

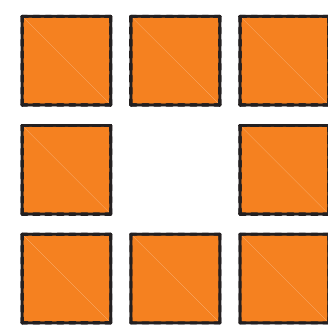
# ROCKLAND GREEN MRF FACILITY IMPROVEMENTS

## CONTRACT NO. 3 - MECHANICAL

### 420 TORNE VALLEY ROAD HILLBURN NY 10931



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OWNER:

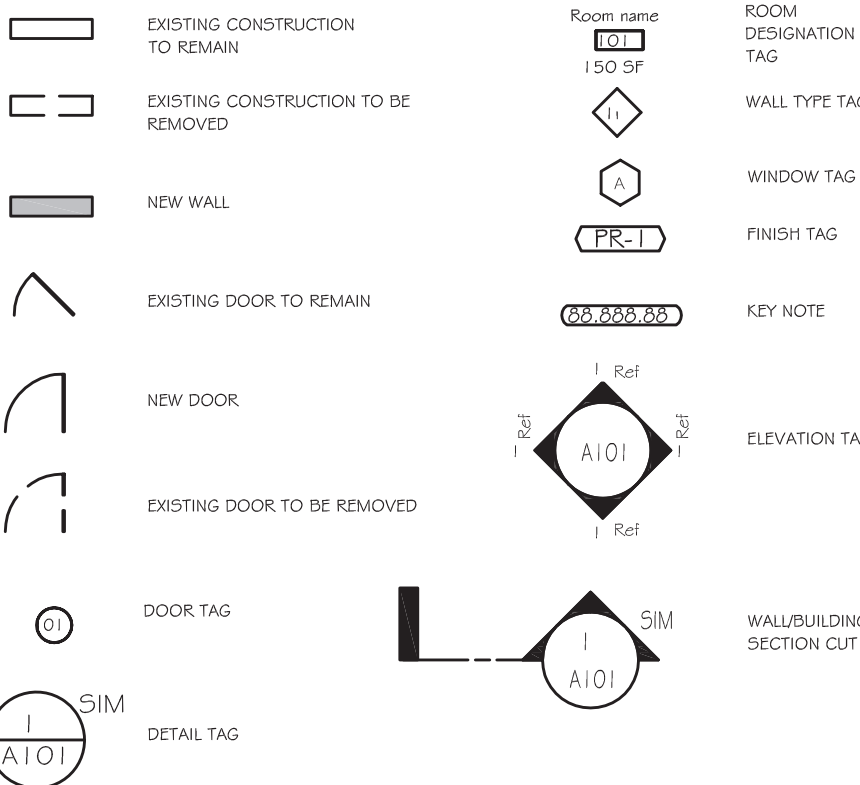
OWNER ENGINEER:

ARCHITECT:

MECHANICAL, ELECTRICAL AND PLUMBING ENGINEER:

CIVIL ENGINEER:

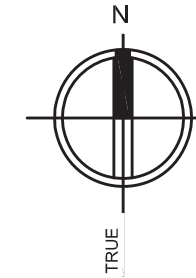
#### LEGEND:



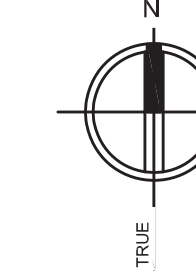
#### ABBREVIATIONS:

AB.	ANCHOR BOLT	MAT.	MATERIAL
A.C.T.	ACOUSTICAL CEILING TILE	MAX.	MAXIMUM
A.F.F.	ABOVE FINISH FLOOR	MECH.	MECHANICAL
APPX.	APPROXIMATE	MIN.	MINIMUM
ARCH.	ARCHITECT	MIR.	MIRROR
BSMT.	BASEMENT	MISC.	MISCELLANEOUS
BM	BEAM	MTL	METAL
BO	BOARD	NOM.	NOMINAL
BOT.	BOTTOM	N.T.S.	NOT TO SCALE
BUDG.	BUILDING	O.C.	ON CENTER
CAB.	CABINET	O.H.	OVERHEAD
CLG.	CEILING	PTD.	PAINTED
C.T.	CERAMIC TILE	P. LAM.	PLASTIC LAMINATE
CR.	CIRCLE	PL.	PLATE
COL.	COLUMN	P.S.F.	POUNDS PER SQ. FOOT
C.J.	CONTROL JOINT	P.S.I.	POUNDS PER SQ. INCH.
CORR.	CORRIDOR	PRETAB	PREFABRICATED
D.L.	DEAD LOAD	P.T.	PRESSURE TREATED (WOOD)
DTL.	DETAIL	RAD.	RADIUS
DIAM.	DIAMETER	R/LG.	RAILING
DIM.	DIMENSION	REF.	REFRIGERATOR
D.W.	DISHWASHER	REINF.	REINFORCED (CONC.)
D.H.	DOUBLE HUNG	REV.	REVISION (E, ED)
D.S.	DOWNSPOUT	RFG.	RISER
DWG.	DRAWING	RFTG.	ROOTING
ELEC.	ELECTRICAL	RM.	ROOM
ELEV.	ELEVATION	SEC.	SECTION
EQ.	EQUAL	SHING.	SHEATHING
EXIST.	EXISTING	SHT.	SHEET
EXT.	EXTERIOR	SIM.	SIMILAR
E.I.F.S.	EXTERIOR INSULATED FINISH SYSTEM	S.C.	SOLID CORE
FIN.	FINISH	SPEC.	SPECIFICATION
F.P.	FIREPLACE	SQ.	SQUARE
FUR.	FLOOR	STD.	STANDARD
F.D.	FLOOR DRAIN	STR.	STRUCTURAL
FTG.	FOOTING	THK.	THICKNESS
FND.	FOUNDATION	THRSOLD	THRESHOLD
FUR.	FURRED	T&G	TONGUE AND GROOVE
G.C.	GENERAL CONTRACTOR	T.O.C.	TOP OF CONCRETE
G.	GLASS	T.O.B.	TOP OF BEAM
GYP.BD	GYPSUM BOARD	T.O.F.	TOP OF FOUNDATION
HWSH.	HARDWARE	T.O.P.	TOP OF PLATE
HDR.	HEADER	TR.	TREAD
HTG.	HEATING	TYP.	TYPICAL
HVAC	HEATING/VENTILATION/AIR CONDITIONING	UNF.	UNFINISHED
HGT.	HIGHT	U.O.N.	UNLESS OTHERWISE NOTED
HORIZ.	HORIZONTAL	V.B.	VAPOR BARRIER
HS.	HOSE BIBB	VERT.	VERTICAL
INS.	INSULATED (IRON)	V.I.F.	VERIFY
JT.	JOINT	W.C.	WATER CLOSET
JST.	JOIST	W.P.	WATER PROOFING
KIT	KITCHEN	W.R.	WATER RESISTANT
LAV.	LAVATORY	WN.	WINDOW
L.L.	LIGHT	WO	WITHOUT
L.L.	LINE LOAD	WO	WOOD
MFR.	MANUFACTURER		
MAS.	MASONRY		

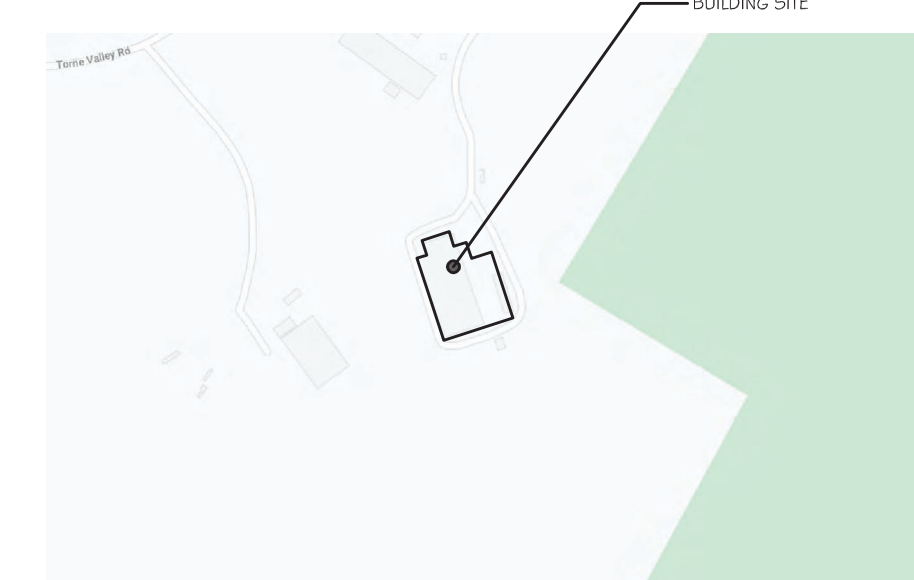
SHEET LIST TABLE			100% CONSTRUCTION DOCUMENT	REVISION HISTORY			CURRENT REVISION			
SHT.	SHEET TITLE	DRAWING DATE		02/05/21	04/05/21	04/05/21	Rev. #	DATE	DESCRIPTION	ISSUED (Y/N)
MECHANICAL										
M-000	TITLE SHEET_MECHANICAL	07/30/21	100%				D	07-23-21	REVISED FOR RFP ADDENDUM 6	No
M-001	LEGEND, NOTES AND DRAWING SCHEDULE	07/30/21	100%							No
M-002	ENERGY COMPLIANCE FORMS	05/27/21								No
M-101	PARTIAL FLOOR PLANS - MECHANICAL DEMOLITION	07/30/21	100%							No
M-102	PARTIAL FLOOR PLANS - MECHANICAL DEMOLITION	07/30/21	100%							No
M-103	PARTIAL FIRST FLOOR PLAN - MECHANICAL DEMOLITION	07/30/21	100%							No
M-201	PARTIAL FLOOR PLANS - MECHANICAL	07/30/21	100%							No
M-202	PARTIAL FIRST FLOOR PLAN - MECHANICAL	07/30/21	100%							No
M-203	ROOF PLAN - MECHANICAL	07/30/21	100%							No
M-301	DETAILS	07/30/21	100%							No
M-401	SCHEDULES	07/30/21	100%							No
M-402	SCHEDULES AND DETAILS	07/30/21	100%							No



#### BUILDING LOCATION AERIAL



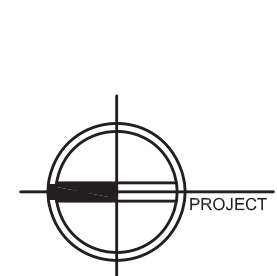
#### BUILDING LOCATION



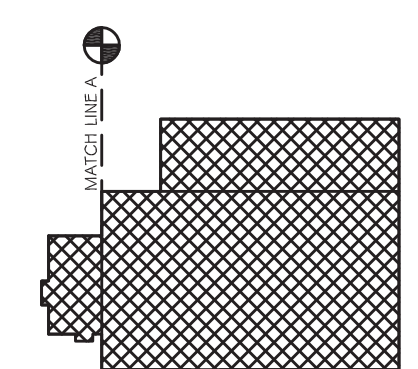
#### ROCKLAND GREEN FACILITY IMPROVEMENTS PHASING NOTE

- Rockland Green is soliciting proposals for the construction of improvements to its existing Materials Recovery Facility (MRF), as further detailed in the Drawings and Specifications. These Facility Improvements include, but are not limited to, a building addition, site work, interior demolition work, interior build-out work, electric service upgrades and reworked mechanical, plumbing, electrical, fire sprinkler and fire alarm systems to accommodate a new state-of-the-art dual stream recyclables processing system supplied and installed under Contract No. 1 - Processing Equipment.
- The Facility Improvements are being procured through separate contracts as follows:
  - Contract No. 2 - Facility Improvements: General Construction
  - Contract No. 3 - Facility Improvements: Mechanical/HVAC
  - Contract No. 4 - Facility Improvements: Plumbing
  - Contract No. 5 - Facility Improvements: Electrical
  - Contract No. 6 - Facility Improvements: Fire Protection System
- The building has been divided into the following area designations:
  - Area 1 - Existing Tipping Area.
  - Area 2 - Existing Processing Area.
  - Area 3 - Existing Administration Area.
  - Area 4 - New Commingled Tipping Area.
  - Area 5 - New Storage & Glass Processing Area.
  - Area 6 - New Truck Loading Dock Area.
- Work shall commence on the exterior and in the Areas 1 and 2 for its Substantial Completion to be achieved prior to the start of site preparation and installation of the Dual Stream Recyclables Processing System, which is scheduled to occur early December 2021. It shall include all Work as defined in the Contract Drawings, Specifications, and Schedules. It shall also include all rough-ins associated with Mechanical, Electrical, Plumbing, and Fire Protection Equipment. All final connections of Mechanical, Electrical, Plumbing and Fire Protection (including equipment fire sprinkler system) in Areas 1 and 2 shall be completed prior to the startup of process equipment.
- Work in Area 3 shall be sequenced to allow access and use of existing Areas 1 and 2 for Contractors on-site as approved by the Engineer and the Contractors for Contract Nos. 2-6 shall achieve Substantial Completion prior to the required date for the Operator to operate safely and have partial occupancy and use of Area 3. Additionally, any Work by Contract Nos. 1 and 5-6 related to all other Areas 1, 2, 4-6 and the site work/streets shall progress and be completed to support and not delay the overall Project Schedule.
- Contract Nos. 2-6: Work in Areas 4 - 6 shall be sequenced by each applicable Contractor to make most use and access of working space where the building erection is complete, so the work of Contract No. 1 can proceed efficiently. All work to be coordinated between the Contractors.

#### PROJECT



#### NORTH



#### KEY PLAN



ARCHITECTURE  
PLANNING  
INTERIORS



**RRT Engineering, LLC**  
An Affiliate of Enviro-Services & Constructors, Inc.  
NY COA # 0017967



**ROCKLAND GREEN  
MATERIALS RECOVERY FACILITY,  
FACILITY IMPROVEMENTS**  
420 TORNE VALLEY ROAD, HILLBURN, NY 10931

#### TITLE SHEET\_MECHANICAL



N.Y. R.A. LICENSE No. 083339  
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REV	DESCRIPTION	DATE
1	ISSUED FOR RFP	07/29/21
2	REVISED FOR RFP ADDENDUM 4	08-23-21

DRAWN	CHECKED	DESIGNED	APPROVED	BY	DATE	PROJ. No:	SCALE:
				IDEA	07/09/21	499-010	AS SHOWN
					07/09/21		
					07/09/21		
					07/09/21		
					07/09/21		

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GENERAL

POINT OF CONNECTION TO EXISTING

POINT OF DISCONNECTION

EQUIPMENT IDENTIFICATION TAG

DETAIL #/DRAWING NUMBER

KEY DEMOLITION NOTE

REVISION TAG

DUCT SYMBOLS

GENERAL

DUCT, FIRST FIGURE IS PLAN DIMENSION

ACOUSTICALLY LINED DUCT

FLEXIBLE DUCT (INSULATED)

EXISTING DUCT

DUCT TO BE REMOVED

RECTANGULAR DUCT RISER, UP & DN, SUPPLY OR OUTDOOR AIR

RECTANGULAR DUCT RISER, UP & DN, RETURN OR EXHAUST AIR

RECTANGULAR DUCT ELBOW UP, SUPPLY OR OUTDOOR AIR

RECTANGULAR DUCT ELBOW UP, RETURN OR EXHAUST AIR

RECTANGULAR DUCT ELBOW DN, SUPPLY OR OUTDOOR AIR

RECTANGULAR DUCT ELBOW DN, RETURN OR EXHAUST AIR

RECTANGULAR DUCT TEE UP, SUPPLY OR OUTDOOR AIR

RECTANGULAR DUCT TEE UP, RETURN OR EXHAUST AIR

RECTANGULAR DUCT TEE DN, SUPPLY OR OUTDOOR AIR

RECTANGULAR DUCT TEE DN, RETURN OR EXHAUST AIR

INCLINED RISE, IN DIRECTION OF AIR FLOW

INCLINED DROP, IN DIRECTION OF AIR FLOW

ROUND DUCT RISER, UP & DN

ROUND DUCT ELBOW UP

ROUND DUCT ELBOW DN

ROUND DUCT TEE UP

ROUND DUCT TEE DN

AD - ACCESS DOOR  
AP - ACCESS PANEL

FLEXIBLE CONNECTION

DAMPERS

VOLUME DAMPER

MOTORIZED DAMPER

BACKDRAFT DAMPER

FIRE DAMPER

COMBINATION FIRE AND SMOKE DAMPER

SMOKE DAMPER

DUCT SYMBOLS

DIFFUSERS/GRILLES/REGISTERS

(A)240 DIFFUSER/GRILLE/REGISTER DESIGNATION AND FLOW RATE IN CFM

(EX)240 EXISTING DIFFUSER/GRILLE/REGISTER DESIGNATION AND FLOW RATE IN CFM

CEILING SUPPLY DIFFUSER/GRILLE/REGISTER

BLANKOFF INDICATING NO AIR THROWN TO THIS SIDE

EXISTING CEILING SUPPLY DIFFUSER/GRILLE/REGISTER

WALL SUPPLY DIFFUSER/GRILLE/REGISTER

LINEAR CEILING SUPPLY DIFFUSER/GRILLE/REGISTER WITH PLENUM

LINEAR WALL SUPPLY DIFFUSER/GRILLE/REGISTER WITH PLENUM

CEILING RETURN/EXHAUST GRILLE/REGISTER

CEILING RETURN/EXHAUST GRILLE/REGISTER

WALL RETURN/EXHAUST GRILLE/REGISTER

LINEAR CEILING RETURN/EXHAUST GRILLE/REGISTER WITH PLENUM

LINEAR WALL RETURN/EXHAUST GRILLE/REGISTER WITH PLENUM

WALL TRANSFER GRILLE

OUTDOOR AIR LOUVER

EXHAUST AIR LOUVER

EQUIPMENT

VAV TERMINAL BOX

FILTER

HUMIDIFIER

SENSORS

ROOM THERMOSTAT

TEMPERATURE SENSOR

ROOM HUMIDISTAT

ROOM PRESSURE SENSOR/TRANSMITTER

CARBON DIOXIDE SENSOR (ROOM & DUCT MOUNTED)

AIRFLOW MEASURING STATION

DUCT SMOKE DETECTOR

HUMIDITY SENSOR

PIPING SYMBOLS

GENERAL

ARROW INDICATING FLUID FLOW DIRECTION

EXISTING PIPING

PIPE TO BE REMOVED

HEATING

HPS HIGH-PRESSURE STEAM

MPS MEDIUM-PRESSURE STEAM

LPS LOW-PRESSURE STEAM

HPC HIGH-PRESSURE CONDENSATE

MPC MEDIUM-PRESSURE CONDENSATE

LPC LOW-PRESSURE CONDENSATE

BBD BOILER BLOWDOWN

PC PUMPED CONDENSATE

VPD VACUUM PUMP DISCHARGE

MU MAKEUP WATER

ATV ATMOSPHERIC VENT

FOD FUEL OIL DISCHARGE

FOG FUEL OIL GAGE

FOS FUEL OIL SUCTION

FOR FUEL OIL RETURN

FOV FUEL OIL TANK VENT

HWS HOT WATER SUPPLY

HWR HOT WATER RETURN

A COMPRESSED AIR

VAC VACUUM AIR

AIR CONDITIONING AND REFRIGERATION

RS REFRIGERANT SUCTION

RL REFRIGERANT LIQUID

CS CONDENSER WATER SUPPLY

CR CONDENSER WATER RETURN

CWS CHILLED WATER SUPPLY

CWR CHILLED WATER RETURN

FILL FILL

H HUMIDIFICATION LINE

D DRAIN

CD CONDENSATE DRAIN

HFR HEAT PUMP WATER RETURN

FITTINGS

O PIPE RISER, UP & DN

O PIPE ELBOW UP

O PIPE TEE UP

O PIPE ELBOW DOWN

O PIPE TEE DOWN

R REDUCER, CONCENTRIC

R REDUCER, ECCENTRIC STRAIGHT INVERT

R REDUCER, ECCENTRIC STRAIGHT CROWN

UNION

FLANGE

GAP

SPECIALTIES

QAY AIR VENT, AUTOMATIC

QMV AIR VENT, MANUAL

ALIGNMENT GUIDE

ANCHOR

EXPANSION JOINT

EXPANSION LOOP

FLEXIBLE CONNECTOR

PIPING SYMBOLS

SPECIALTIES (CONT)

FLOWMETER, ORIFICE

FLOWMETER, VENTURI

FLOWMETER, ULTRASONIC STRAP-ON

FLOW SWITCH

TEST PLUG

PRESSURE GAUGE, WITH COCK

PRESSURE GAUGE, COMPOUND

PRESSURE SWITCH

STEAM TRAP, FLOAT AND THERMOSTATIC

STRAINER

STRAINER, BLOW OFF

THERMOMETER

THERMOMETER WELL

VALVES FOR SELECTIVE ACTUATORS

BALL

BUTTERFLY

GATE

GATE, ANGLE

GLOBE

GLOBE, ANGLE

PLUG

THREE WAY

VALVE ACTUATORS

LEVER

NON-RISING STEM

OUTSIDE STEM & YOKE

GEAR

ELECTRIC, SOLENOID

PNEUMATIC, MOTOR

SPECIAL DUTY VALVES

BALANCING VALVE

CHECK

HOSE END DRAIN VALVE

NEEDLE

PRESSURE REDUCING

QUICK OPENING

QUICK CLOSING, FUSIBLE LINK

RELIEF (R) OR SAFETY (S)

TRIPLE DUTY

TAGS

HEATING COIL

ROOFTOP UNIT

AIR HANDLING UNIT

FAN COIL UNIT

RADIANT CEILING PANEL

ENERGY RECOVERY UNIT

EXHAUST FAN

CONDENSING UNIT

CABINET UNIT HEATER

PUMP

EXPANSION TANK

ABBREVIATIONS

A COMPRESSED AIR

ACU AIR CONDITIONING UNIT

AD ACCESS DOOR

ADP APPARATUS DEM POINT

AFF ABOVE FINISHED FLOOR

AHU AIR HANDLING UNIT

AIR COND AIR CONDITION(-ING, -ED)

ALT ALTITUDE

AMB AMBIENT

AMP, AMPS AMPERE(S)

APPROX APPROXIMATE

ATC AUTOMATIC TEMPERATURE CONTROLS

ATM ATMOSPHERE

ATV ATMOSPHERIC VENT

AVG AVERAGE

BBD BOILER BLOWDOWN

BDD BACKDRAFT DAMPER

BHP BRAKE HORSEPOWER

BTU BRITISH THERMAL UNIT

BTUH BRITISH THERMAL UNIT PER HOUR

C CONDENSER WATER SUPPLY

CCW COUNTERCLOCKWISE

CFM CUBIC FEET PER MINUTE

CLG CEILING

CO2 COMPRESSOR

CO CARBON MONOXIDE

COND CARBON DIOXIDE

CONT CONDENSE(-ER, -ING, -ATION)

