



Sunman-Dearborn Community Schools
BP#1 - Early Mechanical

ADDENDUM 1

Updated Drawings

Date: 8/5/24



Bright Elementary School

8 / 5 / 24



North Dearborn Elementary

8 / 5 / 24

MECHANICAL SYMBOL SCHEDULE					
PIPING SYMBOLS		MECHANICAL LINE TYPES		ABBREVIATIONS	
	AUTOMATIC FLOW CONTROL VALVE		P&T RELIEF VALVE	ACCU	AIR COOLED CONDENSING UNIT
	AIR SEPARATOR		P&T PORT	A.F.F.	ABOVE FINISHED FLOOR
	AUTOMATIC AIR VENT		PIPE BREAK	AFMS	AIR FLOW MEASURING STATION
	BALL VALVE		PIPE CAP	AHU	AIR HANDLER
	BUTTERFLY VALVE		PIPE DROP	AS	AIR SEPARATOR
	CHECK VALVE		PIPE RISE	ADS	AIR DIRT SEPARATOR
	DOUBLE CHECK BACKFLOW PREVENTER		PIPE THERMOMETER	B	BOILER
	FLOW METER		PRESSURE INDEPENDENT CONTROL VALVE	CF	CEILING FAN
	GAS OUTLET TURRET		PRESSURE GAUGE	CHLR	CHILLER
	GAS COCK		PRESSURE REDUCING VALVE	CHWR	CHILLED WATER RETURN
	GATE VALVE		PRESSURE REGULATING VALVE	CHWS	CHILLED WATER SUPPLY
	GLOBE VALVE		STRAINER	CO	CARBON MONOXIDE
	HOSE THREAD END WITH CAP		STRAINER WITH BLOWDOWN	CO2	CONDENSATE DRAIN
	INLINE PIPE DROP		STEAM TRAP	CUNH	CABINET UNIT HEATER
	INLINE PUMP		TEMPERATURE SENSOR	CWR	CONDENSER WATER RETURN
	INLINE PIPE RISE		THERMOSTATIC MIXING VALVE	CWS	CONDENSER WATER SUPPLY
	MANUAL FLOW CONTROL VALVE		2-WAY CONTROL VALVE	CWB	CONDENSER WATER RETURN
	MANUAL AIR VENT		3-WAY CONTROL VALVE		
	METER		UNION		

MECHANICAL SYMBOLS		GENERAL LINE TYPES	
	BACKDRAFT DAMPER		EXISTING TO REMAIN LINE WEIGHT
	COMBINATION SMOKE/FIRE DAMPER		EXISTING TO BE DEMOLISHED LINE TYPE AND WEIGHT
	CONTROL DAMPER ACTUATOR		NEW DUCT LINE WEIGHT
	DUCT CAP		NEW PIPING LINE WEIGHT
	DUCT MOUNTED COIL		NEW EQUIPMENT LINE WEIGHT
	DUCTWORK WITH DUCT LINER		
	DUCTWORK WITHOUT DUCT LINER		
	FAN POWERED VAV BOX WITH REHEAT		
	FIRE DAMPER		
	FIRE DAMPER		

GENERAL SYMBOLS	
	EXTENT OF DEMOLITION
	TIE-IN OF NEW TO EXISTING

MECHANICAL CONTROL SYMBOLS			
	CARBON DIOXIDE SENSOR		THERMOSTAT
	CARBON MONOXIDE SENSOR		THERMOSTAT (LINE VOLTAGE)
	DUCT OR PIPE PRESSURE SENSOR		THERMOSTAT WITH HUMIDISTAT AND CO2 SENSOR
	SECURITY TYPE THERMOSTAT		HUMIDISTAT
	PNEUMATIC THERMOSTAT		DIFFERENTIAL PRESSURE SENSOR

CONTROLS RESPONSIBILITY CHART				
ITEM	MECHANICAL CONTRACTOR	ELECTRICAL CONTRACTOR	PLUMBING CONTRACTOR	REMARKS
INSTALL INTERIOR AND EXTERIOR LOW VOLTAGE CABLING AND CONDUIT	X			
ROUGH-IN OF THERMOSTAT WALL BOXES	X			
FURNISH CONTROL VALVES	X	X		
FURNISH CONTROL VALVES	X	X		
FURNISH PIPE WELLS FOR SENSORS	X	X		
INSTALL PIPE WELLS FOR SENSORS			X	
PROVIDE 120 VOLT POWER FOR CONTROL PANELS			X	
PROVIDE 120 VOLT POWER BETWEEN SLAVE PANELS			X	
PROVIDE INTERLOCK WIRING BETWEEN DEVICES, PANELS, BOILERS, CHILLERS, ETC		X		1
INSTALL VARIABLE SPEED DRIVES	X		X	2
PROVIDE LINE AND LOAD WIRING TO VARIABLE SPEED DRIVES			X	2
PROVIDE CONTROL WIRING TO VSD	X			
PROGRAM AND STARTUP VSD	X			
PROVIDE 120 VOLT POWER TO CONTROLS			X	
FURNISH CONTROL DAMPERS	X	X		3
INSTALL CONTROL DAMPERS	X	X		
FURNISH DAMPER ACTUATORS	X			
INSTALL DAMPER ACTUATORS	X			
WIRE LOW VOLTAGE ACTUATORS	X		X	
PROGRAM AND COMMISSION BOILER SEQUENCER		X		
PROGRAM AND COMMISSION CHILLER SEQUENCER		X		
COORDINATE PROJECT SCHEDULE WITH ALL TRADES	X	X	X	
PROVIDE SHOP DRAWINGS TO ALL TRADES	X	X	X	
VERIFY AND TEST SEQUENCE OF OPERATIONS	X			
TERMINATE DUCT DETECTORS	X			
ROOF PENETRATIONS FOR TEMPERATURE CONTROLS		X		4
EXTERIOR WALL PENETRATIONS FOR TEMPERATURE CONTROLS	X			
PROVIDE DUCT DETECTORS			X	
PROVIDE 120 VOLT POWER TO SOLENOID VALVES			X	5
PROVIDE LOW VOLTAGE CABLING TO SOLENOID VALVES	X			5
PROVIDE AND INSTALL REFRIGERANT MONITORING SYSTEM	X			

- ### GENERAL MECHANICAL NOTES
- DUCT AND PIPING LAYOUTS ARE SCHEMATIC IN NATURE. ADDITIONAL TRANSITIONS, ELBOWS, OFFSETS, AND FITTINGS SHALL BE ADDED AS REQUIRED TO COORDINATE WITH OBSTRUCTIONS AND OTHER TRADES.
 - COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING WORK TO PERMIT ACCESS AND SERVICE CLEARANCES TO ALL SYSTEMS. COORDINATE DUCT WITH ELECTRICAL J-BOXES TO PREVENT OBSTRUCTIONS.
 - DO NOT SCALE DRAWINGS FOR DIMENSIONS. REFER TO DIMENSIONED DRAWINGS.
 - ALL GRILLES, DIFFUSERS, AND REGISTERS SHALL HAVE A VOLUME CONTROL DAMPER UNLESS NOTED OTHERWISE. DAMPER SHALL BE IN AN ACCESSIBLE LOCATION.
 - REFER TO DETAIL SHEETS FOR ADDITIONAL INFORMATION ON INSTALLATION METHODS.
 - DEVIATIONS FROM BASIS OF DESIGN THAT AFFECT OTHER TRADES ARE THE RESPONSIBILITY OF THIS CONTRACTOR. ADDITIONAL COSTS TO PROVIDE LARGER ELECTRICAL CIRCUITS, MORE FLOOR SPACE, ADDITIONAL SUPPORTS, ADDITIONAL MATERIALS, ETC. SHALL BE BORNE BY THIS CONTRACTOR. COORDINATE WITH OTHER TRADES.
 - ALL THERMOSTAT/HUMIDITY SENSORS WITH ADJUSTMENT BUTTONS/SLIDERS/KNOBS/DISPLAYS, ETC. SHALL BE MOUNTED WITH THE TOP OF THE DEVICE NO MORE THAN 48" AFF. IN COMPLIANCE WITH LOCAL AND FEDERAL ADA WHEELCHAIR REACH DISTANCE GUIDELINES. PROVIDE ADDITIONAL SURFACE RACEWAY, BOXES, CONDUIT, ETC AS REQUIRED TO OFFSET AROUND EXISTING DEVICES IN RENOVATION WORK.
 - ALL DUCT SIZES LISTED ARE FOR INTERIOR FREE AREA. ANY DUCTS DESIGNATED OR SPECIFIED TO BE DOUBLE WALL OR INTERNALLY LINED SHALL HAVE OUTER DIMENSIONS ENLARGED TO ACCOMMODATE THE LINER OR INTERSTITIAL INSULATION.

- ### GENERAL DEMOLITION NOTES
- ALL EXISTING PENETRATIONS FROM DUCT/PIPE/WIRE/CONDUIT THAT IS REMOVED SHALL BE PATCHED BY PROPER TRADES TO MATCH SURROUNDINGS UNLESS PENETRATION IS TO BE REUSED. PATCH ALL FLOOR AND WALL PENETRATIONS TO MAINTAIN FIRE RATED CONSTRUCTION.
 - ALL ROOF PENETRATIONS NOT BEING REUSED SHALL BE PATCHED TO MAINTAIN EXISTING ROOF WARRANTY. EXISTING CURBS TO BE ABANDONED SHALL BE CAPPED WITH ALUMINUM HOOD PAINTED WITH "N.I.S." (NOT IN SERVICE). INSULATE CAVITY BELOW CAP WITH TIGHT FITTING 3" FOAM BOARD WRAPPED WITH SHEET METAL.
 - ALL PIPE SHALL BE REMOVED TO WITHIN AREAS THAT ARE INACCESSIBLE SUCH AS WALL CAVITIES AND BELOW SLAB. IN FINISHED SPACES REMOVE BELOW SURFACE. CAP WATER TIGHT, AND PATCH SURFACE TO MATCH SURROUNDINGS.
 - ALL PATCHING OF WALLS SHALL MATCH MATERIALS AND WHEN COMPLETE SHALL NOT LOOK LIKE A PATCH.
 - TOOTH-IN NEW BRICK/BLOCK WITH FULL UNITS. DO NOT CUT FILLER PIECES.
 - PRIOR TO CUTTING EXISTING SLAB ON GRADE, CONTRACTOR SHALL VERIFY EXISTENCE OF EXISTING UTILITIES SUCH AS PIPING, CONDUIT, WIRE, ETC. BY MEANS OF GROUND PENETRATING RADAR TO LOCATE AND DETERMINE DEPTH OF BURIAL. TAKE PRECAUTIONS TO DE-ENERGIZE POWER TO GROUND AND CAREFULLY CUT AND REMOVE SLAB. ANY UTILITIES THAT WERE LOCATED AND SUBSEQUENTLY DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDED COST TO THE OWNER.

THIS MONOCHROME PRINT SHOULD DISPLAY GRAPHIC SCALES BELOW IF PRINTED PROPERLY WITH 25% SHADES OF GRAY

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W. J. [Signature]

DESIGNER	DATE
DRAWN	DATE
CHECKED	DATE
APPROVED	DATE

100% CONSTRUCTION DOCUMENTS
PROJECT: #17087
DATE: 07/24/2024
DRAWN BY: ASL

MECHANICAL INFORMATION SHEET

M001

- PLAN NOTES**
1. PROVIDE AND INSTALL NEW CONTROLS FOR EXISTING EQUIPMENT. REFER TO DRAWING SHEET M601 FOR MORE INFORMATION.
 2. PROVIDE AND INSTALL NEW CONDENSING UNIT ON EXISTING EQUIPMENT RAILS. ROUTE REFRIGERANT PIPING TO NEW EVAPORATOR COIL IN EXISTING AIR HANDLING UNIT.
 3. PROVIDE AND INSTALL NEW MAKEUP AIR UNIT ON NEW ROOF CURB. RECONNECT TO EXISTING DUCTWORK AND NATURAL GAS PIPING.
 4. PROVIDE AND INSTALL NEW EXHAUST FAN ON NEW ROOF CURB.
 5. PROVIDE AND INSTALL NEW BOILER VENT TERMINATION.
 6. CUT/CORE THROUGH EXISTING ROOF DECK AS REQUIRED FOR NEW PENETRATIONS. MAINTAIN EXISTING ROOF WARRANTY.

