



sweetgreen
3101 W. EXPOSITION BLVD.
LOS ANGELES, CALIFORNIA 90018

THESE DRAWINGS & SPECIFICATIONS ARE CONFIDENTIAL AND SHALL REMAIN THE SOLE PROPERTY OF SWEETGREEN CORPORATION. THEY SHALL NOT BE REPRODUCED IN WHOLE OR IN PART, SHARED WITH THIRD PARTIES OR USED IN ANY MANNER ON OTHER PROJECTS OR EXTENSIONS TO THIS PROJECT WITHOUT THE PRIOR WRITTEN CONSENT OF SWEETGREEN CORPORATION. THESE DRAWINGS & SPECIFICATIONS ARE INTENDED TO EXPRESS DESIGN INTENT FOR A PROTOTYPICAL SWEETGREEN STORE WHICH IS SUBJECT TO CHANGE AT ANY TIME AND MAY NOT REFLECT ACTUAL SITE CONDITIONS. NEITHER PARTY SHALL HAVE ANY OBLIGATION OR LIABILITY TO THE OTHER (EXCEPT AS STATED ABOVE) UNTIL A WRITTEN AGREEMENT IS FULLY EXECUTED.

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EXPIRES 12/31/2023

STAMP:

PROJECT INFORMATION:
ONE LOUDOUN
PROJECT INFORMATION:
20347 EXCHANGE ST SUITE 180
ASHBURN, VA 20147

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TEMPLATE VERSION: 06.01.2020

REVISIONS
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07.01.2022 PERMIT SET

MECHANICAL LEGEND

M-000

MECHANICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

V2.07

STANDARD MOUNTING HEIGHT

THERMOSTATS (USER ADJUSTABLE) 46"
CONTROLS 46"

INSTALL DEVICES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS ARE AFF OR AFG TO TOP OF THE DEVICE UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ANNOTATION

- MECHANICAL PLAN NOTE CALLOUT
- MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
- CONNECTION POINT OF NEW WORK TO EXISTING
- DETAIL REFERENCE. UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
- SECTION CUT DESIGNATION
- DEDICATED EQUIPMENT ACCESS TILE
- ACCESS PANEL

ABBREVIATIONS

A/C	AIR CONDITIONING	HWP	HEATING WATER PUMP
ACC	AIR COOLED CHILLER	IN WC	INCHES OF WATER COLUMN
ACCU	AIR COOLED CONDENSING UNIT	L	LOUVER
AFC	ABOVE FINISHED CEILING	LAT	LEAVING AIR TEMPERATURE
AFF	ABOVE FINISHED FLOOR	LD	LEAVING DRY BULB
AFG	ABOVE FINISHED GRADE	LP	LOW PRESSURE
AHJ	AUTHORITY HAVING JURISDICTION	LWB	LEAVING WET BULB
AHU	AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE
AI	ANALOG INPUT	MAU	MAKE-UP AIR UNIT
AO	ANALOG OUTPUT	MAX	MAXIMUM
AP	ACCESS PANEL	MBH	1000 BTU PER HOUR
APD	AIR PRESSURE DROP	MD	MOTORIZED DAMPER
AWG	AMERICAN WIRE GAUGE	MFR	MANUFACTURER
B	BOILER	MIN	MINIMUM
BAS	BUILDING AUTOMATION SYSTEM	N/A	NOT APPLICABLE
BB	BACKBONE	N/C	NORMALLY CLOSED
BD	BACKDRAFT DAMPER	N/O	NORMALLY OPEN
BD	BLOWDOWN	NOM	NOMINAL
BFC	BELOW FINISHED CEILING	NC	NOISE CRITERIA
BFF	BELOW FINISHED FLOOR	NF	NON-FUSED
BFG	BELOW FINISHED GRADE	NIC	NOT IN CONTRACT
BFP	BOILER FEED PUMP	OA	OUTSIDE AIR
BHP	BRAKE HORSEPOWER	PICV	PRESSURE INDEP. CONTROL VALVE
BI	BINARY INPUT		PROVIDE FURNISH AND INSTALL
BO	BINARY OUTPUT	QTY	QUANTITY
BOD	BOTTOM OF DUCT	RA	RETURN AIR
BOS	BOTTOM OF STRUCTURE	RC	ROOM CRITERIA
BTU	BRITISH THERMAL UNIT	RD	RETURN DUCT
CFM	CUBIC FEET PER MINUTE	REA	RELIEF AIR
CH	CHILLER	RF	RETURN FAN
CLG	COOLING	RFR	REFRIGERANT
CP	CONDENSATE PUMP	RH	RELATIVE HUMIDITY
CPT	CONTROL POWER TRANSFORMER	RH	ROOF HOOD
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT	RPM	REVOLUTIONS PER MINUTE
CRU	COMPUTER ROOM UNIT	RTU	ROOFTOP UNIT
CT	COOLING TOWER	SA	SUPPLY AIR
CV	CONTROL VALVE	SCP	STEAM CONDENSATE PUMP
CWP	CONDENSER WATER PUMP	SD	SMOKE DUCT DETECTOR
CU	CONDENSING UNIT	SF	SUPPLY FAN
CHWP	CHILLED WATER PUMP	SH	SENSIBLE HEAT CAPACITY
DB	DECIBELS	SOW	SCOPE OF WORK
DBA	DECIBEL AVERAGE	SP	STATIC PRESSURE
DDC	DIRECT DIGITAL CONTROL	ST	STEAM TRAP
DI	DIGITAL INPUT	STM	STEAM
DISC	DISCONNECT	TBD	TO BE DETERMINED
DN	DOWN	TC/C	TEMPERATURE CONTROLS CONTRACTOR
DS	DUCT SILENCER	TCP	TEMPERATURE CONTROL PANEL
DX	DIRECT EXPANSION	TF	TRANSFER FAN
(E)	EXISTING	TFA	TO FLOOR ABOVE
EA	EXHAUST AIR	TFB	TO FLOOR BELOW
EAT	ENTERING AIR TEMPERATURE	TH	TOTAL HEAT CAPACITY
ED	EXHAUST DUCT	TSP	TOTAL STATIC PRESSURE
EDB	ENTERING DRY BULB	TT	TEMPERATURE TRANSMITTAL
EF	EXHAUST FAN	TYP	TYPICAL
EFF	EFFICIENCY	U/F	UNDERFLOOR
EMS	ENERGY MANAGEMENT SYSTEM	U/G	UNDERGROUND
ESP	EXTERNAL STATIC PRESSURE	U/S	UNDERSLAB
ETR	EXISTING TO REMAIN	UH	UNIT HEATER
EWB	ENTERING WET BULB	UNO	UNLESS NOTED OTHERWISE
EWT	ENTERING WATER TEMPERATURE	VAV	VARIABLE AIR VOLUME
FCU	FAN COIL UNIT	VEL	VELOCITY
FFA	FROM FLOOR ABOVE	VFD	VARIABLE FREQUENCY DRIVE
FFB	FROM FLOOR BELOW	VRF	VARIABLE REFRIGERANT
FF	FINISHED FLOOR	VRV	VARIABLE REFRIGERANT VOLUME
FPI	FINS PER INCH	W/	WITH
FPM	FEET PER MINUTE	W/O	WITHOUT
GC	GENERAL CONTRACTOR	WB	WET BULB
GPM	GALLONS PER MINUTE	WC	WATER COLUMN
HQA	HAND-OFF-AUTOMATIC	WPD	WATER PRESSURE DROP
HP	HORSEPOWER	XP	EXPLOSION PROOF
HTG	HEATING		

