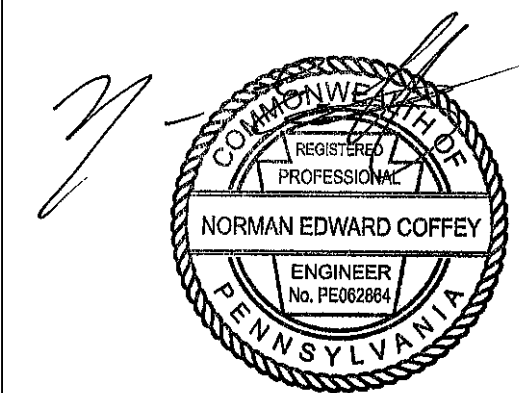




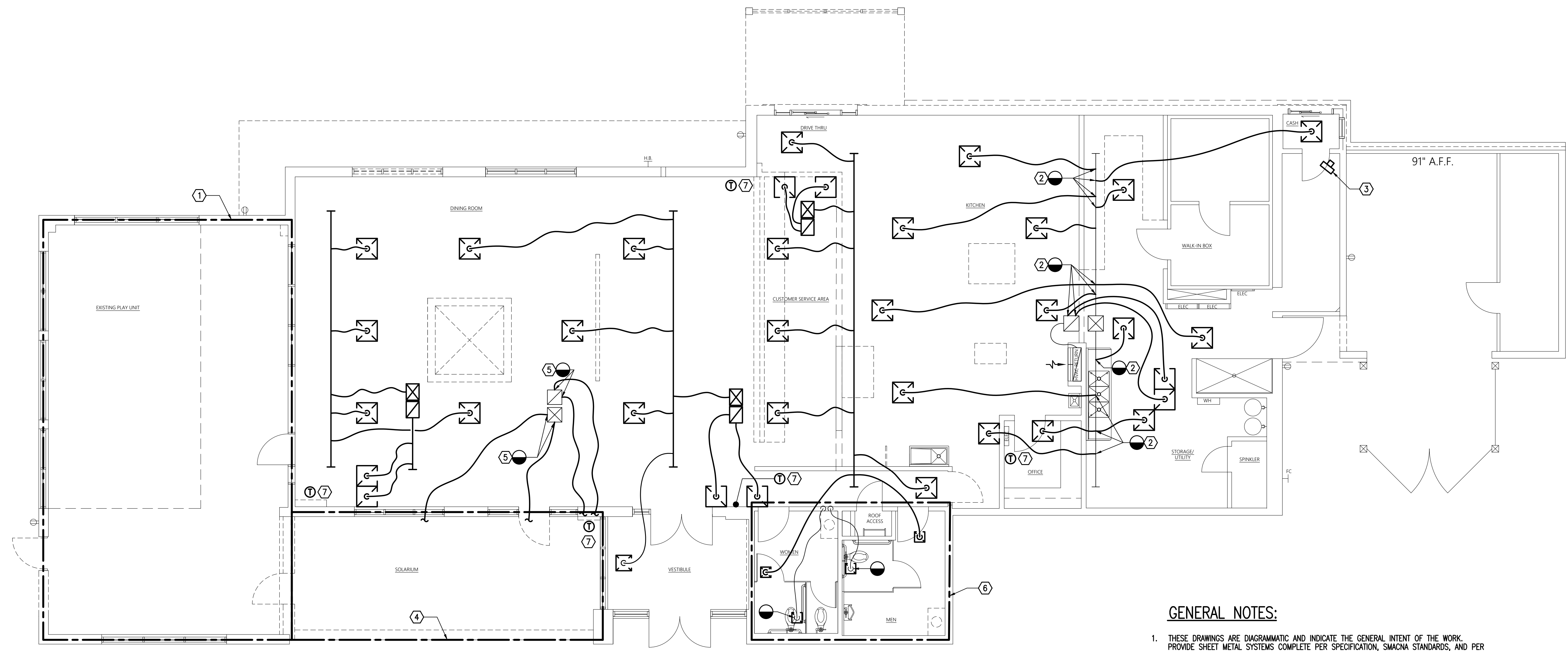
BURGER KING
RESTAURANT #3534
ALTERNATIONS TO EXISTING RESTAURANT
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MECHANICAL
DEMOLITION
FLOOR PLAN
M1.1



MECHANICAL DEMOLITION FLOOR PLAN
SCALE: 3/16" = 1'-0"

GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL INTENT OF THE WORK. PROVIDE SHEET METAL SYSTEMS COMPLETE PER SPECIFICATION, SMACNA STANDARDS, AND PER APPLICABLE CODES INCLUDING ALL NECESSARY OFFSETS, FITTINGS, AND SPECIAL RADIUS OR MITERED ELBOWS WHICH ARE REQUIRED DUE TO SPACE CONSTRAINTS OR OTHER CONDITIONS.
- CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY SUPPLY DIFFUSERS AND RETURN AIR REGISTERS WHERE INDICATED ON THE DRAWING. COORDINATE LOCATION OF DIFFUSERS AND REGISTERS WITH ARCHITECTURAL DRAWINGS. CENTER CEILING DIFFUSERS AND REGISTERS ON LIGHT FIXTURE PATTERN UNLESS OTHERWISE NOTED. COORDINATE APPROPRIATE BORDER SELECTION WITH CEILING TYPE AND ARCHITECTURAL PLANS. COORDINATE FINISH AND FINAL COLOR WITH ARCHITECTURAL PLANS.
- DUCT BRANCH TAKEOFF DETAILS WITH VOLUME DAMPER SHOWN ON DETAIL DRAWING APPLY TO ALL LOW VELOCITY DUCTS. SUPPLY DUCTS IN CONSTANT VOLUME SYSTEMS, RETURN AND EXHAUST DUCTS AND OPEN END RETURN DUCTS. PROVIDE VOLUME DAMPER AT EACH TAP TO MAIN DUCT.
- WHERE INTERNAL DUCT INSULATION OR ACOUSTICAL LINING IS SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE DUCT SIZES SHALL BE INCREASED TO ACCOMMODATE THE THICKNESS OF INTERNAL INSULATION AND PROTECTION SHEET AS SPECIFIED. DUCT DIMENSIONS ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS.
- COORDINATE EXACT LOCATIONS OF THERMOSTATS, TEMPERATURE SENSORS AND FAN SWITCHES, WITH ARCHITECTURAL DRAWINGS.
- PROVIDE FIRE DAMPER OR FIRE SMOKE DAMPER WHERE DUCT PENETRATES RATED WALLS, PARTITIONS OR SLABS AS SHOWN ON PLANS AND ON THE DETAIL SHEETS. MECHANICAL CONTRACTOR TO REVIEW ARCHITECTURAL DRAWINGS AND VERIFY ALL RATED PARTITIONS.
- THIS CONTRACTOR SHALL INSTALL DUCT SMOKE DETECTORS AND COORDINATE THE LOCATIONS WITH ELECTRICAL CONTRACTOR.
- CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND CONDITIONS OF THE SITE AND/OR BUILDING.
- ADEQUATELY BRACE AND PROTECT ALL WORK DURING CONSTRUCTION AGAINST DAMAGE. BREAKAGE, COLLAPSE, DISTORTIONS, AND ALL ALIGNMENTS ACCORDING TO CODES AND STANDARDS OF GOOD PRACTICE.
- CONTRACTOR SHALL COORDINATE THE WORK SHOWN ON THESE DRAWINGS WITH ALL OTHER TRADES (E.G., SPRINKLER, ELECTRICAL, TELECOMM, ETC.) FOR WORK IN FINISHED CEILINGS.
- MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 10'-0" AT DROPS TO DIFFUSERS.
- WHERE LOW PRESSURE DUCTWORK SIZES ARE NOT INDICATED, USE THE FOLLOWING SCHEDULE:

CFM	DUCT SIZE
0-220	12x10
221-400	16x10
401-700	30x10
701-1100	30x14
1101-1400	34x14

SIZES INDICATE CLEAR INSIDE DIMENSION.