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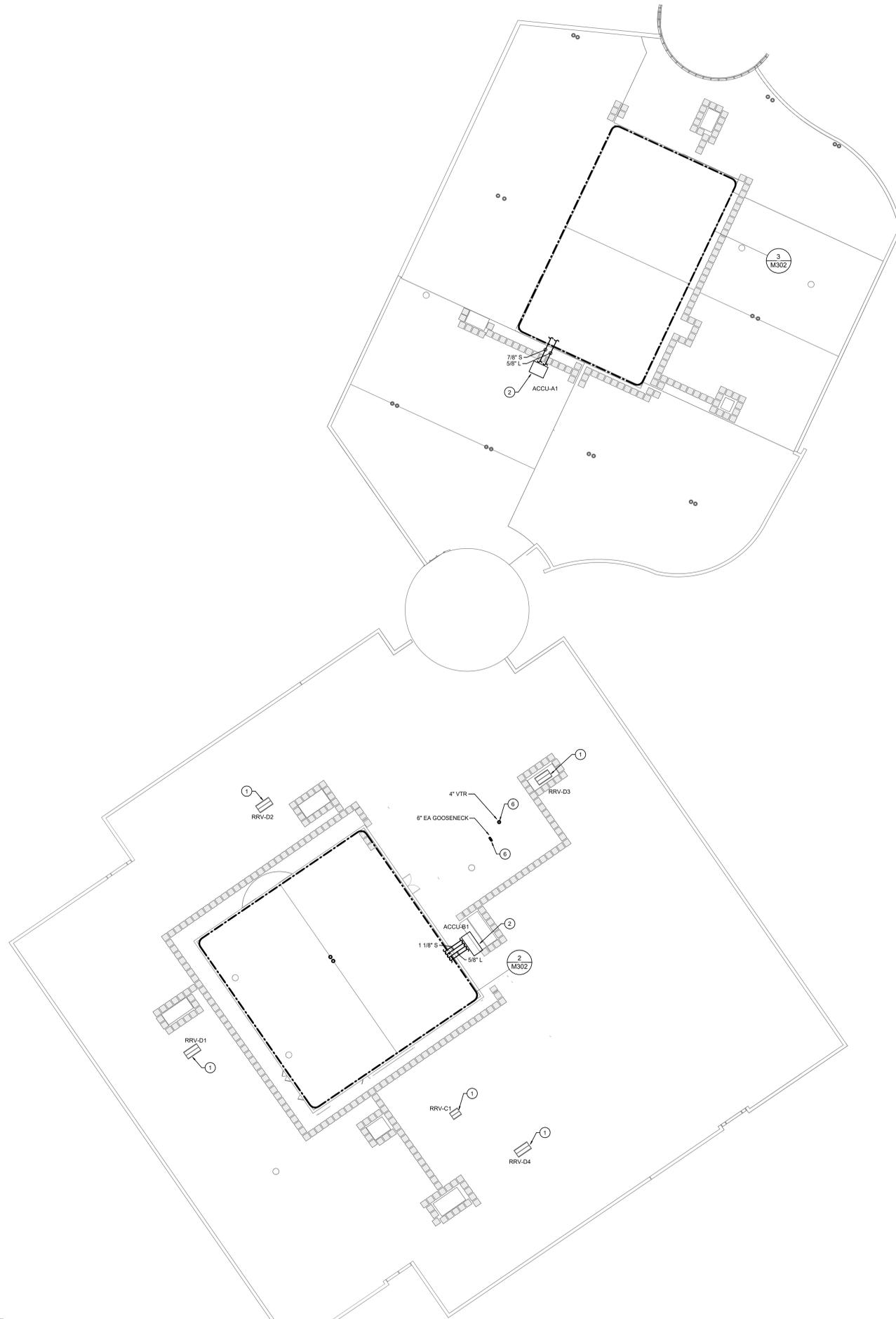
ASL

REVISIONS:	DATE:	BY:	APPROVED BY:
1	8/5/2024	ADDENDUM #1	

100% CONSTRUCTION DOCUMENTS
 PROJECT: #17087
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 DRAWN BY: ASL

MECHANICAL PLAN - ROOF PLAN

M203



1 MECHANICAL ROOF PLAN - SOUTH
 1/16" = 1'-0"



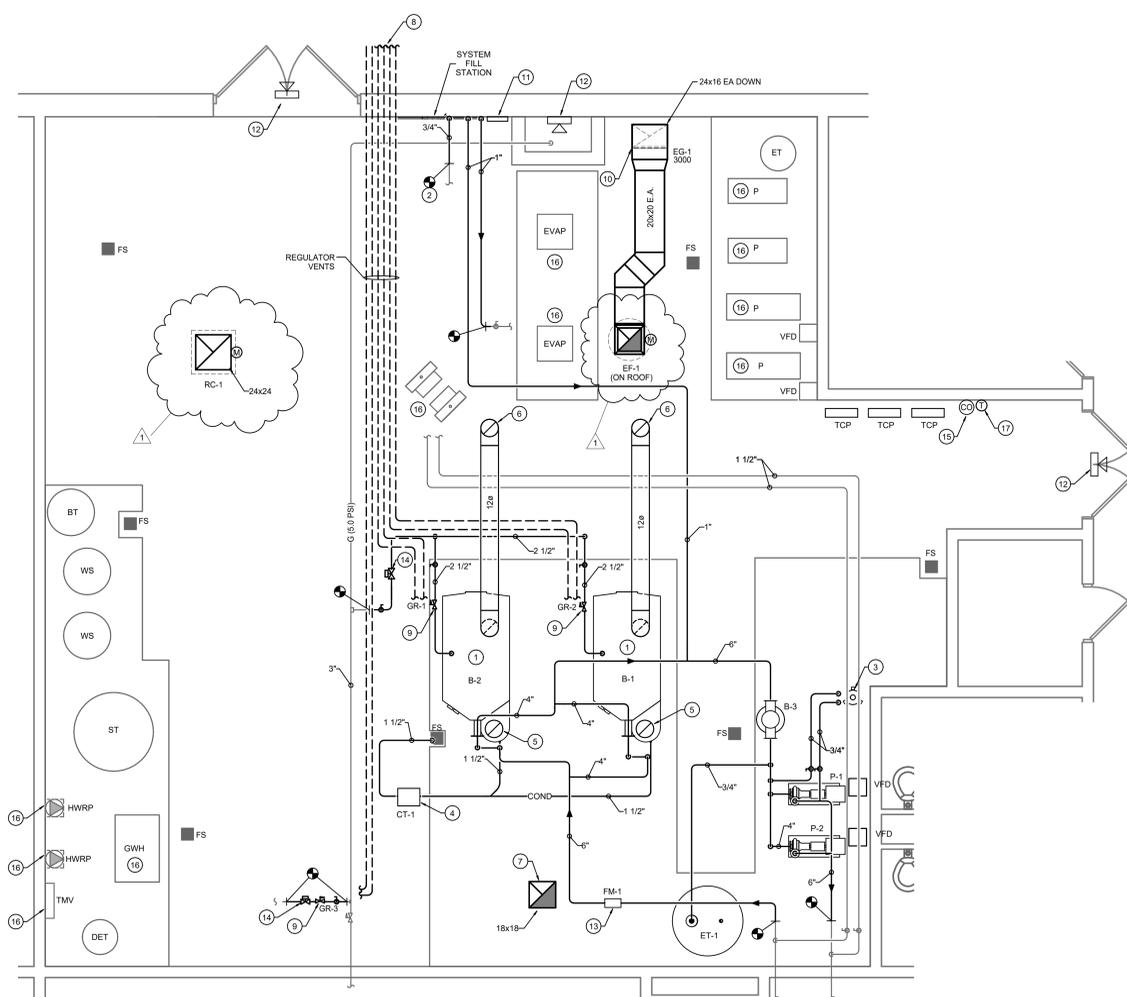
2 MECHANICAL ROOF PLAN - NORTH
 1/16" = 1'-0"



SCALE: 1/16" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0"

- PLAN NOTES**
1. PROVIDE AND INSTALL NEW MODULAR CONDENSING BOILER. REFER TO DETAILS ON DRAWING SHEET M402 FOR MORE INFORMATION. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR CLEARANCE, PIPING, AND VENTING.
 2. TIE-IN TO EXISTING DOMESTIC COLD WATER PIPING AND ROUTE NEW TO NEW SYSTEM FILL STATION. REFER TO SYSTEM FILL STATION DETAIL ON DRAWING SHEET M401 FOR MORE INFORMATION.
 3. PROVIDE AND INSTALL NEW BYPASS FILTER FEEDER, FURNISHED BY CHEMICAL TREATMENT PROVIDER. REFER TO WATER TREATMENT SPECIFICATIONS FOR MORE INFORMATION.
 4. ROUTE BOILER FLUE CONDENSATE DRAIN TO NEW FLOOR MOUNTED CONDENSATE NEUTRALIZATION TANK ET-1. MODIFY CT-1 INLET AND OUTLET CONNECTIONS AS REQUIRED FOR TRAP DEPTH AND CONDENSATE PIPE FALL. DISCHARGE DIRECTLY INTO NEAREST FLOOR DRAIN.
 5. PROVIDE AND INSTALL NEW POLYPROPYLENE BOILER FLUE. VERIFY VENTING REQUIREMENTS WITH BOILER MANUFACTURER.
 6. PROVIDE AND INSTALL NEW BOILER COMBUSTION AIR INTAKE. VERIFY VENTING REQUIREMENTS WITH BOILER MANUFACTURER. MAINTAIN MINIMUM 18" TO FLUE TERMINATION.
 7. ROUTE NEW 18x18 COMBUSTION AIR INTAKE UP THROUGH CAPPED ROOF CURB TO NEW GOOSENECK FOR EXISTING WATER HEATER COMBUSTION AIR.
 8. CORE DRILL EXISTING MASONRY FROM EXTERIOR AS REQUIRED TO ROUTE NEW VENT PIPING. PATCH AND SEAL WALL PENETRATION WITH GROUT.
 9. PROVIDE AND INSTALL NEW GAS REGULATOR. REFER TO DETAIL ON DRAWING SHEET M402 FOR MORE INFORMATION.
 10. PROVIDE AND INSTALL REFRIGERANT EXHAUST GRILLE APPROX. 12" AFF.
 11. REFRIGERANT MONITORING PANEL. FURNISHED AND INSTALLED BY TCC. REFER TO REFRIGERANT MONITORING DETAIL ON DRAWING SHEET M601 FOR MORE INFORMATION.
 12. REFRIGERANT MONITOR AV ALARM WITH ENGRAVED PLASTIC LABEL, INSTALLED IN BOILER ROOM AND AT EACH ENTRANCE TO THE BOILER ROOM. FURNISHED AND INSTALLED BY TCC. REFER TO REFRIGERANT MONITORING DETAIL ON DRAWING SHEET M601 FOR MORE INFORMATION.
 13. FLOW METER FURNISHED BY TCC. INSTALLED BY MC. INSTALL PER MANUFACTURER'S INSTALLATION REQUIREMENTS FOR CLEARANCE AND UPSTREAM/DOWNSTREAM STRAIGHT PIPE LENGTHS.
 14. TIE-IN TO EXISTING GAS PIPING AND INSTALL AUTOMATIC CONTROL VALVE. FURNISHED BY TCC.
 15. BOILER ROOM CARBON MONOXIDE MONITOR FURNISHED AND INSTALLED BY TCC.
 16. PROVIDE AND INSTALL NEW CONTROLS FOR EXISTING EQUIPMENT. REFER TO DRAWING SHEET M601 FOR MORE INFORMATION.
 17. PROVIDE AND INSTALL NEW THERMOSTAT FOR EXISTING EQUIPMENT. ROUTE NEW WIRING THROUGH SURFACE RACEWAY TO NEW THERMOSTAT AT ADA ACCESSIBLE MOUNTING HEIGHT.