HVAC DUCTWORK AND ACCESSORIES

- LINEAR SLOT DIFFUSER
- INSULATED FLEXIBLE DUCT (MAX. 5'-0" LONG)
- BRANCH DUCT WITH 45° RECTANGLE-ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER
- ELBOW WITH TURNING VANES
- BRANCH DUCT WITH BELL-MOUTH FITTING & MANUAL VOLUME CONTROL DAMPER
- DUCT UP
- DUCT DOWN
- EXHAUST AIR
- EXHAUST AIR - GREASE
- OUTSIDE AIR
- RELIEF AIR
- RETURN AIR
- SPECIAL EXHAUST
- SUPPLY AIR
- EQUIPMENT WITH FLEXIBLE DUCT CONNECTION
- 10" (NECK SIZE) CSD-1 (TYPE) 300 CFM (CFM OF SUPPLY DIFFUSER OR REGISTER)
- 24x24 (NECK SIZE) CEG-1 (TYPE) 800 CFM (CFM OF EXHAUST GRILLE)
- EQUIPMENT ACCESS TILE (IN ACT CEILINGS)
- ACCESS PANEL (IN GYPSUM)
- MANUAL VOLUME DAMPER
- SQUARE TO ROUND TRANSITION
- DUCT MOUNTED SMOKE DETECTOR (SD=SUPPLY/RD=RETURN)
- ROUND DUCT TAG INDICATING DIAMETER
- RECTANGULAR DUCT TAG INDICATING INTERNAL DUCT DIMENSIONS.
- FLAT OVAL DUCT TAG INDICATING INTERNAL DUCT DIMENSIONS
- RISER DESIGNATION
- FIRE DAMPER
- FIRE SMOKE DAMPER
- SMOKE DAMPER
- VOLUME DAMPER
- MOTORIZED DAMPER
- BACKDRAFT DAMPER

ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. REFER TO DUCTWORK SPECIFICATIONS FOR DUCTWORK INSULATION AND LINER INFORMATION.

PIPING SYMBOLS

- DIRECTION OF FLOW
- CONTROL VALVE
- THREE-WAY CONTROL VALVE
- SHUTOFF VALVE
- CHECK VALVE
- BALANCING VALVE WITH PRESSURE PORTS
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- STRAINER
- STRAINER WITH BLOWDOWN VALVE
- RELIEF / SAFETY VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- GAS PRESSURE REGULATOR
- THERMOSTATIC MIXING VALVE
- PIPE ANCHOR
- EXPANSION JOINT
- PIPE GUIDE
- PIPING SUPPORT
- F & T TRAP
- BUCKET TRAP
- THERMOSTATIC TRAP
- PRESSURE GAUGE
- THERMOMETER
- PRESSURE AND TEMPERATURE TEST PLUG
- UNION
- FLANGE CONNECTION
- VACUUM RELIEF VALVE
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PRESSURE / VACUUM SWITCH
- CLEANOUT
- CAP
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- ELBOW UP WITH SHUT-OFF VALVE (SOV)
- ELBOW DOWN WITH SHUT-OFF VALVE (SOV)
- TEE UP WITH SHUT-OFF VALVE (SOV)
- TEE DOWN WITH SHUT-OFF VALVE (SOV)
- REDUCER
- RECIRCULATION PUMP
- P-TRAP
- GAS COCK
- TOP BEAM CLAMP
- TRAPEZE HANGER
- FLEXIBLE CONNECTION

CALL OUTS

- ENLARGED PLAN CALLOUT
- NOT IN SCOPE

PIPING LINETYPES

- EXISTING PIPING TO BE REMOVED OR RELOCATED
- EXISTING PIPING TO REMAIN
- CONDENSATE DRAIN (CD)
- AUXILIARY CONDENSATE DRAIN (ACD)
- NON-POTABLE WATER (NPW)
- NATURAL GAS (G)
- NATURAL GAS ON ROOF (G)
- MEDIUM PRESSURE NATURAL GAS (MPG)
- MEDIUM PRESSURE NATURAL GAS ON ROOF (MGP)
- FUEL OIL SUPPLY (FOS)
- FUEL OIL RETURN (FOR)
- FUEL OIL VENT (FOV)
- LIQUEFIED PETROLEUM GAS (LPG)
- BOILER FEED WATER (BFW)
- HIGH PRESSURE STEAM SUPPLY (HPS)
- HIGH PRESSURE STEAM CONDENSATE (HPC)
- LOW PRESSURE STEAM SUPPLY (LPS)
- LOW PRESSURE STEAM CONDENSATE (LPC)
- CONDENSATE PUMP DISCHARGE (CPD)
- HEATING HOT WATER SUPPLY (HWS)
- HEATING HOT WATER RETURN (HWR)
- CHILLED WATER SUPPLY (CHWS)
- CHILLED WATER RETURN (CHWR)
- HOT / CHILLED WATER SUPPLY (HCS)
- HOT / CHILLED WATER SUPPLY (HCR)
- CONDENSER WATER SUPPLY (CWS)
- CONDENSER WATER RETURN (CWR)
- REFRIGERANT LIQUID (RL)
- REFRIGERANT DISCHARGE (HOT GAS) (RD)
- REFRIGERANT SUCTION (RS)
- REFRIGERANT DISCHARGE BYPASS (RDB)
- REFRIGERANT VENT (RV)

