CEILING DIFFUSER SCHEDULE

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DTES:	1. PERFORMANCE OF SA-SE BASED ON PRICE MODEL ASPD PLAQUE FACED DIFFUSER.					
	2. PERFORMANCE	OF SF BASED ON P	RICE MODEL LFD LA	MINAR FLOW DIFFU	JSER.	
	3. ALL DIFFUSERS	SHALL BE FURNISH	ED WITHOUT DAMP	ERS UNLESS OTHE	RWISE NOTED.	
	4. ROUTE RUN-OU	T SIZE TO GRILLE U	NLESS OTHERWISE	NOTED ON DRAWIN	NGS.	
SYMBOL	RUN OUT SIZE	NECK SIZE	FACE SIZE	MAX. NC	MAX. SP	
SAA	6"Ø	6 "Ø	12"x12"	-	.016	
SA	6"Ø	6"Ø	24"x24"	-	.016	
SB	8 "Ø	8 "Ø	24"x24"	-	.042	
SC	10"Ø	10"Ø	24"x24"	-	.065	

12"Ø

14"Ø

10"Ø

1**2**"Ø

14"Ø

10"Ø

SD

SE

SF

REMARKS

RETURN/EXHAUST GRILLE SCHEDULE

24"x24"

24"x24"

48"x24"

15

18

17

.093

.127

.030"

NOTES:	1. GRILLES BASED O	1. GRILLES BASED ON PRICE MODEL 80 0.5" GRID DESIGN.				
	2. GRILLES TO BE FU	2. GRILLES TO BE FURNISHED WITHOUT DAMPER.				
	3. FACE SIZE BASED	ON LAY-IN CEILING	. ADD 1.75" TO FACE	E SIZE FOR DRYWA	LL APPLICATIONS.	
	4. PROVIDE SQUARE	TO ROUND TRANS	ITION ON BACK OF (GRILLE.		
SYMBOL	RUN OUT SIZE	NECK SIZE	FACE SIZE	MAX. NC	MAX. SP	
RA EA	6 "Ø	12"x12"	12"x12"	18	.02"	
RB EB	8 "Ø	24"x24"	24"x24"	24	.03"	
RC EC	10"Ø	24"x24"	24"x24"	24	.03"	
RD ED	12"Ø	24"x24"	24"x24"	24	.03"	
RE EE	14"Ø	24"x24"	24"x24"	24	.03"	
RF EF	18"Ø	24"x24"	24"x24"	24	.03"	
RG EG	24"x14"	24"x24"	24"x24"	24	.03"	
RH EH	24"x16"	24"x24"	24"x24"	24	.03"	
REMARKS:						

