TABLE 1: ENERGY CODE ANALYSIS TABLE FOR MECHANICAL SYSTEMS

(PER 2020 NYS ENERGY CODE)

ITEM DESCRIPTION			PROPOSED VALUE	CODE PRECRIBED VALUE AND CITATION	CITATION	SUPPORTING DOCUMENTATION
	UNIT TAG	EQUIPMENT TYPE				
HVAC EQUIPMENT PERFORMANCE	RTU-1	AIR-COOLED AIR CONDITIONERS (240,000 BTU < 760,000 BTU)	EER=10.3	EER=10 (FOR ≤ 240,000 BTU < 760,000 BTU)	C403.2.3(1)	MECHANICAL SCHEDULES
HVAC SYSTEM CONTROLS	ALL RTUs, CUHs	THERMOSTATIC CONTROLS	DIGITAL THERMOSTATS	THERMOSTATIC CONTROLS FOR HVAC SYSTEM	C403.2.6	MECHANICAL SCHEDULES AND PLANS
SHUTOFF DAMPERS			MOTORIZED DAMPER INSTALLED AT EXHAUST OPENINGS	MOTORIZED DAMPER INSTALLED AT OA SUPPLY AND EXHAUST OPENINGS	C403.2.4.4.2	MECHANICAL SCHEDULES AND PLANS
DUCT LEAKAGE			SMACNA HVAC DUCT LEAKAGE TEST	SMACNA HVAC DUCT LEAKAGE TEST	PER C403	MECHANICAL DWGS. & SPECS

TABLE 2: ENERGY CODE COMPLIANCE INSPECTIONS FOR MECHANICAL SYSTEMS

(IIB - MECHANICAL AND SERVICE WATER HEATING INSPECTIONS)

	INSPECTION TEST	FREQUENCY	REFERENCE STANDARDS	INSPECTION DESCRIPTION	ECC CITATION
IIB2	SHUT-OFF DAMPERS	AS REQUIRED DURING INSTALLATION	APPROVED CONSTRUCTION DOCUMENTS	DAMPERS FOR STAIR AND ELEVATOR SHAFT VENTS AND OTHER OUTDOOR AIR INTAKES AND EXHAUST OPENINGS INTEGRAL TO THE BUILDING ENVELOPE SHALL BE VISUALLY INSPECTED TO VERIFY THAT SUCH DAMPERS, EXCEPT WHERE PERMITTED TO BE GRAVITY DAMPERS, COMPLY WITH APPROVED CONSTRUCTION DRAWINGS. MANUFACTURER'S LITERATURE SHALL BE REVIEWED TO VERIFY THAT THE PRODUCT HAS BEEN TESTED AND FOUND TO MEET THE STANDARD.	NYSECC C403.2.4.4, OR ASHRAE 90.1-6.4.3.4
IIB3	HVAC AND SERVICE WATER HEATING EQUIPMENT	PRIOR TO FINAL MECHANICAL AND CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS	EQUIPMENT SIZING, EFFICIENCIES AND OTHER PERFORMANCE FACTORS OF ALL MAJOR EQUIPMENT UNITS, AS DETERMINED BY THE APPLICANT OF RECORD, AND NO LESS THAN 15% OF MINOR EQUIPMENT UNITS, SHALL BE VERIFIED BY VISUAL INSPECTION AND, WHERE NECESSARY, REVIEW OF MANUFACTURER'S DATA. POOL HEATERS AND COVERS SHALL BE VERIFIED BY VISUAL INSPECTION	NYSECC C403.2, C404.2, C404.7, C406.2
IIB4	HVAC AND SERVICE WATER HEATING SYSTEM CONTROLS	AFTER INSTALLATION AND PRIOR TO FINAL ELECTRICAL AND CONSTRUCTION INSPECTION, EXCEPT THAT FOR CONTROLS WITH SEASONALLY DEPENDENT FUNCTIONALITY, SUCH TESTING SHALL BE PERFORMED BEFORE SIGN-OFF FOR ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY	APPROVED CONSTRUCTION DOCUMENTS INCLUDING CONTROL SYSTEM NARRATIVES	NO LESS THAN 20% OF EACH TYPE OF REQUIRED CONTROLS AND ECONOMIZERS SHALL BE VERIFIED BY VISUAL INSPECTION AND TESTED FOR FUNCTIONALITY AND PROPER OPERATION. SUCH CONTROLS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THERMOSTATIC AND ECONOMIZER CONTROLS	NYSECC C403.2.4, C403.2.5.1, C403.2.11, C403.3, C403.4, C404.3, C404.6, C404.7
IIB6	HVAC DUCT LEAKAGE TESTING	PRIOR TO CLOSING CEILINGS AND WALLS AND PRIOR TO FINAL CONSTRUCTION INSPECTION	APPROVED CONSTRUCTION DOCUMENTS; NYC MECHANICAL CODE	WHERE THE AIR HANDLER AND/OR SOME DUCTWORK IS IN UNCONDITIONED SPACE, DUCT-LEAKAGE TESTING SHALL BE PERFORMED EITHER AFTER ROUGH-IN OR POST-CONSTRUCTION TO ENSURE COMPLIANCE WITH ECC R403.3.3 AND R403.3.4. NOT LESS THAN 20% OF SUCH DUCTWORK SHALL BE TESTED	NYSECC C403

ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE COMPLIANCE STATEMENT:

ENERGY CODE COMPLIANCE - NYS 2020

STATEMENT OF COMPLIANCE - COMMERCIAL BUILDINGS
TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE.

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CONSULTANT SEAL

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REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

☐ AS BUILT – CHANGES AS NOTED ☐ AS BUILT – NO CHANGES

CONTRACTOR
NAME
SIGNATURE
TITLE DATE

PROJECT COORDINATOR
NAME
SIGNATURE
TITLE DATE

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

INFRASTRUCTURE REHABILITATION - PHASE 2
PLAYLAND PARK, RYE, NEW YORK
PLAZA RESTAURANT
SHEET NAME

CONTRACT NUMBER	20-530
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MECHANICAL GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL BE PURCHASED AND INSTALLED IN ACCORDANCE WITH ALL NATIONAL & NEW YORK STATE CODES AND REGULATIONS (AS WELL AS ALL APPLICABLE LOCAL CODES & REGULATIONS). THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL HVAC WORK IS PROVIDED AND INSTALLED IN STRICT ACCORDANCE WITH SEISMIC REQUIREMENTS.

2. DO NOT SCALE FROM THESE DRAWINGS.

3. THE EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL HVAC EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL OTHER MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, ARCHITECTURAL AND STRUCTURAL SYSTEMS. DURING SHOP DRAWINGS SUBMISSIONS, SHOW ALL MOUNTING HEIGHTS OF DUCTWORK, UNITS, ETC.

4. VERIFY ALL EQUIPMENT VOLTAGES WITH THE ELECTRICAL DESIGN PRIOR TO ORDERING EQUIPMENT.

5. PROVIDE PHASE LOSS PROTECTION FOR ALL POLY-PHASE MOTOR DEVICES.

6. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET STEEL IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE ASHRAE, NFPA, AND SMACNA GUIDE RECOMMENDATIONS. ALL DUCTS TO HAVE PITTSBURGH TYPE LOCK FOR LONGITUDINAL SEAMS AND DRIVE SLIP / "S" SLIP FOR TRANSVERSE JOINTS. "DUCT-MATE" JOINT SYSTEM IS ACCEPTABLE IN LIEU OF PRIOR SEAM SYSTEMS. SIZES AS SHOWN INDICATE INSIDE CLEAR DIMENSIONS OF THE AIR PASSAGE. DUCTWORK SHALL BE FULLY INSULATED AS PER APPLICABLE CODES AND WRITTEN SPECIFICATIONS.

7. DUCT SIZES MUST BE VERIFIED FOR CLEARANCES AT THE JOB SITE PRIOR TO FABRICATION. DIMENSIONS MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION AS LONG AS EFFECTIVE CROSS-SECTIONAL AREA IS MAINTAINED. DUCT TRANSITIONS SHALL BE CONSTRUCTED WITH A SLOPE OF 1" TO 4". ALL DEVIATIONS FROM ORIGINAL CONTRACT DRAWINGS SHALL BE REVIEWED BY ENGINEER DURING THE SHOP DRAWING PROCESS.

8. PROVIDE MANUAL BALANCING DAMPERS AS REQUIRED TO PROPERLY BALANCE EACH INDIVIDUAL AIR DISTRIBUTION SYSTEM. IF THE LOCATION OF THE BALANCING DAMPER IS NOT DEFINED ON THE DRAWINGS, THE FOLLOWING MINIMUMS STANDARDS SHALL GOVERN. ALL SUPPLY, RETURN, AND EXHAUST MAIN BRANCHES FROM TRUNKS, EACH SPLIT AND ALL SUB- BRANCHES FROM MAIN SHALL INCORPORATE BALANCING DAMPERS.

9. PROVIDE FLEXIBLE CONNECTORS AT ALL DUCT CONNECTIONS TO VIBRATING EQUIPMENT. THESE CONNECTORS SHALL BE INSTALLED IN CLOSE PROXIMITY TO SUCH EQUIPMENT.