- GENERAL NOTES**
1. UNLESS NOTED OTHERWISE, IN BOILER ROOM AND MECHANICAL MEZZANINE, PROVIDE AND INSTALL ALUMINUM JACKETING ON ALL PIPE INSULATION BELOW 6'-0" AFF. EXTEND JACKETING TO NEAREST FITTING ABOVE 6'-0" AFF.



MECHANICAL PLAN - FIRST FLOOR -
2 BOILERROOM
1/4" = 1'-0"



SCALE: 1/16" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0"

GAS FIRED MAKE-UP AIR UNIT SCHEDULE

TAG	MFR.	MODEL	SERVICE	INPUT (MBH)	OUTPUT (MBH)	AIRFLOW (CFM)	EAT/LAT (DEG F)	ESP (IN WC)	MOTOR (HP)	RPM	FILTER	ELEC (V/PH)	REMARKS	
MAU-1	RUPP AIR	R3-IBT-1000	KITCHEN HOOD	600	481	7300	0 / 60	1.0	5.0	4.15	840	2' MERV 8	208/3	1, 2, 3, 4, 5, 6

REMARKS:
 1. PROVIDE AND INSTALL WITH STAINLESS STEEL BURNER AND DRAIN PAN.
 2. PROVIDE AND INSTALL WITH REMOTE SETPOINT CONTROLLER AND SPACE SENSOR WITH SUMMER/WINTER SWITCH.
 3. PROVIDE AND INSTALL WITH PACKAGED CONTROLS, MODULATING GAS VALVE, AND DUCT MOUNTED THERMOSTAT.
 4. PROVIDE AND INSTALL WITH PACKAGED VARIABLE SPEED DRIVE WITH HEATED AND VENTILATED OUTDOOR ENCLOSURE.
 5. PROVIDE AND INSTALL WITH OUTSIDE AIR WEATHER HOOD WITH BIRD SCREEN AND SPRING RETURN MOTORIZED CONTROL DAMPER.
 6. PROVIDE AND INSTALL WITH 24" TALL INSULATED METAL ROOF CURB.

AIR AND SEDIMENT SEPARATOR SCHEDULE

TAG	MFR.	MODEL	SERVICE	CONN. (IN)	MAX FLOW (GPM)	TANK DIA (IN)	TANK HEIGHT (IN)	OPERATING WEIGHT (LBS)	REMARKS
ADS-1	BELL & GOSSETT	CRS-6F-MAG	HOT WATER	6	550	12.75	41	499	1, 2, 3

REMARKS:
 1. PROVIDE WITH REMOVABLE BOTTOM FLANGE, SWIMMER VALVE, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
 2. PROVIDE WITH STRAINER, FLANGED BOTTOM DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
 3. PROVIDE WITH INTEGRAL, NIOBIUM MAGNETIC INSERT ROD WITH SLEEVE TO ALLOW REMOVAL OF IRON FLAKES USING BLOW DOWN PORT.

BOILER SCHEDULE

TAG	MFR.	MODEL	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	THERMAL EFF (%)	FUEL	BURNER TURNDOWN	T&P RELIEF (PSI)	FUEL PRESS. (W.C.)	GAS CONN. (IN)	WATER CONN. (IN)	FLUE OUTLET (IN)	FLUE MATERIAL	DESIGN FLOW (GPM)	MIN FLOW (GPM)	WATER PD (FT)	EWT (DEG F)	LWT (DEG F)	ELEC (V/PH)	MCA	REMARKS
B-1	LOCHINVAR	FB-4001	3999	3479	87.0%	NAT. GAS	12:1	50	4-14	2-1/2	4	12	POLYPRO	230	45	10.9	150	180	460/3	7.5	1, 2, 3, 4, 5, 6, 7
B-2	LOCHINVAR	FB-4001	3999	3479	87.0%	NAT. GAS	12:1	50	4-14	2-1/2	4	12	POLYPRO	230	45	10.9	150	180	460/3	7.5	1, 2, 3, 4, 5, 6, 7

REMARKS:
 1. PROVIDE AND INSTALL WITH LOW WATER CUT-OFF.
 2. PROVIDE AND INSTALL WITH PACKAGED CONTROLS.
 3. PROVIDE AND INSTALL WITH INTEGRAL SEQUENCER TO CONNECT ALL BOILERS INTO A COMMON TEAM. PROVIDE ALL ASSOCIATED CONTROLLERS, WIRING, PROGRAMMING, SETUP, ETC. FOR A FULLY FUNCTIONAL SYSTEM.
 4. BOILER MANUFACTURER AND VENTING MANUFACTURER SHALL VERIFY ALL FLUE/INTAKE SIZING AND ROUTING.
 5. PROVIDE AND INSTALL BACNET MSTR INTERFACE.
 6. PROVIDE AND INSTALL WITH SAFETY RELIEF VALVE.
 7. PROVIDE AND INSTALL WITH 2-WAY AUTOMATIC CONTROL VALVE TO ISOLATE INACTIVE BOILER.

GENERAL MECHANICAL EQUIPMENT SCHEDULE

TAG	MFR.	MODEL	SERVICE	INPUT (MBH)	OUTPUT (MBH)	AIRFLOW (CFM)	EAT/LAT (DEG F)	ESP (IN WC)	MOTOR (HP)	RPM	FILTER	ELEC (V/PH)	REMARKS
CT-1	CONDENSATE NEUTRALIZATION TANK												

TYPE: TOWN & COUNTRY PLASTICS
MODEL: NT-1
PERFORMANCE: 2 GALLON HPSD DILUTION TANK
REMARKS: 1. PROVIDE AND INSTALL WITH POLYPROPYLENE COVER.
 2. PROVIDE AND INSTALL WITH 1-1/2" INLET AND OUTLET CONNECTIONS.

PLUMBING FIXTURE SCHEDULE

TAG	MFR.	MODEL	COLOR	TRIM MFR.	TRIM MODEL	TRIM FINISH	FLOW RATE (GPF OR GPM)	TRIM TYPE	WASTE	VENT	CW	HW	REMARKS
WC-1H	AMERICAN STANDARD	2297.101	WHITE	SLOAN	111 SFSM-1.6-TMCO	CHROME	1.6	FLUSH VALVE	3"	2"	1"	-	1, 2
L-1H	AMERICAN STANDARD	0395.012	WHITE	CHICAGO	805 ESN-1000WABCP	CHROME	1.5	DUAL HANDLE	1-1/4"	1-1/4"	1/2"	1/2"	1, 3, 4, 5, 6

REMARKS:
 1. PROVIDE AND INSTALL WITH FLOOR MOUNTED FIXTURE CARRIER.
 2. PROVIDE AND INSTALL WITH HEAVY DUTY, WHITE, ELONGATED, SOLID PLASTIC OPEN FRONT SEAT.
 3. PROVIDE AND INSTALL WITH 17 GA. CAST BRASS P-TRAP W/ CO. GRID STRAINER, CHICAGO #1017-CP LOOSE KEY ANGLE STOP, AND SUPPLY RISERS.
 4. PROVIDE AND INSTALL WITH CERAMIC CARTRIDGES.
 5. PROVIDE AND INSTALL WITH OFFSET DRAIN AND INSULATION KIT ON ALL WASTE AND SUPPLY PIPING. TRUEBRO OR APPROV EQUAL.
 6. COORDINATE NUMBER OF HOLES IN SINK/LAV WITH FAUCET.

NOTES:
 1. "H" DESIGNATES HANDICAP ACCESSIBLE FIXTURES.

DX COOLING COIL SCHEDULE

TAG	AIRFLOW (CFM)	TOTAL CAP (MBH)	SENS CAP (MBH)	EAT DB/WB (DEG F)	LAT DB/WB (DEG F)	FACE VELOCITY (FPM)	REFRIG.	SST (DEG F)	CIRCUITS	ADD (IN. W.C.)	ROWS	FINS/FT	REMARKS
CC-ACCU-1A	2250	76.3	53.7	78.5 / 64.2	55 / 52.7	500	R410A	45	1	0.6	4	96	1, 2, 3
CC-ACCU-B1	7700	275	200	78.5 / 65.8	55 / 54	500	R410A	45	2	0.8	6	132	1, 2, 3

REMARKS:
 1. PROVIDE WITH STAINLESS STEEL COIL CASING AND STAINLESS STEEL DOUBLE SLOPE 1/4" INSULATED DRAIN PAN.
 2. TUBE WALL THICKNESS SHALL BE 0.024".
 3. EXISTING AIR HANDLING UNIT REPLACEMENT COIL. FIELD VERIFY EXISTING DIMENSIONS AND CONDITIONS.

CONDENSING UNIT SCHEDULE

TAG	MFR.	MODEL	EQUIP. SERVED	REFRIG.	TOTAL CAP. (MBH)	SENS CAP. (MBH)	N TEMP (DEG F)	TEMP (DEG F)	EYAP	EMW (DEG F)	EDB/EWB (DEG F)	CAPACITY STEPS	EER	ELEC (V/PH)	MCA	MOCP	REMARKS
ACCU-1A	CARRIER	35ALD025	CSAC-41	R410A	76.3	53.7	45	95	2250	78.5 / 64.2	2	11.2	460/3	20	30		1, 2, 3, 4, 5, 6
ACCU-B1	CARRIER	35AFP025	CSAC-D1	R410A	275	200	45	95	7700	78.5 / 65.8	4	11	460/3	47.7	80		1, 2, 3, 4, 5, 6

REMARKS:
 1. PROVIDE AND INSTALL WITH LOUVERED HAIL GUARDS ON ALL SIDES.
 2. PROVIDE AND INSTALL WITH TERMINAL STRIP FOR CONTROL BY TCC.
 3. PROVIDE AND INSTALL WITH HINGED ACCESS PANELS.
 4. PROVIDE AND INSTALL WITH PHASE LOSS PROTECTION.
 5. PROVIDE AND INSTALL WITH SINGLE POINT ELECTRICAL POWER CONNECTION AND FACTORY WIRE ELECTRICAL DISCONNECT SWITCH.
 6. PROVIDE AND INSTALL WITH VIBRATION ISOLATORS.

DIFFUSER AND GRILLE SCHEDULE

TAG	MFR.	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	THROW PATTERN	MAX CFM	MAX APD (IN)	THROW (FT)	MAX NC	MATERIAL	REMARKS
D-1	TITUS	TMS	6	12x12	4-WAY	100	0.03	6	20	STEEL	1, 2
EG-1	TITUS	33RL	24x48	26x50	38 DEG. DEFL.	3050	0.01	-	23	STEEL	1, 2

REMARKS:
 1. COLOR SHALL BE WHITE.
 2. PROVIDE AND INSTALL WITH FRAME FOR SURFACE INSTALLATION.

EXHAUST FAN SCHEDULE

TAG	AREA SERVED	MFR.	MODEL	CFM	TSP (IN W.C.)	MOTOR (HP)	MOTOR (BHP)	MOTOR (W)	RPM	DRIVE TYPE	SONES	ELEC (V/PH)	CONTROL	REMARKS
EF-1	REFRIGERANT EXHAUST	GREENHECK	CLC-160-V3	3000	1.0	2	0.96	-	1390	DIRECT	18.1	208/1	TCC	1, 2, 3, 4, 6, 8
EF-2	NEW RESTROOM	GREENHECK	SP-B150	150	0.1	-	-	128	1050	DIRECT	2.5	115/1	EC	5, 7

REMARKS:
 1. PROVIDE AND INSTALL WITH FACTORY WIRE NEMA-3R ELECTRICAL DISCONNECT SWITCH.
 2. PROVIDE AND INSTALL WITH 18" TALL INSULATED METAL ROOF CURB WITH HINGED BASE KIT, RESTRAINING CABLES, AND SOUND ATTENUATING Baffles.
 3. PROVIDE AND INSTALL WITH ALUMINUM BIRDSCREEN.
 4. PROVIDE AND INSTALL WITH ELECTRONICALLY COMMUTATED MOTOR WITH SPEED ADJUSTMENT DIAL ON MOTOR AND WIRING DIGITAL FOR SPEED CONTROL BY TCC.
 5. PROVIDE AND INSTALL WITH FACTORY WIRE NEMA-3R ELECTRICAL DISCONNECT SWITCH.
 6. REFER TO DRAWING DETAILS FOR MORE INFORMATION.
 7. PROVIDE AND INSTALL WITH NEOPRENE VIBRATION ISOLATORS.
 8. PROVIDE AND INSTALL WITH LOW-LEAKAGE INSULATED TWO-POSITION AUTOMATIC CONTROL DAMPER WITH LINKAGE FOR ACTUATOR IN AIRSTREAM ACCESSIBLE FROM ROOF. DAMPER ACTUATOR FURNISHED BY TCC.

