

2/23/2021 11:05:45 AM

GALVANIZED STEEL

OPPOSED BLADE

TYPE B
REMARKS

1. 24"X24" MODULE

RETURN

SQUARE RETURN DIFFUSER

ELECTRIC BASEBOARD H	HEATER SCHEDUL	E						
EQUIPMENT TAG	LOCATION	INPUT POWER [W]	VOLTAGE [V]	ELECTRIC. PHASE	AL FREQUENCY [HZ]	WEIGHT [LBS]	MANUFACTURER	MODEL
EBBH-01	RESTROOM	750	208	1	60	50.00	MARLEY	CBD758

FAN SCHEDUL	LE																		
EQUIPMENT TAG	LOCATION	SERVICE	FAN TYPE	AIRFLOW [CFM]	ESP AT HIGH SPEED [IN WC]	FAN SPEED [RPM]	DRIVE TYPE	AIR STREAM TEMPERATURE [°F]	POWER [W]	VFD RATED	ENCLOSURE	VOLTAGE [V]	PHASE	FREQUENCY [HZ]	FLA [A]	WEIGHT [LBS]	MANUFACTURER	MODEL	REMARKS
EF-01	RESTROOM	EXHAUST	CEILING MOUNTED	86	0.50	900	DIRECT DRIVE	75	45	NO	ODP	115	1	60	0	25.00	GREENHECK	SP-A200	1,2

WHITE

LAY-IN

MODEL REMARKS

TMS

PAR

TITUS

REMARKS

- 1. UL 507 LISTED
- 2. MOTOR RATED FOR CONTINUOUS OPERATION

LOUVER SCHEDU	OUVER SCHEDULE											
EQUIPMENT TAG	LOCATION	SERVICE	SIZE [IN]	DEPTH [IN]	AIR FLOW [CFM]	FREE AREA [SQFT]	FREE AREA VELOCITY [FPM]	MANUFACTURER	MODEL	REMARKS		
LV-01	OFFICE	OUTSIDE AIR INTAKE	12"x12"	6	100	0.35	340	RUSKIN	6375DXH	1-4		
LV-02	RESTROOM	EXHAUST	12"x6"	6	86	0.35	330	RUSKIN	6375DXH	1-4		

REMARKS

- 1. ALL ALUMINUM CONSTRUCTION
- 4. DRAIN GUTTER ON EACH BLADE

2. KYNAR FINISH

5. INSECT SCREEN

3. DRAINABLE HEADS

	_,	OOR UNIT SCHEDULE	•													
EQUIPMEI TAG	ASSOCIATED OUTDOOR UNI		TYPE	AIR FLOW [CFM]	COOLING [BTU		HEATING CAPACITY [BTU/HR]		ERANT PIPE ZE [IN]		ELECTR	CAL	WEIGHT	MANUFACTURER	MODEL	REMARKS
IAG	OUTDOOK ON	•		HIGH	SENSIBLE	TOTAL	[בווייסום]	GAS	LIQUID	VOLTAGE [V]	PHASE	FREQUENCY [HZ]	[LBS]			
HPIU-01	HPOU-01	OFFICE HEATING AND COOLING	CEILING DUCTED	800	16900.0	24000.0	27000.0	5/8"	3/8"	208	1	60	115.00	Daikin	FTQ24TAVJUD	1-3

<u>REMARKS</u>

- 1. WIRED REMOTE THERMOSTAT
- 2. SUPPLY 2" THICK MERV-8 FILTER WITH SIDE ACCESS AS SHOWN ON DRAWINGS

SPLIT HEAT PU																
EQUIPMENT TAG	ASSOCIATED	COOLING CAPACITY	HEATING CAPACITY	REFRIGERANT TYPE	EFFIC	IENCY		SERANT PIPE IZE [IN]		E	ELECTRICAL			WEIGHT	MANUFACTURER	MODEL
EQUIPMENT TAG	INDOOR UNIT	[BTU/HR]	[BTU/HR]	REPRIGERANT TYPE	SEER	EER	GAS	LIQUID	VOLTAGE [V]	PHASE	FREQUENCY [HZ]	MOCP [A]	MCA [A]	11 851	WANUFACTURER	MODEL
HPOU-01	HPIU-01	24000.0	27000.0	R-410A	15.20	10.3	5/8"	3/8"	208	1	60	20	17	172.00	Daikin	RZQ24TAVJUA