10. PROVIDE FIRE DAMPERS WITH RATED ACCESS DOORS AT ALL DUCT PENETRATIONS THROUGH FIRE RATED WALLS, SMOKE AND FIRE STOPPING, SHAFT, FLOORS, RATED CEILINGS AND PARTITIONS AS REQUIRED TO MAINTAIN ARCHITECTURAL FIRE RATINGS. REFER TO THE ARCHITECTURAL PLANS AND SPECIFICATIONS FOR LOCATIONS AND FIRE RATING REQUIREMENTS. CONTRACTOR MUST FULLY REVIEW ALL ARCHITECTURAL AND ENGINEERING DRAWINGS AND VISIT THE SITE PRIOR TO SUBMITTING THE BID. NO EXTRAS WILL BE ALLOWED.

11. ALL ACCESS DOORS REQUIRED IN GENERAL CONSTRUCTION ARE TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY SIZE, TYPE AND LOCATION OF SUCH DOORS FOR PROPER ACCESS TO ALL CONCEALED HVAC EQUIPMENT, VALVES AND OTHER RELATED EQUIPMENT. THE CONTRACTOR SHALL IDENTIFY THESE REQUIREMENTS ON A COORDINATED SHOP DRAWING PRIOR TO SYSTEM FABRICATION AND INSTALLATION.

12. ALL CEILING MOUNTED EQUIPMENT MUST BE SUPPORTED DIRECTLY FROM BUILDING STRUCTURE WITH COMBINATION SPRING AND NEOPRENE-IN-SHEAR HANGERS AND ROD. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT THE LOAD.

13. THE CONTRACTOR MUST CONTRACT AN INDEPENDENT NEBB CERTIFIED AIR BALANCING & TESTING COMPANY TO PERFORM THE AIR BALANCING WORK AND ASSOCIATED SYSTEM AIR BALANCING REPORT. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, PLANS AND WRITTEN SPECIFICATIONS. SUBMIT THE FINAL AIR BALANCE REPORT TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT, AS DETERMINED BY THE AND OWNER/CLIENT. THE AIR BALANCE REPORT MUST INCLUDE ALL SUPPLY, RETURN, & EXHAUST AIR TERMINALS, FRESH AIR (OUTSIDE AIR) INTAKE AND VENTILATION EXHAUST CFM RATES FOR ALL UNITS. ALSO INCLUDE ACTUAL SUPPLY & RETURN AIR VELOCITY & STATIC PRESSURE READINGS ALONG WITH ALL MOTOR AMPERAGES FOR ALL UNITS.

14. THE CONTRACTOR IS TO INCLUDE IN THEIR BID ALL LOW VOLTAGE CONTROL WIRING, THERMOSTATS, RELAYS, TRANSFORMERS, STARTERS ETC FOR A COMPLETE OPERATING CONTROL SYSTEM AS DESCRIBED IN THE SEQUENCE OF OPERATIONS, THE CONTRACTOR IS ALSO RESPONSIBLE FOR LINE VOLTAGE CONTROL FOR EXHAUST FANS CONTROLLED FROM LIGHT SWITCH AND THERMOSTATS. ALL CONTROL WIRING IN THE AREAS THAT DO NOT HAVE DROPPED CEILINGS THE CONTRACTOR MUST PROVIDE ALL CONTROL WIRING CONDUIT. IN AREAS OF DROPPED CEILING PLENUM RATED CONTROL WIRING CAN BE RUN EXPOSED ABOVE CEILING.

15. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS/SPECIFICATIONS.

CODE REFERENCE

2020 NEW YORK STATE BUILDING CODE
2020 NEW YORK STATE MECHANICAL CODE
2020 NEW YORK STATE ENERGY CONSERVATION CODE

MECHANICAL DEMOLITION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION OF MECHANICAL EQUIPMENT AND MATERIAL RELATING TO THEIR RESPECTIVE TRADE.

2. THE CONTRACTOR SHALL REMOVE, RELOCATE, REPLACE, ADJUST, ADAPT AND MODIFY EXISTING EQUIPMENT AND/OR SYSTEMS AS REQUIRED WHEN SUCH WORK IS UNCOVERED AND FOUND TO INTERFERE WITH COMPLETION OF WORK IN THIS CONTRACT OR OTHER CONTRACT WORK.

3. EXECUTE THE DEMOLITION IN CAREFUL AND ORDERLY MANNER WITH THE LEAST POSSIBLE DISTURBANCE TO THE PUBLIC, EGRESS OR THE FUNCTIONING OF THE EXISTING BUILDING.

4. TAKE NECESSARY PRECAUTIONS TO PREVENT DUST AND DIRT FROM RISING BY WETTING DEMOLISHED DEBRIS. EXCESSIVE USE OF WATER WILL NOT BE PERMITTED.

5. PRIOR TO DEMOLITION, CONTRACTOR SHALL REVIEW WITH OWNER ALL MATERIALS TO BE REMOVED, SHOULD THE OWNER WANT TO KEEP ANY MATERIALS THE CONTRACTOR SHALL REMOVE AND DELIVER THE PARTS TO THE OWNER ON THE SITE WHERE SO DIRECTED. OTHERWISE ALL DEMOLISHED OR REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND BE DISPOSED OF IN A LEGAL MANNER.

6. DEMOLITION SHALL INCLUDE REMOVAL OF ALL PARTS AND PIECES IN THEIR ENTIRETY BACK TO POINTS INDICATED OR IF NOT INDICATED BACK TO THEIR POINT OF SOURCE.

7. WHERE CONDITIONS PROHIBIT TOTAL REMOVAL OF THE WORK, THE REMAINING PORTION SHALL BE CUT FLUSH WITH THE SURROUNDING SURFACE AND BE CAPPED, PLUGGED OR SEALED AND THE SURROUNDING SURFACE SHALL BE REFINISHED IN AN APPROVED MANNER.

9. DO NOT REMOVE EXISTING STRUCTURAL WORK. DO NOT REMOVE OPERATIONAL ELEMENTS AND SAFETY-RELATED COMPONENTS IN A MANNER RESULTING IN A REDUCTION OF CAPACITIES TO PERFORM IN THE MANNER INTENDED OR RESULTING IN DECREASED OPERATIONAL LIFE, INCREASED MAINTENANCE, OR DECREASED SAFETY.

10. REMOVALS, DISCONNECTIONS, AND RELOCATIONS SHALL BE PERFORMED BY WORKMEN SKILLED IN THE TRADE INVOLVED AND SHALL BE EMPLOYED BY A CONTRACTOR LICENSED IN THE TRADE INVOLVED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ACCEPTED TRADE PRACTICES.

11. PROVIDE ADEQUATE TEMPORARY SUPPORT FOR WORK TO REMAIN, TO PREVENT FAILURE. DO NOT ENDANGER OTHER WORK.

12. PROTECTION: PROVIDE ADEQUATE PROTECTION WHERE REQUIRED FOR THE PRESENT BUILDING AND ITS CONTENTS. TEMPORARY DUSTPROOF BARRIERS AND BARRICADES SHALL BE ERECTED WHERE REQUIRED FOR PROTECTION OF PERSONNEL, PROTECTION FROM DUST AND DIRT, FOR SECURITY, FIRE AND WEATHER PROTECTIVE REASONS.

13. CONTRACTOR SHALL TAKE EVERY PRECAUTION AGAINST FIRE BY EMPLOYING FIRE DEPARTMENT TYPE HOSES AND PORTABLE FIRE EXTINGUISHERS AS REQUIRED BY OSHA AND/OR THE OWNER'S INSURANCE UNDERWRITER.

14. BEFORE STARTING DEMOLITION OPERATIONS, PROVIDE THE NECESSARY PROTECTIVE DEVICES, WHERE REQUIRED, AND IN STRICT ACCORDANCE WITH OSHA RULES AND REGULATIONS.

14. USE TEMPORARY ENCLOSURES, OR OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING TO LOWEST PRACTICAL LEVEL. COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

15. FIELD VERIFY DEMOLITION REQUIREMENTS AND EXISTING CONDITIONS. DEMOLITION NOTES ARE INDICATED IN NOTE FORM.

16. CONTRACTOR SHALL ESTABLISH A PATH OF TRAVEL AND TIME SCHEDULE FOR THE REMOVAL OF ALL DEBRIS AND WASTE, AND HAVE THIS APPROVED BY OWNER. CONTRACTOR IS TO ENSURE THAT ALL CORRIDORS AND PUBLIC AREAS BE KEPT FREE OF OBSTRUCTIONS, DEBRIS, AND ARE TO BE BROOM SWEPT CLEAN AT ALL TIMES.

17. CONTRACTOR SHALL VISIT THE SITE AND BECOME INFORMED AS TO THE CONDITION OF THE PREMISES AND THE EXTENT AND CHARACTER OF WORK REQUIRED. NO ADDITIONAL COMPENSATION WILL BE APPROVED DUE TO FIELD CONDITIONS.