NOTES:
 TCC = TEMPERATURE CONTROL CONTRACTOR
 EC = ELECTRICAL CONTRACTOR

VARIABLE SPEED DRIVE SCHEDULE

TAG	MFR.	MODEL	EQUIPMENT SERVED	MOTOR SIZE (HP)	ELEC (V/PH)	BYPASS	ENCLOSURE	REMARKS
VSD-1	ABB	ACH580	P-1	15	460/3	NONE	NEMA 1	1, 2, 3, 4, 5
VSD-2	ABB	ACH580	P-1	15	460/3	NONE	NEMA 1	1, 2, 3, 4, 5

REMARKS:
 1. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS AND INFORMATION.
 2. COORDINATE EXACT MOTOR DATA WITH EQUIPMENT BEING SERVED BY THIS DRIVE.
 3. PROVIDE WITH MANUAL LOCKABLE DISCONNECT SWITCH INTEGRAL TO DRIVE.
 4. PROVIDE WITH BACNET INTERFACE FOR FULL INTEGRATION INTO BMS.
 5. STARTUP AND OWNER TRAINING SHALL BE PROVIDED BY THE FACTORY AUTHORIZED REPRESENTATIVE TO ENABLE FULL FACTORY WARRANTY. TCC SHALL NOT PERFORM STARTUP.

ROOF CAP SCHEDULE

TAG	MFR.	MODEL	THROAT SIZE (IN x IN)	FUNCTION	AIRFLOW / MAX P.D. (CFM) (IN)	MAX HOOD VEL (FPM)	MATERIAL	REMARKS	
RC-1	GREENHECK	FGL	24x24	INTAKE	3000	0.13	364	ALUMINUM	1, 2, 3, 4

REMARKS:
 1. PROVIDE AND INSTALL WITH ALUMINUM WIRE MESH BIRD SCREEN.
 2. PROVIDE AND INSTALL WITH HINGED TOP AND LOCKDOWN FASTENER.
 3. PROVIDE AND INSTALL WITH 24" TALL INSULATED METAL ROOF CURB.
 4. PROVIDE AND INSTALL LOW-LEAKAGE INSULATED AUTOMATIC CONTROL DAMPER. DAMPER ACTUATOR FURNISHED BY TCC.

EXPANSION TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	APPROX SYS VOL (GAL)	RELIEF VALVE (PSIG)	MAX SYS PRESS (PSIG)	PRE-CHARGE PRESS (PSIG)	CALC. ACCEPT FACTOR	TANK VOL (GAL)	ACCEPT. VOL (GAL)	DIA (IN)	HEIGHT (IN)	CONN. SIZE (IN)	TANK FULL WT (LBS)	REMARKS
ET-1	BELL & GOSSETT	B-2000	HOT WATER	5000	75	60	30	0.618	528	328	48	88	1 1/2	5548	1, 2, 3

REMARKS:
 1. PROVIDE AND INSTALL WITH LINE SIZE T&P RELIEF VALVE ON INLET.
 2. ALL TANKS SHALL BE ASME STAMPED.
 3. CONTRACTOR SHALL VERIFY THE SYSTEM STATIC WATER PRESSURE PRIOR TO INSTALLING TANK AND ADJUST PRE-CHARGE AS REQUIRED.

WATER FLOW/ENERGY METER SCHEDULE

TAG	MFR.	FLOW METER	SENSOR TYPE	DISPLAY	SYSTEM SERVED	FLUID	PIPE SIZE (IN)	DESIGN FLOW (GPM)	MIN / MAX FLOW (GPM)	REG PIPE DIA UP/DOWN STREAM	ACCURACY (% OF FLOW RATE)	ELEC (V/PH)	REMARKS
FM-1	ONICON	F-3500	ELECTROMAG	SYSTEM 10	HOT WATER	WATER	6	460	15 / 1800	300 / SD	1.0 %	24 VDC	1, 2, 3, 4, 5, 6

REMARKS:
 1. BODY SHALL BE EPoxy COATED CARBON STEEL WITH PTFE LINER.
 2. PROVIDE WITH DISPLAY UNIT.
 3. CONTRACTOR SHALL VERIFY REQUIRED UPSTREAM AND DOWNSTREAM MINIMUM STRAIGHT PIPE REQUIREMENTS DURING INSTALL.
 4. PROVIDE FACTORY AUTHORIZED TECHNICIAN TO CALIBRATE AND CONFIGURE METER FOR SPECIFIC PIPE/FLUID PARAMETERS.
 5. PROVIDE WITH HOT TAP ADAPTER.
 6. TCC SHALL PROVIDE POWER TRANSFORMER DEDICATED TO POWER FLOWMETER.

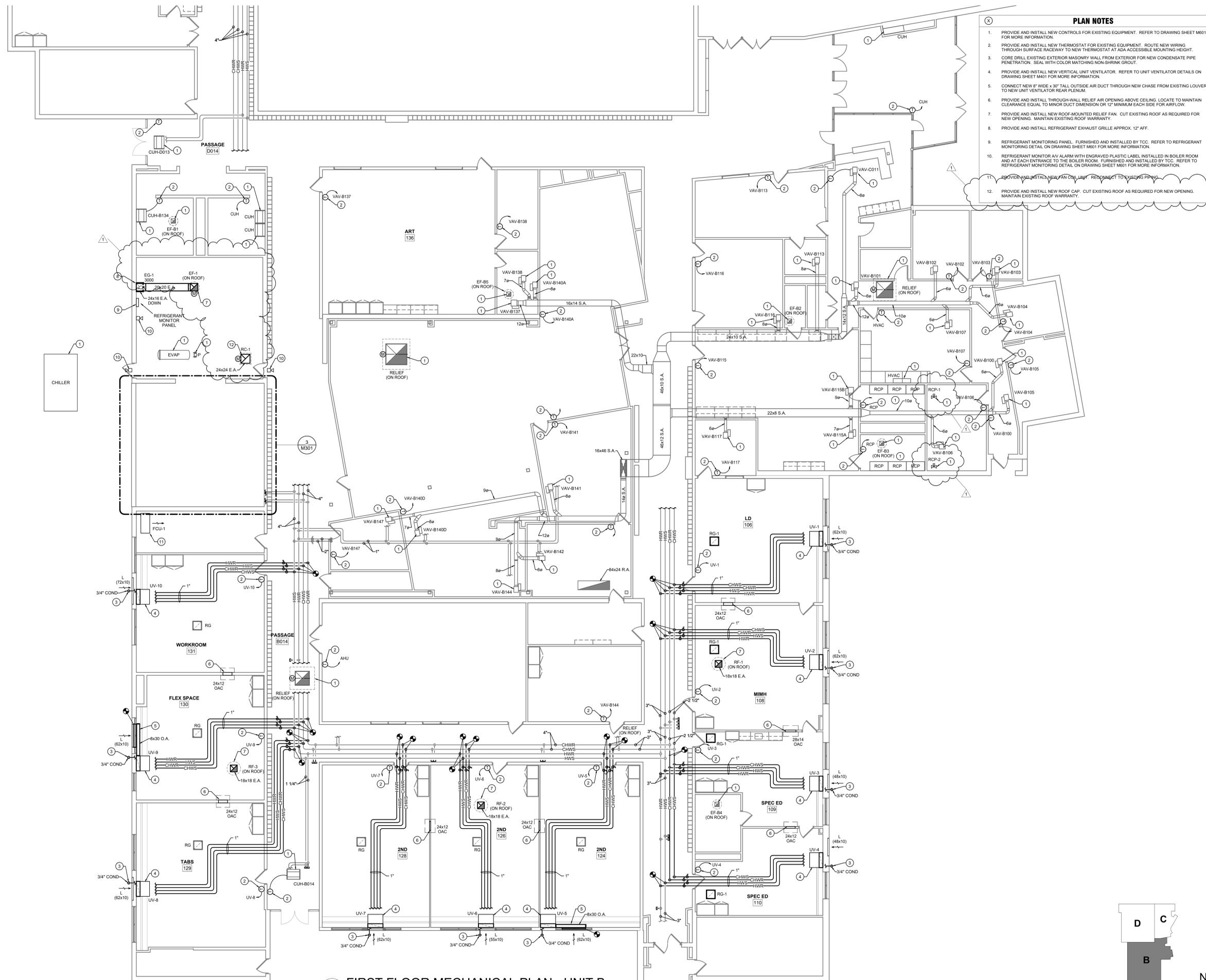
GAS REGULATOR SCHEDULE

TAG	MFR.	MODEL	CAPACITY (CFM)	TURNDOWN	INLET (PSI)	INLET SIZE (IN)	OUTLET SIZE (IN)	OUTLET SIZE (IN)	EQUIP SERVED	REGULATOR LOCATION	REMARKS
GR-1	PIETRO FIORENTINI	31153OPD	3969	500:1	5	1 1/4	14	1 1/4	B-1	INTERIOR	1, 2, 3
GR-2	PIETRO FIORENTINI	31153OPD	3969	500:1	5	1 1/4	14	1 1/4	B-2	INTERIOR	1, 2, 3
GR-3	PIETRO FIORENTINI	31053OPD	750	500:1	5	1	14	1	GWH	INTERIOR	1, 2, 3

REMARKS:
 1. PROVIDE AND INSTALL WITH VENT PIPED TO EXTERIOR.
 2. VERIFY EXACT REGULATOR SIZE BASED ON ACTUAL EQUIPMENT INSTALLED PRIOR TO ORDERING.
 3. PROVIDE WITH EXTERNAL DOWNSTREAM CONTROL LINE, FIELD INSTALLED.



Sunman Elementary School
8 / 5 / 24



- PLAN NOTES**
1. PROVIDE AND INSTALL NEW CONTROLS FOR EXISTING EQUIPMENT. REFER TO DRAWING SHEET M601 FOR MORE INFORMATION.
 2. PROVIDE AND INSTALL NEW THERMOSTAT FOR EXISTING EQUIPMENT. ROUTE NEW WIRING THROUGH SURFACE RACEWAY TO NEW THERMOSTAT AT ADA ACCESSIBLE MOUNTING HEIGHT.
 3. CORE DRILL EXISTING EXTERIOR MASONRY WALL FROM EXTERIOR FOR NEW CONDENSATE PIPE PENETRATION. SEAL WITH COLOR MATCHING NON-SHRINK GROUT.
 4. PROVIDE AND INSTALL NEW VERTICAL UNIT VENTILATOR. REFER TO UNIT VENTILATOR DETAILS ON DRAWING SHEET M601 FOR MORE INFORMATION.
 5. CONNECT NEW 8" WIDE x 30" TALL OUTSIDE AIR DUCT THROUGH NEW CEILING FROM EXISTING LOUVER TO NEW UNIT VENTILATOR REAR PLENUM.
 6. PROVIDE AND INSTALL THROUGH-WALL RELIEF AIR OPENING ABOVE CEILING. LOCATE TO MAINTAIN CLEARANCE EQUAL TO MINOR DUCT DIMENSION OR 12" MINIMUM EACH SIDE FOR AIRFLOW.
 7. PROVIDE AND INSTALL NEW ROOF-MOUNTED RELIEF FAN. CUT EXISTING ROOF AS REQUIRED FOR NEW OPENING. MAINTAIN EXISTING ROOF WARRANTY.
 8. PROVIDE AND INSTALL REFRIGERANT EXHAUST GRILLE APPROX. 12" AFF.
 9. REFRIGERANT MONITORING PANEL. FURNISHED AND INSTALLED BY TCC. REFER TO REFRIGERANT MONITORING DETAIL ON DRAWING SHEET M601 FOR MORE INFORMATION.
 10. REFRIGERANT MONITOR AV ALARM WITH ENGRAVED PLASTIC LABEL INSTALLED IN BOILER ROOM AND AT EACH ENTRANCE TO THE BOILER ROOM. FURNISHED AND INSTALLED BY TCC. REFER TO REFRIGERANT MONITORING DETAIL ON DRAWING SHEET M601 FOR MORE INFORMATION.
 11. PROVIDE AND INSTALL NEW AN OUTLET. REFER TO EXISTING PIPING.
 12. PROVIDE AND INSTALL NEW ROOF CAP. CUT EXISTING ROOF AS REQUIRED FOR NEW OPENING. MAINTAIN EXISTING ROOF WARRANTY.