CR CONTINU(-ED, -ATION)

CU FT CUBIC FEET PER MINUTE

CU IN CUBIC INCH

CWR CHILLED WATER RETURN

CWS CHILLED WATER SUPPLY

D DRAIN

dB DECIBEL

DB DRY-BULB TEMPERATURE

DEG OR DEGREE

DIA OR DIAMETER

DN DOWN

DPT DEW-POINT TEMPERATURE

DWG DRAWING

EAT ENTERING AIR TEMPERATURE

EC ELECTRICAL CONTRACTOR

EFF EFFICIENCY

EL ELEVATION

ENT ENTERING AIR TEMPERATURE

ESP EXTERNAL STATIC PRESSURE

EVAP EVAPORATE(-E, -ING, -ED, -OR)

EXT ENTERING WATER TEMPERATURE

EX, EXIST EXISTING

F FAHRENHEIT

FA FACE AREA

FD FIRE DAMPER

FOD FUEL OIL DISCHARGE

FOF FUEL OIL FILL

FOG FUEL OIL GAGE

FOR FUEL OIL RETURN

FOS FUEL OIL SUCTION

FOV FUEL OIL TANK VENT

FFM FEET PER MINUTE

FFS FEET PER SECOND

FT FOOT OR FEET

FVEL FACE VELOCITY

G GRAINS

GA GAGE OR GAUGE

GAL GALLONS

GC GENERAL CONTRACTOR

GPH GALLONS PER HOUR

GPM GALLONS PER MINUTE

H HUMIDIFICATION LINE

HD HEAD

HG MERCURY

HGT HEIGHT

HP HORSEPOWER

HPC HIGH PRESSURE CONDENSATE

HPS HIGH PRESSURE STEAM

HPWR HEAT PUMP WATER RETURN

HPWS HEAT PUMP WATER SUPPLY

HR HOUR(S)

HWR HOT WATER RETURN

HWS HOT WATER SUPPLY

HZ HERTZ

ID INSIDE DIAMETER

IN INCHES

KN KILOWATT

LAT LEAVING AIR TEMPERATURE

LBS POUNDS

LF LINEAR FEET

LG LENGTH

LPC LOW-PRESSURE CONDENSATE

LPS LOW-PRESSURE STEAM

LNT LEAVING WATER TEMPERATURE

MAX MAXIMUM

MBH THOUSAND BTUH

MC MECHANICAL CONTRACTOR

MIN MINIMUM

MIN MINUTE

MPC MEDIUM-PRESSURE CONDENSATE

MPS MEDIUM-PRESSURE STEAM

MU MAKEUP WATER

N/A NOT APPLICABLE

NC NOISE CRITERIA

N C NORMALLY CLOSED

N I C NOT IN CONTRACT

NO NUMBER

N O NORMALLY OPEN

NTS NOT TO SCALE

OA OUTSIDE AIR

OD OUTSIDE DIAMETER

PC PUMPED CONDENSATE

PD PRESSURE DROP

PH PHASE

PPM PARTS PER MILLION

PRESS PRESSURE

PSI POUNDS PER SQUARE INCH

PSIA PSI ABSOLUTE

PSIG PSI GAGE

RA RETURN AIR

RAD RADIATE(-E, -OR)

RB RETURN BEND

RD ROOF DRAIN

RECIRC RECIRCULATE

RH RELATIVE HUMIDITY

RL REFRIGERANT LIQUID

RO ROOF OPENING

RPM REVOLUTIONS PER MINUTE

RS REFRIGERANT SUCTION

S SECOND

SA SUPPLY AIR

SAN SANITARY

SH SENSIBLE HEAT

SHG SENSIBLE HEAT GAIN

SHR SENSIBLE HEAT RATIO

SP STATIC PRESSURE

SPEC SPECIFICATION

SG SQUARE

STD STANDARD

SUCT SUCTION

TS TEMPERATURE DIFFERENCE

TEMP TEMPERATURE

TH TOTAL HEAT

THICKS THICKNESS

TSTAT THERMOSTAT

TV TURNING VANES

TYP TYPICAL

V VOLT

VAC VACUUM, VACUUM AIR

VAV VARIABLE AIR VOLUME

VD VOLUME DAMPER

VEL VELOCITY

VENT VENTILATION, VENT

VOL VOLUME DAMPER

VPD VACUUM PUMP DISCHARGE

W HUMIDITY RATIO

W WATT

W WITH

WB WET BULB TEMPERATURE

WD WIDTH

WG WATER GAGE

WMS WIRE MESH SCREEN

WT WEIGHT

GENERAL NOTES:

COORDINATE ALL EQUIPMENT AND DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS.

COORDINATE ALL PENETRATIONS THROUGH EXTERIOR WALLS WITH ARCHITECTURAL DRAWINGS.

THE CONTRACTOR SHALL CHECK AND VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK. THEY SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER FOR CORRECTION PRIOR TO BEGINNING ANY WORK. DISCOVERY OF ANY DISCREPANCIES AFTER WORK HAS COMMENCED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

DO NOT SCALE THESE DRAWING FOR EXACT DIMENSIONS, VERIFY ALL FIGURES, CONDITIONS, DIMENSIONS, ETC. AT THE JOB SITE.

THE HVAC CONTRACTOR SHALL CENTER AND/OR ALIGN REGISTERS, DIFFUSERS, AND EQUIPMENT WITH ADJACENT ARCHITECTURAL FEATURES. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS.

DUCT DIMENSIONS INDICATED ARE CLEAR INSIDE DIMENSIONS.

ALL ROOF CURBS FOR MECHANICAL EQUIPMENT SHALL BE FURNISHED, INSTALLED AND FLASHED BY THE HVAC CONTRACTOR. THE HVAC CONTRACTOR IS RESPONSIBLE FOR ALL HVAC RELATED ROOF WORK, INCLUDING CUTTING AND PATCHING. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ROOF WARRANTY.

HVAC CONTRACTOR SHALL REVIEW THE EQUIPMENT SCHEDULES, SPECIFICATIONS, AND DRAWINGS IN ALL CONTRACT DOCUMENTS AND SUBSEQUENT SHOP DRAWINGS AND PROVIDE ALL LABOR AND MATERIAL FOR A COMPLETE AND OPERABLE SYSTEM. FAILURE TO REVIEW THESE DOCUMENTS DOES NOT RELIEVE THE CONTRACTOR OF FULFILLING THEIR CONTRACTUAL OBLIGATIONS.

REFER TO ARCHITECTURAL DRAWINGS AND SHOP DRAWINGS FOR FINAL CONNECTIONS AND EXACT LOCATIONS FOR ALL WORK REQUIRED FOR EQUIPMENT NOT FURNISHED UNDER THIS CONTRACT.

COORDINATE INSTALLATION OF NEW WORK WITH ARCHITECTURAL, STRUCTURAL, PLUMBING, POWER AND LIGHTING PLANS. CONTRACTOR SHALL TAKE ALL INTERFERENCE INTO CONSIDERATION. PROVIDE ALL NECESSARY OFFSETS OR TRANSITIONS WITH EQUIVALENT AREAS TO MATCH DUCT SIZES AS INDICATED ON DRAWINGS.

DO NOT INSTALL ANY MECHANICAL WORK ABOVE ELECTRICAL PANELS.

DO NOT INSTALL ANY MECHANICAL WORK ABOVE OR THROUGH ELEVATOR EQUIPMENT ROOM UNLESS SPECIFICALLY SERVING EQUIPMENT ROOM.

THE MOUNTING HEIGHT OF ALL THERMOSTATS, ROOM TEMPERATURE SENSORS, AND/OR HUMIDITY SENSORS, SHALL MATCH THE MOUNTING HEIGHT OF ELECTRICAL LIGHT SWITCHES OR, IN THE ABSENCE OF NEARBY SWITCHES, BE MOUNTED 44" ABOVE FINISHED FLOOR.

FOR ALL BRANCH DUCT CONNECTIONS TO MAIN TRUNK, PROVIDE 45° TRANSITION FITTING OR CONICAL TAP FOR ROUND DUCT. BUTT FITTINGS ARE NOT PERMITTED. PROVIDE MANUAL VOLUME DAMPER WITH LOCKING QUADRANT ON ALL BRANCH RUNOUTS TO GRILLES AND DIFFUSERS.

PROVIDE TURNING VANES IN ALL MITERED ELBOWS OR PROVIDE ELBOWS WITH CENTERLINE RADIUS EQUAL TO 1.5 TIMES DUCT WIDTH.

INSTALL ALL FIRE DAMPERS AND CEILING RADIATION DAMPERS IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. PROVIDE UL FIRE DAMPERS WITH BLADES OUT OF AIR STREAM AND ACCESS DOORS. FIRE DAMPERS IN TRANSFER DUCTS ONLY MAY HAVE BLADES IN AIR STREAM.

SLEEVE AND SEAL ALL PIPE OR DUCT PENETRATIONS OF WALL AND FLOORS. PACK VOID BETWEEN PIPE OR DUCT AND SLEEVE WITH INSULATION IN NON-RATED WALLS AND FLOORS. PACK VOID BETWEEN PIPE OR DUCT AND SLEEVE WITH INSULATION IN FIRE-RATED WALLS AND FLOORS. APPLY INTUMESCENT FIRE SAFING COMPOUND AT PENETRATION, MAINTAINING INTEGRITY AND RATING OF FIRE SEPARATION. SLEEVES THROUGH FLOORS SHALL EXTEND 2" ABOVE FLOOR AND BE GROUTED INTO PLACE AND WATERPROOFED. PIPING THROUGH EXTERIOR WALLS SHALL BE SLEEVED AND SEALED WEATHER TIGHT.

THE OWNER SHALL HAVE THE OPTION TO RETAIN ANY EQUIPMENT, CONTROLS, PIPING, DUCTWORK, AND ACCESSORIES SCHEDULED TO BE REMOVED.

SHUTDOWN OF SERVICES SHALL BE COORDINATED AND SCHEDULED WITH THE OWNER.

DUCTWORK AND PIPING THAT REMAIN AFTER DEMOLITION IS COMPLETE, SHALL BE CAPPED AT THE MAIN (IF THEY ARE TO BE TAKEN OUT OF SERVICE), OR PREPARED FOR RECONNECTION (IF THEY ARE TO BE REUSED).

CEILINGS THAT NEED TO BE TEMPORARILY REMOVED TO ALLOW FOR THE INSTALLATION OF DUCTWORK, PIPING, OR EQUIPMENT SHALL BE REMOVED AND REPLACED BY HVAC CONTRACTOR. ALL FIRE PROTECTION, ELECTRICAL, MEDICAL GAS, AND SERVICES SHALL ALSO BE INCLUDED.

THE HVAC CONTRACTOR SHALL DISCONNECT AND CAP ALL SUPPLY, RETURN, AND EXHAUST AIR OUTLETS THAT ARE STILL ACTIVE IN THE PROJECT AREA DURING CONSTRUCTION.

THE HVAC CONTRACTOR SHALL REFER TO THE PHASING PLAN TO DETERMINE THE EXTENT OF WORK AND TEMPORARY SYSTEM CONNECTIONS NECESSARY FOR EACH PHASE.

ALL DUCT AND UNIT MOUNTED SMOKE DETECTORS FOR MECHANICAL EQUIPMENT AND DAMPERS SHALL BE FURNISHED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR, WIRED TO FIRE ALARM SYSTEM BY ELECTRICAL CONTRACTOR, WITH UNIT SHUTDOWN CONTROL WIRING BY THE MECHANICAL CONTRACTOR.

HVAC CONTRACTOR SHALL PROVIDE ALL TRANSFORMERS AS REQUIRED FOR DUCT-MOUNTED DAMPER ACTUATORS OR THE DDG CONTROLS SYSTEM.

ALL WORK SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER SO THAT DISRUPTION OF AREAS INVOLVED IS KEPT TO A MINIMUM. ANY ACCIDENTAL INTERRUPTIONS TO SERVICES SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR WITH OUT ANY ADDITIONAL COST TO THE OWNER.

PRIOR TO SUBMITTING BIDS AND DURING CONSTRUCTION, THE CONTRACTOR SHALL EXAMINE THE DRAWINGS OF ALL TRADES AND COORDINATE THE INSTALLATION WITH ALL TRADES AND EXISTING CONDITIONS. COORDINATION OF WORK IF NECESSARY SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

THE DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL OFFSETS, BENDS, ACCESS PANELS, AND SIMILAR PARTS WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING HIS WORK AND PROVIDE ALL FITTINGS, ACCESS PANELS, AND SIMILAR ACCESSORIES THAT MAYBE REQUIRED TO PROVIDE A COMPLETE AND OPERATING INSTALLATION AT NO ADDITIONAL COST TO THE OWNER.

PROVIDE ALL DAMPERS, SHEAVES, AND BELTS AS REQUIRED FOR BALANCING.

THIS CONTRACTOR IS RESPONSIBLE FOR THE CUTTING AND PATCHING OF ALL OPENINGS RELATED TO THEIR WORK. PATCHES SHALL MATCH SURROUNDING WALL AND CEILING SURFACES AND SHALL BE SEALED AND FIRESTOPPED AS REQUIRED.

INSTALL FIRE DAMPERS AS REQUIRED PER NFPA 101 AND NFPA 90A, (2012 EDITION).

ALL HVAC INSTALLATIONS SHALL COMPLY WITH NFPA 101.

Mechanical Drawing Schedule

M-001 EQUIPMENT, MATERIALS, AND DRAWING SCHEDULE

M-002 ENERGY COMPLIANCE FORMS

M-101 PARTIAL FLOOR PLANS - MECHANICAL DEMOLITION

M-102 PARTIAL FLOOR PLANS - MECHANICAL DEMOLITION

M-103 PARTIAL FLOOR PLANS - MECHANICAL DEMOLITION

M-201 PARTIAL FLOOR PLANS - MECHANICAL

M-202 PARTIAL FIRST FLOOR PLAN - MECHANICAL

M-203 ROOF PLAN - MECHANICAL

M-301 DETAILS

M-401 SCHEDULES

M-402 SCHEDULES AND DETAILS

NOTE : THIS IS A GENERAL MECHANICAL LEGEND. ALL SYMBOLS MAY NOT APPEAR ON THE PLANS. SEE PLANS FOR ACTUAL SYMBOLS USED.

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A ISSUED FOR RFP 7/30/21 BJJ XX  
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1 Huntington Quadrangle, 3501  
Melville, N.Y. 11747  
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fax: 631-756-1064  
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PROJ. No: 499-010  
SCALE:  
DWG: M-001  
CAD FILE: N:\2021\12\1030\MEP\210331-M-001.DWG  
SHEET SIZE: D-24x36  
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NY COA # 0017967  
ROCKLAND GREEN  
MATERIALS RECOVERY FACILITY,  
FACILITY IMPROVEMENTS  
420 TORNE VALLEY ROAD, HILLBURN, NY 10931  
LEGEND, NOTES AND DRAWING SCHEDULE  
Rockland Green  
B





COMcheck Software Version 4.1.5.3

Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC  
Project Title: Rockland Green Facility Improvements  
Location: West Nyack, New York  
Climate Zone: 5a  
Project Type: New Construction

Construction Site: 420 Torne Valley Road  
Hillburn, NY 10931  
Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Credits: 1.0 Required 0.0 Proposed

Mechanical Systems List

Quantity	System Type & Description
1	HVAC System 1 (Single Zone): Heating: 1 each - Other, Gas, Capacity = 250 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Single Package DX Unit, Capacity = 113 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.40 EER, Required Efficiency: 11.00 EER + 12.6 IEER Fan System: RTU-1   ADMIN BUILDING -- Compliance (Motor nameplate HP method) : Passes  Fans: FAN 6 Supply, Constant Volume, 4000 CFM, 3.0 motor nameplate hp, 0.0 fan efficiency grade
1	HVAC System 2 (Single Zone): Heating: 1 each - Other, Gas, Capacity = 60 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Single Package DX Unit, Capacity = 48 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER Fan System: RTU-2   SORTING ROOM -- Compliance (Motor nameplate HP method) : Passes  Fans: FAN 3 Supply, Constant Volume, 500 CFM, 0.5 motor nameplate hp, 0.0 fan efficiency grade
1	HVAC System 3 (Single Zone): Heating: 1 each - Other, Gas, Capacity = 60 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Single Package DX Unit, Capacity = 48 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 14.00 SEER, Required Efficiency: 14.00 SEER Fan System: RTU-3   SORTING ROOM -- Compliance (Motor nameplate HP method) : Passes  Fans: FAN 4 Supply, Constant Volume, 500 CFM, 0.5 motor nameplate hp, 0.0 fan efficiency grade
1	HVAC System 4 (Single Zone): Cooling: 1 each - Split System, Capacity = 12 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER Fan System: AC-1   IT CLOSET -- Compliance (Motor nameplate HP method) : Passes  Fans: FAN 5 Supply, Constant Volume, 350 CFM, 0.1 motor nameplate hp, 0.0 fan efficiency grade
1	HVAC System 5 (Single Zone): Heating: 4 each - Radiant Heater, Gas, Capacity = 80 kBtu/h

Project Title: Rockland Green Facility Improvements  
Data filename: N:\2021\12\1033\COMcheck\Rockland Green MRF.cck  
Report date: 08/27/21  
Page 1 of 18

Quantity	System Type & Description
	No minimum efficiency requirement applies Fan System: None
1	HVAC System 6 (Single Zone): Heating: 2 each - Radiant Heater, Gas, Capacity = 150 kBtu/h No minimum efficiency requirement applies Fan System: None
1	HVAC System 7 (Single Zone): Heating: 8 each - Unit Heater, Gas, Capacity = 400 kBtu/h Proposed Efficiency = 80.00 % Ec, Required Efficiency: 80.00 % Ec Fan System: None
1	HVAC System 8 (Single Zone): Heating: 4 each - Unit Heater, Electric, Capacity = 17 kBtu/h No minimum efficiency requirement applies Fan System: None
1	HVAC System 9 (Single Zone): Heating: 1 each - Unit Heater, Electric, Capacity = 26 kBtu/h No minimum efficiency requirement applies Fan System: None
1	HVAC System 10 (Single Zone): Heating: 1 each - Unit Heater, Electric, Capacity = 34 kBtu/h No minimum efficiency requirement applies Fan System: None
1	Water Heater 1: Gas Storage Water Heater, Capacity: 60 gallons, Input Rating: 120 kBtu/h w/ Circulation Pump Proposed Efficiency: 80.00 % Et, Required Efficiency: 80.00 % Et

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Robert Zukowsky  
Name - Title MECHANICAL DESIGNER  
Signature  
Date 8-27-21

Project Title: Rockland Green Facility Improvements  
Data filename: N:\2021\12\1033\COMcheck\Rockland Green MRF.cck  
Report date: 08/27/21  
Page 2 of 18

PROJECT

NORTH

KEY PLAN

AREA OF CONSTRUCTION

**STERLING**  
Sterling Environmental Engineering, P.C.

**MARTIN ROGERS**  
ENGINEERING CONSULTANTS  
185 N. Pennsylvania Ave., Wilkes-Barre, PA 18701  
1-800-855-1000 | 717-855-0888 | www.mrtg.com

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INTERIORS

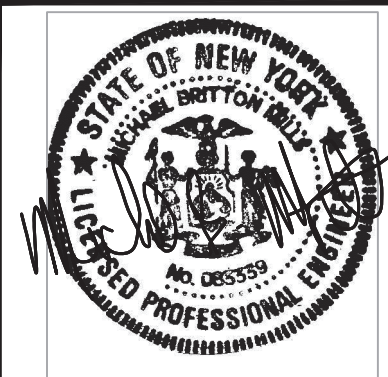
25 WALLACE AVE. ■ MONTICELLO ■ NY 12548  
P.O. BOX 240724 ■ I  
WWW.ANDERSONDESIGN.COM  
CONTACT@ANDERSONDESIGN.COM

**RRT Engineering, LLC**  
An Affiliate of Enviro-Services & Constructors, Inc.  
NY COA # 0017967

**Rockland Green**

ROCKLAND GREEN  
MATERIALS RECOVERY FACILITY,  
FACILITY IMPROVEMENTS  
420 TORNE VALLEY ROAD, HILLBURN, NY 10931

ENERGY COMPLIANCE FORMS



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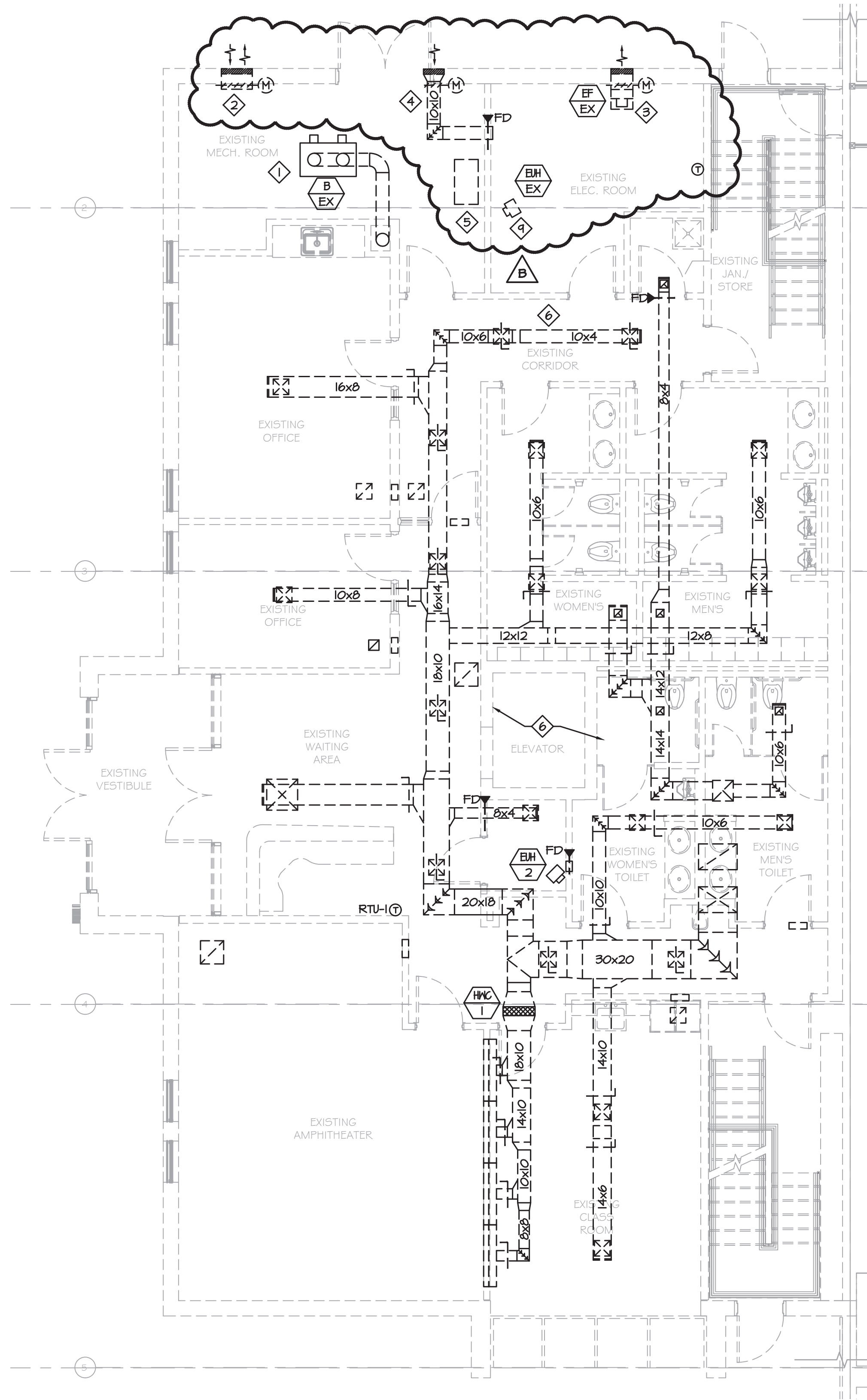
**RRT Engineering, LLC**