TEST AND BALANCE

- 1. THIS WORK SHALL INCLUDE ALL HVAC SUPPLY, RETURN AND EXHAUST DUCT SYSTEMS. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY FOR TESTING AND BALANCING.
- THE CLEANING, TESTING AND BALANCING DESCRIBED HEREIN ARE MINIMUM REQUIREMENTS AND SHALL BE PERFORMED BY AN INDEPENDENT TABB, NEBB OR AABC CERTIFIED TEST AND BALANCE CONTRACTOR. ADDITIONAL TESTS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION SHALL ALSO BE PERFORMED. TEST AND BALANCE CONTRACT SHALL BE HELD BY THE GENERAL CONTRACTOR AND NOT THE MECHANICAL CONTRACTOR.
- AFTER COMPLETION OF THE INSTALLATION OF THE AIR CONDITIONING, HEATING, VENTILATING AND EXHAUST SYSTEMS, AND PRIOR TO ACCEPTANCE BY THE OWNERS, ALL AIR HANDLING SYSTEMS AND APPURTENANCES APPLICABLE TO THE ABOVE SYSTEM SHALL BE ADJUSTED AND BALANCED TO DELIVER THE AIR QUANTITIES AS SPECIFIED, INDICATED ON THE DRAWINGS, OR AS DIRECTED.
- CONTRACTOR SHALL BALANCE SUPPLY, RETURN, AND EXHAUST AIR TO WITHIN PLUS OR MINUS 10% OF DESIGN, AIR BALANCE SHALL BE PERFORMED BY TABB, AABC OR NEBB CERTIFIED AIR BALANCE COMPANY AND THE PROCEDURE FOLLOWED AND FORMS USED SHALL AGREE WITH TABB, NEBB OR AABC STANDARDS.
- 5. TOTAL AIR QUANTITIES SHALL BE OBTAINED BY ADJUSTMENT OF FAN SPEEDS.
- 6. *BELT-DRIVEN FANS SHALL HAVE <u>SHEAVES CHANGED</u> AS REQUIRED TO OBTAIN DESIGN AIRFLOW QUANTITIES.
- *MEDIUM PRESSURE DUCT SYSTEMS SHALL HAVE THE STATIC PRESSURE SETPOINT ADJUSTED THROUGH THE CONTROLS SYSTEM AS REQUIRED TO OBTAIN DESIGN AIRFLOW QUANTITIES.
- BRANCH DUCT AIR QUANTITIES SHALL BE ADJUSTED BY VOLUME OR SPLITTER DAMPERS. DAMPERS SHALL BE PERMANENTLY MARKED AFTER AIR BALANCE IS COMPLETE SO THAT THEY CAN BE RESTORED TO THEIR CORRECT POSITION IF DISTURBED AT ANY TIME.
- RECORD AND SUBMIT FOR EVALUATION AND APPROVAL THREE (3) COPIES OF THE COMPLETE AIR BALANCE REPORT. REPLACEMENT OF ADJUSTABLE PULLEYS, ADDITION OF BALANCING DAMPERS OR PRESSURE TAPS, REQUIRED TO EFFECT PROPER AIR BALANCE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. IF REQUESTED, ANY OR ALL OF THE ABOVE FIELD TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE ARCHITECT'S REPRESENTATIVE.
- 10. IN ADDITION, THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT A TYPED, WRITTEN REPORT TO INCLUDE THE FOLLOWING: A STATEMENT THAT ALL SYSTEMS HAVE BEEN TESTED, CHECKED OUT, BALANCED AND ARE
- OPERATING PROPERLY. A STATEMENT THAT ALL FILTERS HAVE BEEN REPLACED • A STATEMENT, SIGNED BY THE OWNER, STATING THAT WRITTEN OPERATING PROCEDURES AND TRAINING HAVE BEEN RECEIVED.
- 11. AIR-SIDE TEMPERATURE AND OTHER READINGS FOR EACH A/C UNIT, INCLUDING:
- OUTSIDE AIR TEMP (DB/WB) RETURN AIR TEMP (DB/WB)
- MIXED AIR TEMP (DB/WB) SUPPLY AIR TEMP (DB/WB)
- FAN RPM TOTAL STATIC PRESSURE
- PRESSURE DROP ACROSS COMPONENTS
- CFM AT EACH SUPPLY, RETURN AND EXHAUST OUTLET AIRFLOW AT EACH TERMINAL BOX FOR CALIBRATION PURPOSES ON NEW ELECTRONIC TERMINAL BOX CONTROLS
- 13. TERMINAL BOX HEATING COILS: TEST, SET AND RECORD AIRFLOW AND WATER FLOW THROUGH TERMINAL BOX HEATING COIL.
- 14. ALL REPORTS BY THE CONTRACTOR SHALL INCLUDE BOTH THE DATE OF THE TEST AND THE NAMES OF ALL PERSONS PERFORMING AND WITNESSING THE TESTS.
- 15. IF, AFTER BALANCING TO THE REQUIREMENTS ABOVE, SOME ROOM TEMPERATURES DEVIATE MORE THAN 2 DEGREES F FROM THE THERMOSTATIC SET POINT FOR THE RESPECTIVE ZONE, THE CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS IN THE AIRFLOW TO MINIMIZE TEMPERATURE DEVIATIONS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL INCLUDE LINE ITEM COST FOR THIS/THESE TRIPS IN BID.
- MECHANICAL CONTRACTOR SHALL MEASURE THE DIFFERENTIAL PRESSURE BETWEEN TUBES ON ALL DUCT MOUNTED SMOKE DETECTORS AND VERIFY COMPLIANCE WITH MANUFACTURER'S RANGE OF ACCEPTABLE DIFFERENTIAL PRESSURES.
- 17. IF A POSITIVE PRESSURE DIFFERENTIAL OF AT LEAST 0.01 INCHES W.C. CANNOT BE ACHIEVED IN O.R.s, C-SECTION ROOMS BASED ON THE VALUES SHOWN ON THE PLANS, THE BALANCE CONTRACTOR SHALL REDUCE THE RETURN AIR FLOW IN EACH ROOM AS NECESSARY TO ACHIEVE THE REQUIRED PRESSURE DIFFERENTIAL. THE CONTRACTOR SHALL INCREASE THE RETURN AIR IN THEIR RESPECTIVE ADJACENT CORRIDORS BY AN EQUAL AMOUNT. IF ISOLATION ROOMS AND ANTE ROOMS CANNOT ACHIEVE A MINIMUM 0.01 INCHES NEGATIVE PRESSURE DIFFERENTIAL, THE CONTRACTOR SHALL INCREASE THE EXHAUST AS NECESSARY TO ACHIEVE 0.01 INCHES W.C. DIFFERENTIAL. FOR PHARMACY AREAS THE SAME PRINCIPLE STATED ABOVE SHALL APPLY TO THE FOLLOWING VALUES: CHEMO - 0.01 INCHES W.C. TO 0.03 INCHES W.C. NEGATIVE; IV PREP AND ANTE ROOMS - 0.02 INCHES W.C. POSITIVE. ANTE TO PHARMACY - 0.02 INCHES W.C. POSITIVE.
- 18. CODE REQUIRED PRESSURE RELATIONSHIPS AS INDICATED ON THE PLANS SHALL BE MAINTAINED REGARDLESS OF ALLOWED 10% TOLERANCES.