1 FIRST FLOOR MECHANICAL PLAN - UNIT B
SCALE: 1/8" = 1'-0"



THIS MONOCHROME PRINT SHOULD DISPLAY GRAPHICAL LINES BELOW IF PRINTED PROPERLY WITH 25% SHADES OF GRAY

LANCER ASSOCIATES ARCHITECTURE
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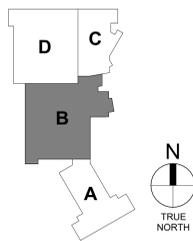
SUNMAN-DEARBORN COMM. SCHOOL CORP.
RENOVATIONS TO SUNMAN ELEMENTARY SCHOOL
925 N Meridian St, Sunman, IN 47041

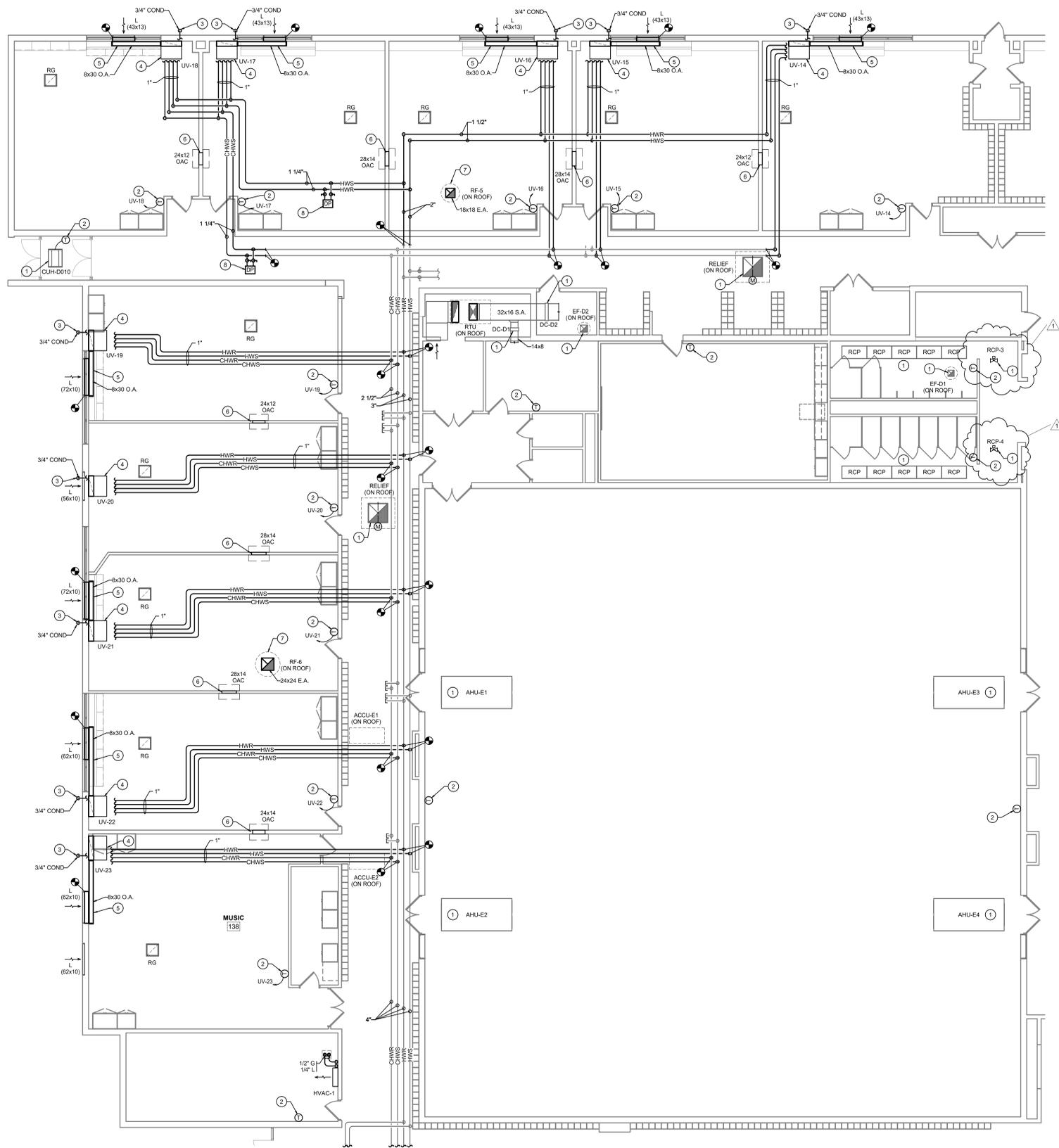


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1	10/24/2024	ADDENDUM #1	

100% CONSTRUCTION DOCUMENTS
PROJECT: #23138
DATE: 07/24/2024
DRAWN BY: ASL

M101B
TRUE NORTH
PRIMARY JOB # 24588





- PLAN NOTES**
1. PROVIDE AND INSTALL NEW CONTROLS FOR EXISTING EQUIPMENT. REFER TO DRAWING SHEET M601 FOR MORE INFORMATION.
 2. PROVIDE AND INSTALL NEW THERMOSTAT FOR EXISTING EQUIPMENT. ROUTE NEW WIRING THROUGH SURFACE RACEWAY TO NEW THERMOSTAT AT ADA ACCESSIBLE MOUNTING HEIGHT.
 3. CORE DRILL EXISTING EXTERIOR MASONRY WALL FROM EXTERIOR FOR NEW CONDENSATE PIPE PENETRATION. SEAL WITH COLOR MATCHING NON-SHRINK GROUT.
 4. PROVIDE AND INSTALL NEW VERTICAL UNIT VENTILATOR. REFER TO UNIT VENTILATOR DETAILS ON DRAWING SHEET M601 FOR MORE INFORMATION.
 5. CONNECT NEW 8" WIDE x 30" TALL OUTSIDE AIR DUCT THROUGH NEW CHASE FROM EXISTING LOUVER TO NEW UNIT VENTILATOR REAR PLENUM.
 6. PROVIDE AND INSTALL THROUGH-WALL RELIEF AIR OPENING ABOVE CEILING. LOCATE TO MAINTAIN CLEARANCE EQUAL TO MINOR DUCT DIMENSION OR 12" MINIMUM EACH SIDE FOR AIRFLOW.
 7. PROVIDE AND INSTALL NEW ROOF-MOUNTED RELIEF FAN. CUT EXISTING ROOF AS REQUIRED FOR NEW OPENING. MAINTAIN EXISTING ROOF WARRANTY.
 8. NEW DIFFERENTIAL PRESSURE SENSOR FOR VARIABLE SPEED PUMP CONTROL.

1 FIRST FLOOR MECHANICAL PLAN - UNIT D
SCALE: 1/8" = 1'-0"



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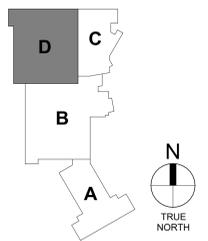
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1	05/20/24	ADDENDUM #1

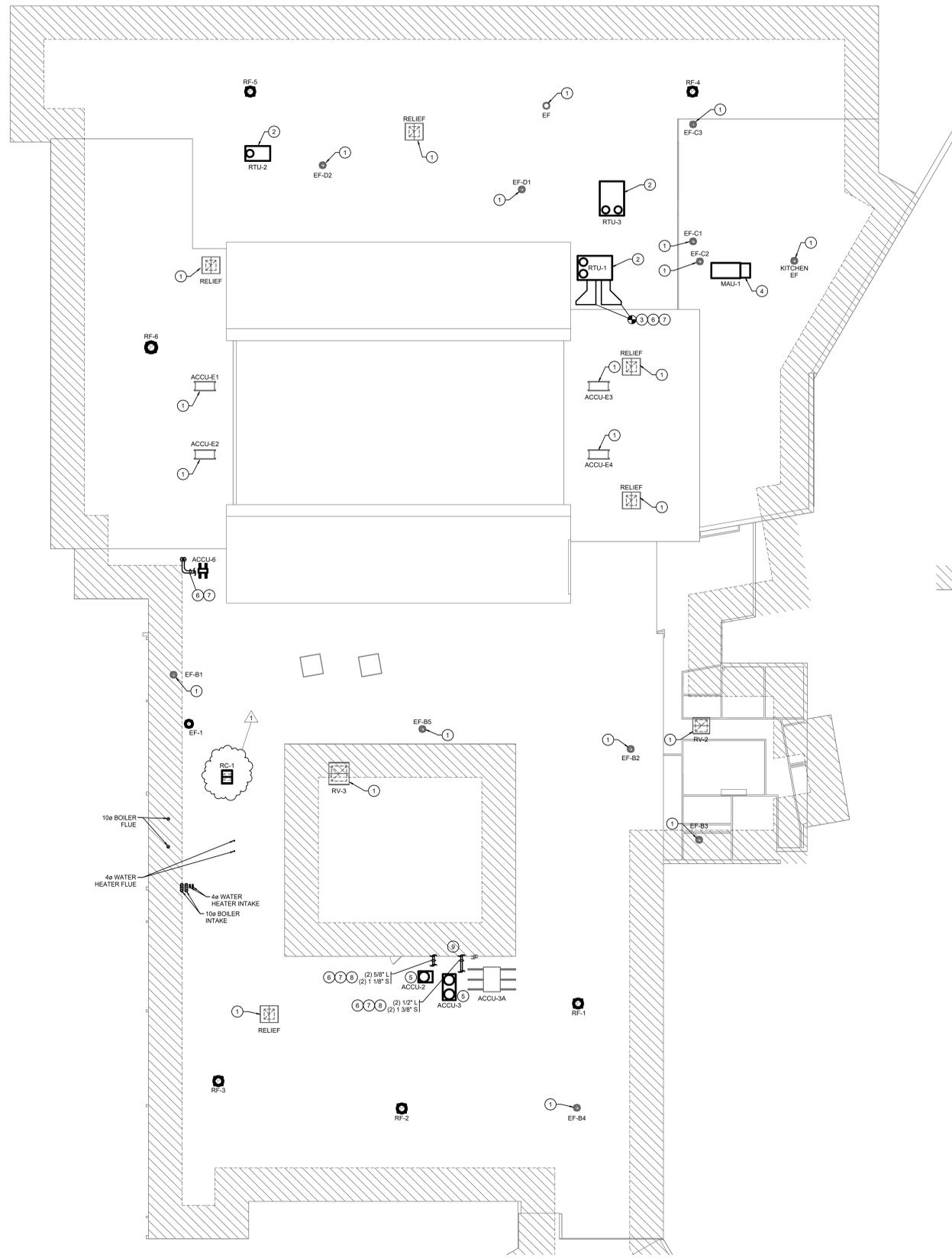
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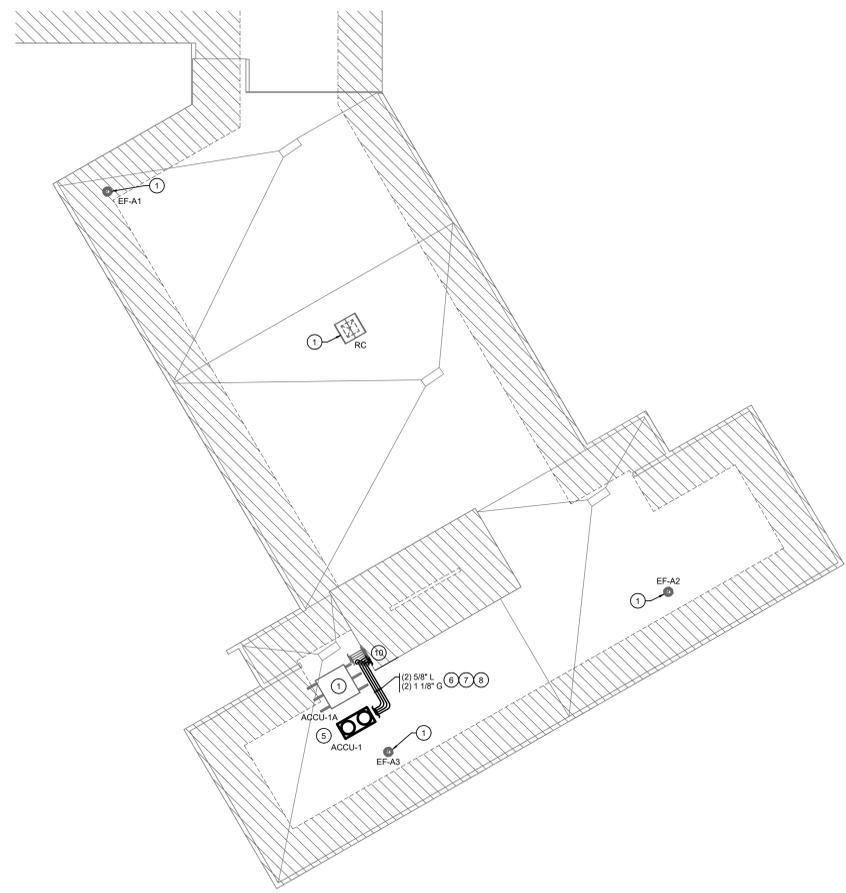
MECHANICAL PLAN - FIRST FLOOR - UNIT D