1 Huntington Quadrangle, 3581  
Melville, N.Y. 11747  
ph: 631-756-1060  
fax: 631-756-1064

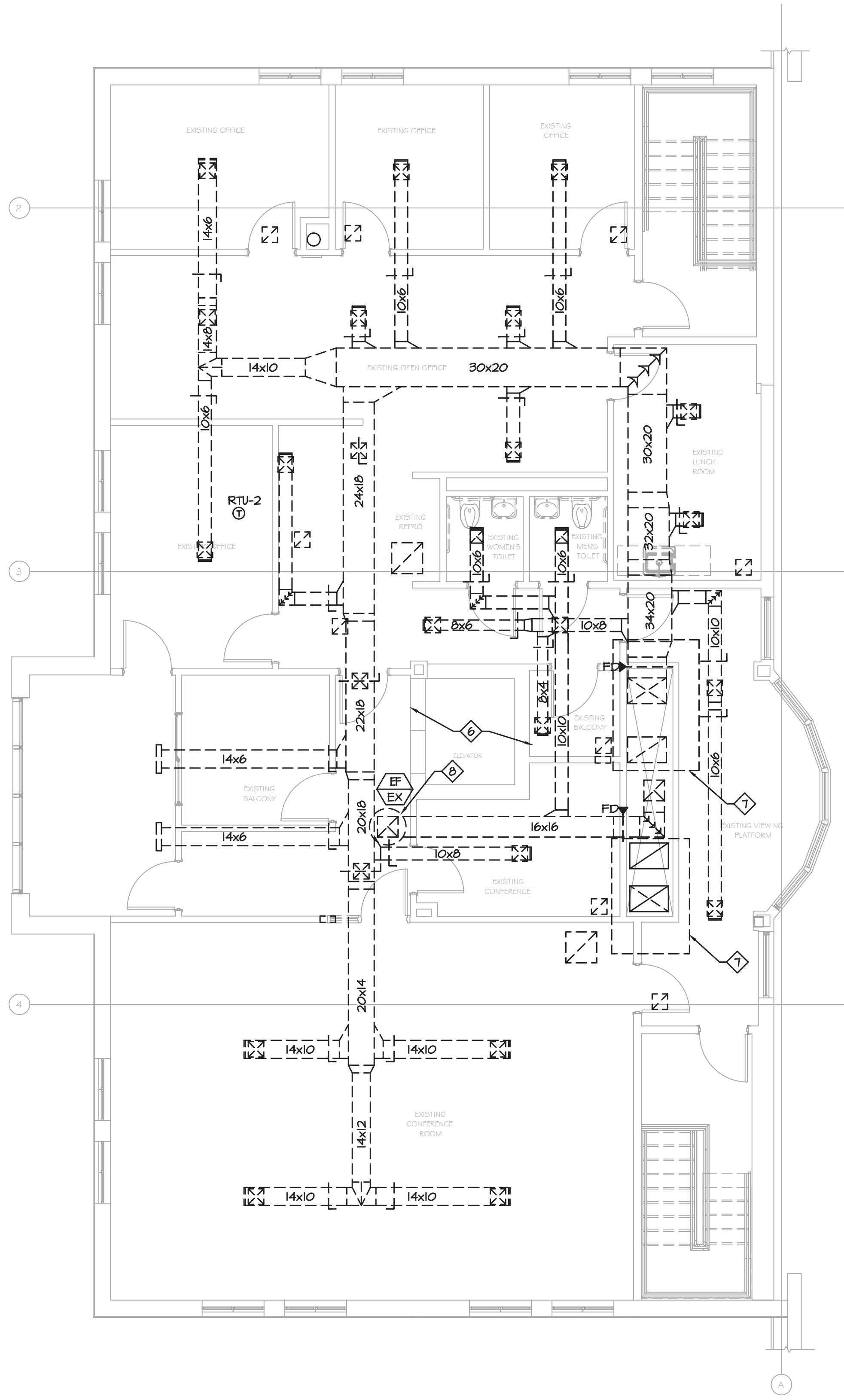
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1 PARTIAL FIRST FLOOR PLAN - MECHANICAL DEMOLITION  
M-101 SCALE: 3/16"=1'-0"



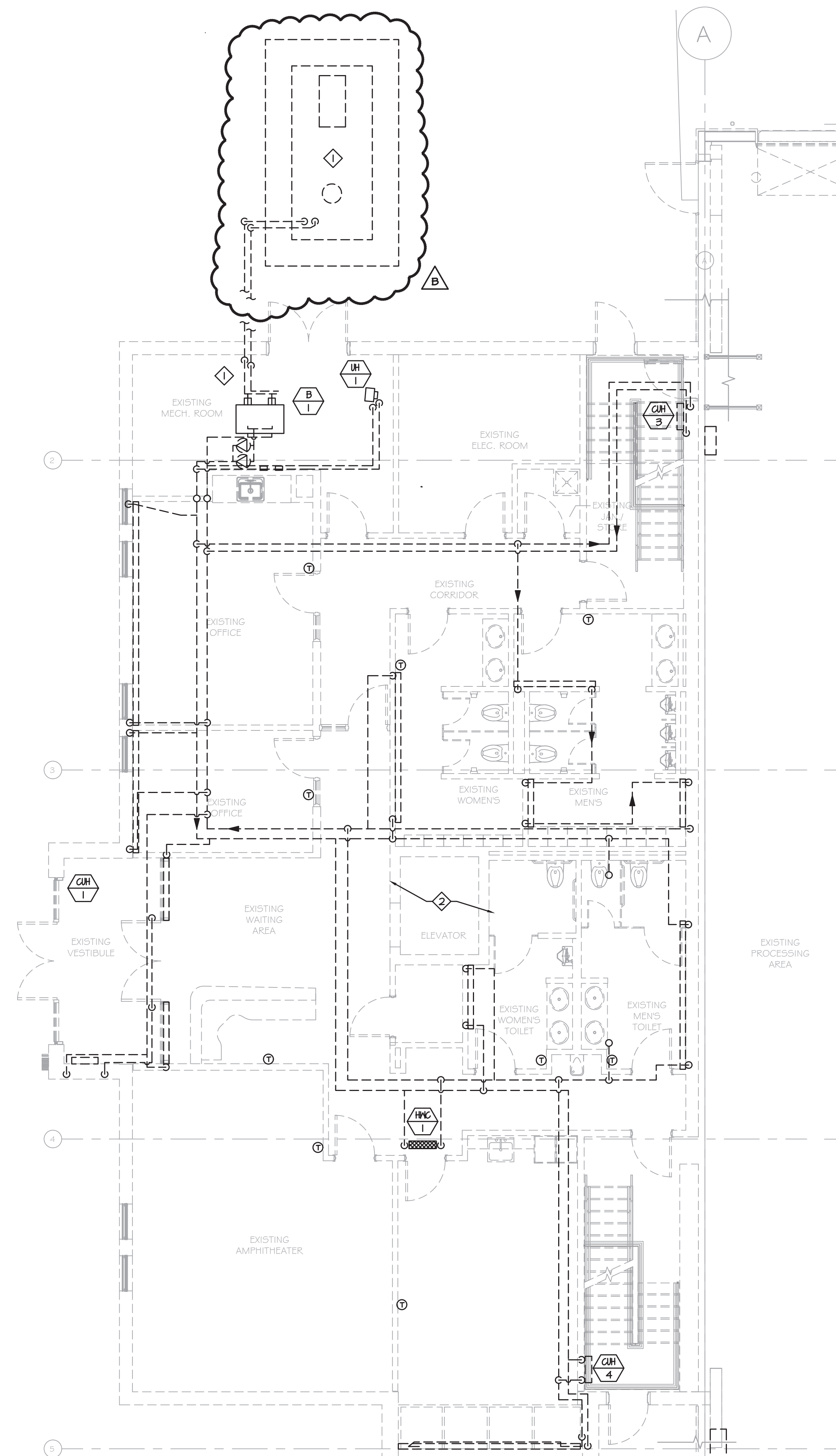
2 PARTIAL SECOND FLOOR PLAN - MECHANICAL DEMOLITION  
M-101 SCALE: 3/16"=1'-0"

- DEMOLITION NOTES:**
- 1 REMOVE EXISTING BOILER, HOT WATER PUMP, EXPANSION TANK, AND ALL RELATED HOT WATER SYSTEM COMPONENTS IN THEIR ENTIRETY.
  - 2 REMOVE EXISTING INTAKE AIR LOUVER 12" AFF AND VENTILATION AIR LOUVER 12" BELOW SECOND FLOOR SLAB. PATCH OPENINGS AT REMOVALS TO MATCH EXISTING.
  - 3 REMOVE EXISTING EXHAUST LOUVER, EXHAUST FAN, DUCTWORK ASSOCIATED CONTROLS, 9' AFF.
  - 4 REMOVE EXISTING INTAKE LOUVER, DUCTWORK AND ASSOCIATED CONTROLS, 9' AFF..
  - 5 REMOVE EXISTING ATC AIR COMPRESSOR, AIR DRYER AND ALL RELATED APPURTENANCES IN THEIR ENTIRETY. ALL EXISTING PNEUMATIC CONTROL SYSTEM DEVICES, TUBING, ETC. SHALL BE REMOVED IN THEIR ENTIRETY. NEW CONTROLS SHALL BE ALL ELECTRONIC/DDC.
  - 6 REMOVE ALL EXISTING SUPPLY, RETURN, AND EXHAUST DUCTWORK THROUGHOUT THE ADMINISTRATION BUILDING IN ITS ENTIRETY INCLUDING ALL DIFFUSERS, REGISTERS, GRILLES, DAMPERS, SUPPORTS, HANGERS, AND RELATED DEVICES. NOTHING SHALL REMAIN FROM EXISTING SYSTEMS AT COMPLETION OF DEMOLITION UNLESS SPECIFICALLY NOTED OTHERWISE.
  - 7 REMOVE EXISTING ROOFTOP UNIT IN ITS ENTIRETY.
  - 8 REMOVE EXISTING ROOFTOP FAN IN ITS ENTIRETY.
  - 9 REMOVE EXISTING ELECTRIC UNIT HEATER, MOUNTING BRACKET AND ASSOCIATED CONTROLS.

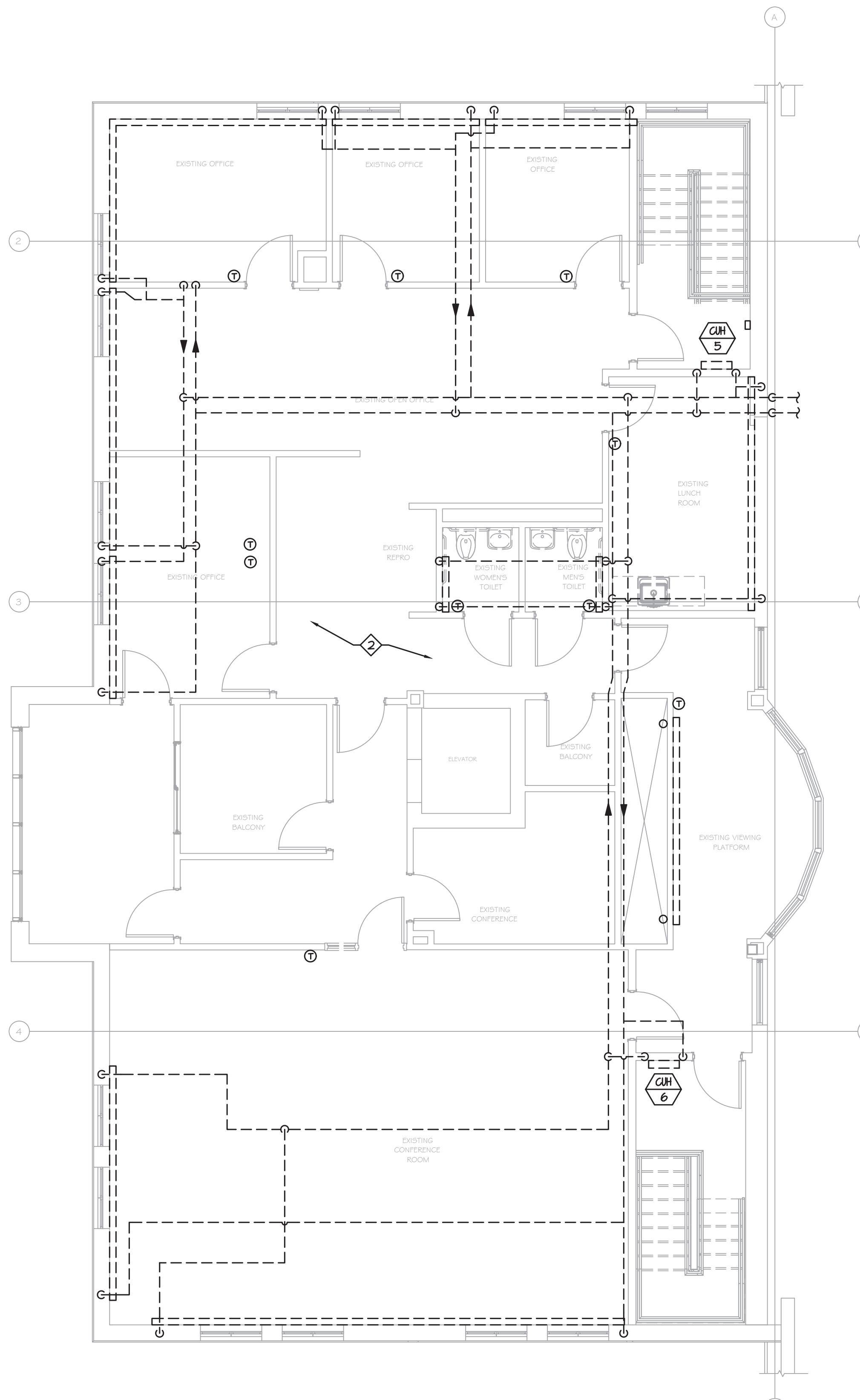
<b>PROJECT</b>																
<b>NORTH</b>																
<b>STERLING</b> Sterling Environmental Engineering, P.C.																
 185 N. Pennsylvania Ave. Wilkes-Barre, PA 18701 1-800-855-1000   1-800-855-0888   www.mrcorp.com																
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<b>PARTIAL FLOOR PLANS - MECHANICAL DEMOLITION</b>																
	<table><tr><td>REV</td><td>DESCRIPTION</td><td>DATE</td><td>BY</td><td>CHK</td></tr><tr><td>B</td><td>REVISED FOR RFP ADDENDUM 4</td><td>8/27/21</td><td></td><td></td></tr><tr><td>A</td><td>ISSUED FOR RFP</td><td>7/30/21</td><td>BJZ</td><td>XX</td></tr></table>	REV	DESCRIPTION	DATE	BY	CHK	B	REVISED FOR RFP ADDENDUM 4	8/27/21			A	ISSUED FOR RFP	7/30/21	BJZ	XX
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DWG. No: M-101																
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1 PARTIAL FIRST FLOOR PLAN - MECHANICAL DEMOLITION  
M-102 SCALE: 3/16"=1'-0"



2 PARTIAL SECOND FLOOR PLAN - MECHANICAL DEMOLITION  
M-102 SCALE: 3/16"=1'-0"

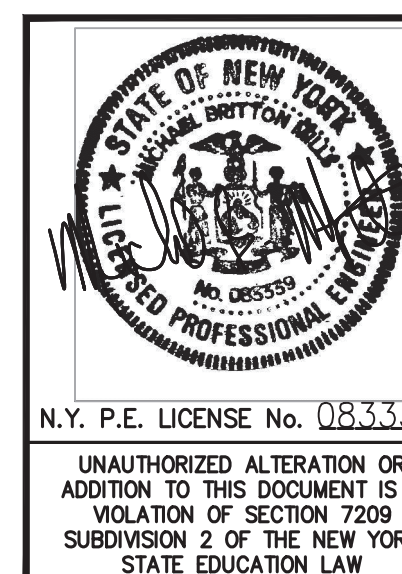
# DEMOLITION NOTES:

- 1 REMOVE EXISTING BOILER, HOT WATER PUMP, EXPANSION TANK, AND ALL RELATED HOT WATER SYSTEM COMPONENTS IN THEIR ENTIRETY. REMOVE EXISTING FUEL PUMPS, PIPING, OIL TANK, CONCRETE PAD AND ALL RELATED FUEL OIL SUPPLY SYSTEM COMPONENTS IN THEIR ENTIRETY.
- 2 REMOVE ALL EXISTING HOT WATER PIPING THROUGHOUT THE FACILITY IN ITS ENTIRETY INCLUDING ALL HOT WATER TERMINAL DEVICES, DUCT COILS, UNIT HEATERS, CABINET HEATERS, RADIATORS, HANGERS, AND RELATED DEVICES. NOTHING SHALL REMAIN FROM EXISTING SYSTEMS AT COMPLETION OF DEMOLITION UNLESS SPECIFICALLY NOTED OTHERWISE.

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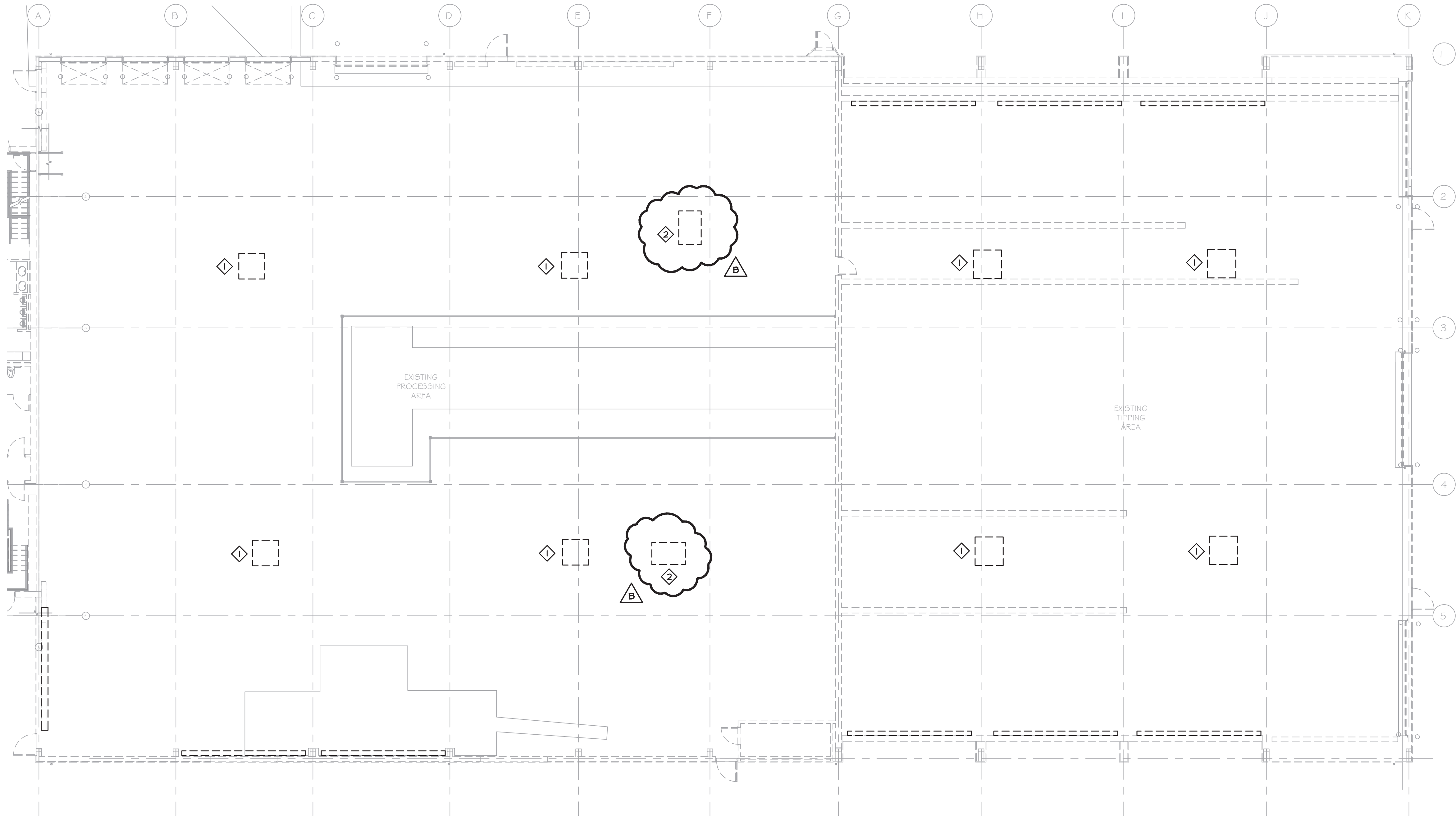
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NORTH	KEY PLAN
<b>STERLING</b> Sterling Environmental Engineering, P.C.	
<b>martinrogers</b> ENGINEERING CONSULTANTS 185 N. Pennsylvania Ave., Wilkes-Barre, PA 18701 1-800-855-1000   717-855-0888   www.mrtg.com	
ANDERSON DESIGN GROUP	ARCHITECTURE PLANNING INTERIORS

<b>RRT Engineering, LLC</b> An Affiliate of Enviro-Services & Constructors, Inc. NY COA # 0017967	<b>Rockland Green</b> MATERIALS RECOVERY FACILITY, FACILITY IMPROVEMENTS 420 TORNE VALLEY ROAD, HILLBURN, NY 10931					
PARTIAL FLOOR PLANS - MECHANICAL DEMOLITION						
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DWG. NO: M-102 CAD FILE: N:\2021\1033\MEP\21033 M-102.DWG SHEET SIZE: D-24x36						
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DEMOLITION NOTES:

- 1 REMOVE EXISTING EXHAUST FAN, ASSOCIATED CONTROLS, ROOF CURB AND ANY RELATED DUCTWORK. EXISTING ROOF OPENING SHALL REMAIN AND BE MODIFIED AS REQUIRED TO ACCOMMODATE NEW EXHAUST FAN. REFER TO M-203 FOR DETAILS.
- 2 REMOVE EXISTING AIR HANDLING UNIT, ASSOCIATED CONTROLS, ROOF CURB AND ANY RELATED DUCTWORK. EXISTING ROOF OPENING SHALL REMAIN AND BE MODIFIED AS REQUIRED TO ACCOMMODATE NEW AIR HANDLING UNIT. REFER TO M-203 FOR DETAILS.

