLETE WITH WALL COLLAR, SIDE GUARD, BACK DRAFT DAMPER AND SPEED CONTROLLER.
 2. ALL THREE PHASE EXHAUST FANS ARE TO BE COMPLETE WITH COMBINATION MAGNETIC MOTOR STARTER. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
 3. INTERLOCKED WITH TOILET ROOM LIGHTING. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.
 4. ACTIVATED BY C.O. SENSOR. MOUNT FAN AS HIGH AS POSSIBLE.
 5. RESTROOM INLINE FAN TO BE PROVIDED WITH WITH HANGING ISOLATOR KIT, SUSPENSION RODS, SPEED CONTROLLER, GRAVITY BACKDRAFT DAMPER AND LOUVERED BRICK VENT - MODEL BV5- PRIMED FINISH. FOR FIELD PAINTING TO MATCH WALL COLOR.
 6. ALL DISCONNECTS PROVIDED BY ELECTRICAL CONTRACTOR.
 7. SERVICE BAY INLINE FAN TO BE COMPLETE WITH VIBRATION ISOLATION, SUSPENSION RODS, FLANGE DUCT CONNECTION, SIDE DISCHARGE PACKAGE AND BELT GUARD.
 8. EXHAUST FAN ASSEMBLY SHALL BE SHIPPED "PRIMED" FOR FIELD PAINTING. COORDINATE COLOR WITH GENERAL CONTRACTOR.
 9. INTERLOCK WITH ROOM LIGHT MOTION SENSORS. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.

LOUVER SCHEDULE											
TAG	DESCRIPTION	MFR.	MODEL	CFM	SIZE		FREE AREA	DAMPER			NOTES
					W	H		HP	PHASE	VOLTS	
L-1	INVENTORY INTAKE LOUVER	RUSKIN	ELC445D	300	18 x 18	0.64	FRAC.	1	115	---	2,3,5,6,7
L-2	SERVICE AREA INTAKE LOUVER	RUSKIN	ELC445D	5700	48 x 48	6.28	FRAC.	1	115	---	2,4,5,6,7
L-3	SERVICE AREA EXHAUST LOUVER	RUSKIN	ELBD375E	5700	36 x 30	3.19	---	---	---	---	1,2,5

ACCEPTABLE MANUFACTURERS FOR EQUIVALENT OF SCHEDULE PRODUCT (NO OTHER SUBSTITUTIONS WILL BE ALLOWED):
 GREENHECK

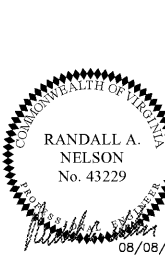
NOTES:
 1. DRAINABLE COMBINATION LOUVER PROVIDED WITH A GRAVITY BACKDRAFT DAMPER.
 2. LOUVERS TO BE PRIMED FOR FIELD PAINTING AND PROVIDED WITH BIRD / INSECT SCREEN.
 3. DRAINABLE COMBINATION LOUVER WITH 120 VOLT MOTORIZED DAMPER INTERLOCKED WITH EF-1.
 4. DRAINABLE COMBINATION LOUVER WITH 120 VOLT MOTORIZED DAMPER INTERLOCKED WITH EF-3.
 5. COORDINATE MOUNTING LOCATION WITH ARCHITECTURAL ELEVATIONS AND GENERAL CONTRACTOR.
 6. ALL MOTORIZED DAMPERS SHALL BE WIRED TO BE OPEN WHEN CORRESPONDING EQUIPMENT IS ENERGIZED.
 7. ALL DAMPERS SHALL DEFAULT TO SPRING SHUT WHEN POWER LOSS OCCURS OR WHEN NOT IN USE.

Professional Engineer of Record
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NEW FCAC STORE
 2015 - JUNE - ER - RIGHT
 1900 RICHMOND ROAD
 WILLIAMSBURG, VA



ISSUE BLOCK	

PROPERTY NO.:	167739
6 DIGIT NO.:	785533
4 DIGIT NO.:	6868
AOR PROJECT NUMBER:	1655814
TO PERMIT:	DATE: 08/10/17
TO BID:	DATE: TBD
DRAWN BY:	ZS,MJ,RC
CHECKED BY:	CF,AR
SHEET TITLE:	MECHANICAL EQUIPMENT SCHEDULES
SHEET NUMBER:	M3