COMMISSIONING/ACCEPTANCE PROCEDURES:

THE FOLLOWING ARE INCLUDED IN THE PROJECT SCOPE OF WORK:

PRIOR THE ACCEPTING OF ANY PROJECT THE FOLLOWING DOCUMENTATION MUST BE SUBMITTED BY THE G.C. AND/OR THE M.C. FOR DISTRIBUTION FOR ENGINEER REVIEW.

A. LETTER STATING THAT ALL OWNER MEP AND FP PUNCH LIST ITEMS HAVE BEEN CORRECTED. LETTER TO INCLUDE ALL PUNCH LIST SIGNED BY ARCHITECT SUB-CONTRACTORS INDICATING COMPLETION.
B. TEST REPORTS.
C. AS BUILT DRAWINGS FOR ALL TRADES.
D. O & M MANUALS FOR ALL TRADES INCLUDING:

1. DESCRIPTIVE LITERATURE FOR EQUIPMENT AND COMPONENTS.
2. MODEL NUMBER AND PERFORMANCE DATA.
3. INSTALLATION AND OPERATING INSTRUCTIONS.
4. MAINTENANCE AND REPAIR INSTRUCTIONS.
5. SPARE PART LIST.
6. PHONE NUMBER AND PERSON'S NAME (IF POSSIBLE) OF MANUFACTURER.
7. NUMBER OF MANUALS PER PROJECT MANAGER'S REQUEST.

E. BALANCING REPORTS.
F. VALVE CHARTS.
G. EQUIPMENT WARRANTIES.
H. EQUIPMENT TRAINING CERTIFICATIONS (IF APPLICABLE).
I. EQUIPMENT/DEVICES LABEL LIST.
J. TRAINING OPERATIONAL DEMONSTRATION.

THE DEMONSTRATIONS INCLUDE:

1. ALL CONTROLS ALARMS, CONNECTED TO ALL HVAC UNITS AND EQUIPMENT.
2. ALL FIRE ALARM AND SPRINKLER DEVICES CONNECTING TO BUILDING FIRE ALARM SYSTEM.
3. ALL ELECTRICAL COMPONENTS TESTING. TRANSFER SWITCHES, EMERGENCY POWER, OPERATIONS, ETC.

K. SIGN-OFF FORMS (FINAL).

SCOPE OF WORK

DEMOLITION

1. REMOVE EXISTING ROOFTOP FANS AND ASSOCIATED DUCTWORK, CONTROLS AND ACCESSORIES.
2. REMOVE EXISTING ROOFTOP CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING, CONTROLS AND ACCESSORIES.

CONSTRUCTION

1. PROVIDE ONE (1) NEW ROOFTOP AIR HANDLING UNIT RTU-1. PROVIDE DUCTWORK TO NEW SPACES AS INDICATED ON PLANS.
2. PROVIDE TWO (2) NEW TOILET EXHAUST FAN ON ROOF AND ASSOCIATED DUCTWORK TO TOILETS AND SIMILAR ROOMS.
3. PROVIDE NEW ELECTRIC CABINET HEATERS AS INDICATED.
4. PROVIDE NEW ELECTRIC UNIT HEATERS AS INDICATED.

HVAC SYMBOL LIST

IDENTIFIER	DESCRIPTION
	NEW DUCTWORK OR PIPING
	EXISTING DUCTWORK OR PIPING TO BE REMOVED
	EXISTING DUCTWORK OR PIPING TO REMAIN
24X12 / 24X12	DOUBLE-LINE AND SINGLE-LINE RECTANGULAR DUCT, FIRST NUMBER INDICATES SIDE IN VIEW IN INCHES, SECOND NUMBER INDICATES SIDE IN DEPTH IN INCHES
	FLEXIBLE DUCTWORK
	REGULAR SUPPLY AIR DUCT (UP AND DOWN)
	REGULAR RETURN AIR DUCT (UP AND DOWN)
	REGULAR EXHAUST AIR DUCT (UP AND DOWN)
	REGULAR OUTSIDE AIR DUCT (UP AND DOWN)
VD	VOLUME DAMPER
BD	BACKDRAFT DAMPER
S	MOTOR OPERATED DAMPER
XXX / XX	EQUIPMENT TAG / EQUIPMENT NUMBER
XXX / X-XXX	DETAIL TAG/CALL OUT TAG / MECHANICAL SHEET NUMBER
T	THERMOSTAT
	EXHAUST GRILLE
F#	REFER TO SUPPLEMENTAL FIGURE INDICATED BY NUMBER (I.E. F2 REFERS TO FIGURE 2)

HVAC ABBREVIATIONS

IDENTIFIER	DESCRIPTION
AC	DIRECT EXPANSION AIR CONDITION UNIT
CFM	CUBIC FEET PER MINUTE
COND	CONDENSATE
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DB	DRY BULB
DN	DOWN
EA	EXHAUST AIR
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EUH	ELECTRIC UNIT HEATER
EER	ENERGY EFFICIENCY RATIO
EG	EXHAUST GRILLE
FAI	FRESH AIR INTAKE
GC	GENERAL CONTRACTOR
MBH	THOUSAND BTU PER HOUR
PC	PLUMBING CONTRACTOR
RG	RETURN GRILLE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SD	SUPPLY DIFFUSER
TYP.	TYPICAL
VIF	VERIFY IN FIELD

OUTDOOR AIR VENTILATION SCHEDULE

SPACE DETAILS		MECH CODE REQUIREMENTS (2)							DESIGN			
ROOM	AREA (FT²)	# PEOPLE	OA / SQ FT	OA PER PERSON	NET OA	# OF FIXT (TOILET/URINALS/ SLOP SINK)	CFM/FIXTURE	NET EA	DESIGN OA FLOW (CFM)	ACTUAL SA FLOW (CFM)	ACTUAL RA FLOW (CFM)	ACTUAL EA FLOW (CFM)
DINING ROOM	1573	110	0.18	7.5	1109	0	-		1200	7200	7200	1200
BAR	606	28	0.18	7.5	319	0	-		320	2075	2075	320
LOBBY	402	12	0.06	5.0	84	0	-		100	430	--	100
UNISEX BATHROOM	33	0	0.00	0.00	0	1	50	50	50	--	--	50
UNISEX BATHROOM	36	0	0.00	0.00	0	1	50	50	50	--	--	50
ADA BATHROOM	50	0	0.00	0.00	0	1	50	50	50	--	--	50
JANITOR CLOSET	27	0	0.00	0.00	0	1	50	50	50	--	--	50
VESTIBULE	250	12	0.06	5.0	75	0	-	-	75	400	--	200
KITCHEN	545	0	0.00	0.00	0	0	-	382	770	385	--	770

NOTES:
1. NEW YORK STATE MECHANICAL CODE
2. BAR OCCUPANY COUNT BASED ON ONE PERSON PER 18" OF SEATING LENGTH
3. VESTIBULE PROVIDES MAKE UP AIR FOR BATHROOMS
4. KITCHEN PROVIDED MAKE UP AIR VIA TRANSFER

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WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

INFRASTRUCTURE REHABILITATION - PHASE 2
PLAYLAND PARK, RYE, NEW YORK
PLAZA RESTAURANT
SHEET NAME

CONTRACT NUMBER	20-530
SHEET NUMBER	PR-M-01
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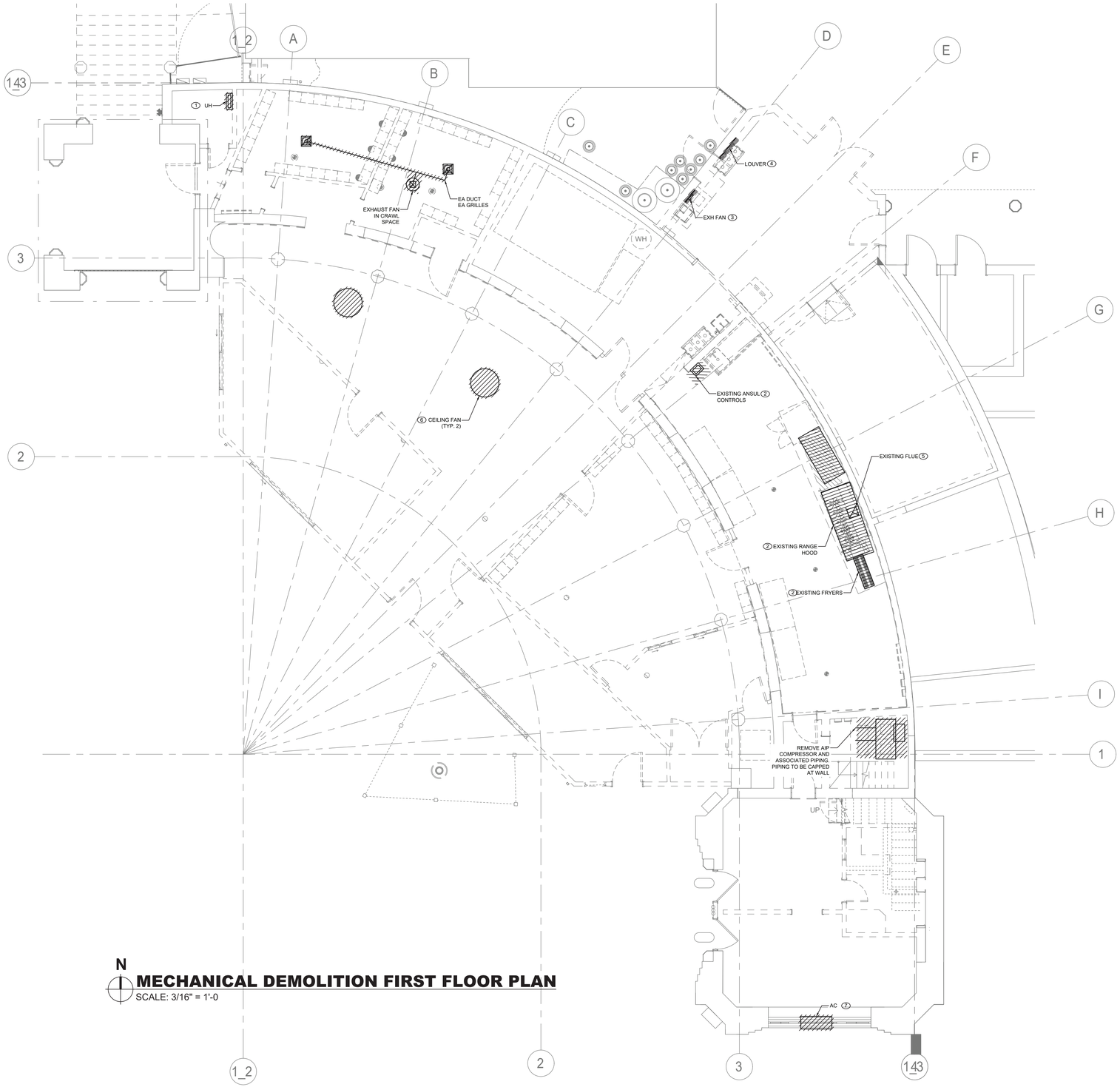