1 PARTIAL FIRST FLOOR PLAN MECHANICAL DEMOLITION  
SCALE: 3/32"=1'-0"

PROJECT

NORTH

KEY PLAN

AREA OF CONSTRUCTION

**STERLING**

Sterling Environmental Engineering, P.C.

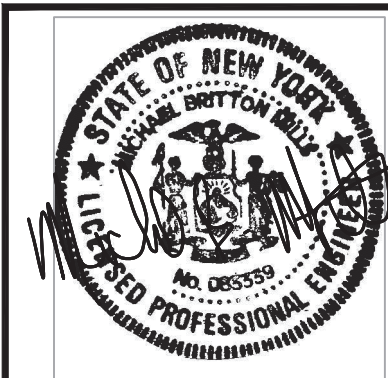
**martinrogers**

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fax: 631-756-1064

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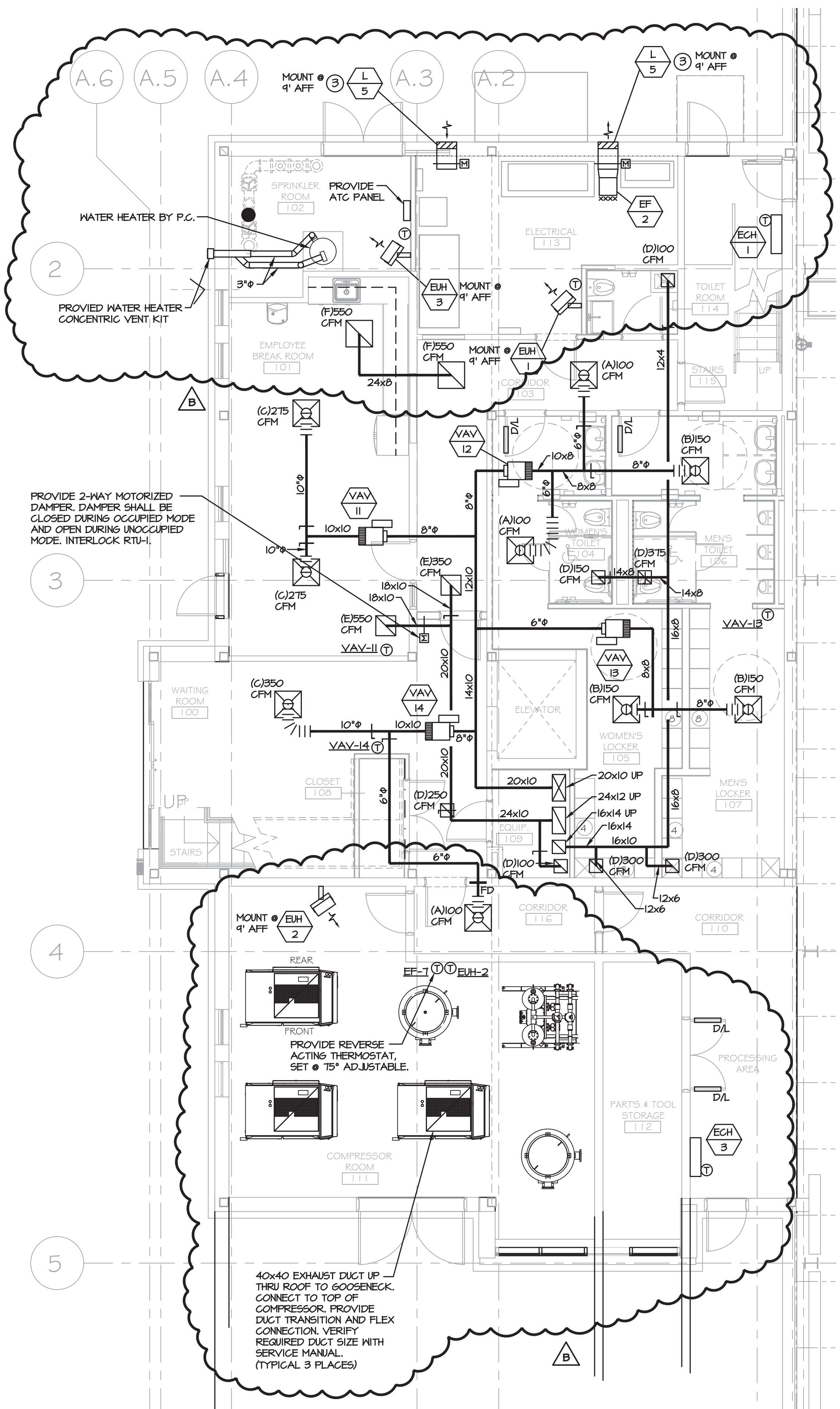
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MECHANICAL DEMOLITION

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DESIGNED	BJZ	7/30/21		
APPROVED				

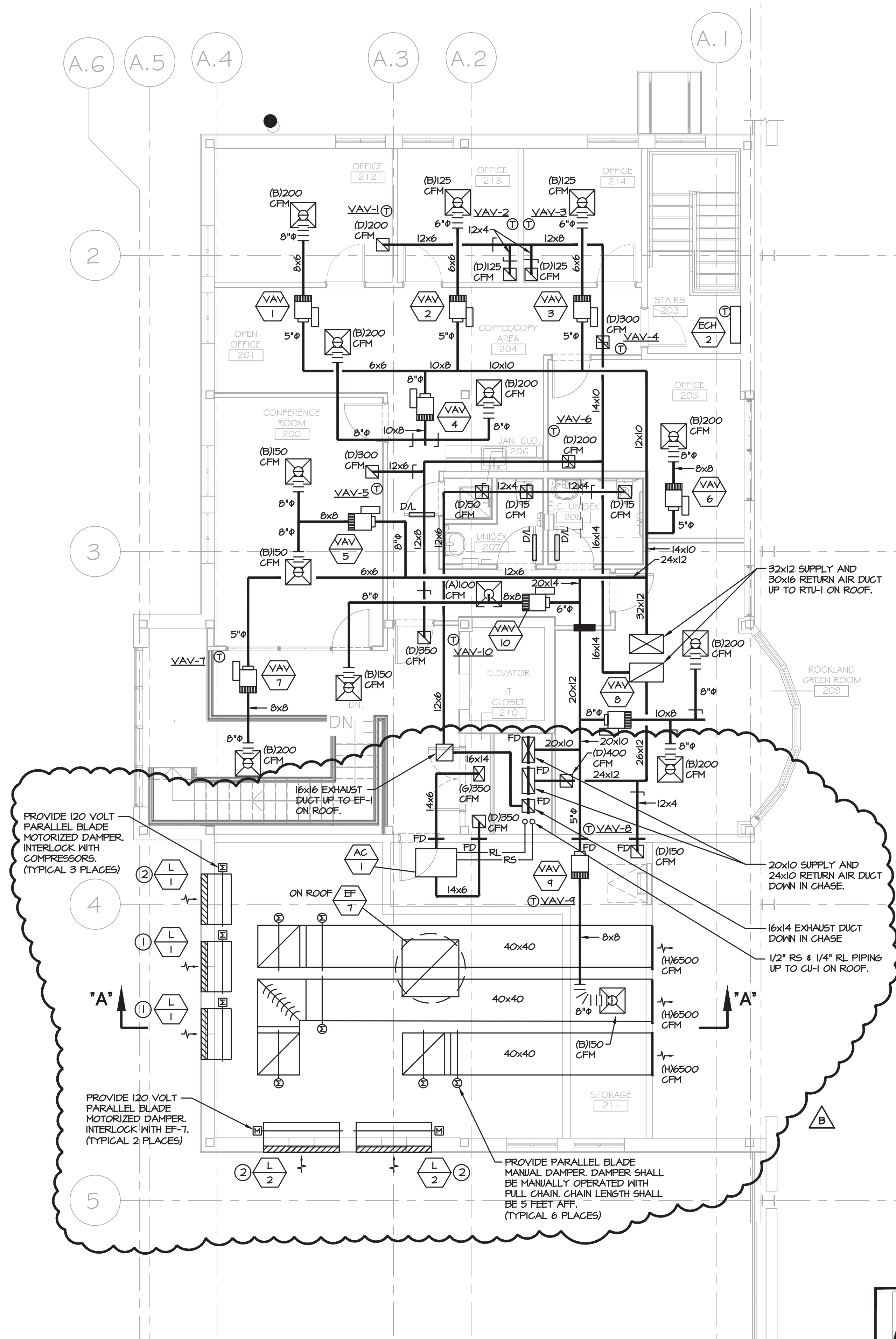
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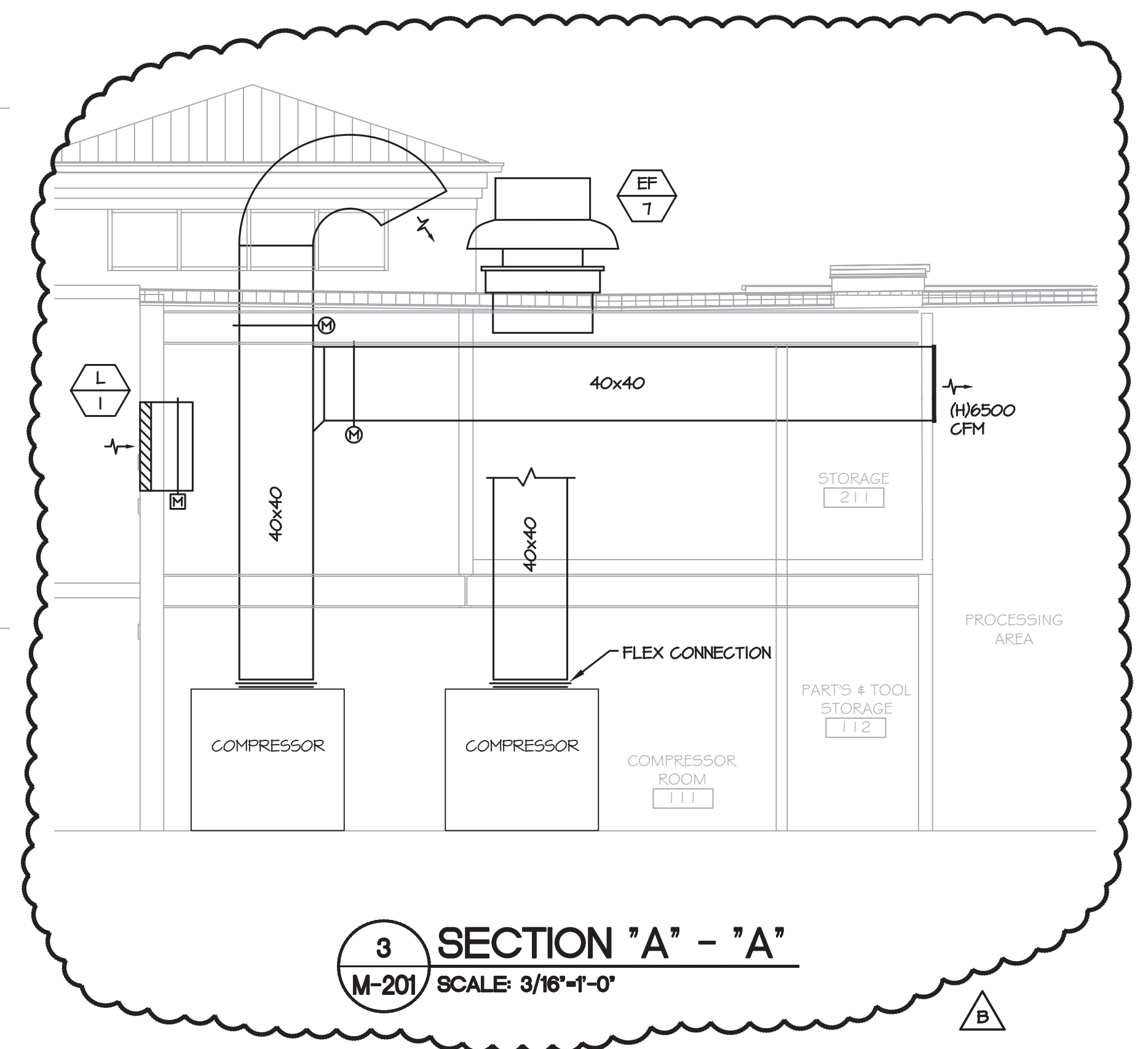
1 PARTIAL FIRST FLOOR PLAN - MECHANICAL  
M-201 SCALE: 3/16"=1'-0"



2 PARTIAL SECOND FLOOR PLAN - MECHANICAL  
M-201 SCALE: 3/16"=1'-0"

MECHANICAL INSTALLATION NOTES:

1. INSTALL LOUVER IN EXISTING WINDOW OPENING. PROVIDE WOOD BLOCKING AS REQUIRED. VERIFY OPENING SIZE IN FIELD PRIOR TO PURCHASING LOUVER.
2. INSTALL LOUVER IN EXISTING WALL. LINTEL SHALL BE PROVIDED BY STRUCTURAL CONTRACTOR. ALIGN NEW OPENING WITH EXISTING WINDOW.
3. INSTALL LOUVER IN EXISTING WALL. LINTEL SHALL BE PROVIDED BY STRUCTURAL CONTRACTOR. COORDINATE EXACT LOCATION IN FIELD WITH ELECTRICAL EQUIPMENT AND ASSOCIATED CONDUIT.

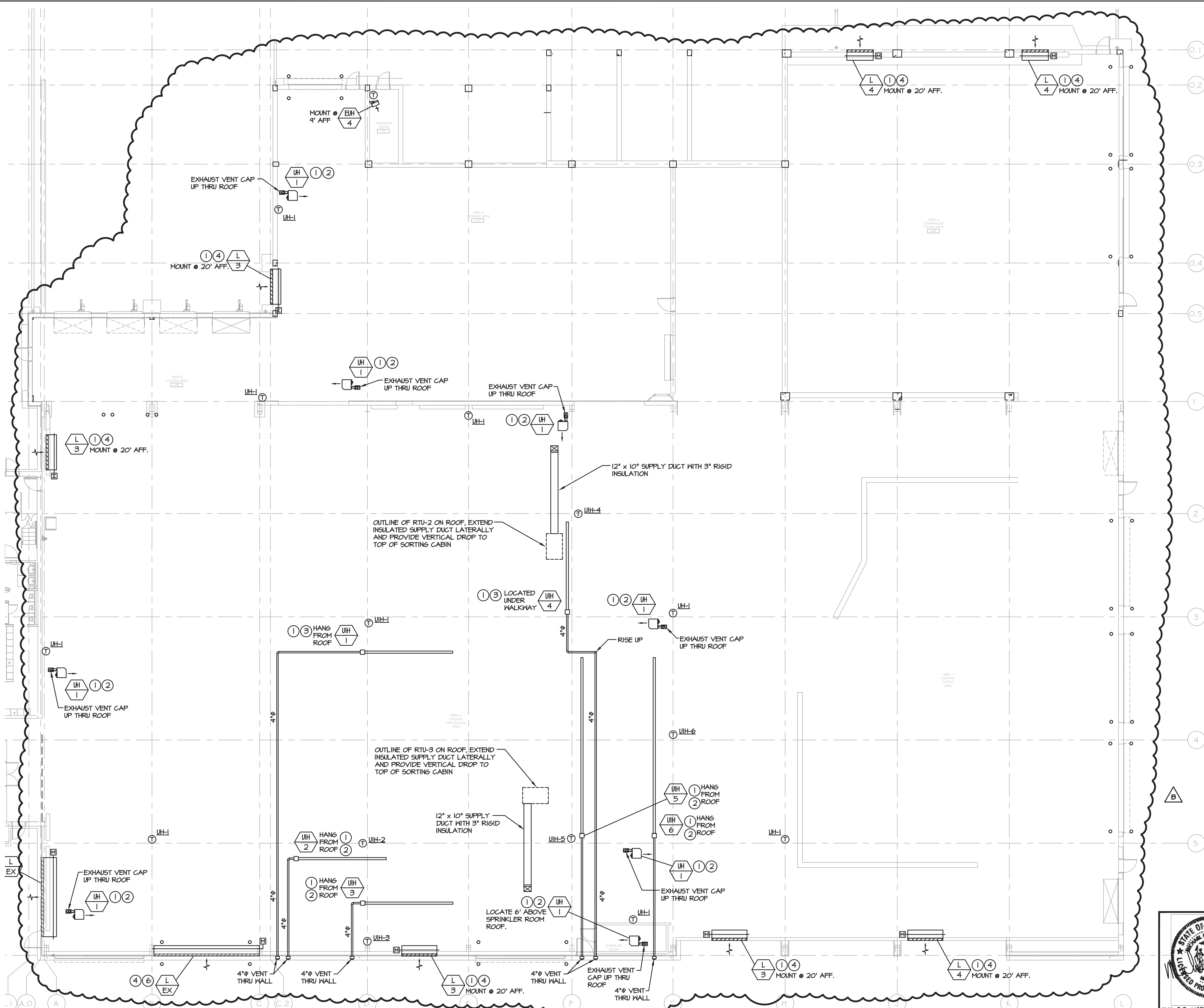


3 SECTION "A" - "A"  
M-201 SCALE: 3/16"=1'-0"

<b>PROJECT</b>			
		Sterling Environmental Engineering, P.C.	
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		ANDERSON DESIGN GROUP	
ARCHITECTURE PLANNING INTERIORS			
RRT Engineering, LLC An Affiliate of Enviro-Services & Constructors, Inc. NY COA # 0017967		ROCKLAND GREEN MATERIALS RECOVERY FACILITY, FACILITY IMPROVEMENTS 420 TORNE VALLEY ROAD, HILLBURN, NY 10931	
PARTIAL FLOOR PLANS - MECHANICAL		DWG. NO. M-201 CAD FILE: N:\2021\1033\MEP\21033 M-201.DWG SHEET SIZE: D-24x36	
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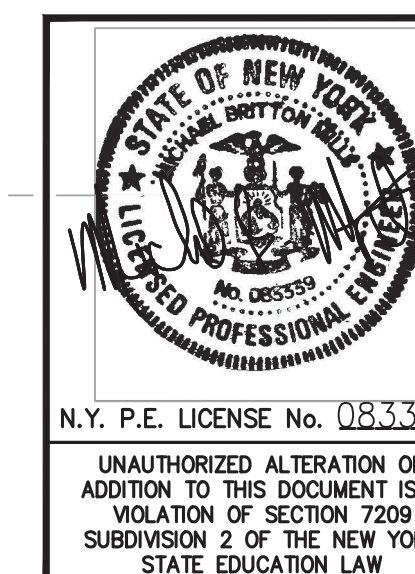


#### MECHANICAL INSTALLATION NOTES:

- 1 ALL LOCATION AND MOUNTING HEIGHTS SHOWN ARE PRELIMINARY AND SUBJECT TO CHANGE AND APPROVAL OF OWNER'S ENGINEER. COORDINATE WITH EQUIPMENT CONTRACTOR AND OWNER'S ENGINEER'S REPRESENTATIVE IN FIELD.
- 2 PROVIDE 6"Ø FLUE AND COMBUSTION AIR VENT THRU WALL OR ROOF.
- 3 PROVIDE 4"Ø FLUE THRU WALL OR ROOF.
- 4 PROVIDE 2-POSITION, LOW LEAK 120 VOLT, MOTORIZED DAMPER. INTERLOCK WITH EXHAUST FANS.
- 5 EXISTING 18' LONG x 3' HIGH LOUVER, 12' AFF. SHALL REMAIN AND BE REUSED. LOUVER SHALL BE CLEANED AND BIRD SCREEN SHALL BE REPLACED. PROVIDE DUCT COLLAR AND MOTORIZED DAMPER.
- 6 EXISTING 24' LONG x 3' HIGH LOUVER, 12' AFF. SHALL REMAIN AND BE REUSED. LOUVER SHALL BE CLEANED AND BIRD SCREEN SHALL BE REPLACED. PROVIDE DUCT COLLAR AND MOTORIZED DAMPER.