1.	ALL DRAWINGS ARE DIAGRAMMATIC. CONTRACTOR IS REQUIRED TO REROUTE DUCTWORK AND PIPE, PROVIDE OFFSETS, 90 AND 45 DEGREE BENDS, CHANGE ASPECT RATIO OF DUCTWORK AS
2.	REQUIRED IN COORDINATION WITH OTHER TRADES AT NO ADDITIONAL COST TO THE PROJECT. ALL THERMOSTATS WILL BE INSTALLED 45" ABOVE FINISHED FLOOR TO CENTERLINE OF
3.	ROUTE NEW DUCTWORK ABOVE CEILING TIGHT TO STRUCTURE. RELOCATE OR OFFSET EXISTING PIPING, CONDUIT AND DUCTWORK AS REQUIRED FOR INSTALLATION OF NEW WORK AT NO ADDITIONAL COST TO THE PROJECT. CONTRACTOR SHALL VERIFY CLEARANCE REQUIREMENTS AN INDICATE ROUTING OF NEW DUCTWORK BEFORE FABRICATION BEGINS AS RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS
4.	DO NOT ROUTE ANY DUCTWORK OR PIPING DIRECTLY ABOVE OR 42" IN FRONT OF ELECTRICAL SWITCHGEAR, PANELS OR TRANSFORMERS.
5.	ALL LAY-IN DIFFUSERS, RETURN AND EXHAUST GRILLES SHALL BE 24"x24" OR 12"x12" FULL FACE UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE DIFFUSER FRAMES WITH REFLECTED CEILING PLAN TO DETERMINE TYPE OF FRAME REQUIRED, GYP-BOARD MOUNTING OR LAY-IN TYPE.
6. 7.	FOR BRANCH DUCT SIZES AND GRILLE / DIFFUSER NECK SIZES REFER TO SCHEDULE DRAWINGS. FLEXIBLE DUCT SHALL BE LIMITED TO A MAXIMUM LENGTH OF 5 FEET WITH NO MORE THAN 90 DEGREES OF ACCUMULATED BEND.
8.	PROVIDE MANUAL VOLUME DAMPERS IN MAIN SUPPLY, RETURN AND EXHAUST TRUNKS WHERE SHOWN ON DRAWINGS FOR BALANCING AS INDICATED AND AT LOCATIONS REQUIRED BY INDEPENDENT TEST AND BALANCING AGENCY. SEE DETAIL FOR EXACT LOCATION REQUIREMENTS OF MANUAL VOLUME DAMPERS
9.	COORDINATE DIFFUSERS, RETURN AND EXHAUST GRILLES WITH LIGHTS AND ARCHITECTURAL REFLECTIVE CEILING PLANS.
10.	ALL DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR IN INCHES UNLESS OTHERWISE NOTED.
11. 12.	IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE SYSTEMS AND VERIFY DIMENSION CONDITIONS PRIOR TO INSTALLATION. PROVIDE MANUFACTURERS' RECOMMENDED CLEARANCE REQUIREMENTS ON ALL AC UNITS AND EQUIPMENT FOR SERVING CLEANING, COIL REMOVAL, AND FILTER CHANGING.
13.	PROVIDE IDENTIFICATION STENCILING ON ALL CONCEALED ACCESS DOORS FOR FIRE DAMPERS AN COMBINATION FIRE/SMOKE DAMPERS.
14.	IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE ALL FLOOR AND ROOF PENETRATIONS WITH THE GENERAL CONTRACTOR PRIOR TO STEEL FABRICATION.
15.	EXHAUST DUCTS TO BE UN-INSULATED GALVANIZED SHEET METAL CONSTRUCTED TO LATEST SMACNA STANDARDS.
16.	INSTALL DRYER EXHAUST OUTLETS TO MAINTAIN AT LEAST 25 FEET CLEARANCE FROM FRESH AIR INTAKES ON AIR HANDLERS AND OPERABLE ROOM WINDOWS.
17.	ALL NEW ROOF MOUNTED EQUIPMENT MUST BE LOCATED A MINIMUM 10 FEET FROM THE ROOF EDGE OR A PROTECTIVE RAILING OR PARAPET SHALL BE PROVIDED NO LESS THAN 42 INCHES ABOVE FINISHED ROOF IN ACCORDANCE WITH IMC.
18.	HVAC HOT WATER PIPING 2" AND SMALLER TO TYPE "L" HARD DRAWN SEAMLESS ASTM B-88 COPPE SEE SPECIFICATIONS.
19. 20.	HVAC HOT WATER PIPING 2-1/2" AND LARGER TO BE WELDED CARBON STEEL. SEE SPECIFICATIONS INSULATION FOR HEATING HOT WATER TO BE 1-1/2" THICK FOR 1-1/4 AND SMALLER PIPE, 2" THICK
21.	EACH SUBCONTRACTOR SHALL PERFORM CUTTING AND PATCHING OF PENETRATIONS FOR THEIR
22.	UNLESS SPECIFICALLY NOTED OTHERWISE, NO T-DRILL FITTINGS OR TYPE M COPPER PIPING IS
23.	INTERMEDIATE SUPPORTS SUCH AS ANGLES, UNISTRUT, ETC. NECESSARY FOR SUPPORT OF PIPIN DUCTWORK AND EQUIPMENT AS WELL AS ANGLE FRAMING FOR DAMPERS SHALL BE FURNISHED A INSTALLED BY MECHANICAL DIVISION. STRUCTURAL OPENINGS REQUIRING FRAMING SHALL BE FURNISHED UNDER STRUCTURAL DIVISION.
24.	MECHANICAL CONTRACTOR TO PROVIDE COORDINATION DRAWINGS DEVELOPED INDEPENDENTLY BY THEIR STAFF BIM COORDINATORS IN 3 DIMENSIONAL CAD SOFTWARE FOR MECHANICAL SYSTE AND SHALL COORDINATE WITH ALL TRADES INCLUDING STRUCTURAL, DUCTWORK, PIPING, ELECTRICAL, COMMUNICATION SYSTEMS, FIRE PROTECTION AND MECHANICAL PIPING PRIOR TO FABRICATION OR INSTALLATION OF SYSTEMS. DESIGN MODELS ARE DEVELOPED FOR CONSTRUCTION DOCUMENT PRINTS ONLY.
25.	ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH THE FEDERAL, STATE AND LOCAL CODES AND LAWS. SEE ARCHITECTURAL DRAWINGS FOR APPLICABLE CODES. CONTRACTOR SHALL PAY FOR FEES AND PERMITS.
26.	ALL DUCTWORK SHALL BE SHEET METAL IN ACCORDANCE WITH THE LATEST SMACNA HVAC DUCT CONSTRUCTION STANDARDS. DUCT DIMENSIONS ARE INSIDE CLEAR.
27.	ALL SUPPLY DIFFUSERS SHALL BE PRICE MODEL ASPD AND RETURN GRILLS SHALL BE PRICE MODE 80 ALUMINUM 1/2"X1/2" GRID OR APPROVED EQUAL OR AS OTHERWISE NOTED. INSULATE BACK OF DIFFUSERS SIMILAR TO DUCTWORK IF SYSTEM USES A DUCTED RETURN.
28.	ALL ROUND TAPS ON LOW PRESSURE DUCT SHALL BE MADE USING STICK-ON METAL COLLARS WIT DAMPER (SOUTHWARK MODEL ATD OR EQUAL). NO SCOOPS ARE ALLOWED.
29.	SEAL ALL DUCT (SUPPLY, RETURN, OUTSIDE AIR, EXHAUST) JOINTS WITH MEI EDS 44-55 OR 44-52; DESIGN POLYMERICS DP1010; IRON GRIP OR EQUAL. APPLY WHEN ENVIRONMENT IS BETWEEN 50 of
30.	ALL CONCEALED SUPPLY, RETURN, AND OUTSIDE AIR DUCT SHALL BE EXTERNALLY INSULATED WI 2" THICK, 1 PCF DENSITY, FLEXIBLE, MINIMUM INSTALLED (25% COMPRESSION) "R" VALUE OF 6.0. FACTORY-REINFORCED GLASS FIBER BLANKET WITH FOIL-FACED VAPOR BARRIER EQUAL TO KNAL DUCT WRAP. INSULATE TOPS OF ALL SUPPLY DIFFUSERS WITH 2" THICK INSULATION. RETURN DUC NEED NOT BE INSULATED UNLESS ON TOP FLOOR WITH ROOF ABOVE. EXHAUST DUCT NEED NOT E INSULATED. DUCTWORK LOCATED IN ATTICS OR EXTREME TEMPERATURE LOCATIONS SHALL HAVE THE INSULATION THICKNESS INCREASED BY 1". SEAL ALL JOINTS WITH FSK TAPE.
31.	REFRIGERANT PIPING TO BE ACR GRADE TYPE L HARD COPPER SIZED AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. REFRIGERANT SUCTION LINES WILL B INSULATED WITH 1" ARMAFLEX INSULATION. REFRIGERANT PIPING EXPOSED-TO-THE-WEATHER OUTSIDE BUILDING SHALL BE INSTALLED WITH MOISTURE AND UV-RESISTANT ARMAFLEX SHIELD C APPROVED EQUAL, INCREASE THICKNESS TO 1-1/2".
32.	CONDENSATE DRAIN PIPING INSIDE THE BUILDING SHALL BE TYPE M HARD COPPER WITH 1/2" ARMAFLEX INSULATION. EXTERIOR CONDENSATE DRAIN PIPING SHALL BE PVC WITH A UV RESISTA COATING. ICE MAKER DRAINS SHALL ALSO BE EQUIPPED WITH 1/2" ARMAFLEX INSULATION.
33.	PIPE HANGERS SHALL BE GRINNELL OR EQUAL WITH HANGER TYPE MATCHING THE REQUIREMENT MAXIMUM ALLOWABLE SPACING SHALL BE AS FOLLOWS:
	3/4" to 1-1/4"dia. PIPE6 FOOT ON CENTER SPACING1-1/2" to 2-1/2"dia. PIPE10 FOOT ON CENTER SPACING3" to 5"dia. PIPE12 FOOT ON CENTER SPACING6" to 8"dia. PIPE14 FOOT ON CENTER SPACING
34.	ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR. NEW COMPRESSORS SHALL HAVE A FIVE YEAR REPLACEMENT WARRANTY.
35.	CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS SHOWN ON MECHANICAL DRAWING CONNECTIONS TO EXISTING SERVICES ARE ENGINEERS BEST UNDERSTANDING BASED ON AVAILABLE INFORMATION, CONTRACTOR SHALL ROUTE DUCT AND PIPING AS NECESSARY TO MAKE CONNECTIONS TO EXISTING SERVICES AS THEY EXIST IN THE FACILITY REGARDLESS OF HOW THEY'RE SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMMUNICATE ANY DEVIATION EQUIND PRIOR TO CONSTRUCTION