HVAC CONTROL DEVICES

- HUMIDISTAT
- THERMOSTAT
- CARBON MONOXIDE SENSOR
- CARBON DIOXIDE SENSOR
- DIFFERENTIAL PRESSURE SENSOR
- FLOW SWITCH
- HUMIDITY SENSOR
- PULL STATION
- REMOTE TESTING STATION WITH INDICATING LIGHT
- STATIC PRESSURE
- TEMPERATURE SENSOR
- COMBINATION TEMPERATURE/HUMIDITY SENSOR

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	NEW
DEMOLISH	FUTURE

GENERAL DEMOLITION NOTES:

1. COORDINATE ALL DEMOLITION WITH WHAT IS SHOWN ON ARCHITECTURAL PLANS. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR OWNER, AS DEFINED IN BID DOCUMENTS, OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
3. OWNER RETAINS RIGHTS OF SALVAGE FOR EQUIPMENT AND FIXTURES TO BE REMOVED. COORDINATE WITH OWNER THE EQUIPMENT AND FIXTURES TO BE SALVAGED AND THE LOCATION FOR STORAGE. AVOID DAMAGE TO SALVAGED EQUIPMENT, FIXTURES AND DEVICES DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION.
4. REMOVE ITEMS SHOWN HEAVY-LINED DASHED, AND/OR NOTED TO BE REMOVED.
5. AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION. REPAIR DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER.
6. SEAL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WHERE MECHANICAL COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR DAMAGED SURFACES TO MATCH ADJACENT AREAS OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
7. REMOVE HANGERS AND SUPPORTS WHERE DUCTWORK, PIPING AND/OR EQUIPMENT ARE REMOVED AND THE EXISTING HANGERS AND SUPPORTS ARE NOT USED FOR THE NEW INSTALLATION.
8. INSTALL PERMANENT CAPS WHERE DUCTWORK AND PIPING IS REMOVED AND THE EXISTING TAPS ARE NOT USED FOR THE NEW INSTALLATION. WHERE DUCTWORK AND PIPING ARE REMOVED AND THE EXISTING TAPS WILL BE USED FOR THE NEW INSTALLATION, INSTALL TEMPORARY CAPS TO PROTECT THE INTERIOR SURFACES UNTIL NEW DUCTWORK AND PIPING ARE INSTALLED.
9. WHERE SHUTDOWN OF EXISTING SYSTEMS IS REQUIRED DURING DEMOLITION, COORDINATE SHUTDOWN TIME AND DURATION WITH OWNER TO MINIMIZE DOWNTIME. NOTIFY OWNER SEVEN (7) DAYS PRIOR TO INTERRUPTION OF SERVICE.
10. CEASE WORK AND IMMEDIATELY NOTIFY THE OWNER SHOULD ANY HAZARDOUS MATERIALS BE ENCOUNTERED DURING THE PERFORMANCE OF THE WORK.
11. REMOVAL, RECOVERY, RECYCLING, AND DISPOSAL OF REFRIGERANT, CONTAINED IN ANY EQUIPMENT TO BE REMOVED, SHALL BE PERFORMED IN STRICT ACCORDANCE WITH CURRENT EPA GUIDELINES.

GENERAL NEW NOTES:

1. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
2. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
4. WHERE SHUTDOWN OF EXISTING SYSTEMS IS REQUIRED DURING NEW WORK, COORDINATE SHUTDOWN TIME AND DURATION WITH THE OWNER TO MINIMIZE DOWNTIME. NOTIFY OWNER SEVEN (7) DAYS PRIOR TO INTERRUPTION OF SERVICE.
5. DURING INSTALLATION OF NEW WORK, AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN. REPAIR DAMAGE CAUSED DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
6. PROVIDE TEMPORARY BARRIERS TO CONTAIN DUST AND DEBRIS RESULTING FROM THE PERFORMANCE OF THE WORK TO THE AREA WHERE WORK IS BEING PERFORMED.
7. ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY DIVISION 23 UNLESS OTHERWISE NOTED.
8. NEW MECHANICAL EQUIPMENT, DUCTWORK AND PIPING ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
9. REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
10. COORDINATE LOCATION OF ROOF MOUNTED HVAC EQUIPMENT AND ROOF PENETRATIONS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
11. INDOOR AIR QUALITY MEASURES: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS BECOME WET AT ANY TIME DURING CONSTRUCTION. DRYING THE INSULATION IS NOT ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR PLENUM INCLUDING DUST. AN INDEPENDENT, PROFESSIONAL DUCT CLEANING COMPANY SHALL VACUUM CLEAN ANY DUCTWORK CONNECTED TO HVAC UNITS THAT WERE OPERATED DURING THE CONSTRUCTION PERIOD AFTER NEW FILTERS ARE INSTALLED AND PRIOR TO TURNING SYSTEM OVER TO THE OWNER. THE INTERNAL SURFACES AND ASSOCIATED COILS OF ANY HVAC UNITS THAT WERE OPERATED SHALL ALSO BE CLEANED.
12. INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
13. OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT, DUCTWORK AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
14. COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
15. SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
16. COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
17. ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
18. LOCATE AND SET THERMOSTATS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL DEVICES WITH TOP OF DEVICE AT MAXIMUM 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. PROVIDE INSULATED BACKING FOR THERMOSTATS MOUNTED ON EXTERIOR BUILDING WALLS. INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 26. AT A MINIMUM, PROVIDE CONDUIT IN THE WALL FROM THE JUNCTION BOX TO 6" ABOVE THE CEILING.
19. COORDINATE THE LOCATION AND ELEVATION OF WALL-MOUNTED DEVICES WITH PRESENTATION BOARDS, DISPLAY CABINETS, SHELVES OR OTHER COMPONENTS SHOWN ON THE ARCHITECTURAL DRAWINGS THAT ARE TO BE INSTALLED UNDER OTHER DIVISIONS. CONTRACTOR WILL NOT BE REIMBURSED FOR RELOCATION OF WALL-MOUNTED DEVICES CAUSED BY A LACK OF COORDINATION.

20. PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY, RECTANGULAR/ROUND BRANCH DUCT TAKEOFF FITTING FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES. PROVIDE WITH INTEGRAL MANUAL BALANCING DAMPER AND LOCKING QUADRANT WHERE INDICATED ON PLANS.
21. BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
22. REFER TO SPECIFICATIONS FOR DUCTWORK AND PIPING INSULATION REQUIREMENTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS, INCREASE SHEET METAL SIZES ACCORDINGLY TO ACCOUNT FOR THICKNESS OF DUCT LINER.
23. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
24. PROVIDE EQUIPMENT VENTS AND FLUES PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS AND EQUIPMENT SPECIFICATIONS. KEEP PENETRATIONS THROUGH ROOF A MINIMUM OF 10'-0" F ROM HVAC EQUIPMENT FRESH AIR INLETS AND 2'-0" FROM ROOF PARAPETS.
25. PROVIDE A NEW SET OF AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.
26. WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION, INCLUDING APPLICABLE SECTIONS OF NFPA, THE MECHANICAL CODE, AND ANY INTERIM AMENDMENTS AT THE TIME OF PROPOSAL. PURCHASE PERMITS ASSOCIATED WITH THE WORK. OBTAIN INSPECTIONS REQUIRED BY CODE. SEE SHEET G-001 FOR THE PREVAILING CODES.
27. CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW A COMPLETE SET OF THE CONSTRUCTION DOCUMENTS.
28. COORDINATE ROOF WORK WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
29. A FINAL REPORT FOR THE TESTING AND ADJUSTMENTS OF ALL NEW SYSTEMS FROM ALL DISCIPLINES SHALL BE COMPLETED WITH FINAL APPROVAL BY FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY INDIVIDUAL RESPONSIBLE FOR PERFORMING THIS SERVICES.
30. TESTING AND BALANCING OF THE MECHANICAL SYSTEMS TO BE COMPLETED BY NATIONAL TAB AT THE GENERAL CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL CONTRACT WITH, SCHEDULE AND SUPERVISE/ASSIST NATIONAL TAB AS REQUIRED. REFER TO THE COVER SHEET OR CONTACT SWEETGREEN'S CONSTRUCTION MANAGER FOR CONTACT INFORMATION.
31. ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, OR SHEET METAL UNTIL THE FINAL START UP OF THE HEATING, COOLING, AND VENTILATION EQUIPMENT.
32. REFER TO TRANE NATIONAL ACCOUNT INFORMATION BLOCK ON SHEET M-300 FOR REPRESENTATIVE CONTACT INFORMATION.
33. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY UNIT CONFIGURATIONS, COORDINATE DELIVERY WITH TRANE, RECEIVE AND UNLOAD EQUIPMENT, INSPECT EQUIPMENT, PROPERLY INSTALL EQUIPMENT INCLUDING FIELD-INSTALLED ITEMS, EQUIPMENT STARTUP AND 1ST/ YEAR LABOR WARRANTY AND ADMINISTRATION.



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MECHANICAL GENERAL NOTES

M-001



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LOS ANGELES, CALIFORNIA 90018

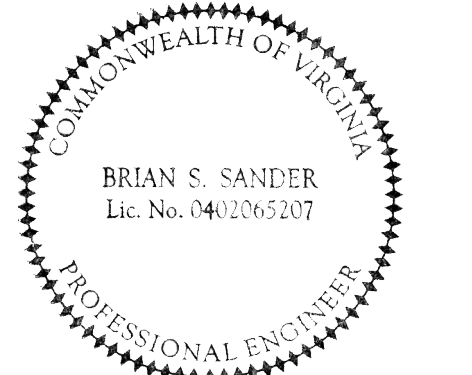
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EXPIRES 12/31/2023

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PROJECT INFORMATION:
ONE LOUDOUN

PROJECT INFORMATION:
**20347 EXCHANGE ST SUITE 180
ASHBURN, VA 20147**

DRAWN BY: DLJ
CHECKED BY: CMM
PROJECT MANAGER: RC
SG DESIGN MANAGER: AS
SG CONSTR. MANAGER: RC
PROJECT NO: 222136
TEMPLATE VERSION: 06.01.2020

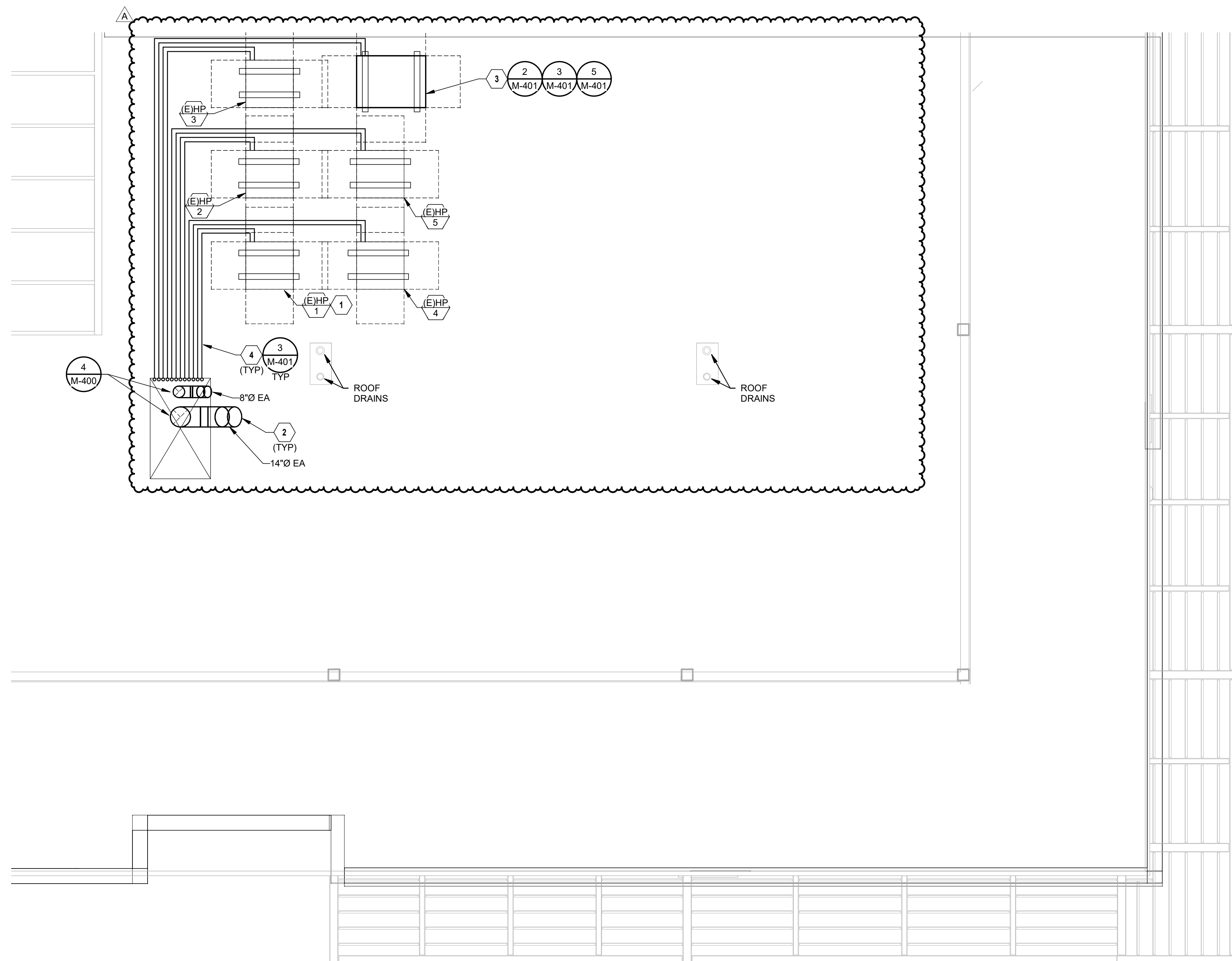
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HVAC ROOF PLAN