- ALL OTHER MEDIUM PRESSURE BRANCH TAKE-OFFS SHALL BE SIZED AT A FRICTION LOSS OF 0.15"/100 FEET. PROVIDE A CONICAL CONNECTION FOR CIRCULAR TAKE-OFFS. PROVIDE A 45° SHOE-TAP CONNECTION FOR RECTANGULAR TAKE-OFFS.

M1.1 DEMOLITION NOTES:

- ALL MECHANICAL EQUIPMENT, DUCTWORK AND ASSOCIATED AIR DEVICES SHALL REMAIN IN AREA SHOWN. NO DEMOLITION WORK IS REQUIRED.
- REMOVE ALL DUCTWORK AND ASSOCIATED AIR DEVICES IN THEIR ENTIRETY BACK TO POINT INDICATED.
- REMOVE EXISTING ELECTRIC UNIT HEATER AT LOCATION SHOWN. COORDINATE POWER CONNECTION REMOVAL WITH ELECTRICAL DEMOLITION PLANS.
- REMOVE ALL DUCTWORK, DIFFUSERS, GRILLES AND TEMPERATURE SENSING DEVICES FROM AREA SHOWN IN THEIR ENTIRETY.
- EXISTING FLEXIBLE DUCTWORK SHALL BE REMOVED BACK TO DUCT DROPS AT POINT INDICATED. RETAIN EXISTING DUCTWORK DROPS FROM UNIT FOR CONNECTION TO NEW DUCTWORK.
- REMOVE ALL EXISTING DIFFUSERS AND GRILLES FROM RESTROOM CEILINGS. DUCTWORK AND ASSOCIATED EXHAUST FAN(S) SERVING THE RESTROOMS SHALL REMAIN. CONTRACTOR SHALL INSPECT EXHAUST FAN(S) FOR PROPER OPERATION AND REPLACE IN-KIND IF NECESSARY.
- REMOVE EXISTING THERMOSTAT/TEMPERATURE SENSING EQUIPMENT AT APPROXIMATE LOCATION.

M1.1 GENERAL DEMOLITION NOTES:

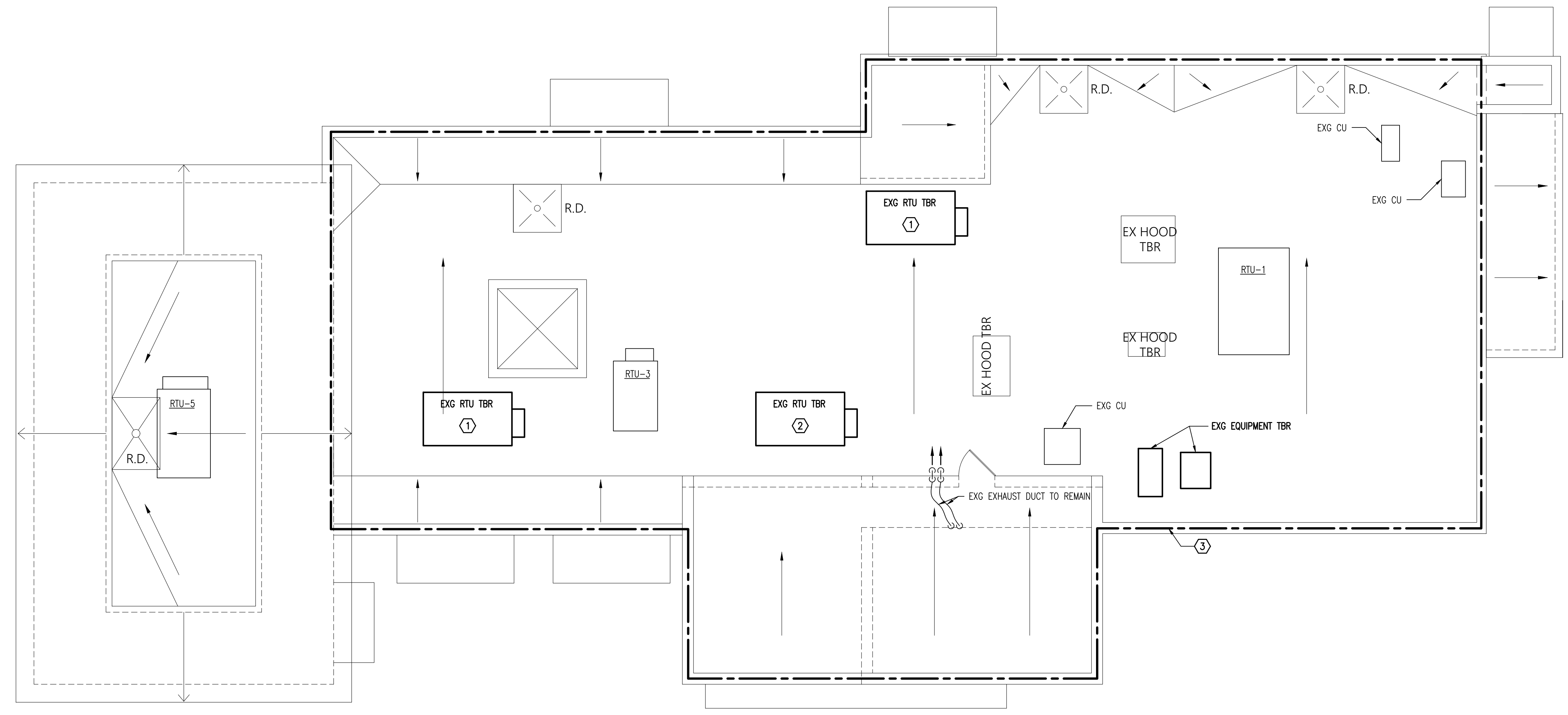
- REMOVE ALL THERMOSTAT/TEMPERATURE SENSING DEVICES SERVING EXISTING ROOFTOP UNITS. NEW UNITS WILL GET NEW CONTROLS.

LEGEND AND ABBREVIATIONS

	WORK BY THIS CONTRACTOR	BHP	BRAKE HORSEPOWER
	EXISTING WORK OR WORK DONE BY OTHERS	CFM	CUBIC FEET PER MINUTE
	PIPE, VENT OR COMBUSTION AIR SUPPLY TURNING UP	CU	CONDENSING UNIT
	FLEXIBLE DUCT TURNING DOWN	D	DIFFUSER
	THERMOSTAT	DN	DOWN
	SPACE TEMPERATURE SENSOR	EAT	ENTERING AIR TEMPERATURE
	DEMOLITION NOTE	EER	ENERGY EFFICIENCY RATIO
	DUCT SMOKE DETECTOR	EF	EXHAUST FAN
	SUPPLY DUCTWORK	EFF	EFFICIENCY
	EXHAUST OR RETURN DUCTWORK	EXG	EXISTING
	BALANCING DAMPER (BD)	FLA	FULL LOAD AMPS
	DIFFUSER	G	GRILLE
	GRILLE OR REGISTER	HP	HORSEPOWER
	ROUND DUCTWORK TURNING UP	MAX	MAXIMUM
	TRANSITION - RECTANGULAR TO RECTANGULAR	MBH	THOUSAND BRITISH THERMAL UNITS
	FLEXIBLE DUCTWORK	MC	MECHANICAL CONTRACTOR
		MIN	MINIMUM
		PL	PLACES
		R	REGISTER
		RA	RETURN AIR
		RLA	RATED LOAD AMPS
		RPM	REVOLUTIONS PER MINUTE
		RTU	ROOFTOP AIR CONDITIONING UNIT
		RV	RELIEF VENT
		SD	SLOT DIFFUSER
		SP	STATIC PRESSURE
		TRAN	TRANSITION
		TYP	TYPICAL
		W	WATTS
		WG	WATER GAUGE
		W/	WITH