FIRE & FIRE/SMOKE DAMPER NOTES

- 1. DO NOT INSTALL FLEXIBLE DUCT WITHIN 5 FEET OF A ONE-HOUR PARTITION PENETRATION.
- 2. INSTALL SMOKE DAMPERS AT ALL DUCTWORK PENETRATIONS OF SMOKE-BARRIER WALLS WHEN DUCT HAS OPENINGS ON BOTH SIDES OF THE WALL.
- 3. FIRE DAMPERS TO BE UL555 DYNAMIC CURTAIN STYLE TYPE "C" WITH ZERO (0) PERCENT
- 4. PROVIDE SWITCH PACKAGE FIRE/SMOKE DAMPERS TO ALLOW FOR REMOTE INDICATION OF DAMPER BLADE POSITION. COORDINATE WITH CONTROLS CONTRACTOR.

QUALITY ASSURANCE

- . CONTRACTOR IS RESPONSIBLE TO BE IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES. SEE ARCHITECTURAL DRAWINGS FOR APPLICABLE CODES. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN DESIGN AND LOCAL CODES. CONTRACTOR'S PRICING TO REFLECT INSTALLATION IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS.
- 2. NOTIFY ENGINEER OF ANY CONFLICTS ON THE DRAWINGS OR BETWEEN DRAWINGS AND SPECIFICATIONS. FAILURE TO NOTE CONFLICTS WILL RESULT IN ADDITIONAL COSTS BEING THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. COMPLY WITH APPLICABLE REQUIREMENTS OF RECOGNIZED INDUSTRY ASSOCIATIONS WHICH PUBLISH STANDARDS FOR THE VARIOUS TRADES.
- 4. EMPLOY ONLY QUALIFIED JOURNEYMEN FOR THIS WORK. 5. ADDITIONAL INSTALLATION COSTS ASSOCIATED WITH SUBSTITUTED EQUIPMENT REQUIRING ADDITIONAL WORK ON THE PART OF THIS CONTRACTOR OR OTHER SUBCONTRACTORS TO SATISFY THE MANUFACTURER'S INSTALLATION REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE SUBMITTING CONTRACTOR.
- 6. SUPERVISE ALL WORK BY COMPETENT MECHANIC SPECIFICALLY QUALIFIED IN HIS DISCIPLINE.
- 7. ANY UNIT EQUIPPED WITH FINAL FILTERS SHALL NOT BE OPERATED WITHOUT THE FINAL FILTERS IN PLACE. IF UNIT IS OPERATED WITHOUT FINAL FILTERS IN PLACE, THE ENTIRE SUPPLY AIR DUCT SYSTEM MUST BE CLEANED IN ITS ENTIRETY.
- 8. CONTRACTOR IS REQUIRED TO DEMONSTRATE COMPLETE FUNCTIONALITY OF ALL DESIGNED AND INSTALLED SYSTEMS TO DESIGN TEAM UPON COMPLETION OF TEST & BALANCE OR SUBSTANTIAL COMPLETION. CONTRACTOR IS TO HAVE ALL REQUIRED PERSONNEL ON HAND, INCLUDING, BUT NOT LIMITED TO; MECHANICAL, ELECTRICAL, TEST AND BALANCE AGENT, AND CONTROLS.
- 9. FACTORY START-UP SHALL BE PROVIDED FOR ALL NEW EQUIPMENT. ALL EQUIPMENT WITH COMPRESSORS AND/OR EQUIPMENT CONTROLLED BY MICRO-PROCESSORS IS TO BE STARTED, ADJUSTED, AND VERIFIED FOR PROPER OPERATION WITH RESPECT TO THIS PROJECT BY FACTORY TRAINED AND CERTIFIED TECHNICIAN. NO EXCEPTIONS WILL BE ALLOWED.