M-200

MECHANICAL PLAN NOTES:

- HEAT PUMP UNITS SHALL BE INSTALLED WITH MANUFACTURER'S RECOMMENDED CLEARANCE.
- EXHAUST OUTLETS SHALL BE INSTALLED AT LEAST 10 FEET AWAY FROM ANY OUTSIDE AIR INTAKE AND EXTERIOR PARAPET WITH LESS THAN 42" OF HEIGHT.
- COORDINATE AND PROVIDE MOUNTING SUPPORT FOR WALK-IN COOLER CONDENSING UNIT, CU-1 WITH THE KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. EQUIPMENT SUPPORT SHALL BE PRE-ENGINEERED WITH MINIMUM HEIGHT REQUIRED TO MAINTAIN BOTTOM OF EQUIPMENT A MINIMUM OF 16 INCHES ABOVE FINISHED ROOF SURFACE. COORDINATE AND PROVIDE ALL BUILDING PENETRATIONS AS REQUIRED TO ACCOMMODATE THE LINESET INSTALLATION. KITCHEN EQUIPMENT SUPPLIER SHALL PROVIDE LINESET, SPECIALTIES AND MAKE ALL FINAL CONNECTIONS BETWEEN THE CONDENSING UNIT AND EVAPORATOR COIL.
- EXISTING REFRIGERANT PIPING TO SHAFT.



1 HVAC ROOF PLAN
1/4" = 1'-0"

HEAT PUMP FAN COIL UNIT SCHEDULE (AUXILIARY ELECTRIC HEAT)

MARK	AREA SERVED	MANUFACTURER	MODEL	SUPPLY FAN				COOLING				HEAT PUMP HEATING PERFORMANCE				AUX HEAT				V/PH	MCA	MCOCP	DISC TYPE	WEIGHT (LBS)	NOTES	
				CFM	HP	ESP (IN)	TH (MRH)	SH (MBH)	DB (°F)	WB (°F)	WB (°F)	TOT HEATING CAPACITY (MBH)	HEAT PUMP (MBH)	AMBIENT (DB °F)	EAT (°F)	LAT (°F)	CAP (MBH)	MIN KW	MIN O/A CFM							
																										EAT
(E)FCU 1	DINING	CARRIER	FB4CNP048	1400	0.75	0.50	45.3	34.6	78	64	55	54	41.4	45.6	12.3	61	85	34.1	10.00	300	480/3	17.7	20	NF	162	A
(E)FCU 2	DINING	CARRIER	FB4CNP048	1300	0.75	0.50	47.1	34.2	79	66	55	54	33.5	45.6	12.3	61	85	34.1	10.00	200	480/3	17.7	20	NF	162	A
(E)FCU 3	SERVELINE	CARRIER	FB4CNP036	1000	0.50	0.50	30.9	24.3	79	65	57	55	29.9	33.0	12.3	57	85	27.3	8.00	220	480/3	13.5	15	NF	128	A
(E)FCU 4	BOH	CARRIER	FB4CNP036	1000	0.50	0.50	31.5	24.1	79	66	57	55	29.9	33.0	12.3	57	85	27.3	8.00	220	480/3	13.5	15	NF	128	A
(E)FCU 5	KITCHEN	CARRIER	FB4CNP036	1000	0.50	0.50	33.9	28.0	79	65	55	54	29.9	33.0	12.3	57	85	27.3	8.00	220	480/3	13.5	15	NF	128	A

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

- NOTES:
A. EQUIPMENT IS EXISTING TO REMAIN.

HEAT PUMP CONDENSING UNIT SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	REFR TYPE	COOLING CAPACITY			HEATING CAPACITY			ELECTRICAL			WEIGHT (LBS)	NOTES		
					TH (MBH)	(EER)	(SEER)	HEAT PUMP (MBH)	AMBIENT (DB °F)	COP 47°F	(HSPF)	V/PH	MCA			MCOCP	DISC TYPE
(E)HP 1	FCU 1	CARRIER	25HCE448	R-410A	45.3	11.5	14.0	41.4	12.3	3.64	8.2	480/3	8	15	NF	232	A
(E)HP 2	FCU 2	CARRIER	25HCE448	R-410A	47.1	11.5	14.0	33.5	12.3	3.64	8.2	480/3	8	15	NF	232	A
(E)HP 3	FCU 3	CARRIER	25HCE436	R-410A	30.9	11	14.0	29.9	12.3	3.64	8.2	480/3	5	15	NF	201	A
(E)HP 4	FCU 4	CARRIER	25HCE436	R-410A	31.5	11	14.0	29.9	12.3	3.64	8.2	480/3	5	15	NF	201	A
(E)HP 5	FCU 5	CARRIER	25HCE436	R-410A	33.9	11	14.0	29.9	12.3	3.64	8.2	480/3	5	15	NF	201	A

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- NOTES:
A. EQUIPMENT IS EXISTING TO REMAIN.