M101D
TRUE NORTH



1 MECHANICAL PLAN - ROOF - UNITS B, C, AND D
SCALE: 1/16" = 1'-0"



2 MECHANICAL PLAN - ROOF - UNIT A
SCALE: 1/16" = 1'-0"

- PLAN NOTES**
1. PROVIDE AND INSTALL NEW CONTROLS FOR EXISTING EQUIPMENT. REFER TO DRAWING SHEET M101 FOR MORE INFORMATION.
 2. PROVIDE AND INSTALL NEW ROOFTOP UNIT ON EXISTING CURB. RECONNECT TO EXISTING DUCTWORK AND PIPING. PROVIDE AND INSTALL CURB ADAPTER AS REQUIRED.
 3. RECONNECT TO EXISTING THROUGH-WALL DUCTWORK TO CAFETERIA.
 4. PROVIDE AND INSTALL NEW MAKEUP AIR UNIT. RECONNECT TO EXISTING DUCTWORK AND PIPING. PROVIDE AND INSTALL NEW ROOF CURB. MAINTAIN EXISTING ROOF WARRANTY.
 5. PROVIDE AND INSTALL NEW CONDENSING UNIT ON EXISTING EQUIPMENT RAILS. ROUTE NEW REFRIGERANT PIPING TO NEW EVAPORATOR COIL IN EXISTING AIR HANDLING UNIT.
 6. EXTERIOR PIPING AND DUCTWORK SHALL BE INSULATED WITH 2" THICK FLEXIBLE ELASTOMERIC INSULATION WITH ALUMINUM JACKETING.
 7. SUPPORT NEW PIPING AND DUCTWORK FROM ROOF USING B-LINE DURA-BLOK ROOF SUPPORTS WITH STAINLESS STEEL HARDWARE. MAINTAIN EXISTING ROOF WARRANTY.
 8. VERIFY PIPE ROUTING, SIZES, QUANTITIES, AND ALL PIPING REQUIREMENTS WITH MANUFACTURER.
 9. REFER TO UNIT B MEZZANINE PLAN ON DRAWING SHEET M301 FOR CONTINUATION.
 10. REFER TO UNIT A MEZZANINE PLAN ON DRAWING SHEET M301 FOR CONTINUATION.

THIS MONOCHROME PRINT SHOULD DISPLAY GRAPHICAL LINES BELOW IF PRINTED PROPERLY WITH 256 SHADES OF GRAY



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DATE: 07/24/2024
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MECHANICAL PLAN - ROOF



M102

GAS REGULATOR SCHEDULE												
TAG	MFR.	MODEL	CAPACITY (CFM)	TURNDOWN	INLET (PSI)	INLET SIZE (IN)	OUTLET SIZE (IN)	OUTLET SIZE (IN)	EQUIP SERVED	REGULATOR LOCATION	REMARKS	
GR-1	PIETRO FIORENTINI	31153OPD	3000	500:1	5	1 1/4	14	1 1/4	B-1	INTERIOR	1, 2, 3	
GR-2	PIETRO FIORENTINI	31153OPD	3000	500:1	5	1 1/4	14	1 1/4	B-1	INTERIOR	1, 2, 3	
GR-3	PIETRO FIORENTINI	31015OPD	285	500:1	5	1/2	14	1/2	GW-1	INTERIOR	1, 2, 3	
GR-4	PIETRO FIORENTINI	31015OPD	285	500:1	5	1/2	14	1/2	GW-2	INTERIOR	1, 2, 3	
GR-5	PIETRO FIORENTINI	31052OPD	606.8	500:1	5	3/4	14	3/4	EXISTING BUILDING	INTERIOR	1, 2, 3	

REMARKS:
1. PROVIDE AND INSTALL WITH VENT PIPED TO EXTERIOR.
2. VERIFY EXACT REGULATOR SIZE BASED ON ACTUAL EQUIPMENT INSTALLED PRIOR TO ORDERING.
3. PROVIDE WITH EXTERNAL DOWNSTREAM CONTROL LINE, FIELD INSTALLED.

EXHAUST FAN SCHEDULE													
TAG	AREA SERVED	MFR.	MODEL	CFM	TSP (IN W.C.)	MOTOR (HP)	MOTOR (BHP)	RPM	DRIVE TYPE	SONES	ELEC (V/PH)	CONTROL	REMARKS
EF-1	REFRIGERANT EXHAUST	GREENHECK	CUE-190-VG	3000	1.0	2.0	0.98	1380	DIRECT	18.1	208/1	TCC	1, 2, 3, 4, 5, 6
RF-1	UV RELIEF	GREENHECK	G-200-VG	3800	0.5	1.0	0.69	840	DIRECT	11.6	115/1	TCC	1, 2, 3, 4, 5, 6
RF-2	UV RELIEF	GREENHECK	G-200-VG	2700	0.5	1.0	0.44	730	DIRECT	6.5	115/1	TCC	1, 2, 3, 4, 5, 6
RF-3	UV RELIEF	GREENHECK	G-200-VG	2700	0.5	1.0	0.44	730	DIRECT	6.5	115/1	TCC	1, 2, 3, 4, 5, 6
RF-4	UV RELIEF	GREENHECK	G-200-VG	3800	0.5	1.0	0.69	840	DIRECT	11.6	115/1	TCC	1, 2, 3, 4, 5, 6
RF-5	UV RELIEF	GREENHECK	G-200-VG	3800	0.5	1.0	0.69	840	DIRECT	11.6	115/1	TCC	1, 2, 3, 4, 5, 6
RF-6	UV RELIEF	GREENHECK	G-200-VG	4900	0.5	2.0	0.82	890	DIRECT	11.8	208/1	TCC	1, 2, 3, 4, 5, 6

REMARKS:
1. PROVIDE AND INSTALL WITH FACTORY WIRE NEMA-3R ELECTRICAL DISCONNECT SWITCH.
2. PROVIDE AND INSTALL WITH TALL INSULATED METAL ROOF CURB WITH HINGED BASE KIT, RESTRAINING CABLES, AND SOUND ATTENUATING Baffles.
3. PROVIDE AND INSTALL WITH ALLUMINUM BRID SCREEN.
4. PROVIDE AND INSTALL WITH ELECTRONICALLY COMMUTATED MOTOR WITH SPEED ADJUSTMENT DIAL ON MOTOR AND WIRING INSTALL FOR SPEED CONTROL BY TCC.
5. PROVIDE AND INSTALL WITH LOW LEAKAGE INSULATED TWO-POSITION AUTOMATIC CONTROL DAMPER WITH LINKAGE FOR ACTUATOR IN AIRSTREAM ACCESSIBLE FROM ROOF. DAMPER ACTUATOR FURNISHED BY TCC.
6. REFER TO DRAWING DETAILS FOR MORE INFORMATION.

NOTES:
TCC = TEMPERATURE CONTROL CONTRACTOR.
EC = ELECTRICAL CONTRACTOR.

GENERAL MECHANICAL EQUIPMENT SCHEDULE													
TAG	TYPE	MFR.	MODEL	CFM	TSP (IN W.C.)	MOTOR (HP)	MOTOR (BHP)	RPM	DRIVE TYPE	SONES	ELEC (V/PH)	CONTROL	REMARKS
CT-1	CONDENSATE NEUTRALIZATION TANK	TOWN & COUNTRY PLASTICS	NT-1	2	1.0	2.0	0.98	1380	DIRECT	18.1	208/1	TCC	1, 2, 3
CT-2	CONDENSATE NEUTRALIZATION TANK	TOWN & COUNTRY PLASTICS	NT-1	2	1.0	2.0	0.98	1380	DIRECT	18.1	208/1	TCC	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH POLYPROPYLENE COVER.
2. PROVIDE AND INSTALL WITH 1-1/2" INLET AND OUTLET CONNECTIONS.

DX COOLING COIL SCHEDULE													
TAG	AIRFLOW (CFM)	TOTAL CAP (MBH)	SENS CAP (MBH)	EAT (DEG F)	LAT DB/WB (DEG F)	FACE VELOCITY (FPM)	REFRIG.	SST (IN W.C.)	CIRCUITS	APD (IN W.C.)	ROWS	FINS/FT	REMARKS
CC-ACCU-1	15000	255	225	75 / 63	62 / 58	460	R410A	50	2	0.25	4	72	1, 2, 3
CC-ACCU-2	2700	103	70	80 / 67	56 / 55	460	R410A	43	2	0.71	6	106	1, 2, 3
CC-ACCU-3	13500	197	197	75 / 63	62 / 58	470	R410A	50	2	0.24	4	72	1, 2, 3

REMARKS:
1. PROVIDE WITH STAINLESS STEEL COIL CASING AND STAINLESS STEEL DOUBLE SLOPE 1/4" INSULATED DRAIN PAN.
2. TUBE WALL THICKNESS SHALL BE 0.024".
3. EXISTING AIR HANDLING UNIT REPLACEMENT COIL. FIELD VERIFY EXISTING DIMENSIONS AND CONDITIONS.

AIR AND SEDIMENT SEPARATOR SCHEDULE												
TAG	MFR.	MODEL	SERVICE	APPROX BYS VOL (GAL)	RELIEF VALVE (PSIG)	MAX SYS PRESS (PSIG)	TANK DIA (IN)	TANK HEIGHT (IN)	TANK WT (LBS)	OPERATING WEIGHT (LBS)	REMARKS	
ADS-1	BELL & GOSSETT	CRS-6F-MAG	HOT WATER	4000	75	50	12.75	41	499	499	1, 2, 3	

REMARKS:
1. PROVIDE WITH REMOVABLE BOTTOM FLANGE, SISAMER VALVE, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
2. PROVIDE WITH STRAINER, FLANGED BOTTOM, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
3. PROVIDE WITH INTEGRAL NEODYMIUM MAGNETIC INSERT ROD WITH SLEEVE TO ALLOW REMOVAL OF IRON FLAKES USING BLOW DOWN PORT.