LOS ANGELES, CALIFORNIA, USA 90036

CONSULTANT

NO.	DESCRIPTION	DATE

ARIZONA DEPARTMENT OF PUBLIC TRANSPORTATION

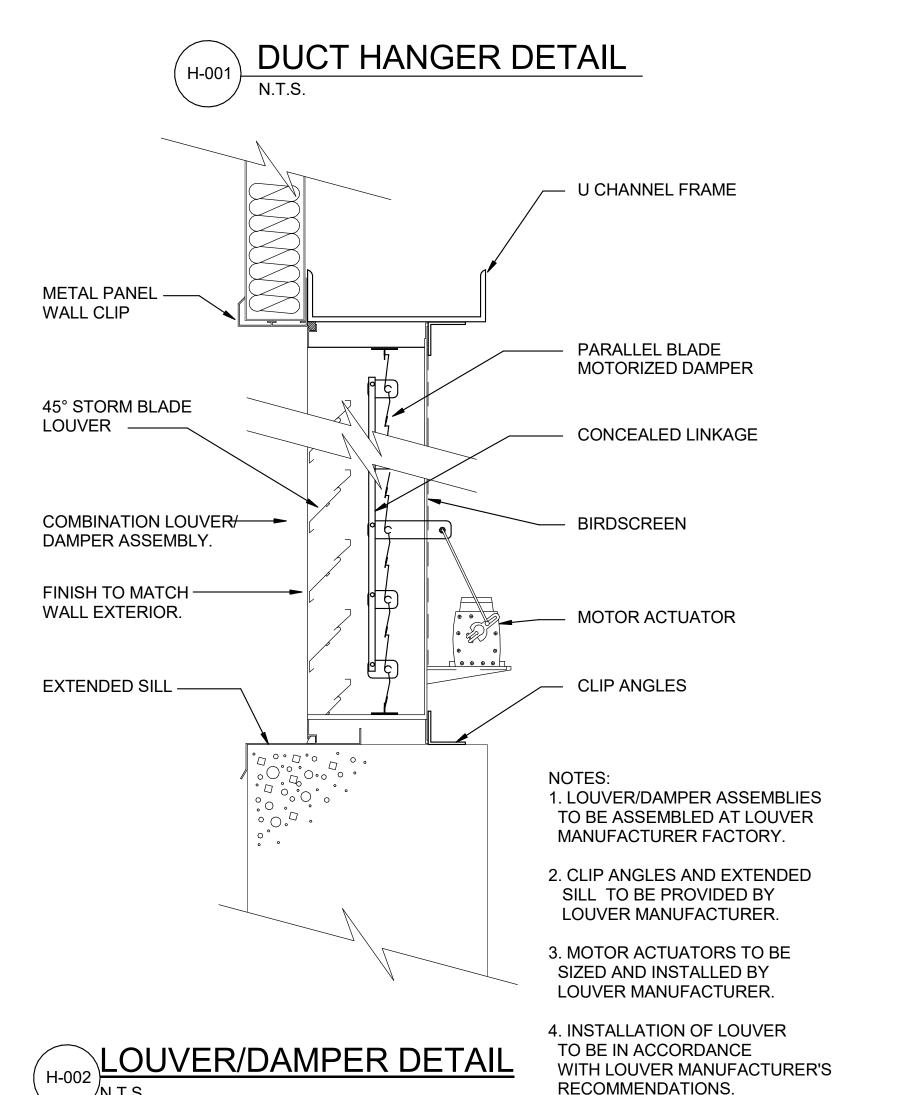
SECURITY HOUSE

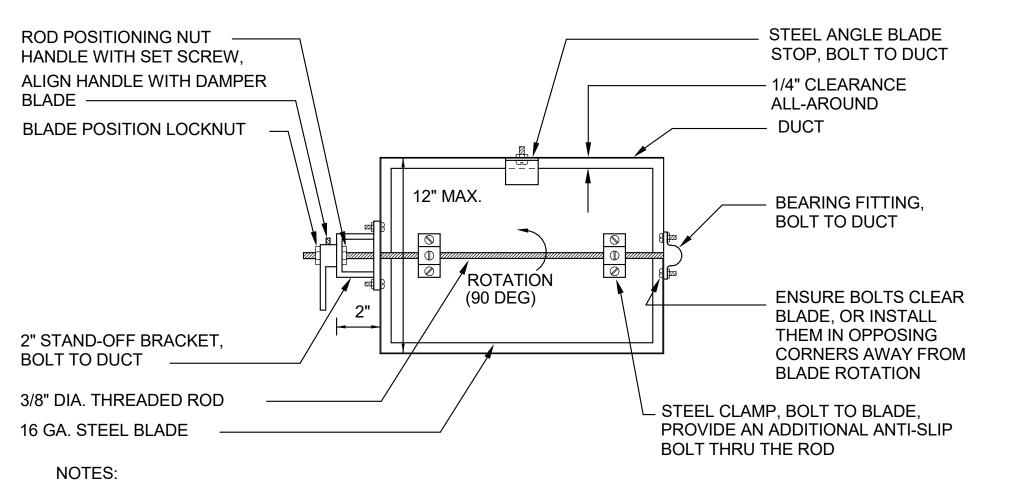
GENERAL SHEET - EQUIPMENT SCHEDULES

PROJECT NUMBER	AEC-0001
DATE	05/23/2021
DRAWN BY	AK
CHECKED BY	AK

GH-002