B

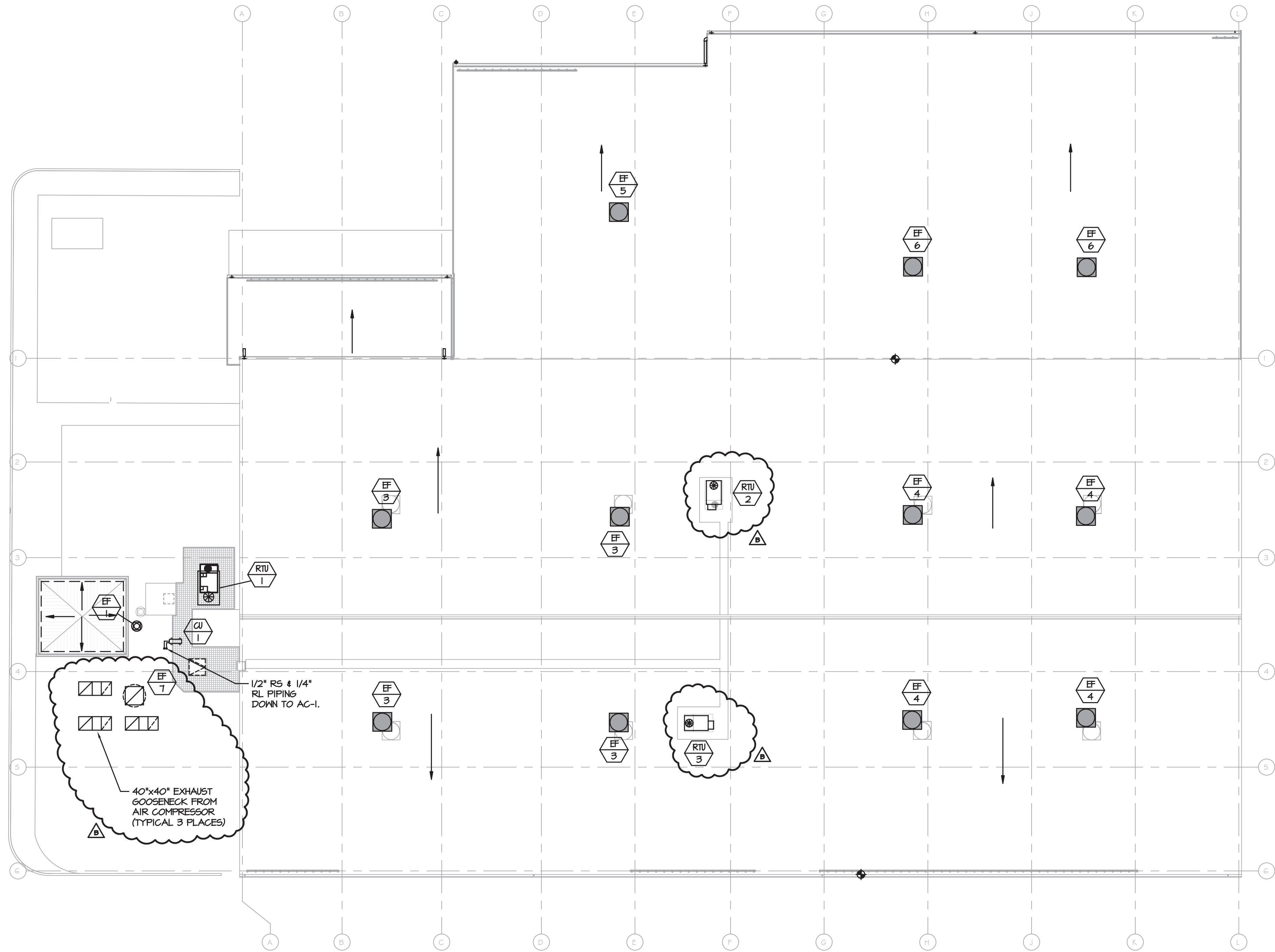
<b>PROJECT</b>	
NORTH	
<b>STERLING</b> Sterling Environmental Engineering, P.C.	
 185 N. Pennsylvania Ave., Wilkes-Barre, PA 18701 1-800-855-1000 / 1-800-855-0888 / www.mrcorp.com	
 25 WALLACE AVE. • MONTICOMERY • NY 12846 (518) 362-2628	ARCHITECTURE PLANNING INTERIORS
 <b>RRT Engineering, LLC</b> An Affiliate of Enviro-Services & Constructors, Inc. NY COA # 0017967	
 <b>ROCKLAND GREEN</b> MATERIALS RECOVERY FACILITY, FACILITY IMPROVEMENTS 420 TORNE VALLEY ROAD, HILLBURN, NY 10931	
<b>PARTIAL FIRST FLOOR PLAN - MECHANICAL</b>	
REV	DESCRIPTION
B	REVISED FOR RFP ADDENDUM 4
A	ISSUED FOR RFP
REV	DESCRIPTION
BY	DATE
BJZ	7/30/21
DATE	BY CHK
7/30/21	BJZ XX
PROJ. No: 499-010	
SCALE:	
DRAWN	BY
CHECKED	BJZ
DESIGNED	BJZ
APPROVED	7/30/21
APPROVED	
DWG. NO: M-202	
CAD FILE: N:\2021\21033\MEP\21033 M-202.DWG	
SHEET SIZE: D-24x36	
REV	



1 PARTIAL FIRST FLOOR PLAN - MECHANICAL  
M-202 SCALE: 3/32"=1'-0"

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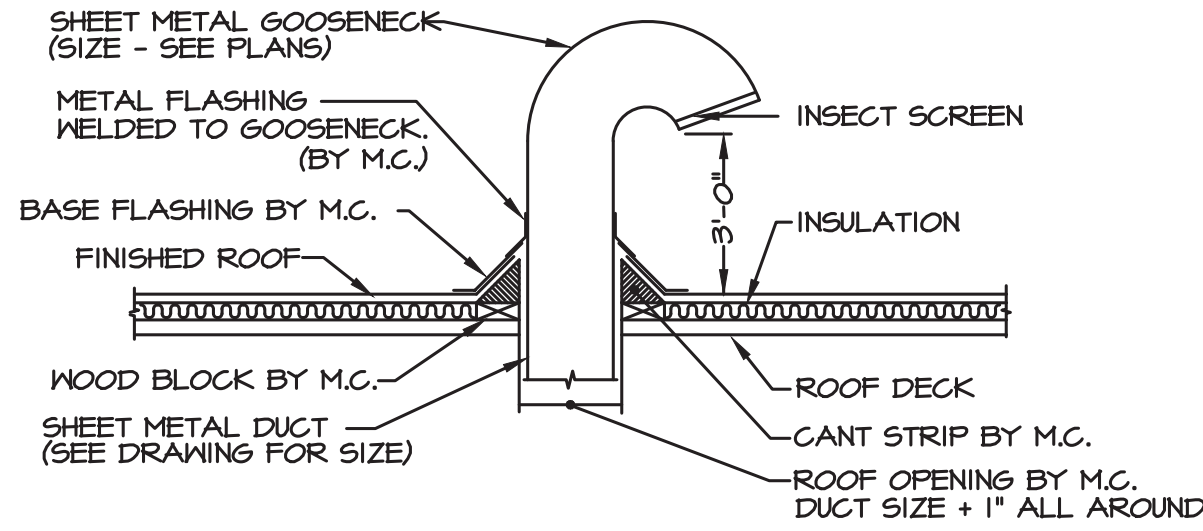




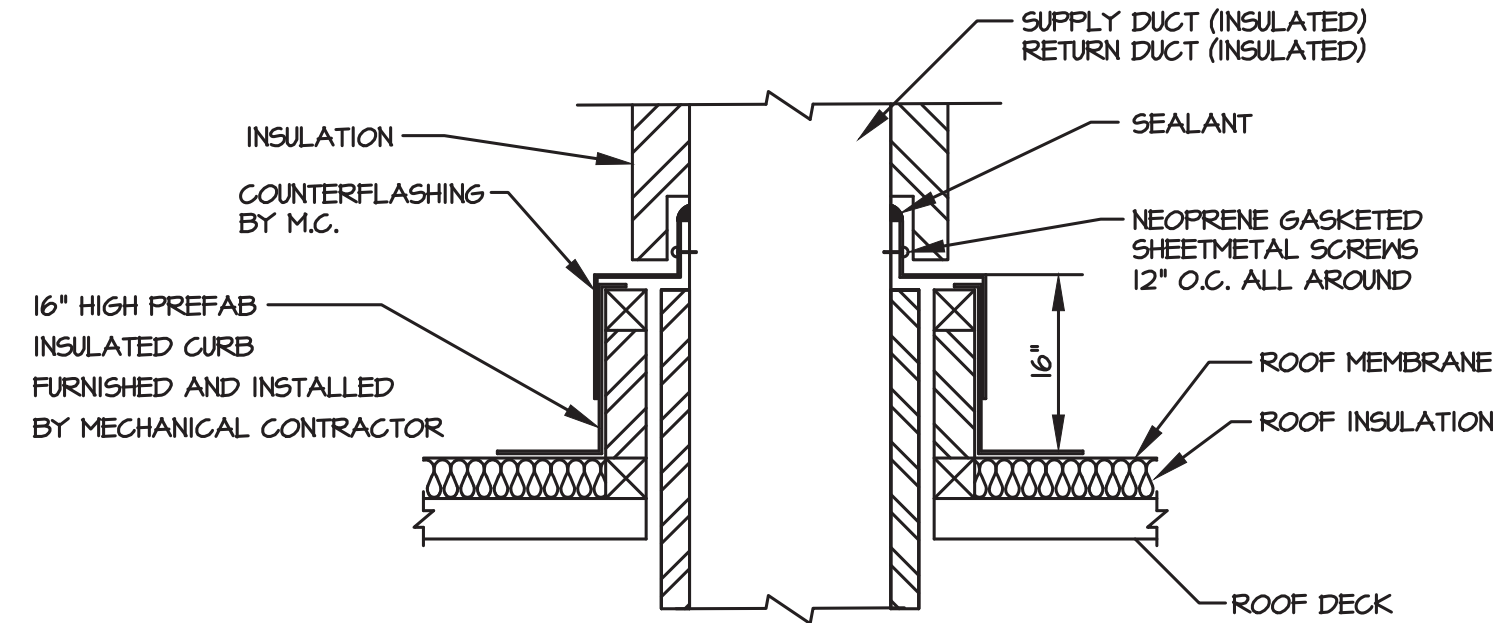
1 ROOF PLAN - MECHANICAL  
M-203 SCALE: 1/16"=1'-0"

MECHANICAL INSTALLATION NOTES:

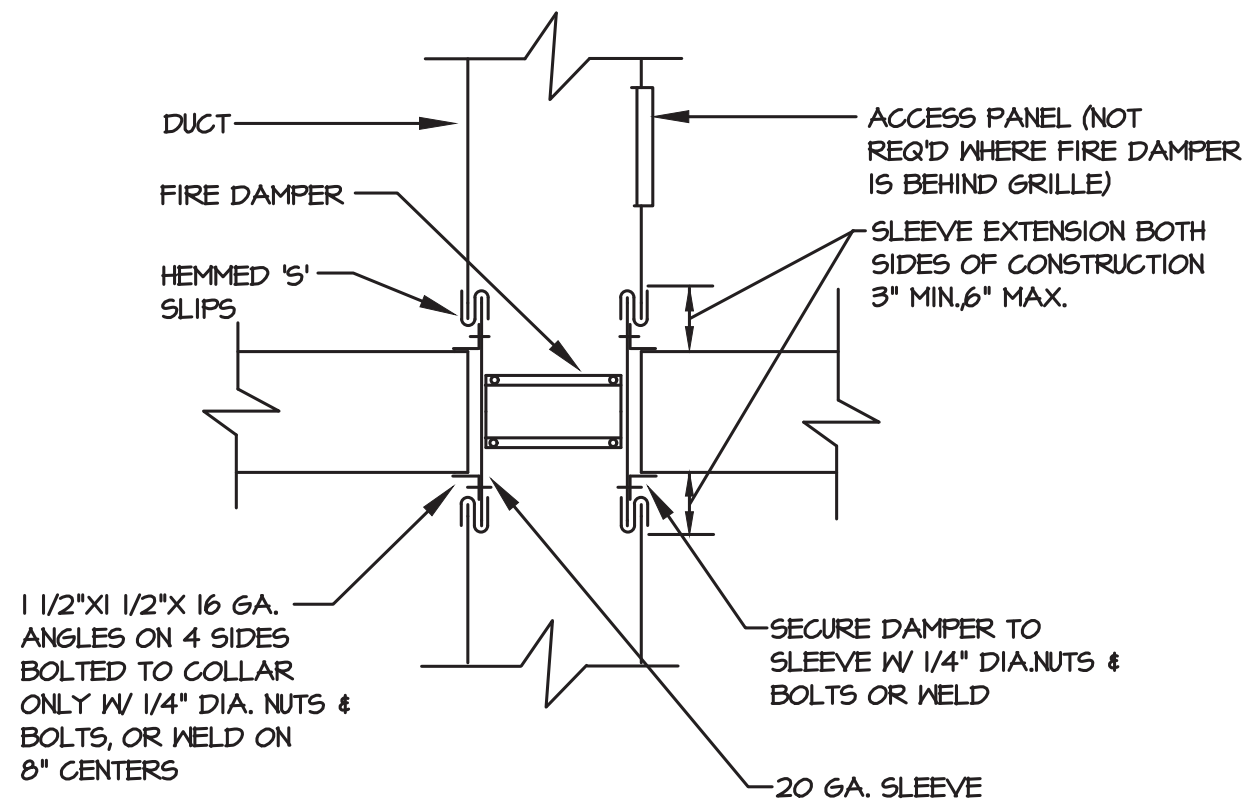
- ① A PROPOSED ALTERNATE FOR RTU-2 AND RTU-3 IS TO PROVIDE A HEATING AND VENTILATING UNIT. IF ALTERNATE IS ACCEPTED COORDINATE NEW POWER AND GAS REQUIREMENTS WITH ELECTRICAL AND PLUMBING CONTRACTORS.



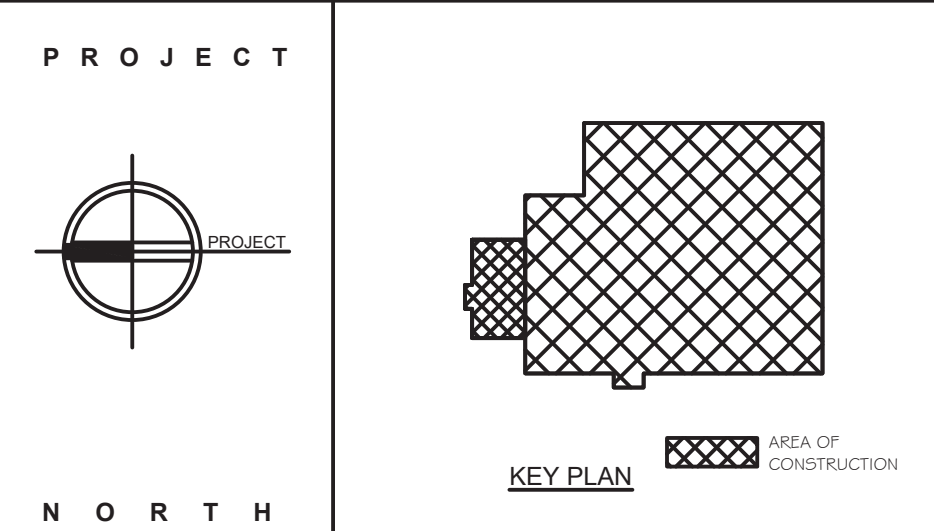
1 TYPICAL GOOSENECK DETAIL  
M-203 SCALE: NO SCALE



2 DUCT THRU ROOF DETAIL  
M-203 NOT TO SCALE



3 FIRE DAMPER DETAIL  
M-203 SCALE: NO SCALE  
(THRU WALL OR FLOOR)



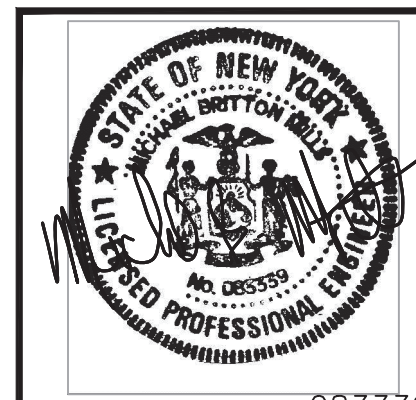
**STERLING**  
Sterling Environmental Engineering, P.C.

**martinrogers**  
ENGINEERING CONSULTANTS  
185 N. Pennsylvania Ave., Wilkes-Barre, PA 18701  
1-800-851-1000 / 1-800-851-0888 / www.mrogers.com

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**RRT Engineering, LLC**  
An Affiliate of Enviro-Services & Constructors, Inc.  
NY COA # 0017967

**Rockland Green**  
ROCKLAND GREEN  
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FACILITY IMPROVEMENTS  
420 TORNE VALLEY ROAD, HILLBURN, NY 10931  
ROOF PLAN - MECHANICAL



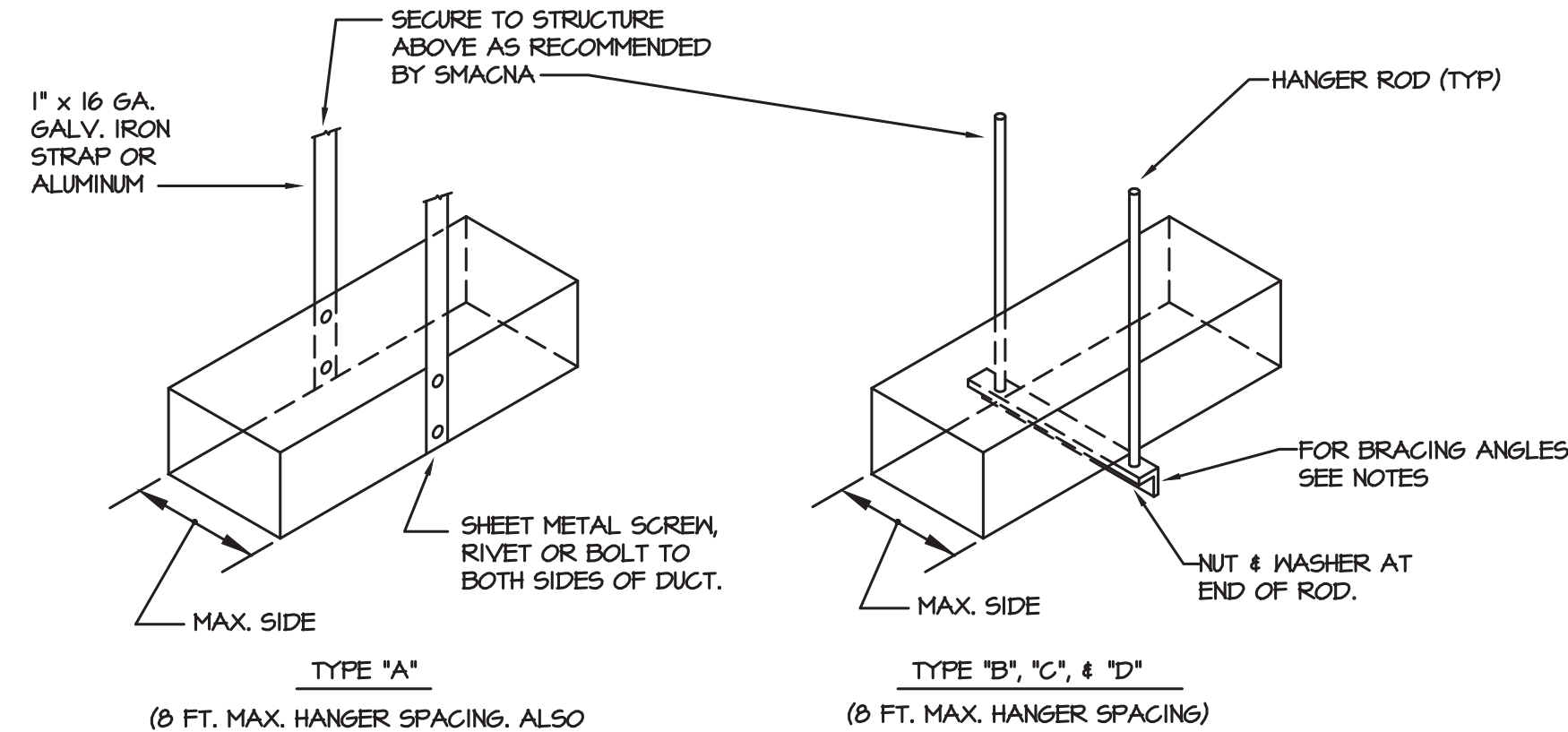
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B	REVISED FOR RFP ADDENDUM 4	8/27/21	BJZ	XX
A	ISSUED FOR RFP	7/30/21	BJZ	XX

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**RRT Engineering, LLC**  
1 Huntington Quadrangle, 3581  
Melville, N.Y. 11747  
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DRAWN	CHECKED	DESIGNED	APPROVED	BY	DATE	PROJ. No.	SCALE	DWG. NO.	CAD FILE	SHEET SIZE
BJZ	BJZ	BJZ	BJZ	BJZ	7/30/21	499-010		M-203	N:\2021\121033\MEP\21033 M-203.DWG	D-24x36

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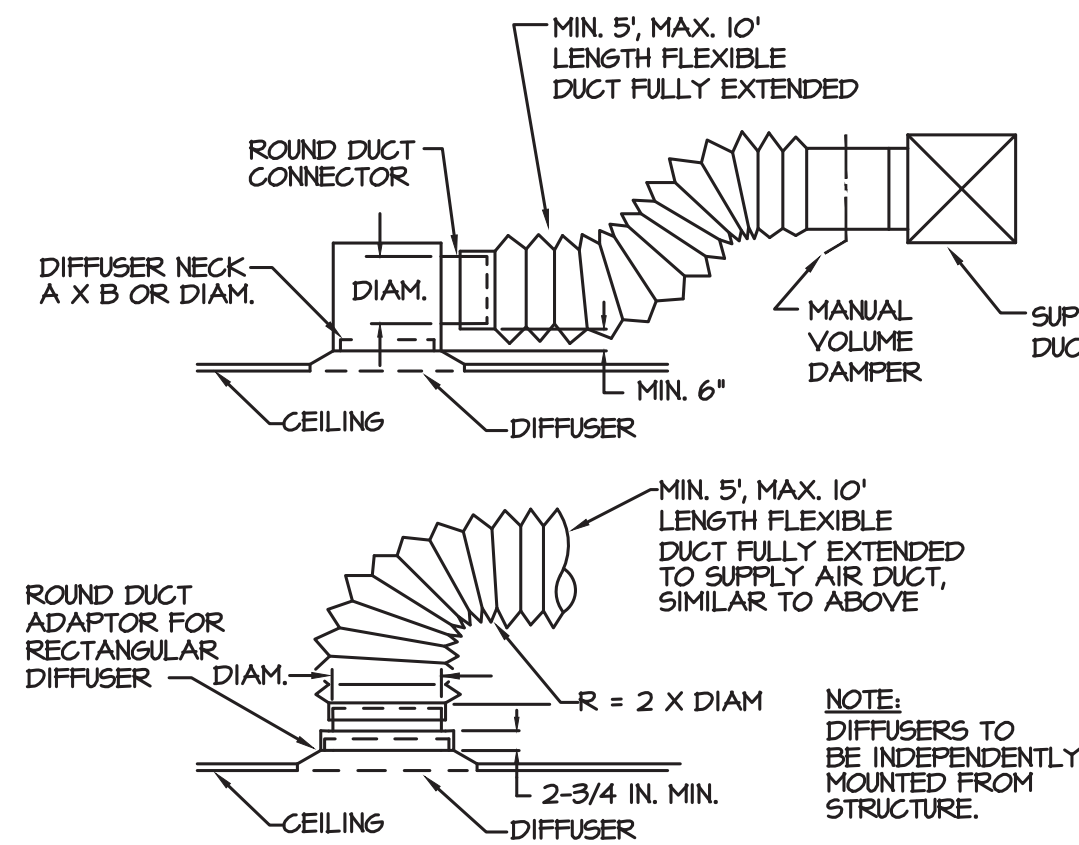