REQUIRED COORDINATION

- 1. VISIT SITE AND BE INFORMED OF CONDITIONS UNDER WHICH WORK MUST BE PERFORMED.
- NECESSARY INFORMATION TO COMPLETELY ESTIMATE AND PERFORM ALL WORK INVOLVED.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL DEVIATIONS ON THE SHOP DRAWINGS FROM THE SPECIFIED ITEM AND REVIEW OF THE SHOP DRAWINGS WITH NO EXCEPTIONS TAKEN WILL NOT BE CONSIDERED ACCEPTANCE OF THE DEVIATION UNLESS IT'S BEEN EXPLICITLY IDENTIFIED.
- 4. CAREFULLY EXAMINE DRAWINGS AND SPECIFICATIONS TO BE THOROUGHLY FAMILIAR WITH ITEMS WHICH REQUIRE PLUMBING OR HVAC CONNECTIONS AND COORDINATION.
- 5. NOTIFY OTHER TRADES OF ANY DEVIATIONS OR SPECIAL CONDITIONS NECESSARY FOR INSTALLATION OF WORK.
- 6. RESOLVE INTERFERENCES BETWEEN WORK OF OTHER TRADES PRIOR TO INSTALLATION OR FABRICATION.
- 7. ADVISE OTHERS TRADES TO LEAVE PROPER CHASES AND OPENINGS. PLACE OUTLETS, ANCHORS,
- OF INSTALLED EQUIPMENT WITH ELECTRICAL TRADESMAN.
- DONE AT CONTRACTOR'S EXPENSE.

	. сом <i>сн</i> Mech	eck Soft anical	ware Con
Project Infor	mation		
Energy Code:		2018 I	ECC

Project Title: Location: Climate Zone: Project Type:

Acadia Mt. Regis Expansion Salem (Salem (city)), Virginia 4a Addition

Owner/Agent:

Construction Site: 125 Knotbreak Rd Salem, VA 24153

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Mechanical Systems List

Quantity System Type & Description 1 AHU-1 (Single Zone): Split System Heat Pump

- Heating Mode: Capacity = 32 kBtu/h, Proposed Efficiency = 12.00 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 33 kBtu/h,
- Proposed Efficiency = 14.60 SEER, Required Efficiency: 14.00 SEER Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP method) : Passes
- FAN 1 Supply, Constant Volume, 1155 CFM, 0.5 motor nameplate hp, 1.0 fan efficiency grade
- AHU-2 (Single Zone):
- Split System Heat Pump Heating Mode: Capacity = 32 kBtu/h, Proposed Efficiency = 12.00 HSPF, Required Efficiency = 8.20 HSPF
- Cooling Mode: Capacity = 33 kBtu/h, Proposed Efficiency = 14.60 SEER, Required Efficiency: 14.00 SEER Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP method) : Passes

Mechanical Compliance Statement Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been

designed to meet the 2018 IECC requirements in COM*check* Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist. Graham Davis - Mechanical Name - Title

Project Title: Acadia Mt. Regis Expansion Report date: 07/11/24 Data filename: P:\2024 Projects\24091 Acadia Mt. Regis Expansion\1 Drawings\Mechanical\Support Files\24092 Page 1 of 11 COMcheck.cck

OBSTRUCTION TO AIRFLOW. AS MANUFACTURED BY GREENHECK, RUSKIN, OR LEADER INDUSTRIES.

2. NO SUBSEQUENT ALLOWANCE WILL BE MADE BECAUSE OF ERROR OR FAILURE TO OBTAIN

SLEEVES AND SUPPORTS PRIOR TO POURING CONCRETE OR INSTALLATION OF MASONRY WORK.

8. COORDINATE ALL NECESSARY POWER CONNECTIONS AS RECOMMENDED BY THE MANUFACTURERS

9. SHOULD THIS COORDINATION BE NEGLECTED, ANY CUTTING AND/OR PATCHING REQUIRED TO BE

Version 4.1.5.5 mpliance Certificate

Designer/Contractor:

FAN 1 Supply, Constant Volume, 1155 CFM, 0.5 motor nameplate hp, 1.0 fan efficiency grade

Dearan Laro

07 / 11 / 2024

MECHANICAL PIPING LEGEND		
—— HWS ——	HOT WATER SUPPLY	
HWR	HOT WATER RETURN	
E.O.M.	END OF MAIN DRIP	
P.R.V.	PRESSURE REDUCING VALVE	
Т	STEAM TRAP	
→	BALL VALVE	
——————————————————————————————————————	GATE VALVE	
₩ ₩	GLOBE VALVE	
——ф	BUTTERFLY VALVE	
—————————————————————————————————————	CONTROL VALVE	
+,,+	STRAINER WITH HOSE END DRAIN CONNECTION	
	STRAINER AND BLOWDOWN VALVE	
	B&G CIRCUIT SETTER, OR EQUAL, BALANCING VALVE	
	PLUG COCK (BALANCING VALVE)	
	UNION	
	COMPANION FLANGE	
!~ _	CHECK VALVE	
	GUIDE	
——————————————————————————————————————	ANCHOR	
	PIPE REDUCER/INCREASER	
¢ ₩	GAUGE & GAUGE COCK	
	THERMOMETER	



MECHANIC	AL DUCTWORK LEGEND
FD 📼	FIRE DAMPER
SD 📼	SMOKE DAMPER
FSD 📼	FIRE/SMOKE DAMPER
	MANUAL VOLUME DAMPER
भग्रेडेम भग्रेरेन भग्रेटेन	DUCT MOUNTED SMOKE DETECTOR (SUPPLY, RETURN EXHAUST)
SC 240	SUPPLY DIFFUSER & AIR QUA (INDICATES 4-WAY BLOW)
SC 240	SUPPLY DIFFUSER & AIR QUA (INDICATES 3-WAY BLOW)
RC 240	RETURN AIR GRILLE & AIR QU
EC 240	EXHAUST AIR GRILLE & AIR QUANTITY
	THERMOSTAT (ADJUSTABLE) T'STAT (CONCEALED /KEY OP
(H)/(Hs)	HUMIDISTAT / HUMIDITY SENS
S	TEMPERATURE SENSOR
P	BUILDING PRESSURE SENSO
<u>(CO2)</u> / (CO)	CARBON DIOXIDE SENSOR / CARBON MONOXIDE SENSOR
	REDUCER / TRANSITION
	SUPPLY OR OA DUCT TURNIN
	SUPPLY OR OA DUCT TURNIN DOWN
	RETURN OR EXHAUST DUCT TURNING UP
	RETURN OR EXHAUST DUCT TURNING DOWN
	BOOT TAP CONNECTION
	CONICAL TAP CONNECTION
	DUCT WITH INTERNAL SOUNE LINER
	REHEAT COIL
	VAV BOX WITH CLEARANCE A
	SQUARE ELBOW WITH TURNI VANES
	POINT OF DEMOLITION
	POINT OF CONNECTION
A.D.	ACCESS DOOR
A.F.F.	ABOVE FINISHED FLOOR
A.F.R.	ABOVE FINISHED ROOF
E.S.D.	EMERGENCY SHUT-DOWN BU FOR AHU UNIT