SCALE 1/4" = 1'-0"





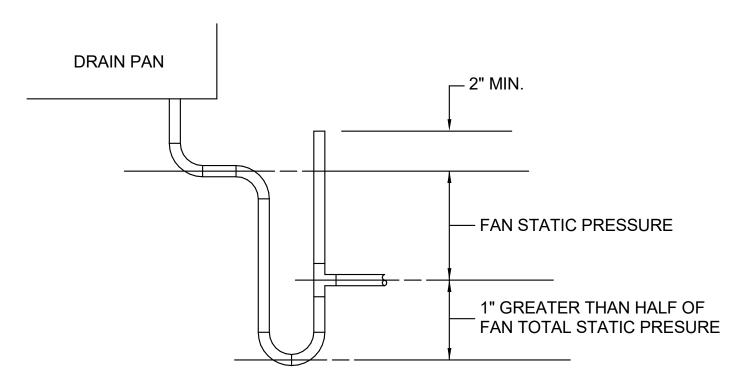
1. DAMPERS FOR ROUND DUCTS SHALL BE SIMILAR TO THE DAMPER SHOWN ABOVE.

2. ENSURE THAT FULL 90° DAMPER BLADE MOVEMENT IS UNOBSTRUCTED.

3. FOR DUCT HEIGHTS MORE THAN 12", PROVIDE FACTORY-FABRICATED OPPOSED BLADE DAMPERS

MANUAL DAMPER

(ADJUSTABLE SINGLE-BLADE BALANCING TYPE)