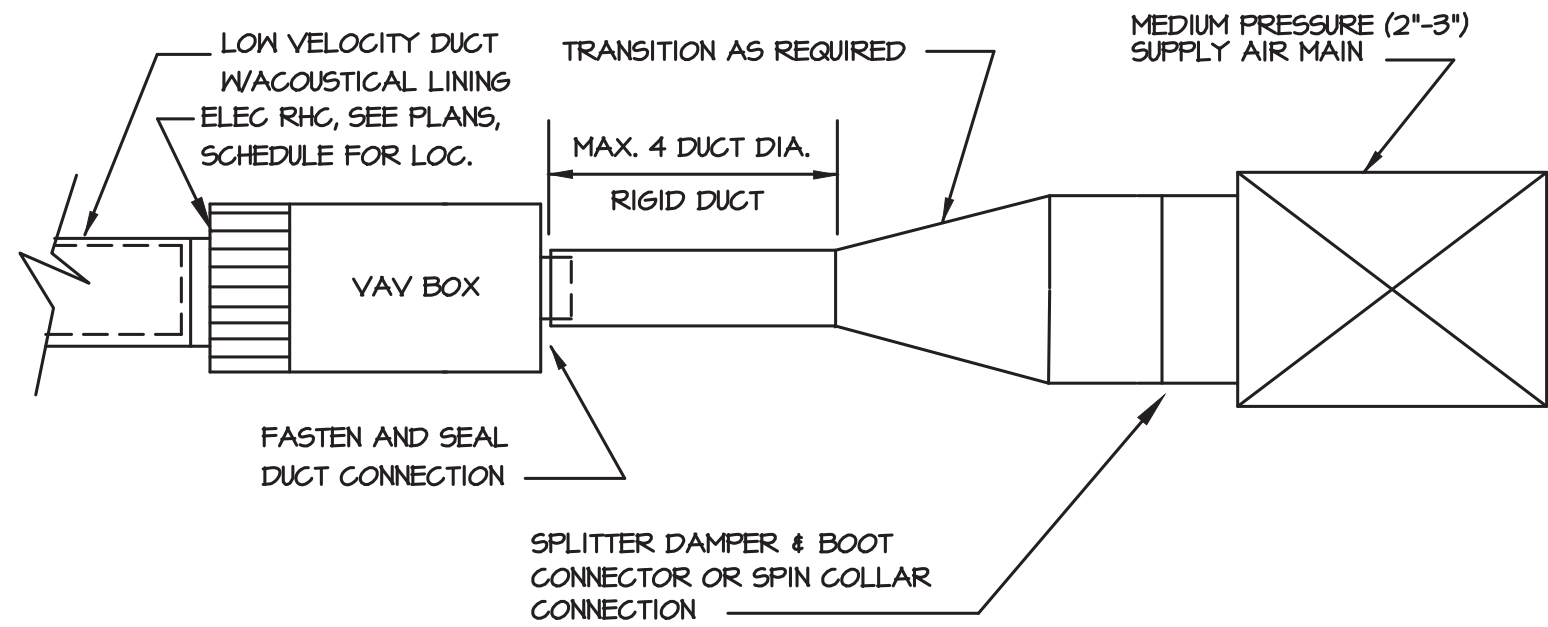
DUCT DIMENSION	HANGER TYPE	ROD DIA.	ANGLE SIZE	MAX SPACING
UP TO 18"	A	1" STRAP	---	8'-0"
19" TO 60"	B	5/16"	1-1/2" x 1-1/2" x 1/8"	8'-0"
61" TO 96"	C	3/8"	1-1/2" x 1-1/2" x 3/16"	8'-0"
OVER 96"	D	1/2"	2" x 2" x 1/4"	4'-0"

- NOTES:
- FOR SEVERAL DUCTS ON ONE HANGER, TYPE "B", "C", OR "D" MAY BE USED. SIZE OF HANGER WILL BE SELECTED ON SUM OF DUCT WIDTHS EQUAL TO MAX. WIDTH OF DUCT SCHEDULE.
  - DUCTS SHALL BE SUPPORTED FROM STRUCTURAL STEEL NOT FLOOR DECK ABOVE.

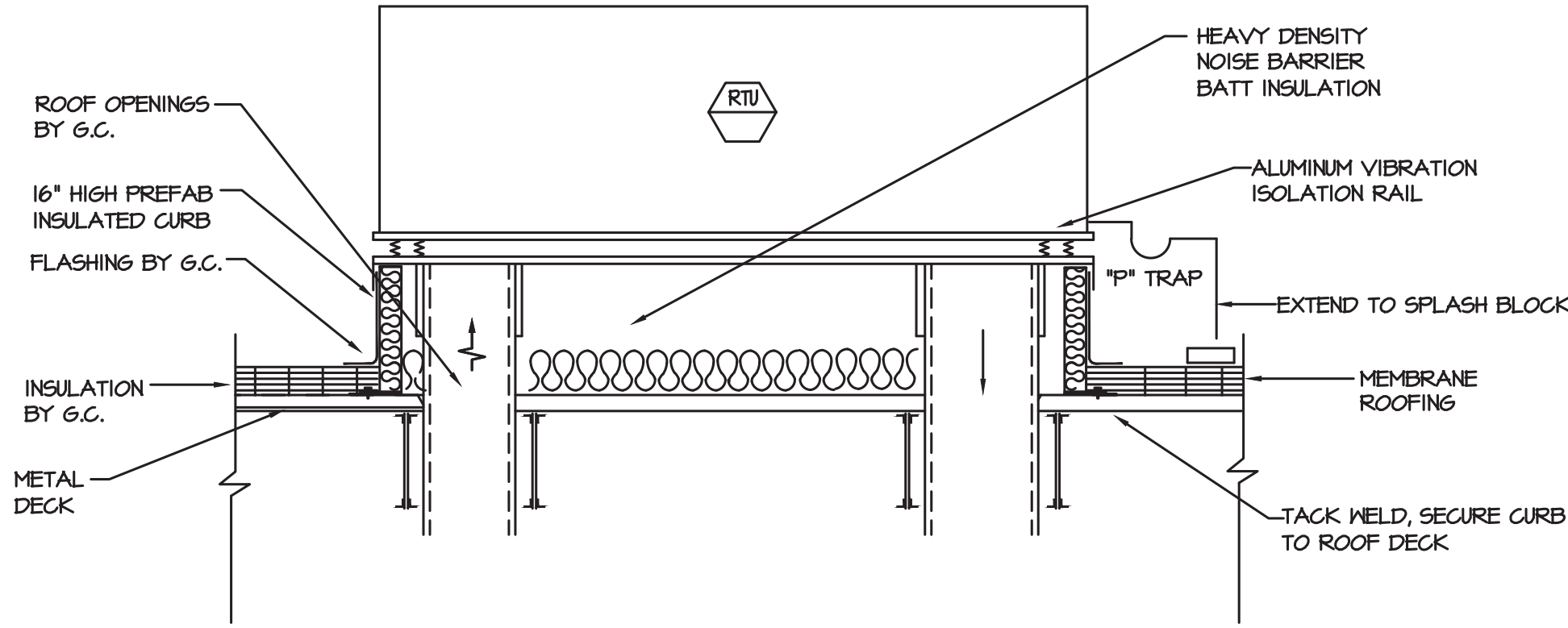
1 DUCT HANGER DETAILS  
M-301 SCALE: N.T.S.



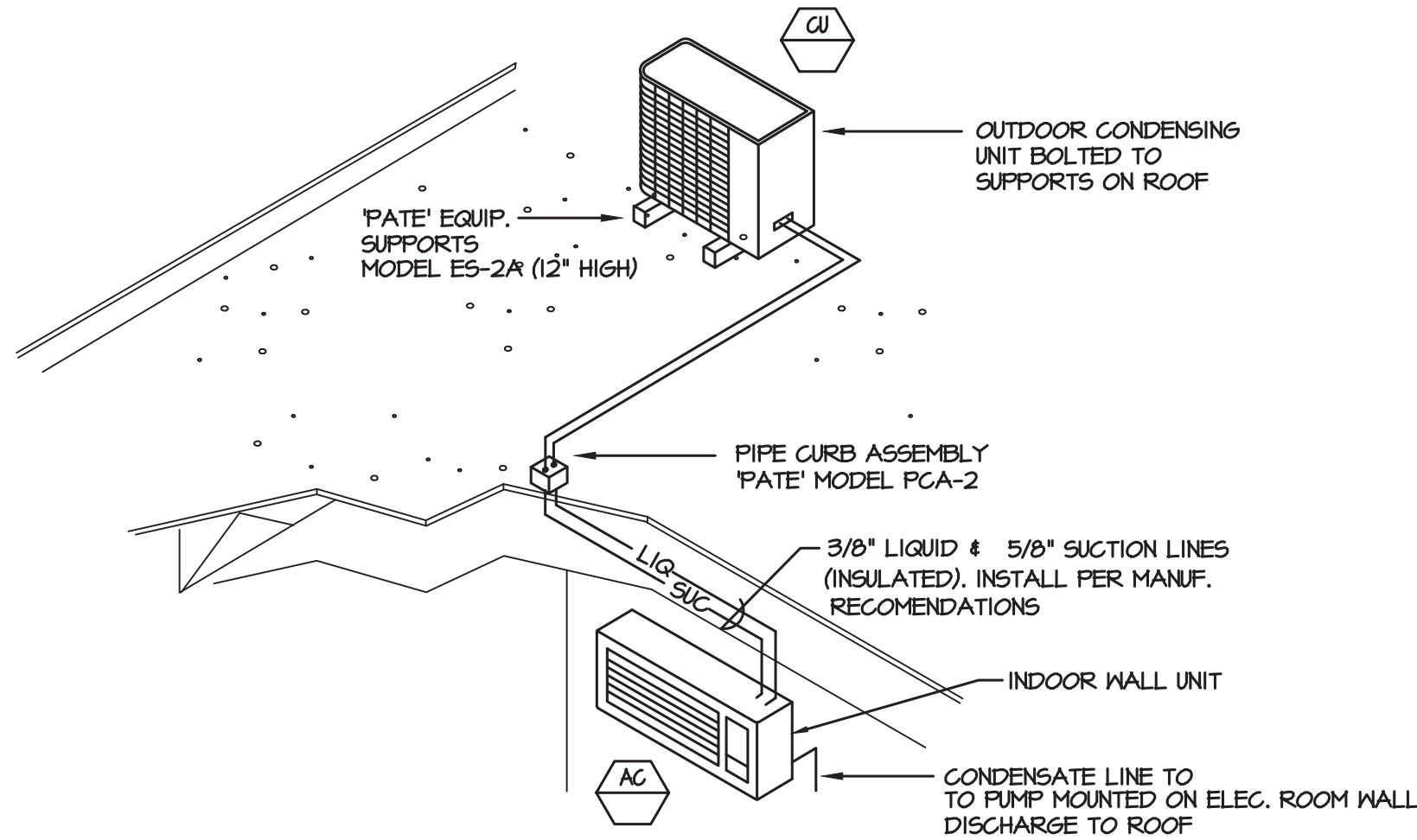
5 DIFFUSER CONNECTION DETAILS  
M-301 SCALE: N.T.S.



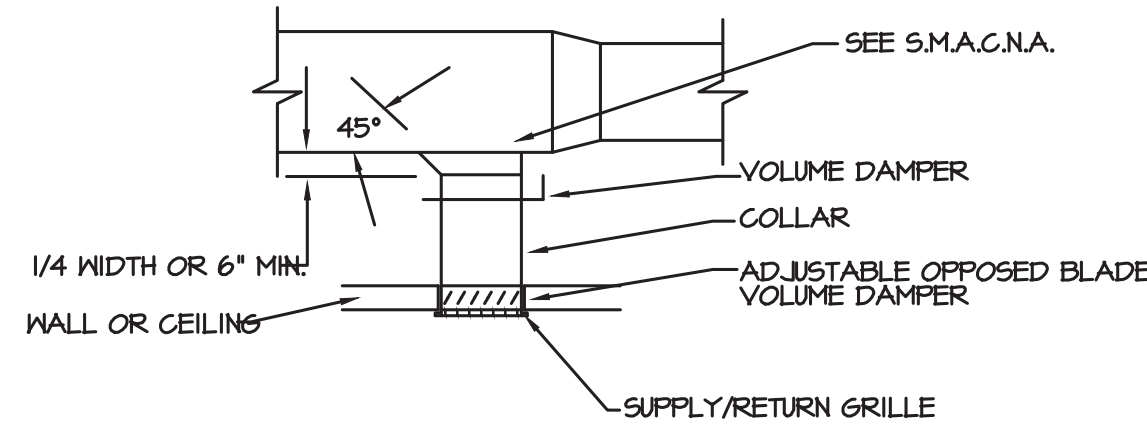
8 VAV BOX DETAIL  
M-301 SCALE: N.T.S.



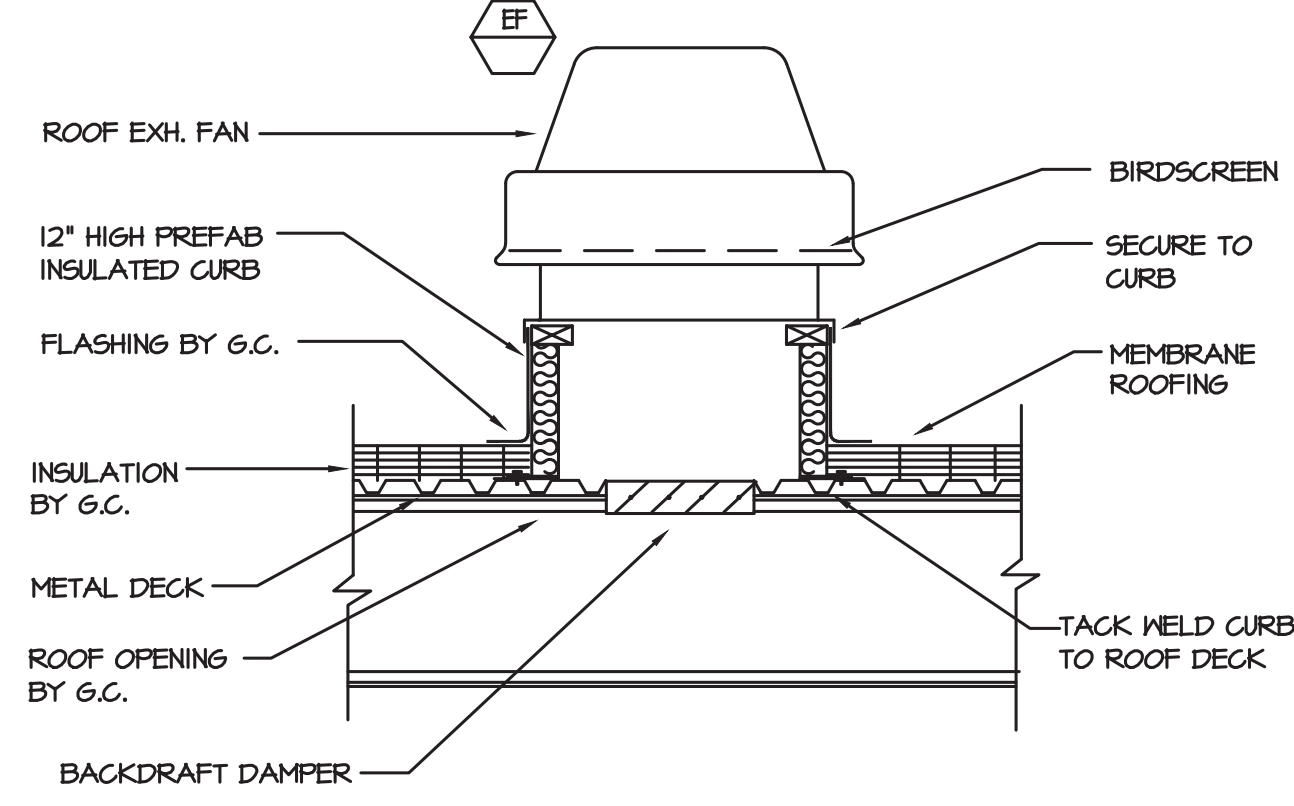
2 ROOFTOP UNIT DETAIL  
M-301 SCALE: N.T.S.



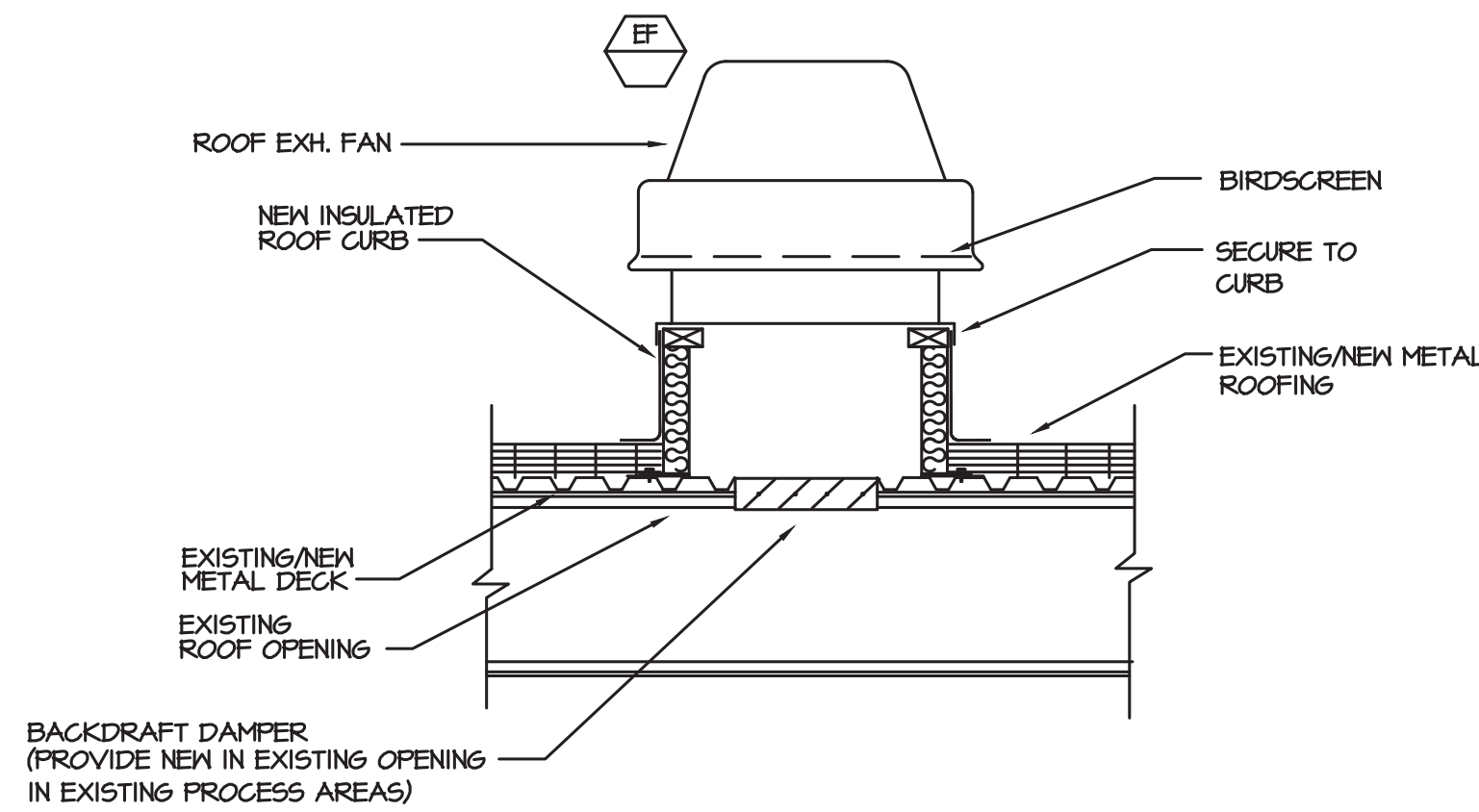
6 DUCTLESS SPLIT SYSTEM DETAIL  
M-301 SCALE: N.T.S.



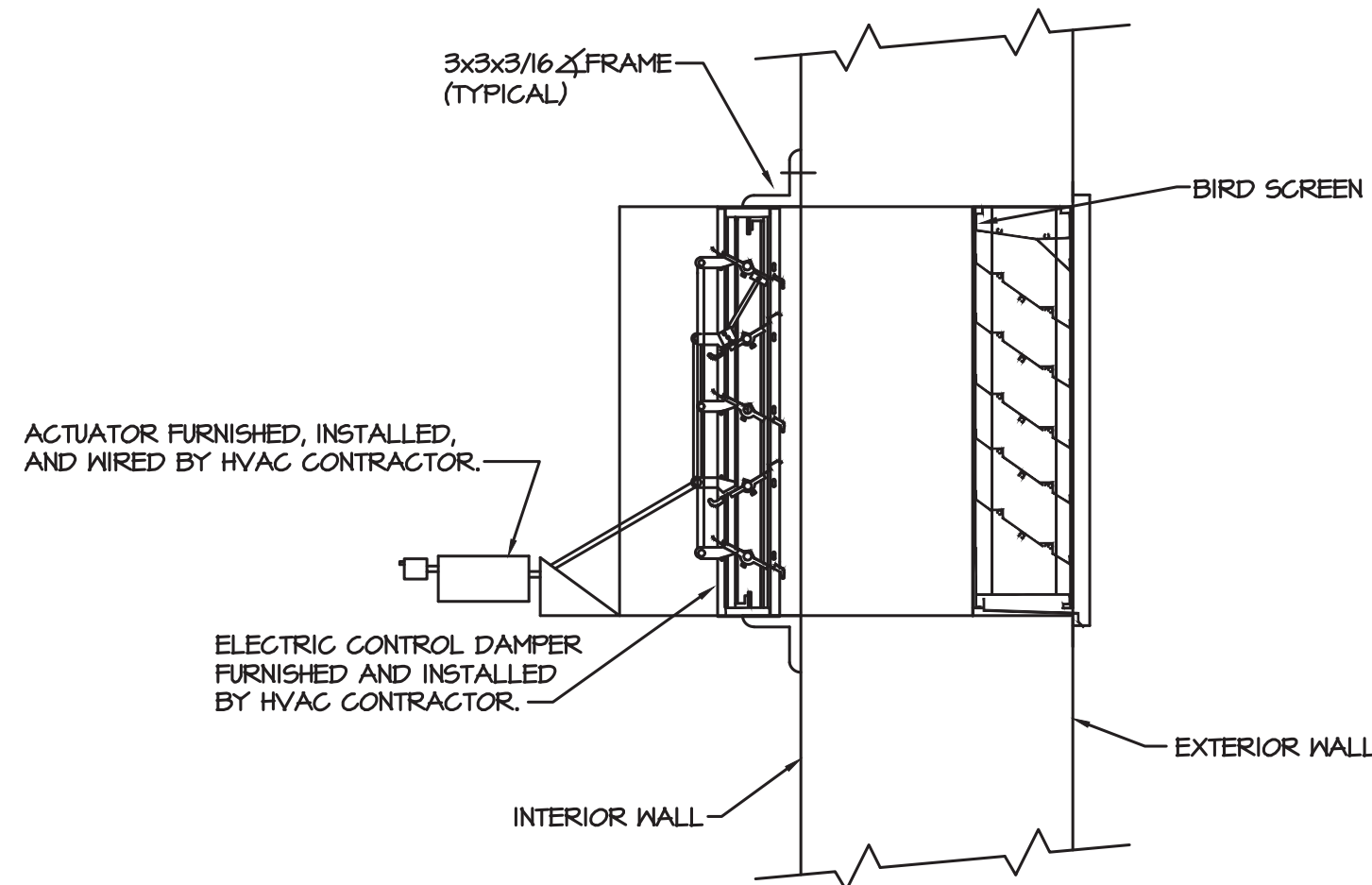
9 REGISTER & GRILLE CONNECTIONS DETAIL  
M-301 SCALE: N.T.S.