	MECHANICAL SHEET INDEX
M0.01	MECHANICAL LEGEND, SCHEDULES, AND NOTES
M0.02	MECHANICAL SCHEDULES
M1.01A	MECHANICAL FIRST FLOOR NEW WORK PLAN - PART A
M1.01B	MECHANICAL FIRST FLOOR NEW WORK PLAN - PART B
M2.01A	MECHANICAL PIPING FIRST FLOOR NEW WORK PLAN - PART A
M2.01B	MECHANICAL PIPING FIRST FLOOR NEW WORK PLAN - PART B
M3.01	MECHANICAL DETAILS
M3.02	MECHANICAL DETAILS
M4.01	MECHANICAL CONTROLS





AHU SCHEDULE - DX SPLIT SYSTEM HEAT

		FUIV				
	ESSORIES AVAILABLE:	1 - PROVIDE HONEYW	ELL 7-DAY PROGRAMM	ABLE THERMOS		
		2 - AUX. DRAIN PAN W/ FLOAT SWITCH				
		3 - 2" PRE-FILTER				
		4 - HANGING ISOLATO	RS			
		5 - SMOKE DETECTOR	S IN SUPPLY AND RETU	RN DUCTWORK		
		6 - EVAPORATOR DEF	ROST CONTROL	[
DESI	GNATION	AHU 1	AHU 2			
MAN	UFACTURER	TRANE	TRANE			
	MODEL NO.	TEM6A0C4H41	TEM6A0C4H41			
	NOMINAL TONNAGE	3.5	3.5			
	SERVICE	A - WING	B - WING			
	TOTAL COOLING CAPACITY (MBH)	33.1	33.0			
	SENSIBLE COOLING CAPACITY (MBH)	27.0	26.7			
DOOR UNIT	E.A.D.B./E.A.W.B. (°F)	77.6 / 63.7	77.6 / 63.7			
	L.A.D.B./L.A.W.B. (°F)	56.0 / 53.7	56.0 / 53.5			
	TOTAL CFM	1,155	1,130			
	O.A. CFM	235	235			
	HEATING SOURCE	HEAT PUMP	HEAT PUMP			
Z	CAPACITY @ 47°F (MBH)	32.0	32.0			
	E.A.T. / L.A.T.	54.0 / 77.7	54.0 / 78.0			
	AUX. HEAT SOURCE	HOT WATER	HOT WATER			
	E.S.P. (IN. H2O)	1.0	1.0			
	FAN H.P.	1/2	1/2			
	FAN VOLTAGE	208 / 1 / 60	208 / 1 / 60			
	FAN F.L.A. / M.C.A. / M.O.C.P.	4.3 / 5 / 15	4.3 / 5 / 15			
	WEIGHT (LBS.)	200	200			
L	DESIGNATION	CU 1	CU 2			
	MODEL NO.	4TWR4036	4TWR4036			
ISING	VOLTAGE	208 / 1 / 60	208 / 1 / 60			
ONDEN	F.L.A./M.C.A./M.O.C.P.	14.8 / 18 / 30	14.8 / 18 / 30			
ŭ	WEIGHT (LBS.)	150	150			
	ESSORIES SUPPLIED	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6			
REM	ARKS:					
212	CONNECT DI LLEG DIV	. GINELOG NOTED UTHE	INVIOL.			

HOT WATER REHEAT COIL SCHEDULE

ACCESSORIES AVAILABLE:	1 - MODULATING 2-WAY CONTROL VALVE			
	2 - DIGITAL SPACE SE	NSOR		
DESIGNATION	HWC-1	HWC-2		
MANUFACTURER	TRANE	TRANE		
MODEL	W	W		
ROWS	1	1		
CFM	1,155	1130		
E.A.T. / L.A.T. (°F)	54 / 95.0	54 / 95.0		
G.P.M.	3.6	3.6		
MAX. WATER P.D.	5.0	5.0		
E.W.T. / L.W.T. (°F)	150.0 / 120.0	150.0 / 120.0		
ACCESSORIES SUPPLIED	1, 2	1, 2		
REMARKS:				

- DUCT HEATER SIZE SHALL BE DETERMINED BY THE FINAL DUCT COORDINATION DRAWINGS.



L 7-DAY PROGRAMMABLE THERMOS

VAV HOT WATER REHEAT BOX SCHEDULE

ACCESSORIES AVAILABLE:	1 - 24 VOLT TRANSFO	RMER			
	2 - DISCONNECT SWITCH				
	3 - 1 OR 2 ROW HEATI	NG COIL			
	4 - DOUBLE-WALL CO	NSTRUCTION			
	5 - DDC CONTROLS S		ONTRACTOR - FACTOR	Y INSTALLED	
DESIGNATION	1-32	1-33	1-34	1-35	
MANUFACTURER	TRANE	TRANE	TRANE	TRANE	
MODEL NO.	VCWF	VCWF	VCWF	VCWF	
SIZE	10	10	10	10	
MAX. CFM	635	580	650	610	
MIN. CFM	360	355	365	375	
S.P. (IN. H2O)	0.25	0.25	0.25	0.25	
MAX. N.C.	25	25	25	25	
E.W.T. (°F)	150.0	150.0	150.0	150.0	
L.W.T. (°F)	120.0	120.0	120.0	120.0	
G.P.M.	1.2	1.2	1.2	1.2	
MAX. WATER P.D. (IN H2O)	10.0	10.0	10.0	10.0	
MAX. AIR P.D. (IN H2O)	0.25	0.25	0.25	0.25	
E.A.T. (°F)	55.0	55.0	55.0	55.0	
L.A.T. (°F)	100.0	100.0	100.0	100.0	
INLET DIAMETER	10"Ø	10"Ø	10"Ø	10"Ø	
VOLTAGE	120-1-60	120-1-60	120-1-60	120-1-60	
EMERGENCY POWER	YES	YES	YES	YES	
ACCESSORIES SUPPLIED	1, 2, 3, 4, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5	