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MECHANICAL DEMOLITION FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0

MECHANICAL DEMOLITION NOTES:

1. DEMOLISH EXISTING ELECTRIC UNIT HEATERS AND ASSOCIATED SUPPORTS, WIRING AND ACCESSORIES. COORDINATE REMOVAL OF ELECTRICAL POWER AND WIRING WITH ELECTRICAL DRAWINGS.
2. DEMOLISH EXISTING RANGE HOOD AND ASSOCIATED DUCTWORK AND PIPING. DEMOLISH EXISTING ANSUL FIRE PROTECTION SYSTEM AND ASSOCIATED CONTROLS. COORDINATE REMOVAL OF ANSUL SYSTEM WITH FIRE PROTECTION CONTRACTOR AND OWNER.
3. DEMOLISH EXISTING WALL MOUNTED PROPELLER FAN AND SEAL EXISTING WALL PENETRATION.
4. DEMOLISH EXISTING LOUVER AND SEAL EXISTING WALL PENETRATIONS.
5. DEMOLISH EXISTING FLUE VENT FOR OVEN AND SEAL EXISTING WALL PENETRATION. PROVIDE FIRE STOPPING TO MATCH EXISTING.
6. DEMOLISH EXISTING CEILING MOUNTED FANS AND ASSOCIATED CONTROLS. COORDINATE REMOVAL OF ELECTRICAL POWER AND WIRING WITH ELECTRICAL DRAWINGS.
7. REMOVE EXISTING WINDOW AC AND RETURN TO OWNER

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WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

INFRASTRUCTURE REHABILITATION - PHASE 2
PLAYLAND PARK, RYE, NEW YORK
PLAZA RESTAURANT
MECHANICAL DEMOLITION FIRST FLOOR PLAN

CONTRACT NUMBER	20-530
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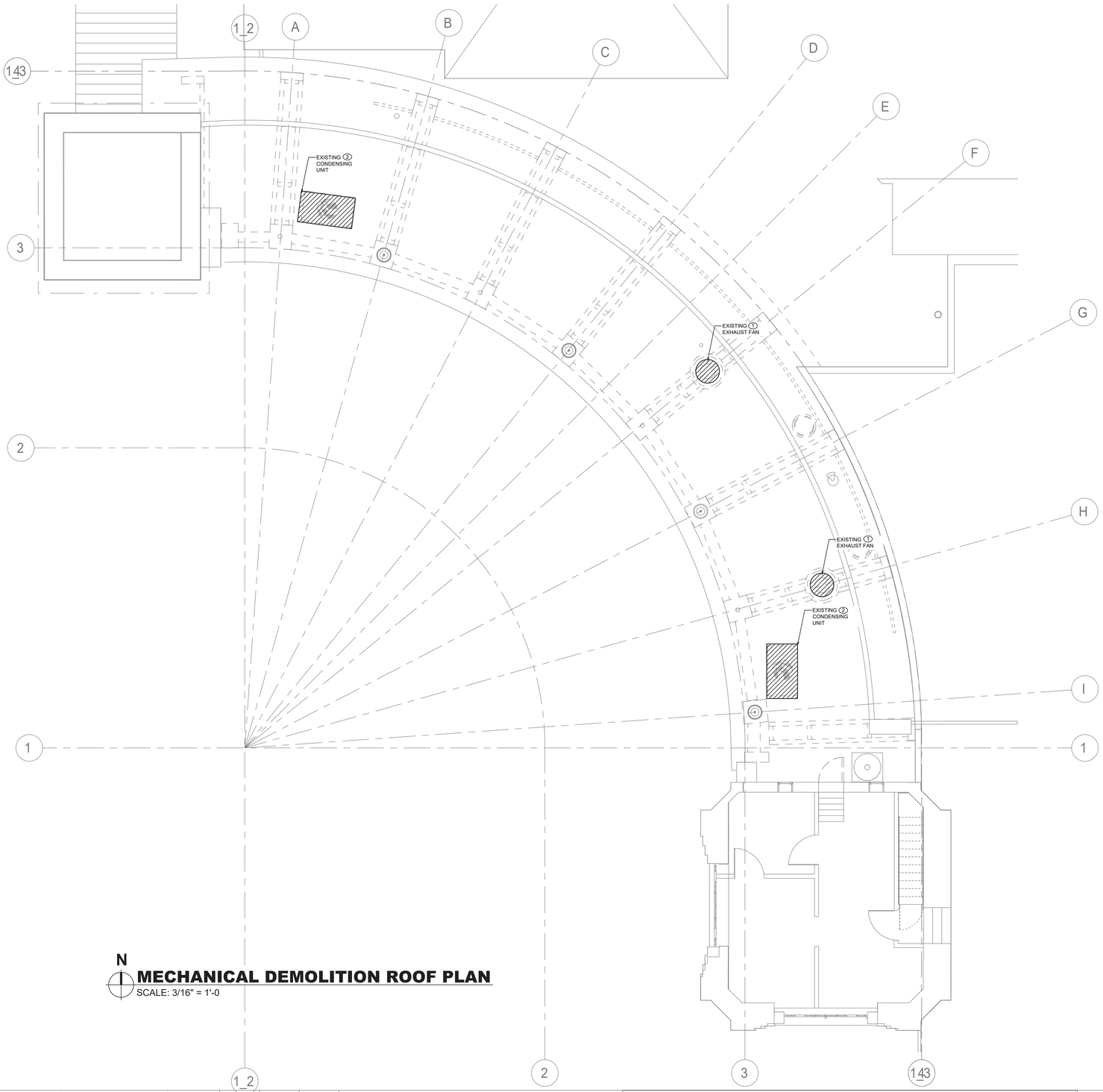
MECHANICAL DEMOLITION NOTES:

1. DEMOLISH EXISTING EXHAUST FAN AND ASSOCIATED CONTROLS, DUCTWORK AND ACCESSORIES. CONTRACTOR SHALL PATCH EXISTING ROOF PENETRATION TO MATCH EXISTING ROOF.
2. DEMOLISH EXISTING CONDENSING UNIT AND ASSOCIATED CONTROLS AND ACCESSORIES. GC TO REMOVE EXISTING STEEL DUNNAGE COORDINATE WITH ARCHITECTURAL WORK. CONTRACTOR SHALL PATCH EXISTING ROOF PENETRATION TO MATCH.