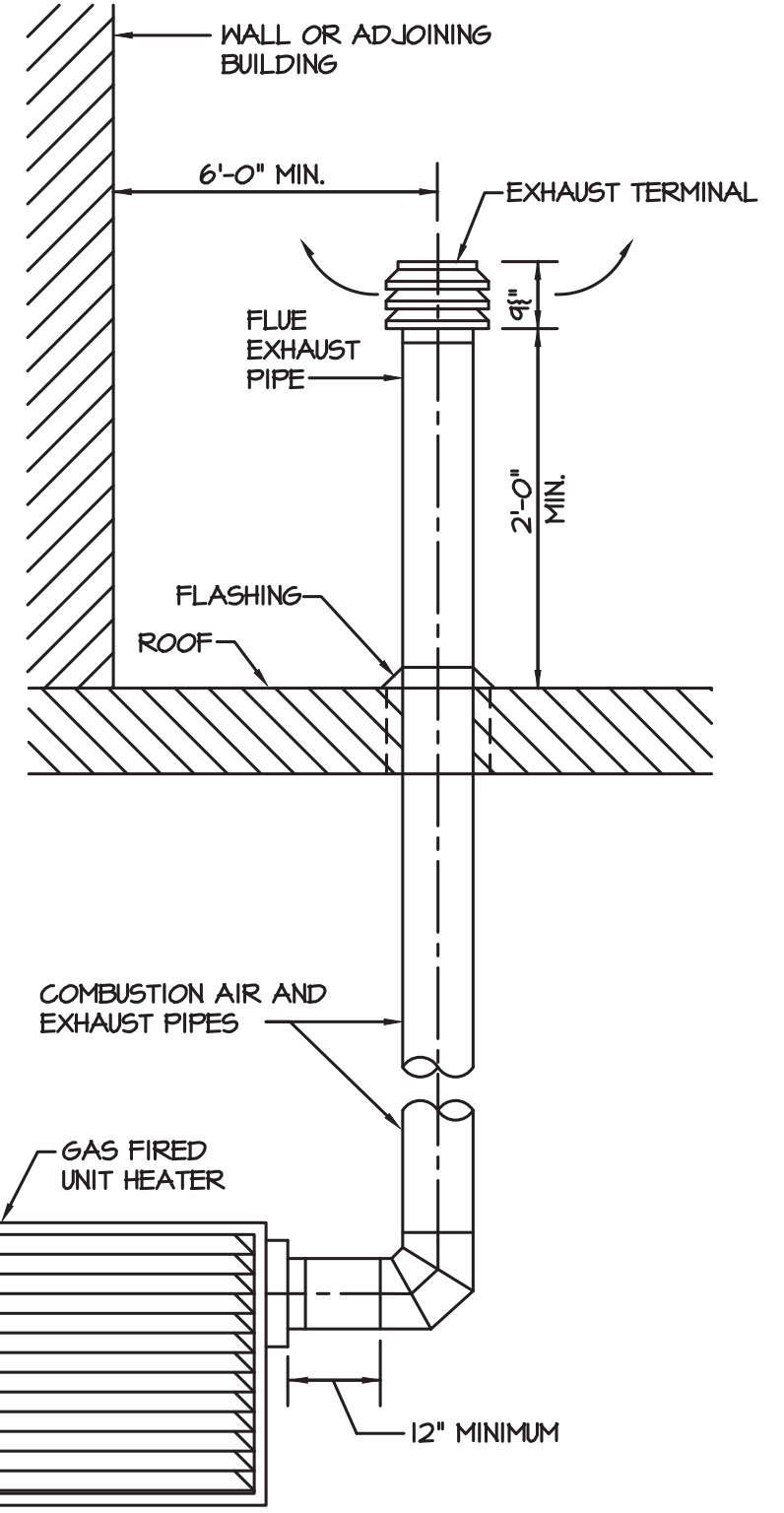
3 ROOF MOUNTED EXHAUST FAN DETAIL  
M-301 SCALE: N.T.S.



7 PROCESS AREA ROOF MOUNTED EXHAUST FAN DETAIL  
M-301 SCALE: N.T.S.  
NOTE: FOLLOW PEMB SPECS FOR INSTALLING ROOF CURBS IN NEW AND EXISTING METAL ROOFS



10 LOUVER DETAIL  
M-301 SCALE: N.T.S.



4 GAS UNIT HEATER DETAIL  
M-301 SCALE: N.T.S.

PROJECT

NORTH

KEY PLAN

**STERLING**  
Sterling Environmental Engineering, P.C.

**martinrogers**  
ENGINEERING CONSULTANTS  
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**Rockland Green**

ROCKLAND GREEN  
MATERIALS RECOVERY FACILITY,  
FACILITY IMPROVEMENTS  
420 TORNE VALLEY ROAD, HILLBURN, NY 10931

DETAILS

REV	DESCRIPTION	DATE	BY	DATE	PROJ. No: 499-010	SCALE:
B	REVISED FOR RFP ADDENDUM 4	8/27/21	BJZ	7/30/21		
A	ISSUED FOR RFP	7/30/21	BJZ	XX		
REV	DESCRIPTION	DATE	BY	DATE	PROJ. No: 499-010	SCALE:
	PROPRIETARY DATA					
	CHECKED	BJZ	7/30/21			
	DESIGNED	BJZ	7/30/21			
	APPROVED					

**RRT Engineering, LLC**  
1 Huntington Quadrangle, 3581  
Melville, N.Y. 11747  
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DWG. NO: M-301

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SHEET SIZE: D-24x36

REV

NOT FOR CONSTRUCTION



GAS FIRED UNIT HEATER SCHEDULE													
TAG	APPLICATION	MANUF.	MODEL	FUEL	INPUT	OUTPUT	CFM	FLUE DIA	COMB DIA	MOTOR HP	ELECTRIC V/PH/Hz	WEIGHT (LBS)	REMARKS/ACCESS
UH-1	WAREHOUSE	REZNOR	UBZ	NAT. GAS	400	340	6185	6	6	2.0	115/1/60	507	1 THRU 13

REMARKS:

1. PROVIDE FACTORY ELECTRICAL DISCONNECT SWITCH AND INTEGRAL THERMOSTAT.
2. PROVIDE FACTORY COMBUSTION AIR/VENT KIT (CONCENTRIC VENTS THROUGH SIDENALL.)
3. PROVIDE FACTORY BELT AND BLOWER GUARDS.
4. PROVIDE ALL NECESSARY MOUNTING BRACKETS AND HARDWARE.
5. 3/4" NATURAL GAS CONNECTION.
6. ELECTRICAL 21.3 FLA, 60 MOCF, 1035 WATTS..
7. PROVIDE UNIT WITH 2 STAGE NATURAL GAS VALVE.
8. PROVIDE UNIT WITH 2 STAGE A HALL-MOUNTED HEATING THERMOSTAT WITH SUMMER FAN/BLOWER SWITCH.
9. PROVIDE UNIT WITH ALL REQUIRED GAS PRESSURE REGULATORS.
10. PROVIDE UNIT WITH HORIZONTAL LOUVERS. MOUNT UNIT AND VENTS AS HIGH AS POSSIBLE FOR MAXIMUM CLEARANCE BELOW.
11. PROVIDE UNIT WITH 115 VOLT TO 24 VOLT TRANSFORMER AND 24 VOLT REMOTE THERMOSTAT.
12. FINISH - BAKED ENAMEL, COLOR SHALL BE WHITE.
13. PROVIDE ALL NECESSARY STRUKTURAL STEEL FOR INSTALLATION OF UNIT.

UNITARY INFRARED HEATER SCHEDULE									
TAG	MANUFACTURER	MODEL	DESCRIPTION	MAX. INPUT	MIN. LENGTH	ELECTRICAL DATA	TUBE MATERIAL	FUEL	REMARKS/ACCESSORIES
UIH-1	ROBERTS GORDON	CTH3-80	VANTAGE MODULATING	80,000 BTUH	20 FEET STRAIGHT TUBE	13A RUN-120/1Ø 4.8A START-120/1Ø	ALUMINIZED 4"Ø	NATURAL GAS	1, 2, 3, 4, 5, 6, 7, Ø
UIH-2	ROBERTS GORDON	CTH3-80	VANTAGE MODULATING	80,000 BTUH	20 FEET STRAIGHT TUBE	13A RUN-120/1Ø 4.8A START-120/1Ø	ALUMINIZED 4"Ø	NATURAL GAS	1, 2, 3, 4, 5, 6, 7, Ø
UIH-3	ROBERTS GORDON	CTH3-80	VANTAGE MODULATING	80,000 BTUH	20 FEET STRAIGHT TUBE	13A RUN-120/1Ø 4.8A START-120/1Ø	ALUMINIZED 4"Ø	NATURAL GAS	1, 2, 3, 4, 5, 6, 7, Ø
UIH-4	ROBERTS GORDON	CTH3-80	VANTAGE MODULATING	80,000 BTUH	20 FEET STRAIGHT TUBE	13A RUN-120/1Ø 4.8A START-120/1Ø	ALUMINIZED 4"Ø	NATURAL GAS	1, 2, 3, 4, 5, 6, 7, Ø
UIH-5	ROBERTS GORDON	CTH3-150	VANTAGE MODULATING	150,000 BTUH	40 FEET STRAIGHT TUBE	13A RUN-120/1Ø 4.8A START-120/1Ø	ALUMINIZED 4"Ø	NATURAL GAS	1, 2, 3, 4, 5, 6, 7, Ø
UIH-6	ROBERTS GORDON	CTH3-150	VANTAGE MODULATING	150,000 BTUH	40 FEET STRAIGHT TUBE	13A RUN-120/1Ø 4.8A START-120/1Ø	ALUMINIZED 4"Ø	NATURAL GAS	1, 2, 3, 4, 5, 6, 7, Ø

REMARKS/ACCESSORIES:

1. PROVIDE WITH SIDE REFLECTOR SHIELDS.
2. PROVIDE ALL REQUIRED TUBING, REFLECTORS AND HANGERS AS REQUIRED.
3. PROVIDE WITH DOUBLE PORCELAIN COATED CONDENSING HEAT EXCHANGER TAILPIPE.
4. PROVIDE STANDARD CONTROL PANEL WITH 24 VOLT THERMOSTATS.
5. PROVIDE WITH HOT SURFACE IGNITION SYSTEM.
6. PROVIDE 24 VOLT PROGRAMMABLE MODULATING THERMOSTAT WITH METAL COVER.
7. PROVIDE WITH 4"Ø FLUE AND COMBUSTION AIR VENT TERMINAL.
- Ø. PROVIDE WITH 3/4" GAS CONNECTION.

ROOF TOP UNIT SCHEDULE																												
TAG	MAKE	MODEL	TONS	EVAP. FAN DATA						DX COOLING COIL				COMPRESSOR		CONDENSER FAN		NATURAL GAS FURNACE			EER	EXHAUST FAN DATA					UNIT ELECTRICAL DATA	
				CFM	O/A CFM	E.S.P.	HP	RPM	VOLTAGE	TOTAL MBH	SENS. MBH	E.A.T. DB/WB	L.A.T. DB/WB	QTY	RLA	QTY	HP	INPUT MBH	OUTPUT MBH	STAGES		CFM	E.S.P.	HP	RPM	VOLTAGE	M.C.A.	M.O.C.P.
RTU-1	TRANE	YHC120F4RHA	10	4,000	1,475	0.9"	3	1565	480V/3ø	113.4	95.7	80°/67°	57.8°/56.8°	2	8.2 / 6.0	1	.75	250	200	2	12.4	4,000	0.1"	1	1075	208V/1ø	22	25
RTU-2	TRANE	OABDO4øE4	3	500	500	1.0	1/2	-	480V/3ø	36.0	30.0	95°/78°	55°/44°	1	7.1	1	0.25	60	48	1	14.0	-	-	-	-	-	21	25
RTU-3	TRANE	OABDO4øE4	3	500	500	1.0	1/2	-	480V/3ø	36.0	30.0	95°/78°	55°/44°	1	7.1	1	0.25	60	48	1	14.0	-	-	-	-	-	21	25

NOTES:

1. BALANCE UNIT TO PROVIDE SUPPLY AIR FLOW RATES SHOWN ON PLANS.
2. DX COOLING WITH INDIRECT FIRED NATURAL GAS HEAT.
3. VERTICAL DISCHARGE AND VERTICAL RETURN. (VERTICAL RETURN FOR RTU-1 ONLY)
4. 2" MERV Ø HIGH EFFICIENCY, THROWAWAY FILTER.
5. 0-100% OUTSIDE AIR ECONOMIZER CONTROL WITH MODULATING OUTSIDE AND RETURN AIR DAMPERS. (RTU-1 ONLY). 2-POSITION MOTORIZED OA DAMPER FOR RTUS 2 & 3.
6. POWERED EXHAUST. DIRECT DRIVE WITH VFD AND GRAVITY DAMPER. (RTU-1 ONLY)
7. FACTORY FURNISHED SUPPLY FAN VFD WITH BYPASS. (RTU-1 ONLY)
8. FACTORY POWERED GROUND FAULT CONVENIENCE OUTLET.
9. PROVIDE UNIT WITH FACTORY-MOUNTED DISCONNECT SWITCH.
10. PROVIDE UNIT WITH STANDARD SERVICE ACCESS.
11. PROVIDE UNIT WITH STAINLESS STEEL DRIP PAN.
12. PROVIDE UNIT WITH CONDENSER HAILGUARD.
13. PROVIDE UNIT WITH 20:1 TURNDOWN (RTU-1), 5:1 MINIMUM FOR FOR RTUS 2 & 3.
14. PROVIDE UNIT WITH WIRELESS BACNET COMM INTERFACE (AND MULTI-ZONE VAV CONTROL FOR RTU-1).
15. PROVIDE RTUS 2 AND 3 WITH DIGITAL SCROLL COMPRESSORS, MODULATING HOT GAS REHEAT, AND CONDENSER FAN VARIABLE SPEED HEAD PRESURE CONTROL.
16. PROVIDE UNIT WITH SUPPLY DISCHARGE AIR SENSOR.
17. PROVIDE UNIT WITH FLAT ROOF CURB.
18. 5-YEAR DIGITAL/VARIABLE SPEED SCROLL COMPRESSOR WARRANTY.
19. 1-YEAR PARTS ONLY WARRANTY.
20. 1-YEAR LABOR DX GAS HEAT OR COOLING ONLY WARRANTY.
21. FACTORY STARTUP BY MANUFACTURER REPRESENTATIVE.
22. SMOKE DETECTOR SHALL BE PROVIDED AND INSTALLED BY THE E.C.
23. PROVIDE RAIN HOODS AT OUTDOOR AIR AND RELIEF AIR OPENINGS.
24. PROVIDE APR VALVE ON EACH COMPRESSOR CIRCUIT FOR RTU-1.

DIFFUSER, REGISTER & GRILLE SCHEDULE													
TAG	MANUFACTURER	MODEL	CFM RANGE	SERVICE	NECK SIZE	FACE SIZE	PRESS. DROP	PATTERN	THROW	STYLE	MAX NC	MATERIAL	REMARKS/ACCESSORIES
A	ANEMOSTAT	HPX-41	40-120	SUPPLY	6"x6" 6"Ø	24"x24"	0.10"	4-WAY	2'-7"	LAY-IN	20	ALUMINUM	HIGH PERFORMANCE WITH DIFFUSING VANES AND OPPOSED BLADE DAMPER
B	ANEMOSTAT	HPX-41	125-225	SUPPLY	9"x9" 8"Ø	24"x24"	0.06"	4-WAY	3'-8"	LAY-IN	20	ALUMINUM	HIGH PERFORMANCE WITH DIFFUSING VANES AND OPPOSED BLADE DAMPER
C	ANEMOSTAT	HPX-41	230-325	SUPPLY	12"x12" 10"Ø	24"x24"	0.06"	4-WAY	3'-9"	LAY-IN	20	ALUMINUM	HIGH PERFORMANCE WITH DIFFUSING VANES AND OPPOSED BLADE DAMPER
D	ANEMOSTAT	6C50	50-445	RETURN/ EXHAUST	12"x12"	14"x14"	0.01"	EGGCRATE	-	SURFACE	20	ALUMINUM	1/2 x 1/2 x 1/2 CORE, OPPOSED BLADE DAMPER
E	ANEMOSTAT	6C50	500-450	RETURN	18"x18"	20"x20"	0.01"	EGGCRATE	-	SURFACE	20	ALUMINUM	1/2 x 1/2 x 1/2 CORE, OPPOSED BLADE DAMPER
F	ANEMOSTAT	6C50L	455-2000	TRANSFER	24"x24"	24"x24"	0.01"	EGGCRATE	-	LAY-IN	20	ALUMINUM	1/2 x 1/2 x 1/2 CORE
G	ANEMOSTAT	X2H	350	SUPPLY	16"x10"	16"x10"	0.01"	2-WAY	5'-9"	SURFACE	20	ALUMINUM	3/4" SPACING DOUBLE DEFLECTION
H	ANEMOSTAT	115L	6500	SUPPLY	40"x48"	40"x48"	0.1"	1-WAY	50'	SURFACE	20	STEEL	1-1/2" SPACING SINGLE DEFLECTION
D/L	--	--	50/500	TRANSFER	20"x18"	22"x20"	0.01"	LOUVER	-	SURFACE	--	STEEL	DOOR LOUVER PROVIDE BY G.C.

NOTES:

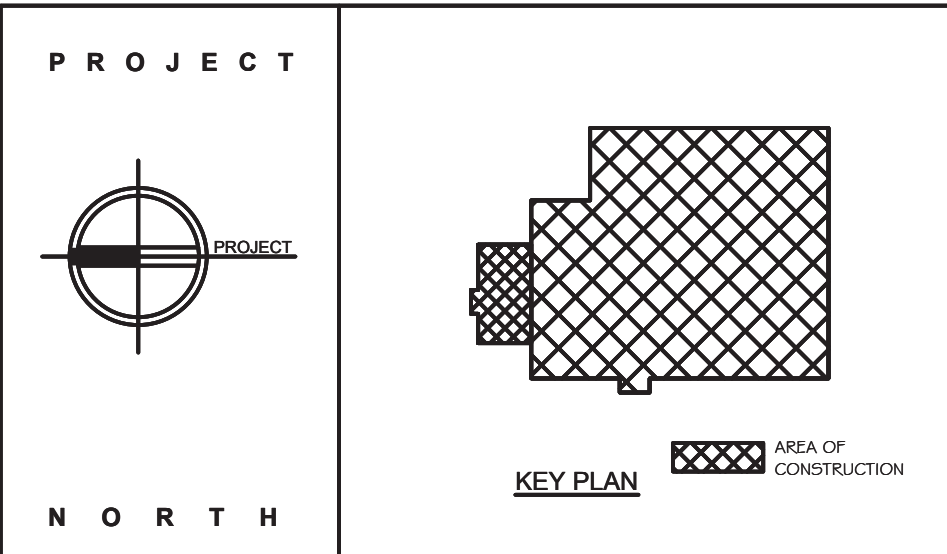
1. ALL FRAME STYLES SHALL BE COORDINATED WITH CEILING/WALL TYPES.
2. FINISH - BAKED ENAMEL. COLOR AS SELECTED BY THE ARCHITECT.
3. COORDINATE EXACT LOCATION WITH ARCHITECTURAL REFLECTED CEILING PLANS.
4. PROVIDE SQUARE TO ROUND NECK ADAPTORS FOR DIFFUSERS AS REQUIRED.
5. PAINT INSIDE OF DUCT, VISIBLE AT RETURN AND EXHAUST REGISTERS FLAT BLACK.

B

VAV BOX SCHEDULE (ELECTRIC REHEAT)												
TAG	MAKE	MODEL	SIZE DIA.	COOLING CFM		MIN HTG CFM	E.A.T.	L.A.T.	ELECTRIC HEAT (KW)	VOLTAGE/ PHASE	A.P.D.	REMARKS
				MAX	MIN							
VAV-1	TRANE	VCEF	5"	200	150	150	55	95	2	277/1	.01	1, 2, 3, 4, 5, 6
VAV-2	TRANE	VCEF	5"	125	100	100	55	95	1.5	277/1	.01	1, 2, 3, 4, 5, 6
VAV-3	TRANE	VCEF	5"	125	100	100	55	95	1.5	277/1	.01	1, 2, 3, 4, 5, 6
VAV-4	TRANE	VCEF	8"	400	200	200	55	95	2.5	277/1	.01	1, 2, 3, 4, 5, 6
VAV-5	TRANE	VCEF	8"	300	200	200	55	95	2.5	277/1	.01	1, 2, 3, 4, 5, 6
VAV-6	TRANE	VCEF	5"	200	150	150	55	95	2.0	277/1	.01	1, 2, 3, 4, 5, 6
VAV-7	TRANE	VCEF	5"	200	150	150	55	95	2.0	277/1	.01	1, 2, 3, 4, 5, 6
VAV-8	TRANE	VCEF	8"	400	200	200	55	95	2.5	277/1	.01	1, 2, 3, 4, 5, 6
VAV-9	TRANE	VCEF	5"	150	100	100	55	95	1.5	277/1	.01	1, 2, 3, 4, 5, 6
VAV-10	TRANE	VCEF	6"	250	150	150	55	95	2.0	277/1	.01	1, 2, 3, 4, 5, 6
VAV-11	TRANE	VCEF	8"	550	300	300	55	95	4.0	277/1	.01	1, 2, 3, 4, 5, 6
VAV-12	TRANE	VCEF	8"	350	200	200	55	95	2.5	277/1	.01	1, 2, 3, 4, 5, 6
VAV-13	TRANE	VCEF	6"	300	150	150	55	95	2.0	277/1	.01	1, 2, 3, 4, 5, 6
VAV-14	TRANE	VCEF	8"	450	250	250	55	95	3.5	277/1	.01	1, 2, 3, 4, 5, 6

REMARKS/ACCESSORIES:


1. PROVIDE VAV BOX WITH SCR REHEAT CONTROL.
2. PROVIDE VAV BOX WITH 277V OR 480V TO 24V TRANSFORMER.
3. THE HEATING MINIMUM IS THE MINIMUM AIRFLOW REQUIRED ACROSS THE ELECTRIC REHEAT COIL FOR PROPER PERFORMANCE.
4. PROVIDE FACTORY MOUNTED DISCONNECT SWITCHES.
5. PROVIDE WITH FOIL FACED 1/2" THICK ELASTOMERIC INSULATION.
6. PROVIDE WITH MOUNTING BRACKETS.