DIFFUSER AND GRILLE SCHEDULE												
TAG	MFR.	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	THROW PATTERN	MAX CFM	MAX APD (IN)	THROW (FT)	MAX NC	MATERIAL	REMARKS	
D-1	TITUS	TMS	8	24x24	4-WAY	245	0.05	9	15	STEEL	1, 3	
RG-1	TITUS	45F	-	24x24	45 DEG. EGG	1600	0.04	-	15	ALUMINUM	1, 3	
EG-1	TITUS	33RL	24x48	26x50	38 DEG. DEF.	3050	0.01	-	23	STEEL	1, 2	

REMARKS:
1. COLOR SHALL BE WHITE.
2. PROVIDE AND INSTALL WITH FRAME FOR SURFACE INSTALLATION.
3. PROVIDE AND INSTALL WITH FRAME FOR LAY-IN INSTALLATION.

ROOF CAP SCHEDULE												
TAG	MFR.	MODEL	THROAT SIZE (IN x IN)	FUNCTION	AIRFLOW (CFM)	MAX P.D. (IN)	MAX HOOD VEL (FPM)	MATERIAL	REMARKS			
RC-1	GREENHECK	FGI	24x24	INTAKE	3000	0.13	364	ALUMINUM	1, 2, 3, 4			

REMARKS:
1. PROVIDE AND INSTALL WITH ALUMINUM WIRE MESH BIRD SCREEN.
2. PROVIDE AND INSTALL WITH HINGED TOP AND LOCKDOWN FASTENER.
3. PROVIDE AND INSTALL WITH 24" TALL INSULATED METAL ROOF CURB.
4. PROVIDE AND INSTALL LOW-LEAKAGE INSULATED AUTOMATIC CONTROL DAMPER. DAMPER ACTUATOR FURNISHED BY TCC.

FAN COIL SCHEDULE																														
COOLING														HEATING																
TAG	MFR.	MODEL	AIRFLOW (CFM)	SPEED	O.A. (CFM)	ESP (IN WC)	HP	TOTAL (MBH)	SENS. (MBH)	EDB / EWB (DEG F)	LDB / LWB (DEG F)	EWT / LWT (DEG F)	FLOW (GPM)	WPD (FT)	ROWS	CONTROL VALVE	TOTAL (MBH)	EAT (DEG F)	LAT (DEG F)	EWT / LWT (DEG F)	FLOW (GPM)	WPD (FT)	ROWS	CONTROL VALVE	ELEC (V/PH)	MCA	FLA	MFS	REMARKS	
FCU-1	IEC	CXB00	255	L	-	-	1/12	7.3	5.8	75 / 63	54 / 53	45 / 55	1.5	1.9	4	2-WAY	13.2	70	118	180 / 160	1.5	1.5	1	2-WAY	115/1	-	1.58	-	-	1, 2, 3, 4, 5, 7

REMARKS:
1. PROVIDE AND INSTALL WITH ELECTRONICALLY COMMUTATED MOTOR WITH 0-10VDC INPUT FOR EXTERNAL SPEED CONTROL SIGNAL.
2. PROVIDE AND INSTALL WITH STAINLESS STEEL INSULATED CONDENSATE PAN WITH OVERFLOW SWITCH WIRED TO SHUT DOWN FAN.
3. PROVIDE AND INSTALL WITH 1/2" THICK PREMIUM IQA FIBERGLASS INSULATION.
4. PROVIDE AND INSTALL WITH FACTORY WIRE ELECTRICAL DISCONNECT SWITCH.
5. PROVIDE AND INSTALL WITH 0.035" COIL TUBE THICKNESS.
6. PROVIDE AND INSTALL WITH 14 GA CABINET.
7. PROVIDE AND INSTALL WITH NEOPRENE VIBRATION HANGERS.

NOTES:
1. PROVIDE AND INSTALL ALL FAN COIL UNITS WITH 1" THICK NERV 8 PLATED FILTER AND (2) SPARES.
2. PROVIDE AND INSTALL ALL FAN COIL UNITS WITH HOT WATER COILS IN REHEAT POSITION DOWNSTREAM OF CHILLED WATER COILS.

BOILER SCHEDULE																											
TAG	MFR.	MODEL	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	THERMAL EFF (%)	FUEL	BURNER TURNDOWN	TAP RELIEF (PSI)	FUEL PRESS. (IN W.C.)	GAS CONN (IN)	WATER CONN (IN)	FLUE OUTLET (IN)	DESIGN FLOW (GPM)	MIN FLOW (GPM)	WATER PD (FT)	TEMP RISE (DEG F)	ELEC (V/PH)	FLA	MCA	REMARKS							
B-1	LOCHINVAR	FBN-3001	3000	2883	96.1%	NAT. GAS	20:1	50	4-14	2	4	10	POLYPRO	225	25	5	20	208/3	6.5	8.1	1, 2, 3, 4, 5, 6, 7						
B-2	LOCHINVAR	FBN-3001	3000	2883	96.1%	NAT. GAS	20:1	50	4-14	2	4	10	POLYPRO	225	25	5	20	208/3	6.5	8.1	1, 2, 3, 4, 5, 6, 7						

REMARKS:
1. PROVIDE AND INSTALL WITH LOW WATER CUT-OFF.
2. PROVIDE AND INSTALL WITH PACKAGED CONTROLS.
3. PROVIDE AND INSTALL WITH INTEGRAL SEQUENCER TO CONNECT ALL BOILERS INTO A COMMON TEAM. PROVIDE ALL ASSOCIATED CONTROLLERS, WIRING, PROGRAMMING, SETUP, ETC. FOR A FULLY FUNCTIONAL SYSTEM.
4. BOILER MANUFACTURER AND VENTING MANUFACTURER SHALL VERIFY ALL FLUE INTAKE SIZING AND ROUTING.
5. PROVIDE AND INSTALL BACNET MSTP INTERFACE.
6. PROVIDE AND INSTALL WITH SAFETY RELIEF VALVE.
7. PROVIDE AND INSTALL WITH 2-WAY AUTOMATIC CONTROL VALVE TO ISOLATE INACTIVE BOILER.

EXPANSION TANK SCHEDULE															
TAG	MFR.	MODEL	SERVICE	APPROX BYS VOL (GAL)	RELIEF VALVE (PSIG)	MAX SYS PRESS (PSIG)	PRE-CHARGE PRESS (PSIG)	CALC. ACCEPT FACTOR	TANK VOL (GAL)	ACCEPT VOL (GAL)	DIA (IN)	HEIGHT (IN)	CONN. SIZE (IN)	TANK FULL WT (LBS)	REMARKS
ET-1	BELL & GOSSETT	B-1200	HOT WATER	4000	75	50	20	0.618	317	196	36	86	1 1/2	3394	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH LINE SIZE TAP RELIEF VALVE ON INLET.
2. ALL TANKS SHALL BE ASME STAMPED.
3. CONTRACTOR MUST VERIFY THE SYSTEM STATIC WATER PRESSURE PRIOR TO INSTALLING TANK AND ADJUST PRE-CHARGE AS REQUIRED.

MINI-SPLIT OUTDOOR UNIT SCHEDULE														
TAG	MFR.	MODEL	EQUIP. SERVED	SERVICE	COOLING CAP (MBH) AT 95 DEG F	HEATING CAP (MBH) AT 17 DEG F	MAX REF LINE LENGTH (FT)	COOLING SEER	HEATING COP	REFRIG. R-410A	ELEC (V/PH)	MCA	MOP	REMARKS
ACCU-3	DAIKIN	PKZ-A19K7A	TRVAC-1	HOT WATER	18.5	15.6	165	18.5	2.3	R410A	208/1	11	28	1, 2, 3, 4, 5

REMARKS:
1. MC SHALL PROVIDE AND INSTALL INTERLOCK WIRING AND CONTROLS AS REQUIRED FOR A COMPLETE INSTALLATION.
2. PROVIDE AND INSTALL WITH BACNET INTERFACE.
3. PROVIDE AND INSTALL WITH LOW AMBIENT COOLING KIT.
4. PROVIDE AND INSTALL WITH LOUVERED HALL GUARD.
5. PROVIDE AND INSTALL ON 24" TALL MOUNTING STAND.

WATER FLOW/ENERGY METER SCHEDULE													
TAG	MFR.	FLOW METER	SENSOR TYPE	DISPLAY	SYSTEM SERVED	FLUID	PIPE SIZE (IN)	DESIGN FLOW (GPM)	MIN FLOW (GPM)	REG FLOW UP/DOWN STREAM	ACCURACY (% OF FLOW RATE)	ELEC (V/PH)	REMARKS
FM-1	ONICON	F-3500	ELECTROMAG	SYSTEM 10	HOT WATER	WATER	6	450	15 / 1900	300 / 50	1.0 %	24 VDC	1, 2, 3, 4, 5, 6

REMARKS:
1. BODY SHALL BE EPOXY COATED CARBON STEEL WITH PTFE LINER.
2. PROVIDE WITH DISPLAY UNIT.
3. CONTRACTOR SHALL VERIFY REQUIRED UPSTREAM AND DOWNSTREAM MINIMUM STRAIGHT PIPE REQUIREMENTS DURING INSTALL.
4. PROVIDE FACTORY AUTHORIZED TECHNICIAN TO CALIBRATE AND CONFIGURE METER FOR SPECIFIC PIPE/FLUID PARAMETERS.
5. PROVIDE WITH HOT TAP ADAPTER.
6. TCC SHALL PROVIDE POWER TRANSFORMER DEDICATED TO POWER FLOWMETER.

GAS FIRED MAKE-UP AIR UNIT SCHEDULE																	
TAG	MFR.	MODEL	SERVICE	INPUT (MBH)	OUTPUT (MBH)	AIRFLOW (CFM)	EAT/LAT (DEG F)	ESP (IN WC)	MOTOR (HP)	MOTO R.	RPM	OPERATING WEIGHT (LBS)	ELEC (V/PH)	MCA	MOP	REMARKS	
MAU-1	TRANE	GRAA	KITCHEN HOOD	350	280	4200	0 / 60	1.0	2.0	1.9	1050	2' MERV 8	1280	208/3	0.305	15	1, 2, 3, 4, 5, 6

REMARKS:
1. PROVIDE AND INSTALL WITH STAINLESS STEEL BURNER AND DRAIN PAN.
2. PROVIDE AND INSTALL WITH REMOTE SETPOINT CONTROLLER AND SPACE SENSOR WITH SUMMER/WINTER SWITCH.
3. PROVIDE AND INSTALL WITH PACKAGED CONTROLS, MODULATING GAS VALVE, AND DUCT MOUNTED THERMOSTAT.
4. PROVIDE AND INSTALL WITH PACKAGED VARIABLE SPEED DRIVE WITH HEATED AND VENTILATED OUTDOOR ENCLOSURE.
5. PROVIDE AND INSTALL WITH OUTSIDE AIR WEATHER HOOD WITH BIRD SCREEN AND SPRING RETURN MOTORIZED CONTROL DAMPER.
6. PROVIDE AND INSTALL WITH 24" TALL INSULATED METAL ROOF CURB.

RADIANT PANEL SCHEDULE												
TAG	MFR.	MODEL	WIDTH (IN)	LENGTH (FT)	MEAN WATER TEMP (DEG F)	CAPACITY (BTU/H-FT)	FLOW (GPM)	WTD (DEG F)	WPD (FT)	INST TYPE	COLOR	REMARKS
RAD-1	VULCAN	PR3F-00	5	4	120	1145	1.00	20	10.0	WALL	WHITE	1, 2

REMARKS:
1. ALL CAPACITIES BASED ON ROOM AIR TEMPERATURE OF 68 DEG F.
2. PROVIDE AND INSTALL WITH ALL END CAPS/TRIM PIECES FOR COMPLETE INSTALLATION. REFER TO PLANS FOR ADDITIONAL INFORMATION.