GRILLE, REGISTER AND DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	CONSTRUCTI ON TYPE	FACE TYPE	MOUNTING LOCATION	FACE SIZE (IN)	MAX NC	MAX PRESS DROP (IN W.C.)	NOTES
CEG1	TITUS	PAR	ALUMINUM	PERFORATED	CEILING	12"x12"	30	0.05	B,C,D,E,F,G,K
CRG1	TITUS	PAR	ALUMINUM	PERFORATED	CEILING	24"x24"	30	0.05	B,C,D,F
CSD1	TITUS	PAR	ALUMINUM	PERFORATED	CEILING	24"x24"	30	0.08	B,C,D,F,G,K
CSD2	TITUS	PAR	ALUMINUM	PERFORATED	CEILING	12"x12"	30	0.08	B,C,D,E,F,G,K
CSD3	TITUS	OMNI	ALUMINUM	PLAQUE	CEILING	12"x12"	30	0.08	A,B,C,F
DSR1	TITUS	300RL	ALUMINUM	BLADE	ON DUCT	14"x6"	30	0.05	B,D,F,J
LSD1	TITUS	FL-10	ALUMINUM	N/A	WALL	14" SLOT	30	0.08	B,C,D,E,F,I
PSD1	TITUS	FBPI-10	ALUMINUM	N/A	N/A	4" LONG	30	0.08	H
WRG1	TITUS	350RL	ALUMINUM	BLADE	WALL	42"x18"	30	0.05	B,D,F,J

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- NOTES:
A. 4-WAY THROW PATTERN UNLESS OTHERWISE INDICATED BY FLOW ARROWS ON DRAWINGS.
B. NECK SIZE SHOWN ON DRAWINGS. PROVIDE BRANCH DUCT TO MATCH NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS.
C. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING COLOR.
D. FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING/WALL PLAN EG.
E. PROVIDE OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF DEVICE.
F. PROVIDE DIFFUSERS, LINEAR SLOTS, AND GRILLES WITH NO EXPOSED MOUNTING SCREWS.
G. PROVIDE WITH RAPID MOUNT FRAMING OPTION FOR LAY-IN TYPE DIFFUSERS INSTALLED IN A HARD CEILING.
H. SUPPLY PLENUM MAY BE FIELD FABRICATED BASED ON PROVIDED DETAILS (RE: M401.01), OR PURCHASED FROM THE SLOT DIFFUSER MANUFACTURER. PROVIDE 1/4" CLOSED CELL INSULATION ON THE INTERIOR OF THE SUPPLY PLENUM.
I. PROVIDE LINEAR SLOT DIFFUSER WITH FACTORY-FABRICATED BLANK-OFF PLATES WHERE NOTED ON THE PLANS.
J. FRONT BLADES PARALLEL TO LONG DIMENSION.
K. CONTRACTOR SHALL PROVIDE REMOTE CABLE-OPERATED VOLUME DAMPER BY METROPOLITAN AIR TECHNOLOGIES MODEL RT-250 WITH EXTERNAL WORM GEAR OPERATOR OR EQUIVALENT YOUNG RECTANGULAR BUTTERFLY DAMPER WITH 270-275 CONTROLLER. OPERATOR SHALL HAVE A SQUARE DRIVE FOR 1/4" NUT DRIVER. DAMPER ASSEMBLY SHALL INCLUDE GALVANIZED STEEL DUCT WITH ROLLED BEAD STIFFENERS, REINFORCED BLADE, SELF LUBRICATING BEARING AND WORK GEAR MOUNTING PLATE. DAMPER SHALL BE INSTALLED IN BRANCH DUCT NOT INLET OF PLENUM DIFFUSER.

RECIRCULATING HOOD SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	WATTS	V/PH	NOTES
HD 1	RATIONAL	60.76.177	415 CFM	170	120/160	A-C

- NOTES:
A. HOOD SHALL BE FURNISHED AND INSTALLED BY FOOD SERVICE EQUIPMENT CONTRACTOR.
B. MOUNT HOOD ON TOP OF OVEN.
C. KITCHEN HOOD IS A VENTLESS CANOPY RECIRCULATING HOOD. EQUIPMENT VENTS TO SPACE.

TYPE II HOOD SCHEDULE

MARK	MANUFACTURER	MODEL	HOOD TYPE	HOOD DIMENSIONS (IN) (L x W x H)		EXHAUST RISER			CONSTRUCTION	NOTES	
				QTY	DIAMETER (IN)	CFM	SP (IN W.C.)	WEIGHT (LBS)			
HD 2	CAPTIVE AIRE	6024 VHB	TYPE II	60"x54"x24"	1	10"	770 CFM	0.06 in-wg	242	430 SS	A-B

- NOTES:
A. HOOD SUPPLIER SHALL FURNISH STAINLESS STEEL ENCLOSURE PANELS FROM TOP OF HOOD TO FINISH CEILING AND 3 INCH STANDOFF FROM WALL AS REQUIRED.
B. HOOD SUPPLIER SHALL FACTORY INSTALL THE HOOD CONTROL PACKAGE IN THE HOOD UTILITY CABINET.

FAN SCHEDULE

MARK	SERVICE DESCRIPTION	MANUFACTURER	MOUNTING	MODEL	CFM	ESP (IN)	NOM HP	FAN RPM	DRIVE (BELT/DIRECT)	VFD (Y/N)	ELECTRICAL			WEIGHT (LBS)	NOTES
											V/PH	DISC TYPE			
EF 1	TYPE II	CAPTIVE AIRE	SUSPENDED	SIF11DD	770	0.5	0.75	1510	DIRECT	Yes	120/1	NF	140	A-D	
EF 2	TOILET	GREENHECK	SUSPENDED	SO-37-VG	150	0.5	0.75	1385	DIRECT	Yes	120/1	NF	47	A-D	
EF 3	OUTDOOR AIR	GREENHECK	SUSPENDED	SO-120-VG	1160	0.5	0.50	1400	DIRECT	Yes	120/1	NF	102	A-E	

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- NOTES:
A. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
B. FAN SHALL BE SELECTED FOR STABLE OPERATION AT ELEVATED TEMPERATURE OF 300 F.
C. PROVIDE WITH MANUFACTURER'S ELECTRONICALLY COMMUTATED (EC) MOTOR.
D. NOMINAL MOTOR HP SHALL BE NO LARGER THAN THE FIRST AVAILABLE NOMINAL MOTOR SIZE GREATER THAN THE BHP.
E. PROVIDE WITH MANUFACTURE FILTER BOX.