- BOXES ARE PRESSURE INDEPENDENT, WITH DDC VOLUME REGULATOR. - IN ADDITION TO THE LISTED HEATING CAPACITIES, SELECT AND SUBMIT ALL BOX COILS TO SUPPLY 75° L.A.T. AT 110° E.W.T. FOR SUMMER OPERATION.

EXISTING ROOFTOP UNIT REBALANCE NOTE

1. AS A PART OF THIS PROJECT. THE EXISTING ROOFTOP UNIT 1 SHALL BE RE-BALANCED TO THE FOLLOWING CRITERIA:

SUPPLY FAN - 15,225 RETURN FAN - 12,180 OUTSIDE AIR - 3,045

CONTRACTOR IS RESPONSIBLE FOR REPLACING BELTS, MOTORS, SHEAVES, AND/OR PULLEYS IN ORDER TO OBTAIN NEW AIRFLOWS LISTED.

- FAN SHALL BE SET TO RUN CONTINUOUSLY TO PROVIDE FRESH AIR AT ALL TIMES.

EXISTING EXHAUST FAN REBALANCE

REBALANCE AFFECTED EXISTING EXHAUST FANS TO ACHIEVE NEW AIRFLOWS LISTED.

EF-1 - 1,590 CFM EF-2 - 1,590 CFM





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DESCRIPTION SYMBOL NON-RATED PARTITION

	SMOKE (RESISTIVE) PARTITION (CORRIDOR)	POSITIVE LATCH, NO CLOSER, NO DAMPERS
eixeixeixeixeixeixeix	1-HOUR FIRE BARRIER (INCIDENTAL USE-IBC/HAZARDOUS-LSC)	POSITIVE LATCH, 45 MIN, CLOSER, NO DAMPERS IF HARD DUCTED
81212121212121212121	1-HOUR FIRE BARRIER (CORRIDOR)	POSITIVE LATCH, 45 MIN, CLOSER, NO DAMPERS IF HARD DUCTED
= 5= 5= 5= 5= 5= 5 = 5= 5	1-HOUR SMOKE BARRIER (SMOKE COMPARTMENT SEPARATION)	20 MIN, CLOSER, S DAMPERS
	NEW WORK LEGEND	
	NEW W	ORK

L	
(#)	KEYED NOTES
1.	REMOVE EXISTING CAP AT END OF DUCT RUN. CONNECT NEW DUCT.
2.	4" DRYER EXHAUST DUCT UP TO DRYER ROOF VENT EQUAL TO DRYERJACK ROUTE DUCT SUCH THAT THE TOTAL EQUIVALENT LENGTH IS AS SHORT AS I COORDINATE DRYER VENT REQUIREMENTS WITH GENERAL CONTRACTOR T ENSURE DRYER VENT BOOSTER IS NOT REQUIRED FOR PURCHASED UNIT. E DISCHARGE IS A MINIMUM OF 25' FROM O.A. INTAKE.
3.	PROVIDE RADIATION DAMPER AT PENETRATION THROUGH FIRE RATED CEILI PARTITION.





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SYMBOI	DESCRIPTION	
	NON-BATED PARTITION	
	SMOKE (RESISTIVE) PARTITION (CORRIDOR)	POSITIVE LATCH, NO CLOSER, NO DAMPERS
eixeixeixeixeixeixeix	1-HOUR FIRE BARRIER (INCIDENTAL USE-IBC/HAZARDOUS-LSC)	POSITIVE LATCH, 45 MIN, CLOSER, NO DAMPERS IF HARD DUCTED
	1-HOUR FIRE BARRIER (CORRIDOR)	POSITIVE LATCH, 45 MIN, CLOSER, NO DAMPERS IF HARD DUCTED
	1-HOUR SMOKE BARRIER (SMOKE COMPARTMENT SEPARATION)	20 MIN, CLOSER, S DAMPERS
	NEW W	/ORK
	EXISTI	NG TO REMAIN
	POINT	OF CONNECTION
	GENERAL NOTES	
A. MAINTAIN ALL M	ANUFACTURER REQUIRED CLEARA	NCES
B. PROVIDE BALAN	CING DAMPER ON EACH TAP / RUN	NOUT TO ALL DIFFUSERS
C. MOUNT ALL AIR	HANDLING UNITS HORIZONTALLY, II	N ATTIC BETWEEN TRUSS
D. PROVIDE REMO DAMPERS LOCA	TE BALANCING DAMPER (PER DETA TED ABOVE HARD LID CEILING.	IL) FOR ANY MANUAL VOL
<u> </u>		
<u></u>	KEYED NOTES	
1. REMOVE EXISTI	ING CAP AT END OF DUCT RUN. CO	NNECT NEW DUCT.
2. 4" DRYER EXHA ROUTE DUCT SI	UST DUCT UP TO DRYER ROOF VEN UCH THAT THE TOTAL EQUIVALENT	NT EQUAL TO DRYERJACK LENGTH IS AS SHORT AS







SYMBOL	DESCRIPTIO
	NON-RATED PAR
	SMOKE (RESISTIN (CORRIDOR)
1X=1X=1X=1X=1X=1X=1X=1X=	1-HOUR FIRE BAF (INCIDENTAL USE-IBC/H/
<u>tetetetetetetete</u> t	1-HOUR FIRE BAF (CORRIDOR)
<u> 5 5 5 5 5 5 5 5 5</u>	1-HOUR SMOKE E (SMOKE COMPARTMENT

- B. ALL HOT WATER PIPE RUNNOUTS TO BE 3/4" UNLESS OTHERWOSE NOTED.