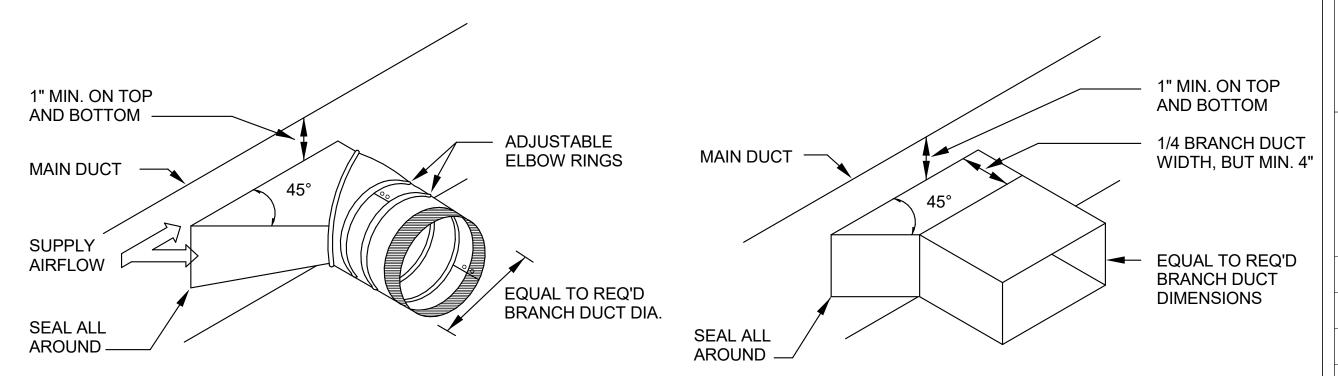


NOTE:

1. DRAIN LINE SHALL BE INSULATED.

2. DRAIN LINE SHALL PENETRATE THE ROOF LINE WITHIN THE CONFINEMENT OF THE HVAC EQUIPMENT CURB.





TYPICAL BRANCH TAKE-OFF FITTING

N.T.S.



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10.	DESCRIPTION	DATE

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SECURITY HOUSE

GENERAL SHEET - HVAC DETAILS

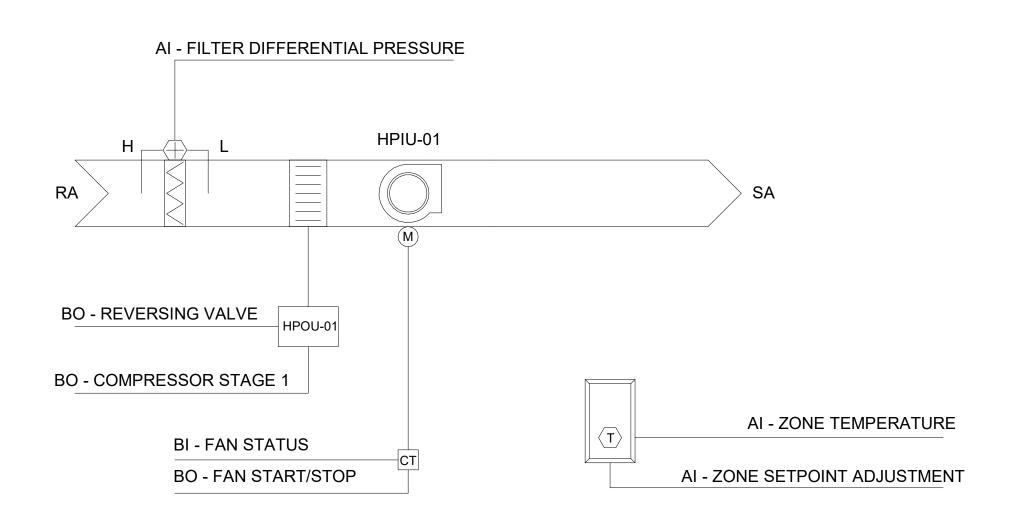
PROJECT NUMBER	AEC-0001
DATE	05/23/2021
DRAWN BY	AK
CHECKED BY	AK

GH-003

SCALE

12" = 1'-0"

SPLIT HEAT PUMP HPIU-01/HPOU-01 SEQUENCE OF OPERATION



RUN CONDITIONS - SCHEDULED:

THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING MODES:

- OCCUPIED MODE: THE UNIT SHALL MAINTAIN
 - A 75°F (ADJ.) COOLING SETPOINT A 70°F (ADJ.) HEATING SETPOINT
- UNOCCUPIED MODE (NIGHT SETBACK): THE UNIT SHALL MAINTAIN
- A 85°F (ADJ.) COOLING SETPOINT.
- A 55°F (ADJ.) HEATING SETPOINT

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- HIGH ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE
- LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT

ZONE SETPOINT ADJUST:

THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE HEATING AND COOLING SETPOINTS AT THE ZONE SENSOR.