HEAT PUMP CONTROL MATRIX

CONTROL FEATURE	UNITS	FCU-1-5 SETPOINT OR Y/N	NOTES
SETPOINTS			
COOLING - OCCUPIED SETPOINT	"F"		75
COOLING - UNOCCUPIED SETPOINT	"F"		80
DEAD BAND - MINIMUM HEATING AND COOLING TEMPERATURE SETPOINT DIFFERENCE	"F"		5
HEATING - OCCUPIED SETPOINT	"F"		70
HEATING - UNOCCUPIED SETPOINT	"F"		60
PROGRAMMED CONTROL FEATURES			
HVAC SYSTEM OCCUPIED/UNOCCUPIED MODE - PROGRAMMABLE THERMOSTAT			A
REMOTE TEMPERATURE SENSOR			A
MORNING WARM-UP SEQUENCE			
MORNING COOL-DOWN SEQUENCE			
EQUIPMENT ACCESSORIES AND CONTROL MODULES			
OUTSIDE AIR DAMPER - MOTOR OPERATED (2-POSITION)			A,C
HEAT PUMP AUXILIARY HEATING COIL			D,E
SUPPLY FAN CONTROL METHODS			
ON DURING OCCUPIED HOURS			
CYCLE WITH LOADS DURING UNOCCUPIED HOURS			
VARIABLE VOLUME - STAGED FAN CONTROL IN RESPONSE TO ACTIVE COOLING COIL STAGES			E,G
SAFETIES, INTERLOCKS, AND ALARMS			
RETURN AIR SMOKE DETECTOR - UNIT SHUTDOWN			A
LOW LIMIT FREEZE/ST - FREEZE PROTECTION UNIT SHUTDOWN			B
HIGH PRESSURE/LOW PRESSURE SWITCH - UNIT SHUTDOWN			B
MAIN DRAIN PAN CONDENSATE OVERFLOW SWITCH - UNIT SHUTDOWN			B
DIFFERENTIAL PRESSURE SWITCH - FILTER CHANGE ALARM			B
DIV. 23 CONTRACTOR SHALL PROVIDE CONTROL PANEL(S), WIRING, THERMOSTAT(S), TEMPERATURE SENSOR(S), HUMIDISTAT(S), AND/OR CO2 SENSOR(S) WHERE SHOWN ON THE DRAWINGS AND AS REQUIRED TO FACILITATE THE SCHEDULED CONTROL MODULES AND SEQUENCES OF OPERATION. EACH UNIT SHALL CONTROL BASED ON ITS OWN INTERNAL SAFETIES, TIME DELAYS, AND SEQUENCES UNLESS NOTED OTHERWISE. COORDINATE WITH OWNER FINAL BUILDING AND EQUIPMENT SCHEDULES DURING STARTUP. REFERENCE DIVISION SPECIFICATIONS FOR INDIVIDUAL DEVICE REQUIREMENTS.			
NOTES: A. DIVISION 23 CONTRACTOR SHALL PROVIDE DEVICE. B. DEVICE SHALL BE FACTORY MOUNTED AND PRE-WIRED FOR OPERATION SUBJECT TO THE ONBOARD CONTROLLER. C. DETERMINE MINIMUM DAMPER POSITION IN FIELD DURING BALANCING TO PROVIDE SCHEDULED OUTDOOR AIRFLOW DURING OCCUPIED HOURS. DAMPER SHALL BE CLOSED DURING UNOCCUPIED HOURS. D. UNITARY CONTROLLER SHALL MODULATE AND/OR CYCLE SUPPLY FAN SPEED SETTING AND COIL CAPACITY STAGES SUBJECT TO THE INTERNAL SAFETIES AND SEQUENCES TO MAINTAIN SCHEDULED SETPOINTS. E. CONTROLS FOR AUXILIARY HEATING COIL SHALL PREVENT HEATER OPERATION WHEN THE HEATING LOAD CAN BE MET BY THE HEAT PUMP ALONE. AUXILIARY HEATER OPERATION SHALL BE ALLOWED DURING DEFROST CYCLES. F. PROVIDE STAGED FAN CONTROL WITH MINIMUM 2 FAN SPEEDS. LOW SPEED SHALL NOT EXCEED 66% OF FULL SPEED AND SHALL DRAVE NO MORE THAN 40% OF FAN POWER AT FULL SPEED.			

OUTSIDE AIR REQUIREMENTS, IMC-2018 (IP)

SYSTEM DESIGNATION	SYSTEM TAB NAME OR LIST 'SINGLE'	SINGLE-ZONE SYSTEMS ONLY		MULTI-ZONE SYSTEMS ONLY		FLOOR AREA SERVED BY SYSTEM [A _s] (SF)	SYSTEM AVERAGED AREA-BASED OUTDOOR AIR RATE (CFM/SF)	SYSTEM POPULATION [P] (PEOPLE)	SYSTEM AVERAGED PEOPLE-BASED OUTDOOR AIR RATE (CFM/P)	REQUIRED OA INTAKE FLOW [V _o] (CFM)	REQUIRED DCV OA INTAKE FLOW [V _o] (CFM)	DESIGN OA INTAKE FLOW [V _o] (CFM)	NOTES
		SINGLE-ZONE SYSTEM ASSOCIATED VENTILATION ZONE	SINGLE-ZONE WORST CASE AIR DISTRIBUTION EFFECTIVENESS [E _z]	SYSTEM VENTILATION EFFICIENCY [E _v]									
FCU 1/2	MULTIZONE (FCU 1,2)	-	-	1.035	0.96	1,035	0.163	42	7.14	498	N/A	500	ALL
FCU 3	MULTIZONE (FCU 3)	-	-	1.00	1.00	995	0.120	8	7.50	108	N/A	220	ALL
FCU 4	MULTIZONE (FCU 4)	-	-	0.74	0.74	484	0.104	5	7.00	116	N/A	220	ALL
FCU 5	MULTIZONE (FCU 5)	-	-	1.00	1.00	324	0.120	3	7.50	61	N/A	220	ALL
TOTALS										772	0	1,160	

- GENERAL NOTES:
1. VENTILATION CALCULATIONS BASED ON IMC-2018.
2. SYSTEM POPULATIONS BASED ON MAX SEATING AND/OR CODE MAXIMUM VALUES.
3. MULTI-ZONE RECIRCULATING SYSTEMS: CALCULATOR USED TO DETERMINE VENTILATION AIRFLOW IN COMPLIANCE WITH IMC-2018 VPRP AND ASHRAE 62.1-2016 APPENDIX A. VENTILATION RATE SHOWN IS ACTUAL CALCULATED WITH CORRECTION FACTORS INCLUDED. EACH ZONE IS CALCULATED WITH ITS WORST CASE ZONE AIR DISTRIBUTION EFFECTIVENESS (HEATING/COOLING) AS PART OF CALCULATIONS TO FIND EV.