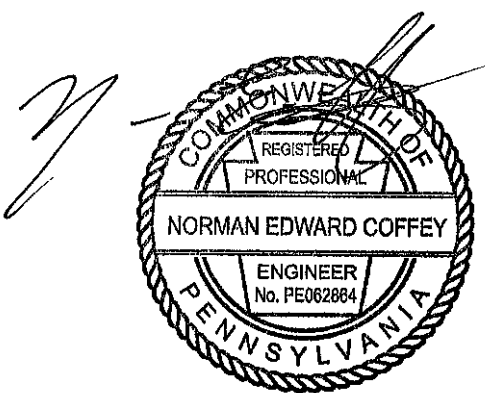
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MECHANICAL DEMOLITION ROOF PLAN
SCALE: 3/16" = 1'-0"

M1.2 DEMOLITION NOTES:

- ① EXISTING ROOFTOP UNIT AND ASSOCIATED DUCTWORK DROPS SHALL BE REMOVED. RETAIN ROOF CURB FOR INSTALLATION OF REPLACEMENT UNIT.
- ② REMOVE EXISTING ROOFTOP UNIT, DUCTWORK DROPS, AND ROOF CURB IN THEIR ENTIRETY.
- ③ REMOVE ALL EXISTING ROOFTOP EXHAUST FANS AND THEIR ASSOCIATED DUCTWORK IN THEIR ENTIRETY. ROOFTOP CONDENSING UNITS FOR EXISTING WALK-IN COOLER, WALK-IN FREEZER AND ICE MACHINE SHALL REMAIN. CONDENSING UNIT(S) FOR SODA MACHINES SHALL BE REMOVED. CONSULT OWNER TO IDENTIFY AFOREMENTIONED CONDENSING UNITS PRIOR TO REMOVING ANY CONDENSING EQUIPMENT.



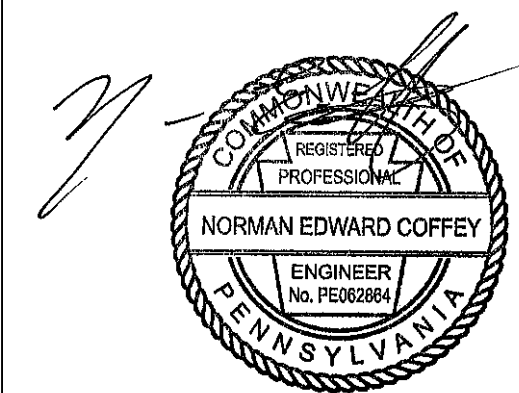
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**MECHANICAL
DEMOLITION
ROOF PLAN
M1.2**



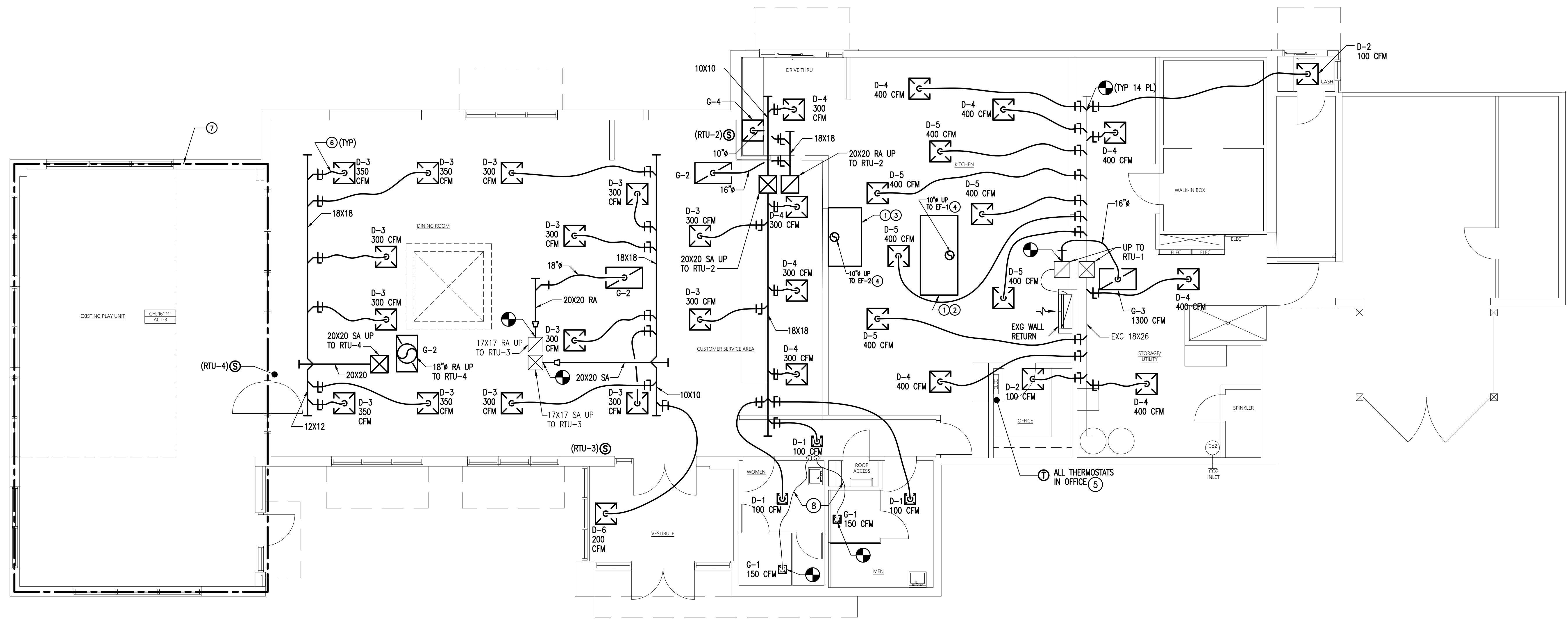
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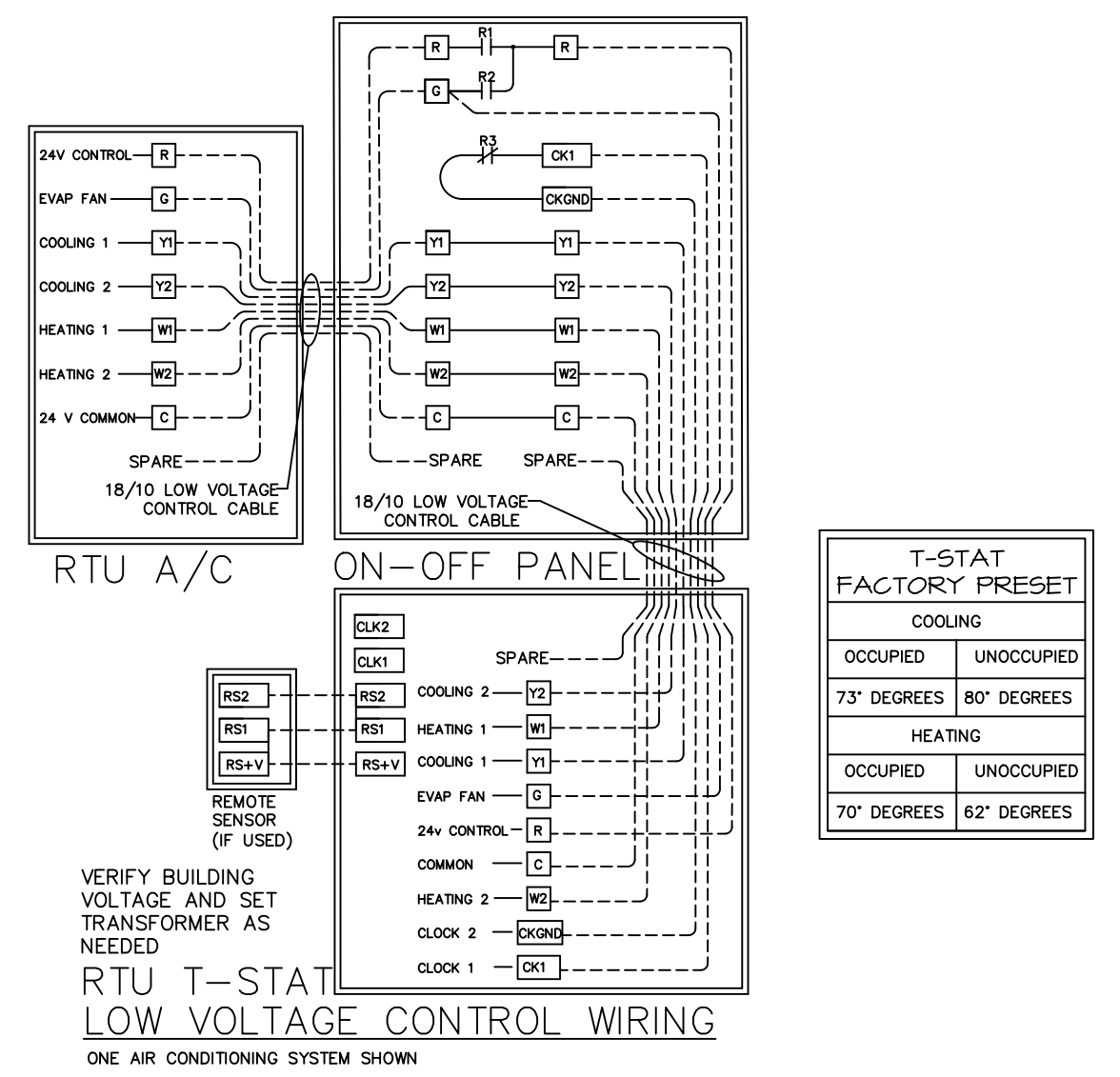
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MECHANICAL
NEW WORK
FLOOR PLAN
M2.1