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

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INFRASTRUCTURE REHABILITATION - PHASE 2
PLAYLAND PARK, RYE, NEW YORK
PLAZA RESTAURANT
MECHANICAL DEMOLITION ROOF PLAN

CONTRACT NUMBER	20-530
SHEET NUMBER	PR-M-12
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DPW FILE NUMBER	1-118-M-538
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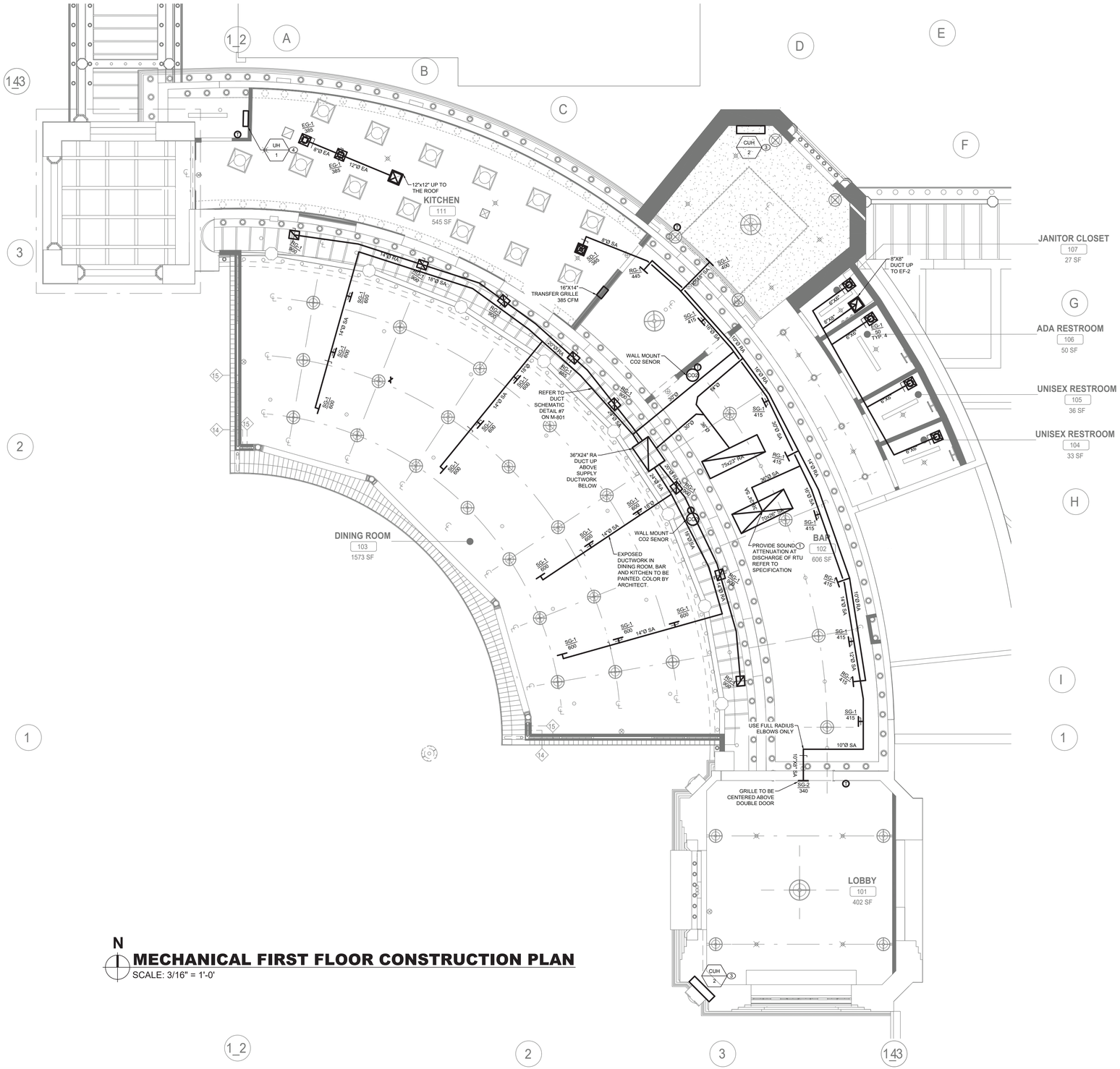

MECHANICAL FIRST FLOOR CONSTRUCTION PLAN

SCALE: 3/16" = 1'-0'

MECHANICAL CONSTRUCTION NOTES:

1. PROVIDE SUPPLY AND RETURN DUCTWORK FROM ROOFTOP UNIT RTU-1 AND ROUTE ALONG INDICATED PATH. PROVIDE INSULATION TO ALL SUPPLY DUCTWORK. PROVIDE VOLUME DAMPERS AND SUPPLY DIFFUSERS/GRILLES AND BALANCE TO INDICATED VALUES.
2. PROVIDE EXHAUST DUCTWORK FROM KITCHEN UP TO ROOFTOP EXHAUST FAN AS INDICATED.
3. PROVIDE CABINET UNIT HEATER WITH BUILT IN THERMOSTAT.
4. PROVIDE NEW ELECTRIC WALL MOUNTED UNIT HEATER. COORDINATE INSTALL HEIGHT IN FIELD.
5. INSTALL SUPPLY GRILLES AT A DOWNWARD 45 DEGREES ANGLE. TYPICAL FOR ALL DUCT MOUNTED GRILLES.

CONSULTANT INFORMATION

LiRo Engineers, Inc.
A LiRo Group Company
Syosset, N.Y. 516-214-8157[T]

CONSULTANT SEAL

STATE OF NEW YORK — FRANK F. DURSO — LICENSED PROFESSIONAL ENGINEER — No. 090174

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

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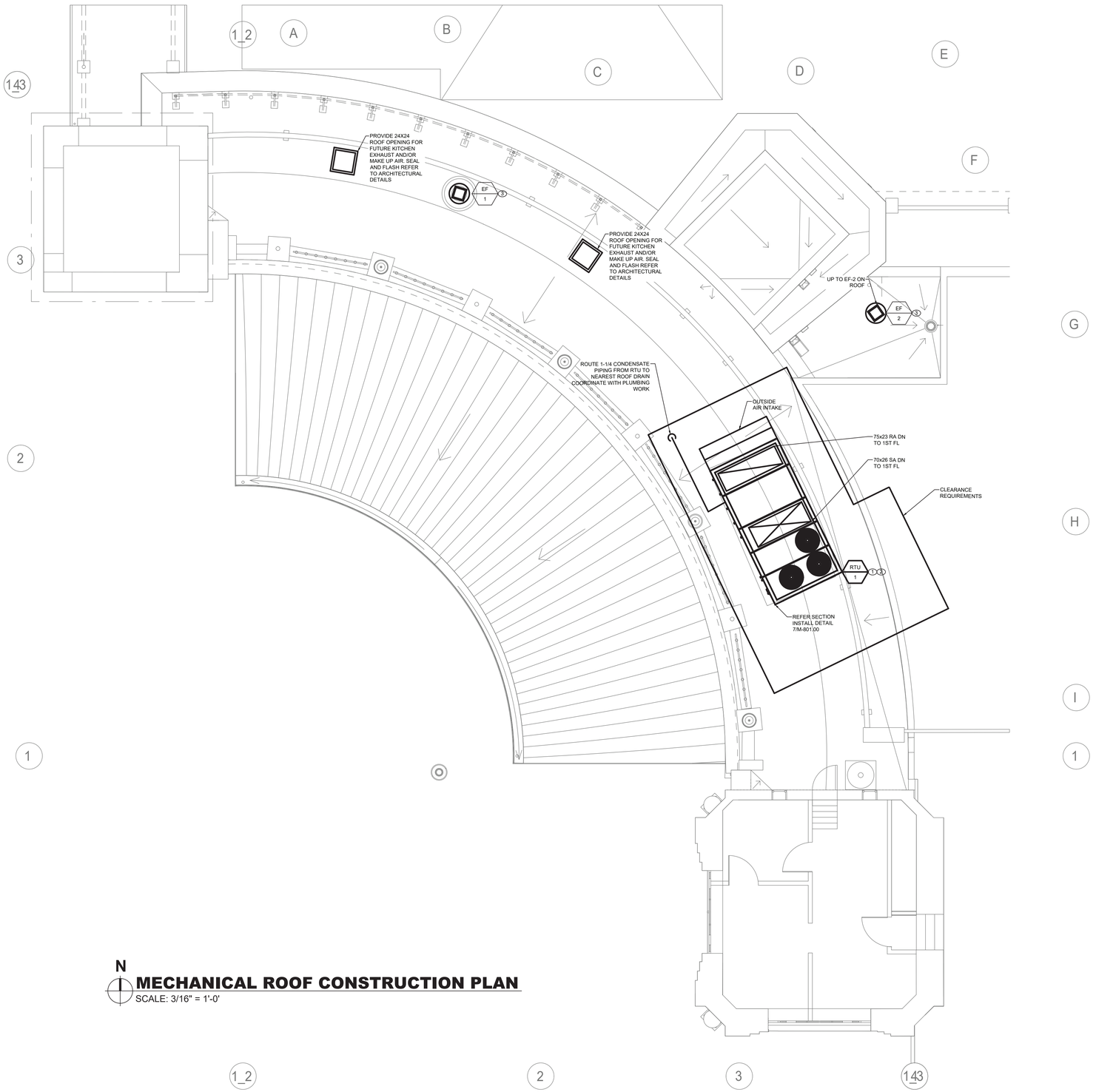
CONTRACTOR: NAME, SIGNATURE, TITLE, DATE

PROJECT COORDINATOR: NAME, SIGNATURE, TITLE, DATE

WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

INFRASTRUCTURE REHABILITATION - PHASE 2
PLAYLAND PARK, RYE, NEW YORK
PLAZA RESTAURANT
MECHANICAL FIRST FLOOR CONSTRUCTION PLAN

CONTRACT NUMBER	20-530
SHEET NUMBER	PR-M-21
DWG. NO.:	
SCALE:	3/16" = 1'-0"
DATE:	MAY 26, 2021
DPW FILE NUMBER	1-118-M-539
REV. NO.:	0



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MECHANICAL ROOF CONSTRUCTION PLAN

SCALE: 3/16" = 1'-0'

MECHANICAL CONSTRUCTION NOTES:

1. MAINTAIN 10 FEET CLEARANCE BETWEEN AHU FRESH AIR INTAKE AND ALL EXHAUST AND VENT TERMINATIONS. COORDINATE LOCATION OF VENT THROUGH ROOF WITH P.C.
2. PROVIDE NEW ROOFTOP DX UNIT (RTU-1) AND PROVIDE SUPPLY AND RETURN DUCTWORK TO FLOOR BELOW. PROVIDE FIRE DAMPERS AT DUCT PENETRATION TO MATCH FIRE-RATING OF ROOF. UNIT SHALL BE MOUNTED ON STEEL CURB. RTU-1 IS DESIGNED TO OPERATE YEAR ROUND.
3. PROVIDE ROOFTOP EXHAUST FAN AND MOUNT AS INDICATED IN DETAILS. PROVIDE FIRE DAMPER AT DUCT PENETRATION WITH ACCESS DOOR.