THE FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES.

HEATING AND COOLING - 1 COMPRESSOR STAGE:

THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND CYCLE THE COMPRESSOR TO MAINTAIN ITS SETPOINT. TO PREVENT SHORT CYCLING, THE STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME. THE COMPRESSOR SHALL RUN SUBJECT TO ITS OWN INTERNAL SAFETIES AND CONTROLS.

THE HEATING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F (ADJ.).
- AND THE FAN IS ON.
- AND THE REVERSING VALVE IS IN HEAT MODE.

THE COOLING SHALL BE ENABLED WHENEVER:

- OUTSIDE AIR TEMPERATURE IS GREATER THAN 60°F (ADJ.).
- AND THE FAN IS ON.
- AND THE REVERSING VALVE IS IN COOL MODE.

ON MODE CHANGE, THE COMPRESSOR SHALL BE DISABLED AND REMAIN OFF UNTIL AFTER THE REVERSING VALVE HAS CHANGED POSITION..

ALARMS SHALL BE PROVIDED AS FOLLOWS:

COMPRESSOR RUNTIME EXCEEDED: THE COMPRESSOR RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

FILTER DIFFERENTIAL PRESSURE MONITOR:

THE CONTROLLER SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

• FILTER CHANGE REQUIRED: FILTER DIFFERENTIAL PRESSURE EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

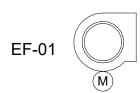
FAN STATUS:

THE CONTROLLER SHALL MONITOR THE FAN STATUS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:

- FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- FAN RUNTIME EXCEEDED: FAN STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.)

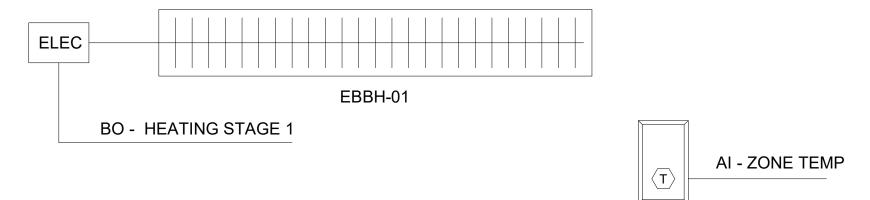
EXHAUST FAN EF-01 SEQUENCE OF OPERATION



RUN CONDITION:

EXHAUST FAN SHALL BE INTERLOCKED WITH THE RESTROOM LIGHT SWITCH.

BASEBOARD HEATER EBBH-01 SEQUENCE OF **OPERATION**



RUN CONDITIONS - CONTINUOUS: THE UNIT SHALL RUN CONTINUOUSLY AND SHALL MAINTAIN A HEATING SETPOINT OF 70°F (ADJ.).

ELECTRIC HEATING STAGE: THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT.

THE HEATING SHALL BE ENABLED WHENEVER:

THE ZONE TEMPERATURE IS BELOW HEATING SETPOINT.



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VO.	DESCRIPTION	DATE
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ARIZONA DEPARTMENT OF PUBLIC TRANSPORTATION

SECURITY HOUSE

GENERAL HVAC - SEQUENCE OF OPERATION

PROJECT NUMBER AEC-0001 DATE 05/23/2021 DRAWN BY AK CHECKED BY

GH-004

SCALE 6" = 1'-0"

KEYNOTES

- A. BBH-01'S THERMOSTAT
- B. HEAT PUMP SYSTEM'S THERMOSTAT
- C. SIZE AND INSTALL REFRIGERANT LINES PER MANUFACTURER'S INSTRUCTIONS.
- D. CONDENSATE DRAIN TO DISHARGE WITH AN APPROVED AIR GAP TO A DRAIN PIPE PROVIDED BY PLUMBING. SEE PLUMBING DRAWINGS.
- E. BALANCE DAMPER FOR 100 CFM OF OUTSIDE AIR.
- F. INSTALL OU-01 ON 12" TALL CONCRETE PAD.