MECHANICAL NEW WORK FLOOR PLAN
SCALE: 3/16" = 1'-0"

ATTENTION GENERAL CONTRACTOR:
"RE-ENGINEERING" DEVIATIONS FROM THE SHOWN DESIGN AND REQUIRED HVAC EQUIPMENT MUST BE APPROVED IN ADVANCE BY THE ARCHITECT AND PROFESSIONAL ENGINEER. UNAUTHORIZED SUBSTITUTIONS OR ALTERATIONS WILL VOID THE SIGNATURE AND SEAL OF THE PROFESSIONAL ENGINEER AND LEAVE VIOLATORS RESPONSIBLE FOR RESUBMISSION OF SIGNED AND SEALED DRAWINGS.



PRESSURIZATION TABLE

Unit	Area	Supply	OA	Return	*Exhaust	Pressure	*Relieved by Efs	*Relieved at Unit
RTU-1	KITCHEN/STORAGE	5000	1250	3750	1900	-650	X	
RTU-2	CUSTOMER SERVICE AREA / BR	2000	400	1600	300	100	X	X
RTU-3	FRONT DINING ROOM	2000	400	1600		400		
RTU-4	REAR DINING ROOM	2000	400	1600		400		X
		11000	2450	8550	2200	250		
	SA		OA	RA	EA	Pressure		

M2.1 NEW WORK NOTES:

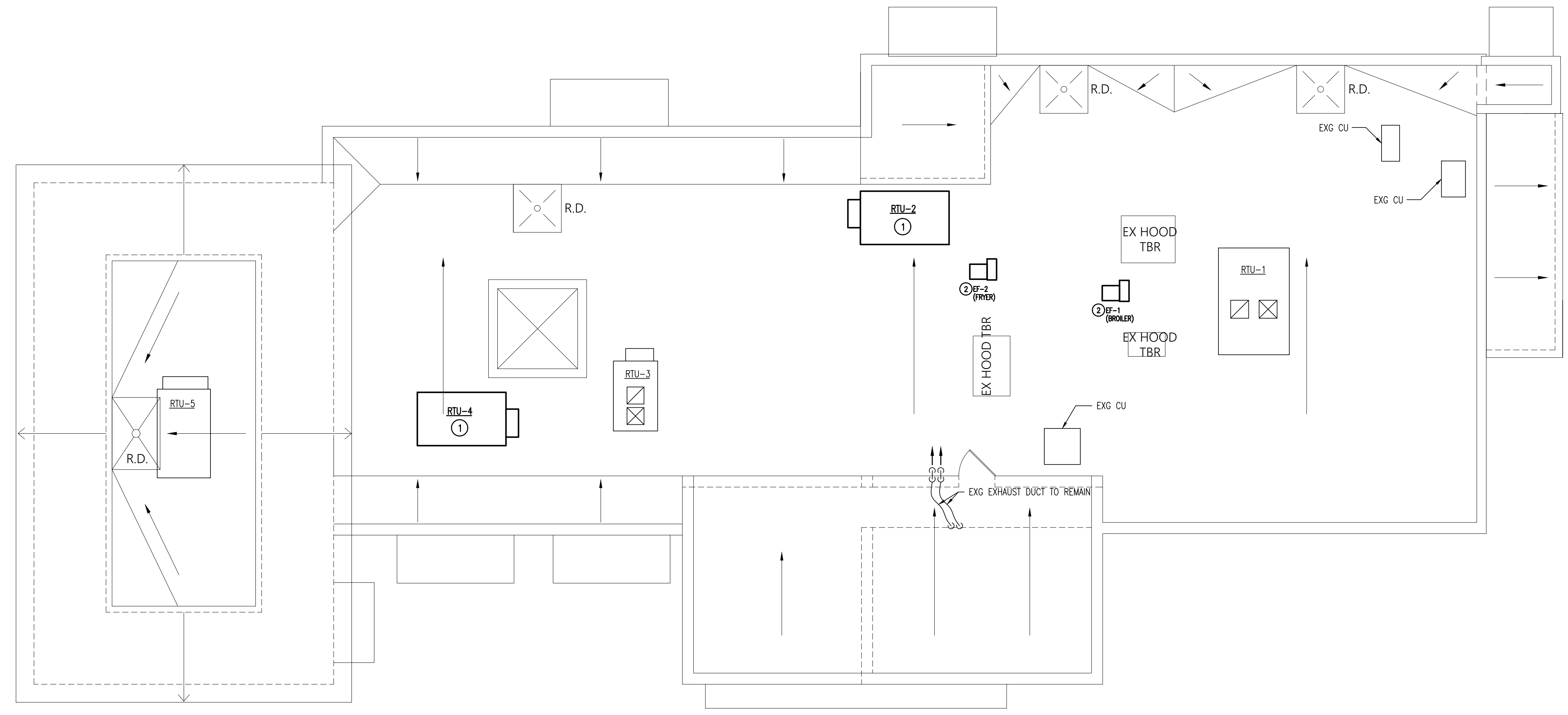
- HOOD/FAN IS INTENDED TO OPERATE AT A CONSTANT AIRFLOW AS SCHEDULED WHENEVER THE BUILDING IS OCCUPIED TO MAINTAIN PROPER PRESSURIZATION.
- BROILER HOOD PROVIDED BY H&K INTERNATIONAL. SEE KITCHEN HOOD STANDARD DETAILS.
- FRYER HOOD PROVIDED BY H&K INTERNATIONAL. SEE KITCHEN HOOD STANDARD DETAILS.
- ANY GREASE DUCT PENETRATING A CEILING, WALL OR FLOOR SHALL BE ENCLOSED FROM THE POINT OF PENETRATION TO THE OUTLET TERMINAL IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE.
- INSTALL REMOTE TEMPERATURE SENSORS FOR RTUS AT LOCATIONS SHOWN AND INSTALL RESPECTIVE THERMOSTATS IN OFFICE.
- SEE DIFFUSER SCHEDULE NECK SIZES FOR CORRESPONDING FLEXIBLE DUCT DIAMETER SIZING.
- THERE WILL BE NO MODIFICATIONS OR ALTERATIONS TO THE EXISTING HVAC SYSTEM SERVING THE PLAYGROUND AREA SHOWN.
- EXISTING DUCTWORK AND EXHAUST SYSTEM SHALL REMAIN. CONTRACTOR SHALL INSPECT EXISTING EXHAUST FAN(S) TO VERIFY CORRECT OPERATION AND QUALITY. REPLACE FAN(S) IN KIND IF NECESSARY.