CONSULTANT INFORMATION

LiRo Engineers, Inc.
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Syosset, N.Y. 516-214-8157[T]

CONSULTANT SEAL

STATE OF NEW YORK · FRANK F. IUTZSSI · LICENSED PROFESSIONAL ENGINEER · 090114

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WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF ENGINEERING

INFRASTRUCTURE REHABILITATION - PHASE 2
PLAYLAND PARK, RYE, NEW YORK
PLAZA RESTAURANT
MECHANICAL ROOF CONSTRUCTION PLAN

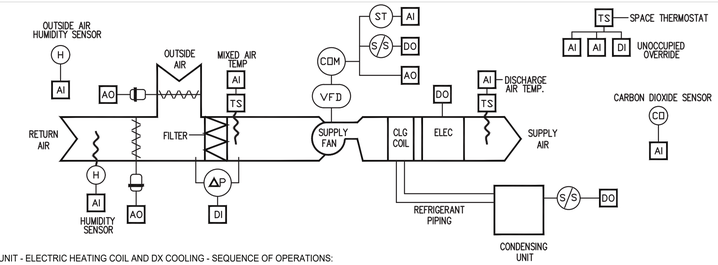
CONTRACT NUMBER	20-530
SHEET NUMBER	PR-M-22
DWG. NO.:	
SCALE:	3/16" = 1'-0"
DATE:	MAY 26, 2021
DPW FILE NUMBER	1-118-M-540
REV. NO.	0

ROOFTOP AIR CONDITIONING UNIT SCHEDULE

TAG	MANUFACTURER	MODEL	LOCATION	NOM. CAP. (TONS)	MIN. OA (CFM)	MAX. OA (CFM)	SUPPLY FAN			FILTER		DX COOLING							HEATING	COMPRESSOR	CONDENSER			EER	ELECTRICAL			OPERATING WEIGHT (±LBS)	DIMENSIONS LxWxH (IN)	NOTES
							AIR FLOW (CFM)	ESP (IN)	MOTOR BHP	TYPE	MERV	REFRIG TYPE	TOTAL CAP. (MBH)	SENSIBLE CAP. (MBH)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	ELEC. KW	TOTAL CAP. (MBH)	TYPE/QTY	AMB. TEMP (°F)	FAN QTY	HP		MCA	MOCP	V-PH-HZ			
RTU-1	TRANE	VOYAGER 3	ROOF	35	435	3200	10500	1.50	8.18	2" PLEATED	13	R-410A	400.7	297.1	82.0	68.0	56.3	55.8	54.0	159.3	SCROLL/1	95	3	0.01	10.30	159	200	208-3-60	4343	180x90x70	

NOTES:

1. PROVIDE DOWNFLOW SUPPLY AND RETURN UNIT CONFIGURATION, OVERSIZE SUPPLY FAN MOTOR, MOTORIZED OUTSIDE AIR DAMPER, NON-FUSED DISCONNECT, ECONOMIZER, ECONOMIZER HOOD, BAROMETRIC RELIEF HOOD AND 14" ROOF CURB
2. FACTORY CONTROLS TO BE PROVIDED BY MANUFACTURE
3. PROVIDE WITH MERV 13 FILTERS AND OPTION FOR UV LIGHT FILTRATION KIT
4. PROVIDE DIGITAL CONTROLLER WITH DISPLAY CAPABLE OF DEMAND CONTROL VENTILATION AND ECONOMIZER MODE. CONTRACTOR TO PROVIDE TRANSFORMER AND POWER AS REQUIRED



ROOFTOP UNIT - ELECTRIC HEATING COIL AND DX COOLING - SEQUENCE OF OPERATIONS:

1. OCCUPIED MODE:
   a. SUPPLY FAN AND ASSOCIATED EXHAUST FANS SHALL RUN CONTINUOUSLY. THE SUPPLY FAN SHALL RUN AT THE FREQUENCY DETERMINED BY THE BALANCING CONTRACTOR.
   b. THE OUTSIDE AIR DAMPER SHALL OPEN TO THE POSITION REQUIRED TO MAINTAIN THE MINIMUM OUTSIDE AIR QUANTITY INDICATED. OUTSIDE AIR DAMPER SHALL NEVER BE POSITIONED BELOW THIS MINIMUM POSITION EXCEPT IN CASE OF ALARM.
   c. WHEN THE SPACE TEMPERATURE IS AT OR BELOW THE HEATING SETPOINT, THE ELECTRIC COIL SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT SUBJECT TO A DISCHARGE HIGH LIMIT OF 120 DEG. F (ADJUSTABLE) AND DISCHARGE LOW LIMIT OF 70 DEG. F (ADJUSTABLE).
   d. WHEN THE SPACE TEMPERATURE RISES 3 DEG. F (ADJUSTABLE) ABOVE THE SPACE HEATING SETPOINT, AND THE OUTSIDE AIR ENTHALPY IS LOWER THAN THE SPACE ENTHALPY, THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN AND THE ASSOCIATED RELIEF DAMPER SHALL OPEN TO MAINTAIN THE OCCUPIED SETPOINT. THIS SHALL BE DONE SUBJECT TO LOW LIMIT OF 55 DEG. F (ADJUSTABLE) AND WITH THE GAS FURNACE DISABLED.
   e. WHEN THE SPACE TEMPERATURE IS 3 DEG. F (ADJUSTABLE) ABOVE THE COOLING SETPOINT, AND THE OUTSIDE AIR CANNOT COOL THE SPACE, THE RESPECTIVE CONDENSING UNIT SHALL BE CYCLED WITH THE ELECTRIC HEATING COIL DISABLED TO MAINTAIN SPACE TEMPERATURE. USE 5 DEG. F (ADJUSTABLE) DEADBAND BETWEEN HEATING AND COOLING SETPOINTS.

2. ECONOMIZER OPERATION
   a. ECONOMIZER OPERATION IS ENABLED WHEN OUTDOOR AIR ENTHALPY IS LESS THAN RETURN AIR ENTHALPY.
   b. THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE AS REQUIRED TO OPTIMIZE SUPPLY AIR TEMPERATURE SETPOINT VIA FREE COOLING.THIS IS TYPICALLY A FULLY OPEN OUTSIDE AIR DAMPER DURING SUMMER MONTHS, AND PARTIALLY OPEN OUTSIDE AIR AND RETURN AIR DAMPERS DURING WINTER MONTHS.
   c. IF ECONOMIZER MODE CAN NOT FULLY PROVIDE THE REQUIRED DISCHARGE AIR TEMPERATURE, THE DX COOLING COIL SHALL SUPPLEMENT AS REQUIRED.

3. DEMAND CONTROL VENTILATION (CO2) OPERATION
   a. SPACE CO2 LEVELS SHALL BE CONTINUOUSLY MONITORED IN OCCUPIED MODE.
   b. A CO2 SENSOR SHALL BE INSTALLED IN THE RETURN AIR DUCT AND ANOTHER CO2 SENSOR SHOULD BE INSTALLED OUTDOORS BY THE UNIT. CO2 LEVEL OF BOTH SHALL BE MONITORED AND COMPARED THE BY UNIT CONTROLLER.
   c. WHEN CO2 LEVEL IN RETURN AIR DUCT IS 700 PPM (ADJUSTABLE), ABOVE OUTSIDE AIR CO2 LEVEL, THE OUTSIDE AIR, AND RETURN AIR DAMPERS SHALL MODULATE AS REQUIRED TO INCREASE OUTSIDE AIR INTAKE IN ORDER TO MAINTAIN SPACE CO2 SETPOINT.
   d. OUTSIDE AIR AND RETURN AIR DAMPER ECONOMIZER TEMPERATURE CONTROL FUNCTIONALITY SHALL BE SECONDARY DURING DEMAND CONTROL VENTILATION OPERATION.THE DX COOLING & HEATING COIL SHALL CONTINUE TO MAINTAIN SUPPLY AIR DISCHARGE SETPOINT.
   e. WHEN OCCUPIED CO2 SETPOINT PLUS DEADBAND IS REACHED THE SYSTEM DAMPERS SHALL RETURN MINIMUM OUTSIDE AIR/ECONOMIZER OPERATION. MINIMUM OUTSIDE AIR SHALL BE SET TO 450-CFM

2. UNOCCUPIED MODE:
   a. THE SUPPLY AND ASSOCIATED EXHAUST FAN SHALL BE OFF.
   b. THE OUTSIDE AIR DAMPER AND THE ASSOCIATED RELIEF AIR HOOD DAMPER SHALL BE FULLY CLOSED AND THE RETURN AIR DAMPER SHALL BE FULLY OPEN.
   c. ON DROP IN SPACE TEMPERATURE BELOW THE UNOCCUPIED HEATING SETPOINT, CYCLE THE FAN ON AND ELECTRICAL COIL SHALL OPERATE AT THE FULL RATE TO MAINTAIN REDUCED SPACE TEMPERATURE. USE 5 DEG. F (ADJUSTABLE) DEADBAND TO MINIMIZE SHORT CYCLING.
   d. A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT IN OCCUPIED MODE FOR 1 HOUR (ADJUSTABLE). AT EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.