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DESCRIPTION

	NON-RATED PARTITION
	SMOKE (RESISTIVE) PARTITIC (CORRIDOR)
eixeixeixeixeixeixeix	1-HOUR FIRE BARRIER (INCIDENTAL USE-IBC/HAZARDOUS-LSC)
ajajajajajajajajajajaj	1-HOUR FIRE BARRIER (CORRIDOR)
	1-HOUR SMOKE BARRIER (SMOKE COMPARTMENT SEPARATION)

NEW WORK LEGEND

- REFRIGERANT PIPING THROUGH EXTERIOR WALL. SEAL WEATHER TIGHT.

MECHANICAL PIPING NEW WORK PLAN - PART B SCALE: 1/8" = 1'-0"















SMOKE DAMPER CONTROL

GENERAL: ALL SMOKE DAMPERS ARE TO BE POWERED OPEN. SMOKE DAMPERS ARE TO CLOSE ON LOSS OF POWER, OR BY THE FIRE ALARM SYSTEM, FIRE ALARM SYSTEM SHALL SHUT DOWN AHU'S AND CLOSE SMOKE DAMPERS IN THE SMOKE COMPARTMENT IN WHICH A DUCT SMOKE DETECTOR IS ACTIVATED AND IN ALL ADJACENT SMOKE COMPARTMENTS. ALL DAMPERS SHALL CLOSE ON A LOSS OF POWER TO THE AIR HANDLER/ROOFTOP UNIT. END SWITCHES SHALL BE MONITORED ON EACH DAMPER AND SHALL REPORT TO THE FRONT END SYSTEM TO ALERT BUILDING STAFF THAT DAMPER IS CLOSED.

<u>GENERAL</u>

SYSTEM P





CONNECT TO NEW EQUIPMENT AND MAP THROUGH ALL POINTS AND UPDATE GRAPHICS TO REFLECT NEW FLOOR PLAN AND EQUIPMENT. BUILDING AUTOMATION SYSTEM RISER DIAGRAM





TE-1 - Al 65 F WALL MOUNTED TEMPERATURE SENSORS

VAV BOX WITH HOT WATER REHEAT

WITH DIGITAL DISPLAY

ALL CAV/VAV TERMINAL REHEAT BOXES HAVE A MODULATING AIR VALVE TO CONTROL THE VOLUME OF AIR FLOWING TO THE DIFFUSERS SERVED BY THAT BOX USING PID BASED CONTROL ALGORITHMS. IN VARIABLE AIR VOLUME (VAV) APPLICATIONS, THE AIR VOLUME IS MODULATED BETWEEN A MAXIMUM AND MINIMUM SET POINT (ADJUSTABLE). IN CONSTANT AIR VOLUME APPLICATIONS (CAV), THE AIR VOLUME IS MAINTAINED AT A CONSTANT SET POINT (ADJUSTABLE).

COOLING OPERATION-VAV

AT 0% CALL FOR COOLING (SPACE TEMPERATURE = SET POINT), THE AIR VALVE IS MODULATED TO MAINTAIN THE MINIMUM AIR FLOW SET POINT. AS THE SPACE TEMPERATURE RISES ABOVE THE SET POINT, THE AIR VALVE IS MODULATED TO THE MAXIMUM AIR FLOW SET POINT. COOLING OPERATION-CAV

THE AIR VALVE IS MODULATED TO MAINTAIN THE AIR FLOW SET POINT.

HEATING OPERATION-VAV

AS SPACE TEMPERATURE DROPS BELOW SET POINT, THE AIR VALVE IS MODULATED TO THE MINIMUM AIR FLOW SET POINT AND THE HEATING WATER VALVE IS MODULATED OPEN USING PID BASED CONTROL ALGORITHMS. AT 0% CALL FOR HEATING (SPACE TEMPERATURE = SET POINT), THE AIR VALVE IS MODULATED TO MAINTAIN THE MINIMUM AIR FLOW SET POINT AND THE HEATING WATER VALVE IS CLOSED USING PID BASED CONTROL ALGORITHMS.

SYSTEM POINTS LIST FO	SYSTEM POINTS LIST FOR VAV BOXES																																						
	ANALOG									BINARY							SYSTEM FEATURES																						
INPUT O						OUTPUT			INPUT				OUTPUT			ALARMS									PROGRAMS														
SYSTEM POINT DESCRIPTION VAV BOXES	TEMPERATURE	CFM	I	DDC (4-20 ma, 0-10 vdc)	SETPOINT ADJUSTMENT		PNEUMATIC TRANSDUCER	STATUS ON/OFF	TIMED OVERRIDE	1	OPEN/CLOSE	LOCK OUT		HIGH ANALOG	LOW ANALOG	BINARY	PROOF	SENSOR FAIL	FLOW FAIL	COMMUNICATION FAIL	LOCKOUT	DIAGNOSTICS	I	TIME SCHEDULING	OPTIMUM START\STOP	DEMAND LIMITING	RESET	EVENT PROGRAM	DDC	ALARM	MAINT WORK ORDER	RUN TIME	TOTALIZING	TIMED OVERRIDE	SET BACK/SET UP	NIGHT PURGE	TREND LOG	ı	NOTES
ZONE TEMPERATURE	х													Х	Х			Х		х																			
HEATING SETPOINT				Х	х																																		
COOLING SETPOINT				Х	х																																		
CFM		x		х															х																				
MAXIMUM CFM					х																																		
MINIMUM CFM					х																																		
HEATING MINIMUM CFM					х																																		
ZONE HEAT STATUS								х																															
LEAVING TEMPERATURE	х													х	х			х																					
WATER VALVE				Х																																			
LOCKOUT FAN																																							
LOCKOUT HEAT												х																											
TIMED OVERRIDE REQUEST									х																														
NOTES:																																							

THE POINTS LISTED ABOVE ARE NOT NECESSARILY REPRESENTATIVE OF ALL REQUIRED POINTS FOR THIS PROJECT. THE CONTROLS CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL REQUIRED POINTS TO ACCOMPLISH THE SEQUENCES OF OPERATION LISTED ON THE CONTROLS SHEETS FOR THIS PROJECT.