M2.1 GENERAL NOTES:

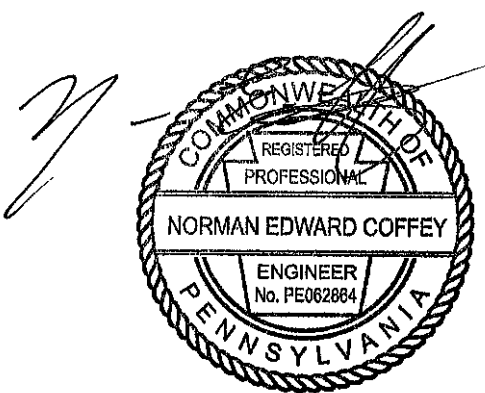
- THE HVAC SYSTEMS ARE TO BE BALANCED BY AN INDEPENDENT CERTIFIED BALANCING COMPANY.



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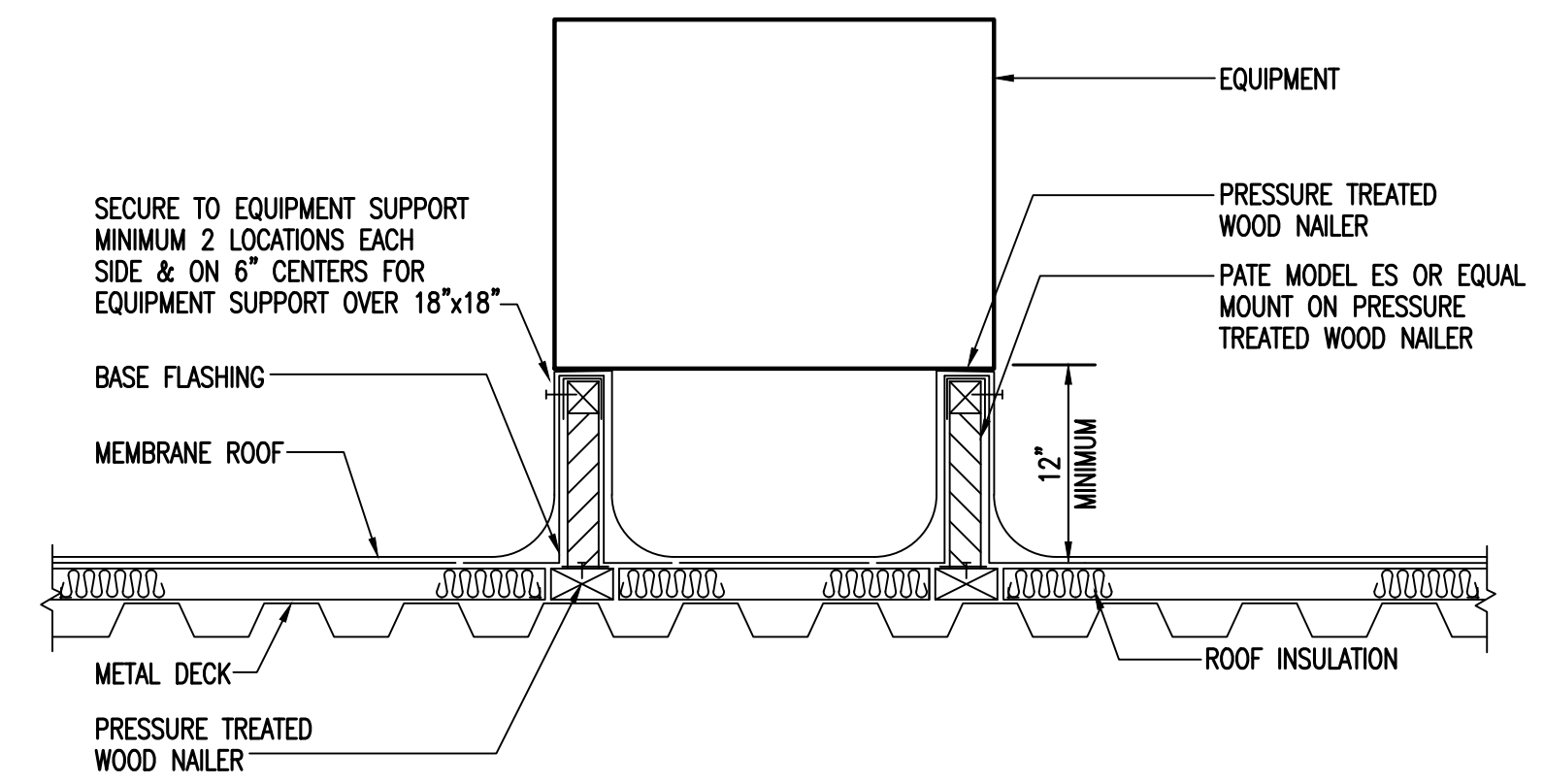
MECHANICAL NEW WORK ROOF PLAN
SCALE: 3/16" = 1'-0"



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MECHANICAL NEW WORK ROOF PLAN M2.2



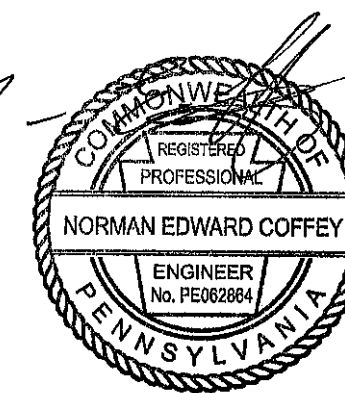
TYPICAL ROOF MOUNTED EQUIPMENT SUPPORT DETAIL
NO SCALE

M2.2 NEW WORK NOTES:

- 1 INSTALL NEW PACKAGED ROOFTOP UNIT ON FULL PERIMETER ROOF CURB. COORDINATE FINAL LOCATION OF UNIT ON SITE WITH STRUCTURE AND SURROUNDING EQUIPMENT PRIOR TO SETTING CURB. MAINTAIN CODE-REQUIRED CLEARANCES BETWEEN ALL FRESH AIR INLETS AND SOURCES OF EXHAUST AND VERIFY EDGE OF ROOF CLEARANCES AND PARAPET HEIGHT REQUIREMENTS ARE CODE COMPLIANT. PROVIDE SAFETY GUARDS IF REQUIRED.
- 2 INSTALL NEW EXHAUST FAN ON NEW ROOF CURB. COORDINATE FINAL LOCATION OF EXHAUST FAN IN THE FIELD PRIOR TO SETTING CURB. EXHAUST FAN OUTLETS SERVING GREASE DUCTS SHALL TERMINATE NOT LESS THAN 40 INCHES ABOVE THE ROOF. EXHAUST FAN SHALL BE INSTALLED A MINIMUM OF 10'-0" CLEAR TO ALL FRESH AIR INTAKES. PROVIDE FAN-MOUNTED ELECTRICAL DISCONNECT SWITCH.