**STERLING**  
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185 N. Pennsylvania Ave., Wilkes-Barre, PA 18701  
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**ANDERSON DESIGN GROUP**  
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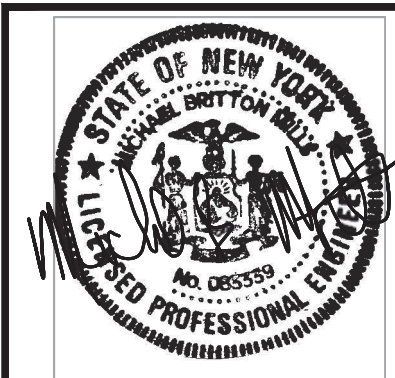


**ROCKLAND GREEN**  
MATERIALS RECOVERY FACILITY,  
DESIGN IMPROVEMENTS  
420 TORNE VALLEY ROAD, HILLBURN, NY 10931

SCHEDULES

BY	DATE	PROJ. No: 499-010	SCALE:
BJZ	7/30/21		

DWG. NO:	M-401	B
CAD FILE: N:\2021\12\10\03\MEP\210331-M-401.DWG		
SHEET SIZE: D-24x36		REV



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REVISION	DATE	BY	DESCRIPTION
B	8/27/21	BJZ	REVISED FOR RFP ADDENDUM 4
A	7/30/21	BJZ	ISSUED FOR RFP
REV	DATE BY CHK		
CHECKED	BY	DATE	
DESIGNED	BJZ	7/30/21	
APPROVED			
APPROVED			

NOT FOR CONSTRUCTION



ELECTRIC CABINET HEATER SCHEDULE											
TAG	MANUFACTURER	MODEL	TYPE	SIZE	KN	MBH	CFM	AMPS	VOLTAGE/PHASE	AREA SERVED	REMARKS
ECH-1	BERKO	CUH35	WALL MOUNTED	26-3/8"H x 35"L x 9-3/4"D	5	17.0	250	7	480V/3Ø	STAIRS 115	1, 2, 3, 4, 5
ECH-2	BERKO	CUH35	WALL MOUNTED	26-3/8"H x 35"L x 9-3/4"D	5	17.0	250	7	480V/3Ø	STAIRS 203	1, 2, 3, 4, 5
ECH-3	BERKO	CUH35	WALL MOUNTED	26-3/8"H x 35"L x 9-3/4"D	5	17.0	250	7	480V/3Ø	AREA 2	1, 2, 3, 4, 5

REMARKS:  
1. PROVIDE UNIT WITH BUILT-IN 2 STAGE THERMOSTAT.  
2. PROVIDE UNIT WITH A THERMAL CUTOUT AND MANUAL RESET.  
3. PROVIDE UNIT WITH INTERNAL FACTORY DISCONNECT SWITCH.  
4. PROVIDE WITH FRONY DISCHARGE AND BOTTOM RETURN.  
5. COLOR SHALL BE WHITE BAKED ENAMEL.

B

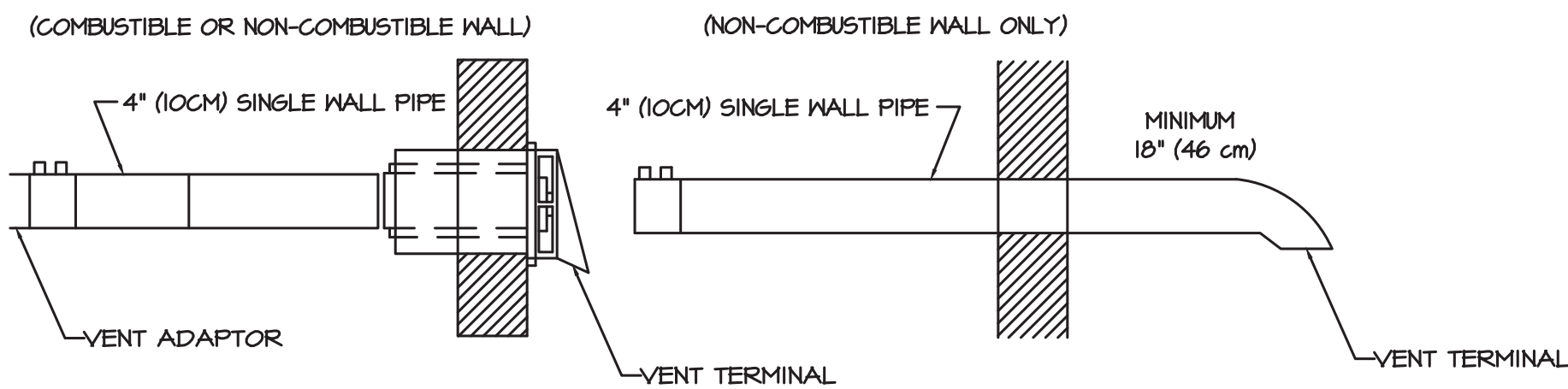
ELECTRIC UNIT HEATER SCHEDULE											
TAG	MANUFACTURER	MODEL	TYPE	SIZE	KN	MBH	CFM	AMPS	VOLTAGE/PHASE	AREA SERVED	REMARKS
EUH-1	BERKO	HUAA-548	WALL MOUNTED	16"Hx14"Wx8-1/2"D	5	17.0	350	6.0	480V/3Ø	ELECTRICAL 113	1, 2, 3, 4, 5, 6
EUH-2	BERKO	HUAA-748	WALL MOUNTED	21-3/4"Hx19"Wx8-1/2"D	7.5	25.5	650	9.0	480V/3Ø	COMPRESSOR ROOM 111	1, 2, 3, 4, 5, 6
EUH-3	BERKO	HUAA-548	WALL MOUNTED	16"Hx14"Wx8-1/2"D	5	17.0	350	6.0	480V/3Ø	SPRINKLER ROOM 102	1, 2, 3, 4, 5, 6
EUH-4	BERKO	HUAA-1048	WALL MOUNTED	21-3/4"Hx19"Wx8-1/2"D	10	34.1	650	12.0	480V/3Ø	SPRINKLER ROOM 170	1, 2, 3, 4, 5, 6

REMARKS:  
1. PROVIDE 24 VOLT WALL MOUNTED THERMOSTAT.  
2. PROVIDE 2-STAGE ELEMENT.  
3. PROVIDE POWER DISCONNECT SWITCH.  
4. PROVIDE WITH WALL MOUNTING BRACKET.  
5. PROVIDE WITH LOW VOLTAGE CONTROL TRANSFORMER.  
6. COLOR SHALL BE BLACK BAKED ENAMEL.

B

SPLIT-SYSTEM AIR CONDITIONING SCHEDULE																		
INDOOR UNIT									OUTDOOR CONDENSING UNIT							MOCP	ACCESSORIES / REMARKS	
TAG	MAKE	MODEL	AREA SERVED	CFM	COOLING			ELEC.	MCA	TAG	MAKE	MODEL	NOM. TONS	MIN. SEER	ELEC.			MCA
					TOT MBH	E.A.T. DB/MB	L.A.T. DB/MB											
AC-1	MITSUBISHI	PEA-A12AA6	IT CLOSET 210	350	12.0	80/67	55/54	208v/1Ø	1.0	CU-1	MITSUBISHI	PUY-A12NHA6	1.0	14.0	208v/1Ø	13	15	1, 2, 3, 4, 5, 6, 7, 8

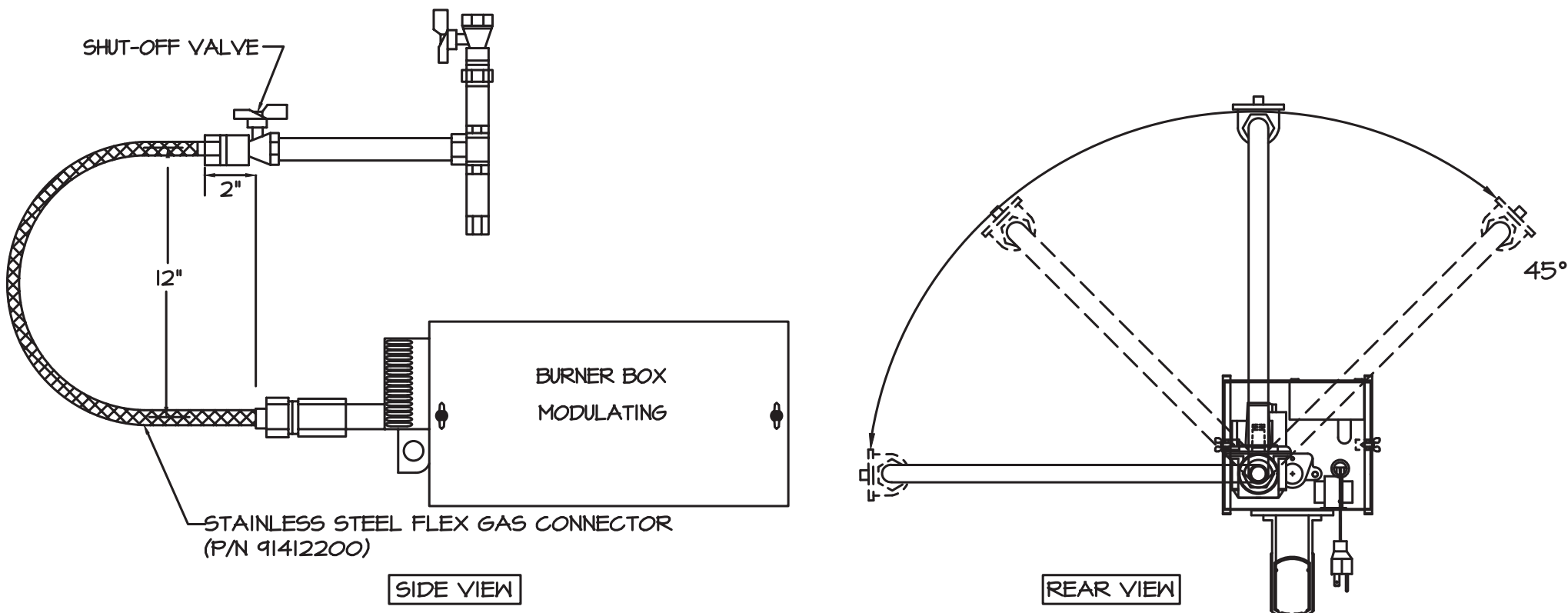
ACCESSORIES / REMARKS:  
1. UNITS SHALL BE CAPABLE OF OPERATING AT 0°F TO 115°F.  
2. COOLING CAPACITY BASED ON 115°F OUTDOOR AIR TEMPERATURE.  
3. PROVIDE WITH WIND BAFFLE.  
4. REFRIGERANT SHALL BE R410A.  
5. PROVIDE A MITSUBISHI #PAR-21MAA WALL MOUNTED CONTROLLER FOR EACH UNIT.  
6. PROVIDE REFRIGERANT PIPING SIZES PER MANUFACTURER.  
7. INSTALL CONDENSING UNITS ON EQUIPMENT SUPPORT CURBS, LOCATED ON ROOF.  
8. PROVIDE INDOOR UNITS WITH INTEGRAL CONDENSATE PUMPS.  
9. PROVIDE WITH FILTER BOX AND 1" MERV 8 FILTER.



NOTES:  
1. REFER TO INSTALLATION, OPERATION AND SERVICE MANUAL FOR PROPER DESIGN.  
2. IN COMBUSTIBLE OR NONCOMBUSTIBLE WALLS, USE INSULATED VENT TERMINAL. FOLLOW VENT MANUFACTURER'S INSTRUCTIONS FOR PROPER INSTALLATION.  
3. 4" (10 CM) O.D. VENT PIPE, MAXIMUM 45 FT.(13.7M) IN LENGTH MAY BE USED AS SHOWN ABOVE WITH AN APPROVED VENT CAP. NOTE: CONDENSATE MAY DEVELOP WHEN LONG VENT PIPES ARE USED. IT IS RECOMMENDED THAT THE PIPE LENGTH SHOULD BE LESS THAN 20' (6M).  
4. WHEN HEATER LENGTHS BEYOND MINIMUM HEATER LENGTHS ARE USED THEY DIRECTLY EFFECT MAXIMUM VENT LENGTH. REFER TO INSTALLATION, OPERATION, AND SERVICE MANUAL FOR REQUIREMENTS.  
5. VENT TERMINAL MUST BE INSTALLED AT A HEIGHT SUFFICIENT TO PREVENT BLOCKAGE BY SNOW, BUILDING MATERIALS MUST BE PROTECTED FROM DEGRADATION BY VENT GASES.

## 1 HORIZONTAL VENTING CONFIGURATIONS (VANTAGE MOD.)

SCALE: NO SCALE



NOTES:  
1. GAS PIPE WORK MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH UNITED STATES ANSI Z 223.1/NFPA 54 LATEST ADDITION AND CANADA-CSA-B149.1  
2. INSTALL THE FLEX GAS CONNECTOR AS SHOWN. THE FLEX GAS CONNECTOR ACCOMMODATES EXPANSION OF THE HEATING SYSTEM AND ALLOWS FOR EASY INSTALLATION AND SERVICE OF THE BURNER.  
3. SHUT-OFF VALVE MUST BE PARALLEL TO BURNER INLET. THE 2" (5CM) DISPLACEMENT SHOWN IS FOR THE COLD CONDITION. THIS DISPLACEMENT MAY REDUCE WHEN THE SYSTEM IS FIRED.

## 2 GAS CONNECTION DETAIL (VANTAGE MOD.)

SCALE: NO SCALE

NOT FOR CONSTRUCTION

EXHAUST FAN SCHEDULE													
TAG	AREA SERVED	MANUFACTURER	MODEL	TYPE	DRIVE	CFM	S.P.	RPM	MOTOR HP OR WATTS	ELECTRICAL DATA	SONES	TYPE OF CONTROL	REMARKS/ACCESSORIES
EF-1	ADMIN BUILDING	GREENHECK	6B-141-5	CENTRIF.	BELT	1,475	.75	1,260	1/2	480V/3Ø	10	INTERLOCK WITH RTU-1	1, 2, 3
EF-2	ELECTRIC ROOM	GREENHECK	SQ-40	INLINE	DIRECT	500	.375	1,625	1/6	120V/1Ø	8.0	REVERSE ACTING THERMOSTAT	4, 5, 6, 9, 10, 11, 12, 13
EF-3	AREA 1 (TIPPING)	GREENHECK	RBU-3L 36-60	ROOF	BELT	16,500	0.5	1,181	3.0	460V/3Ø	-	ON/OFF VIA WALL CONTROL PANEL	1, 2, 3, 4, 7, 8
EF-4	AREA 2 (PROCESSING)	GREENHECK	RBU-2H 36-60	ROOF	BELT	12,175	0.5	1,181	2.0	460V/3Ø	-	2 SPEED FAN CONTROL VIA WALL MOUNTED CONTROL PANEL	1, 2, 3, 4, 7, 8
EF-5	AREA 4 (STORAGE)	GREENHECK	RBU-3L 36-60	ROOF	BELT	16,500	0.5	1,181	3.0	460V/3Ø	-	2 SPEED FAN CONTROL VIA WALL MOUNTED CONTROL PANEL	1, 2, 3, 4, 7, 8
EF-6	AREA 5 (TIPPING)	GREENHECK	RBU-2H 36-60	ROOF	BELT	12,175	0.5	1,181	2.0	460V/3Ø	-	ON/OFF VIA WALL CONTROL PANEL	1, 2, 3, 4, 7, 8
EF-7	COMPRESSOR ROOM	GREENHECK	6B-540-50	ROOF	BELT	25,000	0.5	350	5.0	460V/3Ø	18.7	REVERSE ACTING THERMOSTAT	1, 2, 3

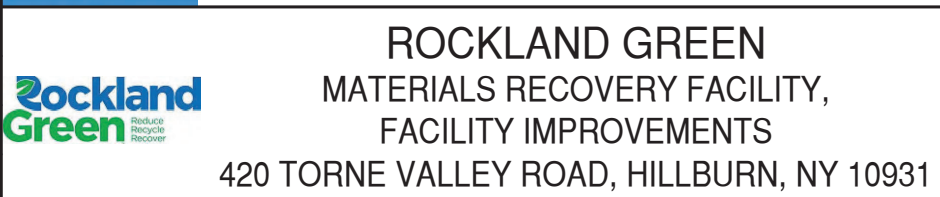
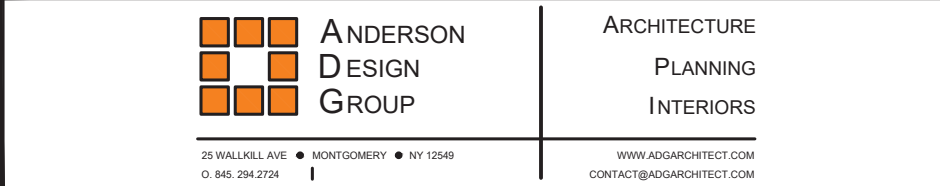
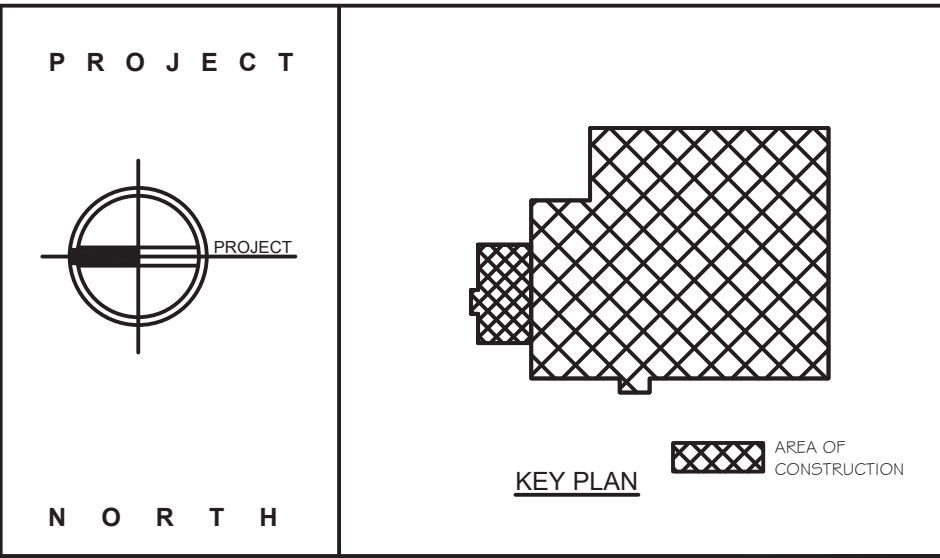
REMARKS/ACCESSORIES:  
1. PROVIDE WITH 12" ROOF CURB AND BIRD SCREEN.  
2. PROVIDE WITH DISCONNECT SWITCH AND MOTOR STARTER.  
3. PROVIDE SPRING LOADED BACKDRAFT DAMPER.  
4. PROVIDE WITH 1/2" ACCOUSTICALLY INSULATED HOUSING.  
5. PROVIDE WITH VARIABLE SPEED VARI-GREEN MOTOR. OPERATES ON AC POWER THAT'S CONVERTED TO DC.  
6. SUPPORT UNIT FROM STRUCTURE ABOVE WITH STEEL RODS AND SPRING VIBRATION ISOLATORS.  
7. PROVIDE ROOF CURB ADAPTOR.  
8. PROVIDE WITH A SPARE SET OF BELTS.  
9. PROVIDE WITH INLET AND OUTLET DUCT COLLARS.  
10. PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.  
11. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.  
12. PROVIDE WITH DIAL ON MOTOR CONTROL AND CONTROL WIRE INPUTS.  
13. PROVIDE WITH INLET GUARD.

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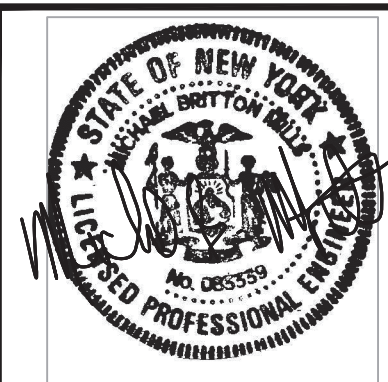
LOUVER SCHEDULE										
TAG	MAKE	MODEL	CFM	SIZE W x H x D	FREE AREA SQ. FT.	STATIC PRESS.	SERVICE	MATERIAL	REMARKS	
L-1	GREENHECK	ESD-603	6,475	48"x48"x6"	8.53	0.1	INTAKE	ALUMINUM	DRAINABLE STATIONARY BLADE WITH BIRDSCREEN	
L-2	GREENHECK	ESD-603	15,000	72"x72"x6"	20.13	0.1	INTAKE	ALUMINUM	DRAINABLE STATIONARY BLADE WITH BIRDSCREEN	
L-3	GREENHECK	ESD-603	16,500	108"x60"x6"	24.44	0.1	INTAKE	ALUMINUM	DRAINABLE STATIONARY BLADE WITH BIRDSCREEN	
L-4	GREENHECK	ESD-603	12,175	72"x60"x6"	16.54	0.1	INTAKE	ALUMINUM	DRAINABLE STATIONARY BLADE WITH BIRDSCREEN	
L-5	GREENHECK	ESD-603	500	18"x18"x6"	.86	0.1	INTAKE/ EXHAUST	ALUMINUM	DRAINABLE STATIONARY BLADE WITH BIRDSCREEN	

NOTES:  
1. LOUVERS SHALL BE CAULKED WEATHERTIGHT ALL AROUND. COORDINATE CAULKING WITH G.C.  
2. LOUVERS SHALL BE FURNISHED WITH ALUMINUM BIRDSCREEN.  
3. FINISH AND COLOR OF THE LOUVER SHALL BE AS SELECTED BY THE ARCHITECT.  
4. PROVIDE LOUVER FLANGE AS REQUIRED.

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SCHEDULES AND DETAILS			
DRAWN	BY	DATE	PROJ. No: 499-010
CHECKED	BJZ	7/30/21	SCALE:
DESIGNED	BJZ	7/30/21	DWG. NO: M-402
APPROVED			CAD FILE: N:\2021\12\1033\MEP\210133 M-402.DWG
APPROVED			SHEET SIZE: D-24x36



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