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IO.	DESCRIPTION	DATE

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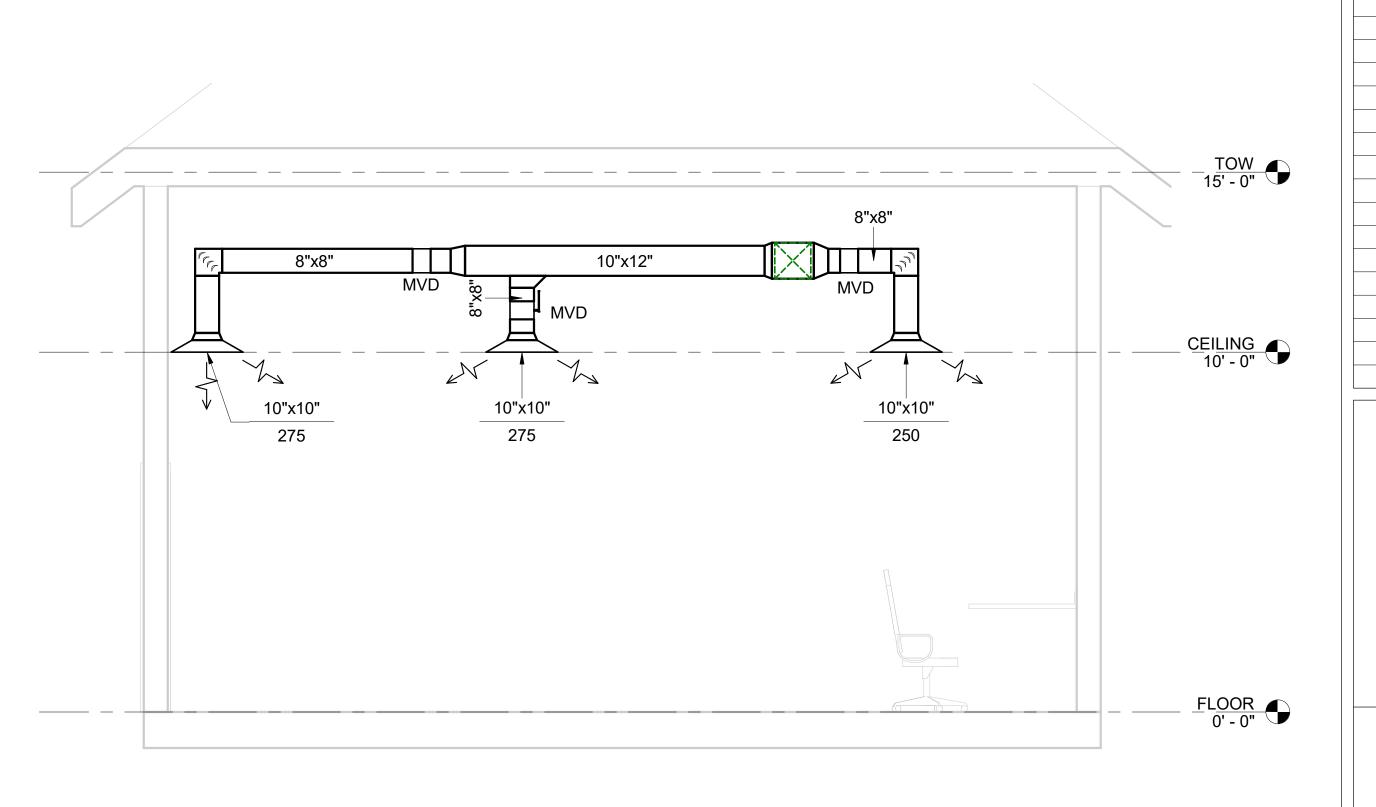
SECURITY HOUSE