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MECHANICAL SPECIFICATIONS AND SCHEDULES M3.1

HEATING, VENTILATING AND AIR CONDITIONING SPECIFICATIONS

- THE ARCHITECTURAL GENERAL CONDITIONS SHALL APPLY TO AND FORM A PART OF THIS SECTION OF THESE SPECIFICATIONS.
- PROVIDE ALL MATERIALS, LABOR, EQUIPMENT AND TOOLS NECESSARY FOR COMPLETE AND WORKABLE SYSTEMS AS INDICATED ON THE DRAWINGS. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NATIONAL ELECTRICAL CODE, OSHA, 2015 INTERNATIONAL MECHANICAL CODE, AND ALL OTHER LOCAL OR STATE AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR SHALL VISIT THE SITE, EXAMINE ALL CONDITIONS AND MAKE ALLOWANCES FOR DIFFICULTIES AND CONTINGENCIES AFFECTING THE PROPER EXECUTION OF THIS CONTRACT PRIOR TO SUBMITTING A PROPOSAL.
- THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES NECESSARY FOR PERMITS AND INSPECTIONS REQUIRED WITH HIS WORK.
- THE CONTRACTOR SHALL VERIFY ALL UTILITY SERVICE INFORMATION SHOWN ON THE DRAWINGS WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING A BID. ANY CHANGES OR SERVICE CHARGES IMPOSED BY THE UTILITY COMPANY SHALL BE QUALIFIED AND INCLUDED IN THE BID.
- ALL EQUIPMENT SHALL BE TESTED, LISTED AND LABELED BY AN APPROVED AUTHORITY (UL, AIA, ETL) AND SHALL BE INSTALLED IN ACCORDANCE WITH ITS LISTING.
- ALL EQUIPMENT, MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A MINIMUM OF ONE YEAR (FIVE YEARS FOR ALL COMPRESSORS) FROM THE DATE OF ACCEPTANCE BY THE OWNER.
- WHERE PRODUCTS ARE SPECIFIED BY BRAND NAME, CATALOG NUMBERS OR BY NAMES OF MANUFACTURERS, THE REFERENCE IS INTENDED TO BE DESCRIPTIVE AND NOT RESTRICTIVE AND IS SOLELY FOR THE PURPOSE OF INDICATING THE TYPE OF QUALITY OF ITEM THAT WILL BE ACCEPTABLE. AN APPROVED EQUAL WILL BE CONSIDERED UNLESS INDICATED OTHERWISE.
- SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED PRIOR TO ORDERING ANY EQUIPMENT.
- THE CONTRACTOR RESPONSIBLE FOR WORK COVERED BY THESE SPECIFICATIONS SHALL COORDINATE AND COOPERATE WITH ALL OTHER TRADES.
- ALL CUTTING AND PATCHING OF EVERY NATURE REQUIRED IN CONNECTION WITH THIS CONTRACT SHALL BE DONE BY THIS CONTRACTOR WITH MECHANICS EXPERIENCED IN THEIR RESPECTIVE TRADES. ALL PATCHING SHALL MATCH ADJACENT FINISHES.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY HANGERS, INSERTS, SUPPORTS SUPPLEMENTARY STEEL, ETC., TO PROPERLY SUPPORT ALL EQUIPMENT, DUCTWORK AND PIPING IN AN APPROVED MANNER AND IN FULL ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- VIBRATION ISOLATORS FOR THE HVAC EQUIPMENT SHALL BE INSTALLED TO PROPERLY ISOLATE THE TRANSMISSION OF VIBRATION OR NOISE TO ANY PART OF THE BUILDING.
- DUCTWORK
 - DUCTWORK SHALL BE GALVANIZED STEEL DESIGNED FOR TWO-INCH PRESSURES FOR SUPPLY, RETURN AND EXHAUST SYSTEMS IN ACCORDANCE WITH SMANNA. ALL ELBOWS SHALL BE PROVIDED WITH SINGLE THICKNESS TURNING VANES. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 2-INCH FIBERGLASS DUCT WRAP AS MANUFACTURED BY OWENS

- SCHEDULED.
- CEILING RETURN AIR GRILLES SHALL BE COMPLETE WITH WHITE ENAMEL FINISH OR APPROVED EQUAL. GRILLES SHALL BE AS MANUFACTURED BY KRUEGER WITH SIZES AND MODEL NUMBERS AS SCHEDULED.
 - CEILING SUPPLY AIR GRILLES SHALL BE COMPLETE WITH DOUBLE DEFLECTION ADJUSTABLE FACE BARS AND WHITE ENAMEL FINISH OR APPROVED EQUAL. GRILLES SHALL BE AS MANUFACTURED BY KRUEGER WITH SIZES AND MODEL NUMBERS AS SCHEDULED.
- 1.18 CONTROLS
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY CONTROL COMPONENTS INCLUDING, BUT NOT LIMITED TO, RELAYS, AUTOMATIC DAMPERS, DAMPER OPERATORS, THERMOSTATS, CONTROLLERS, ETC. AND WIRING AS REQUIRED TO PROVIDE AUTOMATIC TEMPERATURE CONTROL. ALL CONTROL COMPONENTS SHALL BE AS MANUFACTURED BY HONEYWELL. ALL WIRING SHALL BE DONE IN ACCORDANCE WITH THE LOCAL AND STATE CODES AND THE NATIONAL ELECTRIC CODE.
 - TOILET EXHAUST FAN (EF-3) SHALL BE CONTROLLED BY SEVEN-DAY PROGRAMMABLE DIGITAL TIME CLOCK. FAN SHALL OPERATE WHENEVER THE BUILDING IS TO BE OCCUPIED.
 - KITCHEN EXHAUST FANS SHALL BE CONTROLLED BY ASSOCIATED EXHAUST HOOD CONTROL PACKAGE PROVIDED BY HOOD VENDOR.
 - THERMOSTATS FOR PACKAGED ROOFTOP UNITS SHALL BE HONEYWELL VISION PRO 8000 MODEL TH320R1003 WITH REMOTE TEMPERATURE SENSORS AND SEVEN-DAY PROGRAMMING FOR NIGHT SETBACK. THERMOSTATS SHALL BE MOUNTED IN ACCORDANCE WITH ADA REQUIREMENTS IN THE OFFICE. REMOTE TEMPERATURE SENSORS SHALL BE MOUNTED ON THE WALL IN THE LOCATIONS INDICATED ON THE PLANS.
 - A SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN DUCTWORK CONNECTED TO ALL PACKAGED ROOFTOP UNITS. THE UNIT SUPPLY FAN SHALL BE DEACTIVATED IF PRODUCTS OF COMBUSTION ARE SENSED.
 - SEQUENCE OF OPERATION
 - TOILET ROOM EXHAUST FAN: SHALL OPERATE DURING OCCUPIED PERIODS AND SHALL BE SENSORIZED VIA THE LIGHTING CONTROL SYSTEM ON A TIME CLOCK. COORDINATE WITH ELECTRICAL CONTRACTOR.
 - EF-1, EF-2 (TYPE 1 COOKING EXHAUST FANS): FAN OPERATION SHALL BE INTERLOCKED WITH HOOD MANUFACTURER'S CONTROL PANEL TO AUTOMATICALLY START THE EXHAUST FAN WHEN THE RESPECTIVE HOOD IS PUT INTO OPERATION. ROOFTOP/MAKE-UP AIR UNIT RTU-1 SHALL ALSO START WHENEVER THE HOODS/FANS ARE ACTIVE.
 - ROOFTOP UNITS: NEW THERMOSTATS SHALL BE PROVIDED FOR EXISTING AND NEW UNITS. THERMOSTATS SHALL BE HONEYWELL MODEL T7350H COMMUNICATING THERMOSTAT WITH MODEL TR21 REMOTE TEMPERATURE SENSORS. REMOTE SENSORS SHALL BE BLANK COVER TYPE, WITHOUT TEMPERATURE READOUT OR ADJUSTMENT CAPABILITY OF ANY KIND. THERMOSTATS SHALL BE PROGRAMMABLE FOR OCCUPIED PERIODS (7-DAY), NIGHT SET-BACK TEMPERATURE CONTROL, AND HAVE SETPOINT/ACCESS LOCK-OUT CAPABILITY. CONTRACTOR SHALL CONFIRM EXACT THERMOSTAT MODEL AND REQUIREMENTS WITH OWNER PRIOR TO PURCHASE. THERMOSTATS SHALL BE MOUNTED IN ACCORDANCE WITH ADA REQUIREMENTS IN THE OFFICE. REMOTE TEMPERATURE SENSORS SHALL BE MOUNTED ON