CONDENSING UNIT SCHEDULE																
TAG	MFR.	MODEL	EQUIP. SERVED	REFRIG.	TOTAL CAP (MBH)	SENS CAP (MBH)	SUCTIO N TEMP (DEG F)	AMBIENT TEMP (DEG F)	EVAP CAP (MBH)	EVAP EDB/EWB (DEG F)	CAPACITY STAPS	MIN EER	ELEC (V/PH)	MCA	MOP	REMARKS
ACCU-1	TRANE	TTA240	AHU-1	R410A	255	225	50	95	15000	75 / 63	2	12.5	460/3	40	50	1, 2, 3, 4, 5, 6
ACCU-2	TRANE	TTA120	AHU-2	R410A	103	70	43	95	2700	80 / 67	2	12.7	460/3	25	25	1, 2, 3, 4, 5, 6
ACCU-3	TRANE	TTA240	AHU-3	R410A	197	197	50	95	13500	75 / 63	2	12.5	460/3	40	50	1, 2, 3, 4, 5, 6

REMARKS:
1. PROVIDE AND INSTALL WITH LOUVERED HALL GUARDS ON ALL SIDES.
2. PROVIDE AND INSTALL WITH TERMINAL STRIP FOR CONTROL BY TCC.
3. PROVIDE AND INSTALL WITH HINGED ACCESS PANELS.
4. PROVIDE AND INSTALL WITH PHASE LOSS PROTECTION.
5. PROVIDE AND INSTALL WITH SINGLE POINT ELECTRICAL POWER CONNECTION AND FACTORY WIRE ELECTRICAL DISCONNECT SWITCH.
6. PROVIDE AND INSTALL WITH VIBRATION ISOLATORS.

MINI-SPLIT HVAC INDOOR UNITS												
TAG	MFR.	MODEL	TYPE	COOLING CAP (MBH) AT 95 DEG F	HEATING CAP (MBH) AT 17 DEG F	CFM	REFRIG.	CONTROL TYPE	ELEC (V/PH)	MCA	REMARKS	
HVAC-1	MITSUBISHI	PKA-A19A7	WALL	18.0	13.9	425	R410A	WIRED WALL	208/1	1.0	1, 2, 3, 4, 5	

REMARKS:
1. E.C. SHALL PROVIDE AND INSTALL DISCONNECT SWITCH. COORDINATE LOCATION PRIOR TO ROUGH-IN.
2. PROVIDE WITH REMOTE WALL MOUNTED THERMOSTAT AND PACKAGED CONTROLS.
3. PROVIDE WITH GSB INTEGRAL CONDENSATE PUMP.
4. PROVIDE AND INSTALL WITH WHITE PVC LINE HIDE CONDUIT SYSTEM TO CONCEAL ALL PIPING/WIRING IN EXPOSED LOCATIONS.
5. REFRIGERANT LINE SETS AND CONDENSATE LINES SHALL BE INSULATED WITH 1/2" AEROCEL EPDM OR ARMAFLEX UT SOLAR EPDM TO INCLUDE CONDENSATE TUBING.

THIS MONOCHROME PRINT SHOULD DISPLAY GRAPHICAL LINES BELOW IF PRINTED PROPERLY WITH 256 SHADES OF GRAY

LANCER ASSOCIATES ARCHITECTURE
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REVISIONS:
1 18/5/2024 JAD/DEH/IND/INF

100% CONSTRUCTION DOCUMENTS
PROJECT: #23138
DATE: 07/24/2024
DRAWN BY: ASL
MECHANICAL SCHEDULES
M501
PRIMARY JOB # 24588

UNIT VENTILATOR SCHEDULE

TAG	MFR	MODEL	STYLE	CEILING ELEV. A.F.F.	REAR PLENUM DEPTH (IN)	HW/CHW CONNECTION	DOOR SWING	AIRFLOW (CFM)	MIN O.A. (CFM)	FAN (HP)	ESP. (IN. W.C.)	COOLING					PRE-HEAT COIL					REMARKS											
												TOTAL CAP. (MBH)	SENS. CAP. (MBH)	EDB/EBW (DEG F)	LAT (DEG F)	EWTL/WT (DEG F)	FLOW (GPM)	WPD (FT)	ROWS	CONTROL VALVE	TOTAL CAP. (MBH)		EAT (DEG F)	LAT (DEG F)	EWTL/WT (DEG F)	FLOW (GPM)	WPD (FT)	ROWS	CONTROL VALVE	ELEC MCA	ELEC MOP	FILTER TYPE	
UV-1	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-2	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-3	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-4	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-5	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-6	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-7	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-8	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-9	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-10	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-11	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-12	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-13	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-14	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-15	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-16	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-17	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-18	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-19	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-20	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-21	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-22	CHANGEAIR	HCW 36 1000 B	FREE BLOW	9'-0"	10"	TOP	LEFT	1200	500	1/2	-	62.7	40.7	83/69	53/53	45/55	12.0	6.8	5	3-WAY	76.9	40.0	98.9	180/160	8.0	4.2	1	2-WAY	2771	4.23	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13
UV-23	CHANGEAIR	HCW 60 1800 C	FREE BLOW	11'-6"	10"	TOP	LEFT	1800	400	3/4	-	66.5	46.3	80/67	54/54	45/55	12.0	6.8	5	2-WAY	76.9	40.0	99.5	180/160	9.0	5.2	1	2-WAY	2771	6.08	15	2" MERV 8	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14

- REMARKS:
1. PROVIDE AND INSTALL WITH FACTORY WIRED ELECTRICAL DISCONNECT AT UNIT WIRING CONTROL BOX.
2. SUPPLY FAN SHALL BE ECM WITH 4-00 VVA INPUT FROM BMS FOR SPEED CONTROL BY TCC.
3. ALL ACCESS DOORS SHALL BE HINGED WITH INTEGRAL DOOR POWER KILL SWITCH.
4. PROVIDE AND INSTALL WITH FACTORY MOUNTED CONTROLS FURNISHED BY TCC. COORDINATE WITH TCC.
5. PROVIDE AND INSTALL WITH TOP SHROUD TO 2" ABOVE CEILING. CEILING ELEVATIONS SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY EXACT DIMENSIONS.
6. PROVIDE AND INSTALL WITH FULLY INSULATED REAR PLENUM. ALL REAR PLENUMS SHALL HAVE INSULATED BACKS.
7. COLOR SELECTION BY ARCHITECT.
8. REFER TO DRAWING DETAILS FOR MORE INFORMATION.
9. CONTROL VALVES SHALL BE FURNISHED BY TCC AND FIELD-INSTALLED BY MC.
10. PROVIDE AND INSTALL WITH DRAW-THROUGH FAN AND INTEGRAL FACE AND BYPASS DAMPERS.
11. PROVIDE AND INSTALL WITH TOP DISCHARGE PLENUM WITH (3) SUPPLY GRILLES.
12. PROVIDE AND INSTALL WITH TOP DISCHARGE PLENUM WITH (2) SUPPLY GRILLES.
13. ALTERNATE BID ITEM: REVISE MODEL NUMBER TO BE HCW 60 1800 C AND ADD 1-ROW HOT WATER REHEAT COIL RATED FOR 600 CFM, 55/75 DEG F EAT/LAT, 180/160 DEG F EWTL/WT WITH 2-WAY CONTROL VALVE AND COIL KIT PER PIPING DETAIL ON DRAWING SHEET M402.
14. ALTERNATE BID ITEM: ADD 1-ROW HOT WATER REHEAT COIL RATED FOR 800 CFM, 55/75 DEG F EAT/LAT, 180/160 DEG F EWTL/WT WITH 2-WAY CONTROL VALVE AND COIL KIT PER PIPING DETAIL ON DRAWING SHEET M402.
- NOTES:
1. ALL TRIM PIECES AND ACCESSORIES SHALL HAVE FACTORY FINISH MATCHING TO UNIT VENTILATOR FINISH, INCLUDING EXACT PAINT COLOR, SHEEN, AND TEXTURE.

ROOFTOP UNIT SCHEDULE

TAG	MFR	MODEL	SERVICE	AIRFLOW (CFM)	ESP (IN W.C.)	MIN O.A. (CFM)	MOTOR (HP)	MOTOR (BHP)	DRIVE	RPM	HEATING		COOLING		EER	ELEC (V/PH)	MCA	MOCP	FILTER TYPE	EXISTING CURB LOW (IN)	BASE OP. CURB HIGH (IN)	REMARKS				
											INPUT (MBH)	OUTPUT (MBH)	EAT/LAT (DEG F)	STAGES									TOTAL (MBH)	SENS. (MBH)	EDB/EBW (DEG F)	LDB/LWB (DEG F)
RTU-1	TRANE	TJ4540	CATERINA	7900	1.00	2370	(2) 3.0	3.8	DIRECT	1435	-	-	-	248	186	80/67	80/58	4	10.0	460/3	54	70	2" MERV 8	122"86"	2023	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
RTU-2	TRANE	TJ4580	LOCKER ROOM	2475	1.00	745	3.0	0.92	DIRECT	1100	-	-	-	91.4	65.9	80/67	57/55	3	12.3	460/3	21	25	2" MERV 8	86"52"	1089	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
RTU-3	TRANE	TJ4J80	KITCHEN	2550	1.00	1575	(2) 3.0	2.0	DIRECT	1160	-	-	-	185	136	80/67	58/56	4	11.0	460/3	41	50	2" MERV 8	107"71"	2054	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

- REMARKS:
1. PROVIDE AND INSTALL WITH MOTORIZED OUTSIDE AIR DAMPER AND BAROMETRIC RELIEF WITH PACKAGED DAMPER CONTROLS.
2. PROVIDE AND INSTALL WITH PHASE LOSS PROTECTION.
3. PROVIDE AND INSTALL WITH SINGLE POINT ELECTRICAL POWER CONNECTION.
4. PROVIDE AND INSTALL WITH OUTSIDE INTAKE HOOD WITH INLET SCREEN.
5. PROVIDE AND INSTALL WITH FACTORY INSTALLED ELECTRICAL DISCONNECT SWITCH.
6. PROVIDE AND INSTALL WITH HINGED ACCESS DOORS.
7. PROVIDE AND INSTALL WITH LIVERIED HALL GUARDS ON ALL CONDENSER COILS. SHIP WITH COIL PROTECTION PANELS TO PREVENT DAMAGE DURING SHIPPING, RIGGING, INSTALLATION.
8. PROVIDE AND INSTALL WITH MODULATING HOT GAS REHEAT WITH PACKAGED DEHUMIDIFICATION CONTROLS.
9. PROVIDE AND INSTALL WITH INSULATED METAL CURB ADAPTER. EXISTING CURB DIMENSIONS SHOWN FOR REFERENCE ONLY. FIELD VERIFY EXISTING DIMENSIONS.
10. PROVIDE WITH TERMINAL STRIP FOR CONTROL BY TCC.
11. PROVIDE WITH BACNET CONTROLLER FOR INTEGRATION OF DATA INTO BMS.
12. PROVIDE AND INSTALL WITH FACTORY MOUNTED CONVENIENCE RECEPTACLE FOR FIELD WIRING BY EC.
13. PROVIDE AND INSTALL WITH INSULATED STAINLESS STEEL DRAIN PAN.

GAS WATER HEATER SCHEDULE

TAG	MFR	MODEL	TANK MODEL	TANK VOL (GAL)	TANK DIM (DIA x HT)	EFF (%)	GAS INPUT (MBH)	RECOVERY (BHP)	BURNER TURNDOWN	NAT GAS PRES. (IN W.C.)	GAS CONN (IN)	WATER CONN (IN)	FLUE CONN (IN)	FLUE MATERIAL	WT. (LB)	ELEC (V/PH)	ELEC (MCA)	PUMP FLOW (GPM)	PUMP MOTOR (HP)	PUMP ELEC (V/PH)	PUMP ELEC (MCA)	REMARKS
GW-1																						