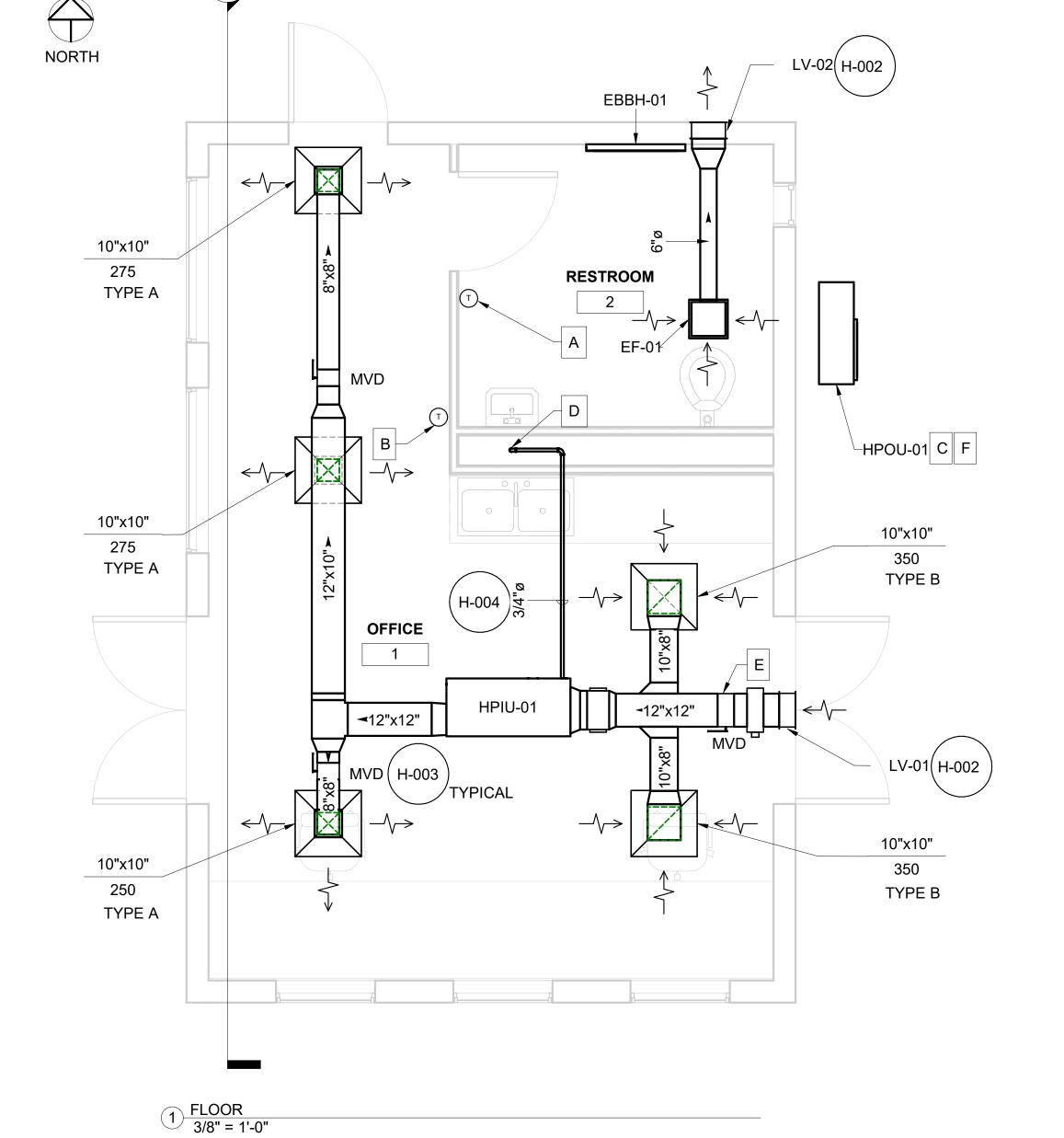
PLAN AND SECTION

PROJECT NUMBER	AEC-0001
DATE	05/23/2021
DRAWN BY	AK
CHECKED BY	AK

H-001

SCALE As indicated





2 SECTION 1 3/8" = 1'-0"