- THE WALL IN THE LOCATIONS INDICATED ON THE PLANS.
- RTU-1: SERVING KITCHEN AND UTILITY AREAS: UNIT IS EXISTING, CONSTANT-VOLUME, WITH FIXED/MANUAL OA DAMPER, NO RELIEF, NO ECONOMIZER. AT THE START OF THE OCCUPIED PERIOD, OR WHEN INDEXED ON BY THE STARTING OF THE COOKING APPLIANCE EXHAUST HOODS/FANS, THE SUPPLY FAN SHALL START, AND THE UNIT, UNDER ITS INTEGRAL FACTORY CONTROLS, SHALL ENGAGE IN HEATING OR COOLING MODE (VA GAS-FIRED FURNACE, OR DIRECT-EXPANSION REFRIGERATION) TO MAINTAIN SPACE TEMPERATURE SETPOINT (75F COOLING, 70F HEATING, ADJUSTABLE). DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY. DURING UNOCCUPIED PERIODS, THE SUPPLY FAN SHALL CYCLE WITH A CALL FOR HEATING OR COOLING. UNOCCUPIED TEMPERATURE SETPOINTS SHALL BE 80F COOLING, AND 64F HEATING, ADJUSTABLE. RTU SYSTEM SHALL HAVE A DUCT-MOUNTED SMOKE DETECTOR ON THE RETURN SIDE. UPON DETECTION OF PRODUCTS OF COMBUSTION, THE DETECTOR SHALL SHUT-DOWN THE RTU UNIT, AND SEND AN ALARM TO THE BUILDING FIRE ALARM PANEL/SYSTEM. COORDINATE WITH FIRE ALARM CONTRACTOR.
 - RTU-2: SERVING CUSTOMER SERVICE AREA: UNIT IS NEW, WITH DIFFERENTIAL ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF. AT THE START OF THE OCCUPIED PERIOD, THE SUPPLY FAN SHALL START, THE OA DAMPER SHALL OPEN TO ITS MINIMUM POSITION (FROM CLOSED), AND THE UNIT, UNDER ITS INTEGRAL FACTORY CONTROLS, SHALL ENGAGE IN HEATING OR COOLING MODE (VA GAS-FIRED FURNACE, OR DIRECT-EXPANSION REFRIGERATION) TO MAINTAIN SPACE TEMPERATURE SETPOINT (75F COOLING, 70F HEATING, ADJUSTABLE). DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY, AND THE OA DAMPER SHALL REMAIN OPEN TO ITS MINIMUM POSITION. DURING UNOCCUPIED PERIODS, THE OA DAMPER SHALL REMAIN CLOSED, AND THE SUPPLY FAN SHALL CYCLE WITH A CALL FOR HEATING OR COOLING. UNOCCUPIED TEMPERATURE SETPOINTS SHALL BE 80F COOLING, AND 64F HEATING, ADJUSTABLE. WHEN OUTDOOR TEMPERATURE/HUMIDITY CONDITIONS PERMIT, THE UNIT'S FACTORY ECONOMIZER CONTROLS, VIA DIFFERENTIAL-ENTHALPY COMPARISON, SHALL ENGAGE IN FULL OR PARTIAL FREE COOLING MODE. RTU SYSTEM SHALL HAVE A DUCT-MOUNTED SMOKE DETECTOR ON THE RETURN SIDE. UPON DETECTION OF PRODUCTS OF COMBUSTION, THE DETECTOR SHALL SHUT-DOWN THE RTU UNIT, AND SEND AN ALARM TO THE BUILDING FIRE ALARM PANEL/SYSTEM. COORDINATE WITH FIRE ALARM CONTRACTOR.
 - RTU-3: SERVING DINING AREA: UNIT IS EXISTING, CONSTANT-VOLUME, WITH FIXED/MANUAL OA DAMPER, NO RELIEF, NO ECONOMIZER. AT THE START OF THE OCCUPIED PERIOD, THE SUPPLY FAN SHALL START, AND THE UNIT, UNDER ITS INTEGRAL FACTORY CONTROLS, SHALL ENGAGE IN HEATING OR COOLING MODE (VA GAS-FIRED FURNACE, OR DIRECT-EXPANSION REFRIGERATION) TO MAINTAIN SPACE TEMPERATURE SETPOINT (75F COOLING, 70F HEATING, ADJUSTABLE). DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY. DURING UNOCCUPIED PERIODS, THE SUPPLY FAN SHALL CYCLE WITH A CALL FOR HEATING OR COOLING. UNOCCUPIED TEMPERATURE SETPOINTS SHALL BE 80F COOLING, AND 64F HEATING, ADJUSTABLE. RTU SYSTEM SHALL HAVE A DUCT-MOUNTED SMOKE DETECTOR ON THE RETURN SIDE. UPON DETECTION OF PRODUCTS OF COMBUSTION, THE DETECTOR SHALL SHUT-DOWN THE RTU UNIT, AND SEND AN ALARM TO THE BUILDING FIRE ALARM PANEL/SYSTEM. COORDINATE WITH FIRE ALARM CONTRACTOR.
 - RTU-4: SERVING DINING AREA: UNIT IS NEW, WITH DIFFERENTIAL ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF. AT THE START OF THE OCCUPIED PERIOD, THE SUPPLY FAN SHALL START, THE OA DAMPER SHALL OPEN TO ITS MINIMUM POSITION (FROM CLOSED), AND THE UNIT, UNDER ITS INTEGRAL FACTORY CONTROLS, SHALL ENGAGE IN HEATING OR COOLING MODE (VA GAS-FIRED FURNACE, OR DIRECT-EXPANSION REFRIGERATION) TO MAINTAIN SPACE TEMPERATURE SETPOINT (75F COOLING, 70F HEATING, ADJUSTABLE). DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY, AND THE OA DAMPER SHALL REMAIN OPEN TO ITS MINIMUM POSITION. DURING UNOCCUPIED PERIODS, THE OA DAMPER SHALL REMAIN CLOSED, AND THE SUPPLY FAN SHALL CYCLE WITH A CALL FOR HEATING OR COOLING. UNOCCUPIED TEMPERATURE SETPOINTS SHALL BE 80F COOLING, AND 64F HEATING, ADJUSTABLE. WHEN OUTDOOR TEMPERATURE/HUMIDITY CONDITIONS PERMIT, THE UNIT'S FACTORY ECONOMIZER CONTROLS, VIA DIFFERENTIAL-ENTHALPY COMPARISON, SHALL ENGAGE IN FULL OR PARTIAL FREE COOLING MODE. RTU SYSTEM SHALL HAVE A DUCT-MOUNTED SMOKE DETECTOR ON THE RETURN SIDE. UPON DETECTION OF PRODUCTS OF COMBUSTION, THE DETECTOR SHALL SHUT-DOWN THE RTU UNIT, AND SEND AN ALARM TO THE BUILDING FIRE ALARM PANEL/SYSTEM. COORDINATE WITH FIRE ALARM CONTRACTOR.
- 1.19 THE EQUIPMENT AND MATERIALS SHALL BE COMPLETELY CLEANED PRIOR TO TESTING, INSULATING AND PLACING THE SYSTEM IN OPERATION.
- 1.20 THE REFRIGERATION SYSTEM SHALL BE TESTED AND PROVEN TIGHT PRIOR TO PLACING IN OPERATION. UNITS SHALL BE CHECKED FOR PROPER REFRIGERANT CHARGE AND OPERATION AND ADJUSTED AS PER THE MANUFACTURER'S RECOMMENDATIONS.
- 1.21 THE COMPLETE SUPPLY, RETURN AND EXHAUST AIR DUCT SYSTEMS, INCLUDING FANS, DAMPERS, OUTLETS AND APPURTENANCES SHALL BE PROPERLY BALANCED TO DELIVER AIR VOLUMES WITHIN +/- 10 PERCENT OF THE VALUES INDICATED. THE TOTAL SYSTEM LEAKAGE THROUGH DUCT JOINTS AND CONNECTIONS SHALL NOT EXCEED THREE PERCENT. TEMPERATURE, AMPERE AND RPM READINGS SHALL ALSO BE PROVIDED TO VERIFY SYSTEM PERFORMANCE. SUBMIT THREE COPIES OF THE BALANCING REPORTS AT COMPLETION OF THE BALANCING.
- 1.22 THE CONTRACTOR SHALL FURNISH THREE SETS OF INSTRUCTION MANUALS TO THE OWNER AT THE COMPLETION OF CONSTRUCTION.