3. WARM-UP MODE:
   a. THE UNIT SHALL START PER AN OPTIMUM START PROGRAM.
   b. THE OUTSIDE AIR DAMPER AND THE ASSOCIATED RELIEF HOOD DAMPER SHALL BE FULLY CLOSED, THE RETURN AIR DAMPER SHALL BE FULLY OPEN, AND THE ASSOCIATED EXHAUST FAN SHALL BE OFF.
   c. THE SUPPLY FAN SHALL RUN AND THE GAS FURNACE SHALL MODULATE TO MAINTAIN OCCUPIED SETPOINT.

4. SAFETIES:
   a. DIFFERENTIAL PRESSURE ACROSS THE AIR FILTERS SHALL GENERATE AN ALARM WHENEVER THE DIFFERENTIAL PRESSURE EXCEEDS IT'S ADJUSTABLE SETPOINT.
   b. IF THE DISCHARGE AIR TEMPERATURE DROPS BELOW 35 DEG F (ADJUSTABLE), THE SUPPLY FAN SHALL TURN OFF AND SHALL BE LOCKED OUT, AND AN ALARM SHALL BE ACTIVATED.
   c. IF THE DISCHARGE AIR TEMPERATURE RISES ABOVE 120 DEG. F (ADJUSTABLE), THE GAS FURNACE SHALL TURN OFF AND AN ALARM SHALL BE ACTIVATED.
   d. COORDINATE SMOKE DETECTION SHUTDOWN WITH FIRE ALARM CONTRACTOR

1 M-601 **Rooftop Unit With Return Fan - Electric Coil and Dx Cooling**
SCALE: NOT TO SCALE

FAN SCHEDULE

TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	TYPE	DRIVE	AIR FLOW (CFM)	TSP (IN. WG)	ELECTRICAL				OPERATING WEIGHT (±LBS)	DIMENSIONS DxH (IN)
									HP	BHP	RPM	V-PH-HZ		
EF-1	GREENHECK	G-095	ROOF	KITCHEN EXHAUST (GENERAL)	CENTRIFUGAL	DIRECT	775	0.50	1/4	-	1725	208-1-60	30	22x27
EF-2	GREENHECK	G-070	ROOF	BATHROOM EXHAUST	CENTRIFUGAL	DIRECT	200	0.25	0.03	-	1550	115-1-60	24	19x24

NOTES:

1. PROVIDE ALL CONTACTS, RELAYS, AND DEVICES NECESSARY FOR BMS CONTROL OF FANS PER SEQUENCE OF OPERATIONS.
2. PROVIDE PREMIUM EFFICIENCY MOTORS.
3. PROVIDE THERMAL OVERLOAD FOR ALL SINGLE PHASE MOTORS.
4. PROVIDE SALT WATER RESISTANT HI-PRO POLYESTER COATING FOR ALL FANS.
5. FAN SHALL BE FURNISHED WITH NON FUSED DISCONNECT.
6. PROVIDE 12" ROOF CURBS FOR ALL ROOF MOUNTED FANS. INCLUDE 1.5" INSULATION ON CURB.

CABINET UNIT HEATER SCHEDULE

EQUIP. NO.	MANUFACTURER	MODEL	LOCATION	SERVICE	TYPE	KW	V-P-HZ	AMPS	UNIT DIMENSIONS (LxDxH)
CUH-1	QMARK	CU935	REAR ENTRY WAY		WALL MOUNTED	5	208-3-60	14.0	35x10x27
CUH-2	QMARK	CU935	LOBBY		WALL MOUNTED	5	208-3-60	14.0	35x10x27

NOTES:

1. PROVIDE WITH 2 STAGE BUILT-IN THERMOSTAT.

ELECTRIC UNIT HEATER SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	TYPE	KW	V-PH-HZ
UH-1	QMARK	MUH03	SPRINKLER ROOM	WALL HUNG	3.0	208-1-60

NOTES:

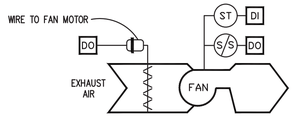
1. PROVIDE UNIT MOUNTED THERMOSTATS.

DIFFUSER SCHEDULE

TAG	MANUFACTURER	MODEL	SERVICE	CFM	NECK SIZE (IN)	FACE SIZE (IN)	MAX PD (wg)	MAX NC	NOTES
SD-1	PRICE	ASPD	SUPPLY	<200	6" ROUND	12X12	0.15	20	ALUMINUM TYPE 31 T BAR/4C.
SG-1	PRICE	SDG	SUPPLY	-	-	10X10	0.06	-	ALUMINUM, NO SCREW HOLES, 45 DEG DEFLECTION, 3/4" (13) BLADE SPACING.
SG-2	PRICE	630	SUPPLY	-	6" ROUND	12X12	0.02	18	ALUMINUM TYPE TB, NO SCREW HOLES, 45 DEG DEFLECTION, 3/4" (13) BLADE SPACING.
RG-1	PRICE	630	RETURN	-	-	24X16	-0.1	27	ALUMINUM TYPE TB, NO SCREW HOLES, 45 DEG DEFLECTION, 3/4" (13) BLADE SPACING.
EG-1	PRICE	630	EXHAUST	-	-	12X12	-0.044	18	ALUMINUM TYPE TB, NO SCREW HOLES, 45 DEG DEFLECTION, 3/4" (13) BLADE SPACING.

NOTES:

1. COORDINATE AND CONFIRM CEILING MOUNT (T-BAR, SURFACE, ETC) WITH ARCHITECT BEFORE ORDERING EQUIPMENT.
2. BASE PRICE FOR BIDDING MUST CONTAIN DIFFUSERS/GRILLES BY PRICE. CONTRACTOR CAN SUBMIT A DEDUCT/ALTERNATE FOR DIFFUSERS/GRILLES BY A DIFFERENT MANUFACTURER.

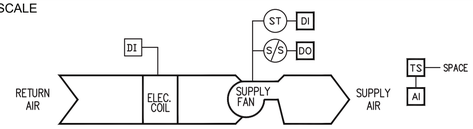


EXHAUST FAN - CONSTANT SPEED - SEQUENCE OF OPERATIONS:

INTERLOCK THE OPERATION OF THE EXHAUST FANS AND AUTOMATIC DAMPERS WITH THEIR RESPECTIVE HEATING AND COOLING EQUIPMENT.

1. OCCUPIED MODE:
   a. THE EXHAUST FAN SHALL RUN CONTINUOUSLY AND THE AUTOMATIC AIR DAMPER SHALL OPEN.
3. UNOCCUPIED MODE:
   a. THE EXHAUST FAN SHALL BE OFF AND THE AUTOMATIC AIR DAMPER SHALL BE CLOSED.
4. WARM-UP MODE:
   a. THE EXHAUST FAN SHALL BE OFF AND THE AUTOMATIC AIR DAMPER SHALL BE CLOSED.
5. SAFETIES:
   a. UPON A FAILURE OF THE FAN, AS SENSED BY A CURRENT SENSING STATUS SWITCH, AN ALARM SHALL BE ACTIVATED.

1 M-601 **Exhaust Fan - Constant Speed**
SCALE: NOT TO SCALE



UNIT HEATER - ELECTRIC - SEQUENCE OF OPERATIONS:

1. OCCUPIED MODE:
   a. ON DROP IN SPACE TEMPERATURE BELOW OCCUPIED HEATING SETPOINT, CYCLE THE FAN ON AND MODULATE (2 STAGE) ELECTRIC COIL TO MAINTAIN SPACE OCCUPIED SETPOINT, FAN SHALL HAVE DELAYED SHUT OFF AFTER VALVE CLOSES. USE 5 DEG. F (ADJUSTABLE) DEADBAND TO MINIMIZE SHORT CYCLING.
2. UNOCCUPIED MODE:
   a. ON DROP IN SPACE TEMPERATURE BELOW UNOCCUPIED HEATING SETPOINT, CYCLE THE FAN OFF AND POWER OFF ELECTRIC COIL. USE 5 DEG. F (ADJUSTABLE) DEADBAND TO MINIMIZE SHORT CYCLING.
4. SAFETIES:
   a. PROVIDE CURRENT SENSOR TO SENSE THE STATUS OF THE FANS. WHEN FAN MOTOR AMP DRAW IS OUT OF NORMAL RANGE, GENERATE AN ALARM AT THE OWS.