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GRILLE SCHEDULE				
REF NO	MANUFACTURER/ MODEL NO	SIZE (L" X W")	FACE BARS	REMARKS
G-1	KRUEGER / S85	8 X 8	35"	
G-2	KRUEGER / S85	40 X 22	35"	
G-3	KRUEGER / S585	40 X 22	35"	ALUMINUM
G-4	KRUEGER / S585	20 X 20	35"	ALUMINUM

FAN SCHEDULE														
REF NO	MANUFACTURER/ MODEL NO	LOCATION	FAN SECTION							ELECTRICAL CHARACTERISTICS			REMARKS	
			FLOW (CFM)	SPEED (RPM)	DECIBELS	STATIC EXT PRESS ("WG)	BHP OR WATTS	MOTOR (HP)	DRIVE TYPE	VOLTS	PHASE	HERTZ		TYPE
EF-1	COOK / 120CPS	BROILER	1100	1834	61	1.5	0.422 BHP	3/4	BELT	208	1	60	UPBLAST	W/ ELEC. DISCONNECT ON ROOF
EF-2	COOK / 100CPS	FRYERS	800	2675	67	2.5	0.602 BHP	1	BELT	208	1	60	UPBLAST	W/ ELEC. DISCONNECT ON ROOF

DIFFUSER SCHEDULE						
REF NO	MANUFACTURER/ MODEL NO	PANEL SIZE (")	DUCT SIZE (")	BLOW	REMARKS	
D-1	KRUEGER / 5PLQ	12 X 12	6	NOTES	[2] [3] [4] [6]	
D-2	KRUEGER / 5PLQ	24 X 24	6	NOTES	[1] [3] [4] [6]	
D-3	KRUEGER / PLQ	24 X 24	10	NOTES	[1] [4] [6]	
D-4	KRUEGER / 5PLQ	24 X 24	10	NOTES	[1] [3] [4] [6]	
D-5	CAPTIVEAIRE / DI-PSP	24 X 24	10	NOTES	[1] [5] [6]	
D-6	KRUEGER / 5PLQ	24 X 24	8	NOTES	[2] [3] [4] [6]	

NOTES
 [1] PROVIDE 24" X 24" LAY-IN TYPE BORDER.
 [2] PROVIDE SURFACE MOUNT TYPE BORDER.
 [3] ALUMINUM CONSTRUCTION.
 [4] PLAQUE TYPE WITH 360° BLOW PATTERN.
 [5] STAINLESS STEEL CONSTRUCTION, PERFORATED SUPPLY PLENUM FOR USE NEAR EXHAUST HOODS.
 [6] PROVIDE DIFFUSER WITH BACK PAN INSULATION.

PACKAGED ROOFTOP AIR CONDITIONING UNIT SCHEDULE																										
REF NO	MANUFACTURER/ MODEL NO	FAN SECTION					LPG HEATING SECTION				COOLING SECTION				ELEC CHARACTERISTICS				OUTSIDE AIR		REMARKS					
		AIR FLOW (CFM)	EXT SP ("WG)	TOTAL SP ("WG)	RPM	MOTOR HP	CAPACITY (MBH)	STAGES (#)	MIN EFF (%)	CAPACITY (MBH)		EAT (F)		COND EAT (F)	MIN EER	COND FANS		COMPRESSORS		VOLTS		PHASE	HERTZ	MIN (CFM)	MAX (CFM)	
										INPUT	OUTPUT	TOTAL	SENS			DB	WB	(NO)	(FLA) EACH							(NO)
EXG RTU-1	TRANE / YSD150G3RHA	5,000	1	-	-	250	203	2	81	152.4	-	-	-	95	12.1	2	2.2	2	25/ 13.7	208-230	3	60	1,250	1,250		
RTU-2	TRANE / YHC060F3RHA	2,000	0.75	0.86	1,062	1	130	104	1	80	57.9	44.1	76.3	63.8	95	12.9	1	2.5	1	15.9	208-230	3	60	400	2,000	NOTE 1,2,4,5,6,7
EXG RTU-3	TRANE / YSC063G3RHA	2,000	0.75	-	-	-	130	106.6	1	82	62.6	-	-	-	95	11	1	1.4	1	16	208-230	3	60	400	2,000	
RTU-4	TRANE / YHC060F3RHA	2,000	0.75	0.86	1,062	1	130	104	1	80	57.9	44.1	76.3	63.8	95	12.9	1	2.5	1	15.9	208-230	3	60	400	2,000	NOTE 1,3,4,5,6,7
EXG RTU-5	TRANE / YSC092F3RHA	3,000	-	-	-	200	160	2	80	94.8	-	-	-	95	11.2	1	3.3	2	14.5/14	208-230	3	60	-	-		

NOTE 1: PROVIDE WITH 100% ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF.
 NOTE 2: PROVIDE WITH CURB ADAPTOR FOR NEW UNIT ORIENTATION.
 NOTE 3: PROVIDE WITH CURB ADAPTOR FOR NEW UNIT INSTALLATION.
 NOTE 4: PROVIDE RETURN DUCT SMOKE DETECTOR AND WEATHERPROOF DISCONNECT. COORDINATE WITH ELECTRICAL CONTRACTOR.
 NOTE 5: PROVIDE WITH CONVENIENCE OUTLET.
 NOTE 6: PROVIDE 1 YEAR PARTS AND LABOR WARRANTY WITH ADDITIONAL 4 YEAR PARTS WARRANTY ON COMPRESSORS.
 NOTE 7: PROVIDE APPROPRIATE GAS CONNECTION FOR PROPANE.