1 M-601 **Unit Heater - Electric**
SCALE: NOT TO SCALE

CONSULTANT INFORMATION

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CONSULTANT SEAL

STATE OF NEW YORK · FRANK F. ULRICH · 090710 · LICENSED PROFESSIONAL ENGINEER

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PLAYLAND PARK, RYE, NEW YORK
PLAZA RESTAURANT
MECHANICAL SCHEDULES AND DETAILS

CONTRACT NUMBER	20-530
SHEET NUMBER	PR-M-61
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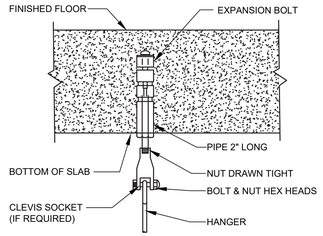
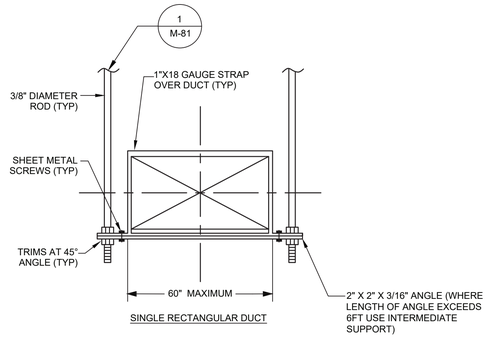


CONCRETE ANCHOR FOR HANGING PIPING OR EQUIPMENT

1 M-801 MECHANICAL ANCHORING DETAIL

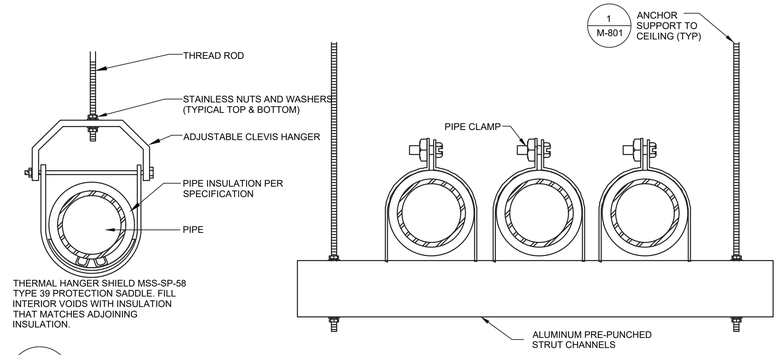
SCALE: NOT TO SCALE



SINGLE RECTANGULAR DUCT

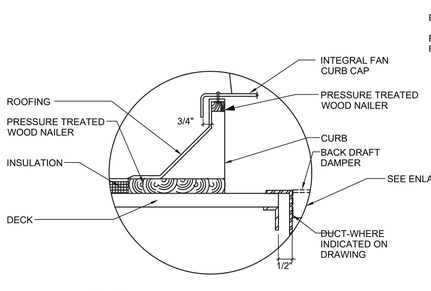
2 M-801 MECHANICAL DUCT HANGER DETAIL

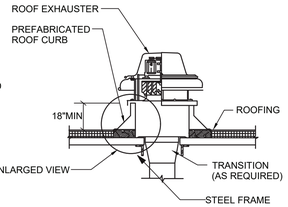
SCALE: NOT TO SCALE



3 M-801 MECHANICAL PIPE HANGER DETAIL

SCALE: NOT TO SCALE

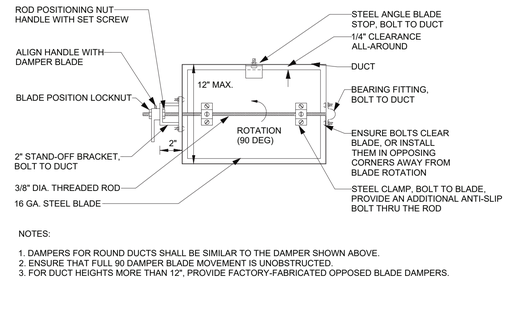




NOTES:
1. BACKDRAFT DAMPER SHALL BE FULL SIZE OF OPENING IN ROOF DECK.

4 M-801 MECHANICAL ROOF FAN DETAIL

SCALE: NOT TO SCALE

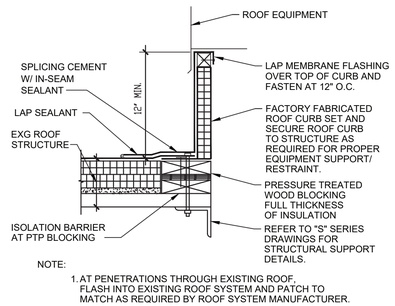


NOTES:

1. DAMPERS FOR ROUND DUCTS SHALL BE SIMILAR TO THE DAMPER SHOWN ABOVE.
2. ENSURE THAT FULL 90 DAMPER BLADE MOVEMENT IS UNOBSTRUCTED.
3. FOR DUCT HEIGHTS MORE THAN 12", PROVIDE FACTORY-FABRICATED OPPOSED BLADE DAMPERS.

5 M-801 MECHANICAL VOLUME DAMPER DETAIL

SCALE: NOT TO SCALE

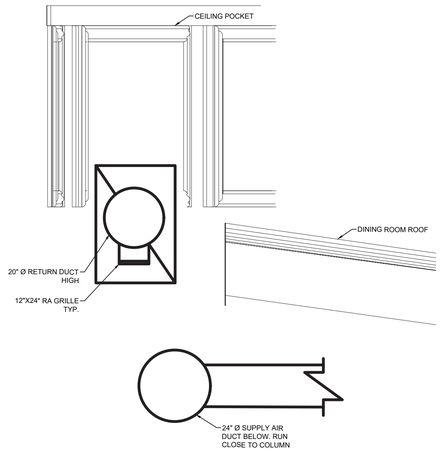


NOTE:

1. AT PENETRATIONS THROUGH EXISTING ROOF, FLASH INTO EXISTING ROOF SYSTEM AND PATCH TO MATCH AS REQUIRED BY ROOF SYSTEM MANUFACTURER.

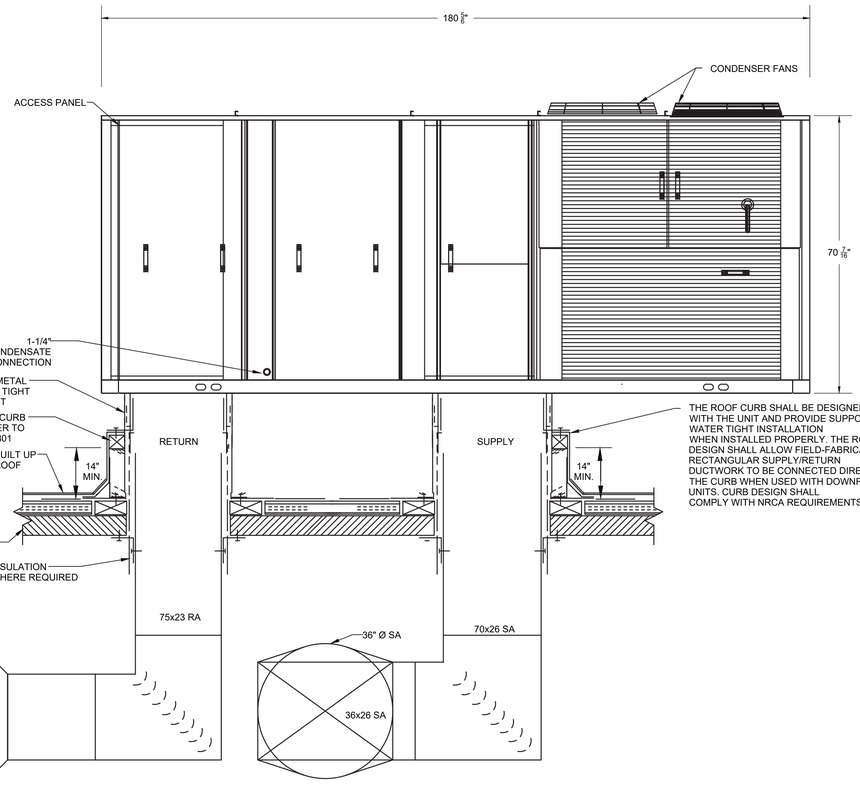
6 M-801 ROOF CURB DETAIL

SCALE: NOT TO SCALE



7 M-801 DINING ROOM DUCT SCHEMATIC DETAIL

SCALE: NOT TO SCALE



8 M-801 ROOF TOP UNIT (RTU) DETAIL

SCALE: NOT TO SCALE

CONSULTANT INFORMATION

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CONSULTANT SEAL

STATE OF NEW YORK · FRANK F. ULCIBEE · 090117 · LICENSED PROFESSIONAL ENGINEER

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