RESTAURANT AIR BALANCE SCHEDULE

KITCHEN					DINING				
OUTDOOR AIR SOURCE EQUIPMENT	AREA/EQUIPMENT SERVED	SUPPLY AIR (CFM)	DESIGN OA (CFM)	PERCENT O.A.S.A.	OUTDOOR AIR EQUIPMENT	AREA/EQUIPMENT SERVED	SUPPLY AIR (CFM)	DESIGN OA (CFM)	PERCENT O.A.S.A.
FCU 3	KITCHEN	1000	220	22.0%	FCU 1	DINING	1600	200	12.5%
FCU 4	KITCHEN	1000	220	22.0%	FCU 2	DINING	1300	300	23.1%
FCU 5	KITCHEN	1000	220	22.0%	TOTAL AIRFLOW				
TOTAL AIRFLOW					TOTAL EXHAUST				
3,000					2,900				
660					500				
22.0%					17.2%				
EXHAUST EQUIPMENT EF 1					EXHAUST EQUIPMENT EF 2				
KITCHEN					RESTROOM				
770					150				
TOTAL EXHAUST					TOTAL EXHAUST				
770					150				
TOTAL KITCHEN POSITIVE/NEGATIVE AIR FLOW					TOTAL DINING POSITIVE/NEGATIVE AIR FLOW				
-110					350				
PERCENT POSITIVE/NEGATIVE AIR FLOW					PERCENT POSITIVE/NEGATIVE AIR FLOW				
-16.7%					70.0%				
TOTAL BUILDING POSITIVE AIR FLOW					TOTAL BUILDING POSITIVE AIR FLOW				
240					240				
PERCENT POSITIVE AIR FLOW					PERCENT POSITIVE AIR FLOW				
20.0%					20.0%				

- NOTES:
1. OUTSIDE AIRFLOW VALUES TAKEN FROM APPLICABLE CODE STANDARDS.

AIR CURTAIN SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	UNIT SPECS				ELECTRICAL				NOTES
				LENGTH (IN)	MAX AIRFLOW (CFM)	HEATING CAPACITY (KW)	FAN QUANTITY	MOTOR HP	V/PH	MCA	MCOCP	
AC 1	DINING MAIN DOOR	BERNER	ALC08-1072E	74"	2072	20.0	1	0.20	480/3, 120/1	24.1, 3.4, 35, 15		A-1

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- NOTES:
A. MOUNT UNIT PER MANUFACTURER'S RECOMMENDATIONS TO FACE OF WALL AND SUPPORT VERTICALLY.
B. DISCONNECT SWITCH PROVIDED BY DIVISION 26 CONTRACTOR.
C. REFER TO SEQUENCE OF OPERATION FOR UNIT CONTROLS.
D. PROVIDE AIR CURTAIN WITH MAGNETIC NORMALLY CLOSED DOOR LIMIT SWITCH FOR INSTALLATION ON DOOR.
E. PROVIDE WITH INTEGRAL THERMOSTAT.
F. PROVIDE WITH TIME DELAY MICROSCHWITZ WITH ADJUSTABLE DELAY TIMERS PRE MOUNTED IN THE AIR CURTAIN CONTROL PANEL.
G. PROVIDE WITH CLEAR ANODIZED ALUMINUM FINISH.
H. PROVIDE TWO CIRCUITS FOR HEATED AIR CURTAIN. 480/3 FOR THE HEAT ELEMENT. 120/1 FOR THE FAN MOTOR.
I. UNIT TO BE MOUNTED WITH BOTTOM AT 7'-6" AFF.



sweetgreen

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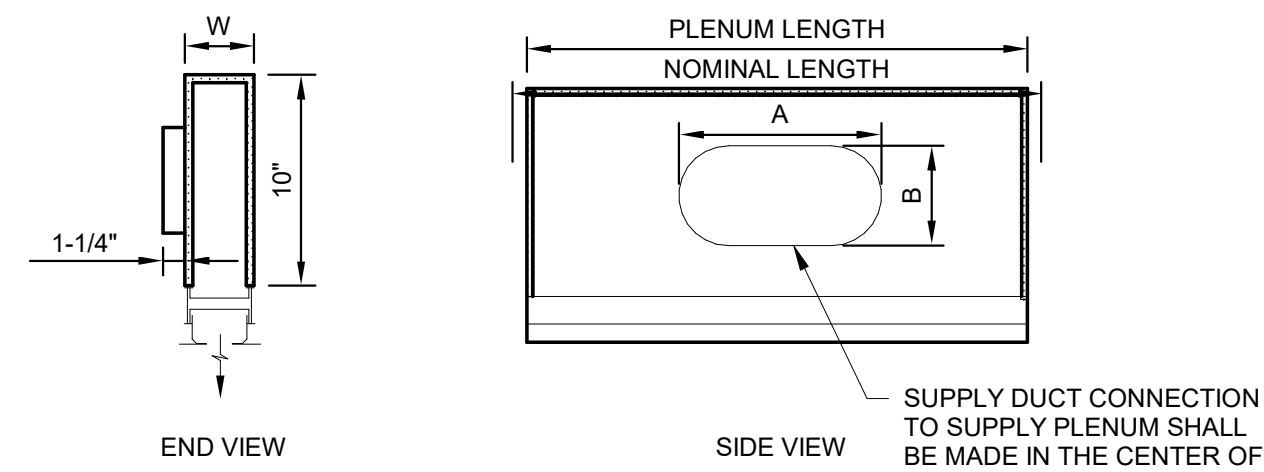
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HVAC DETAILS

M-400



STANDARD SLOT PLENUM DIMENSIONS

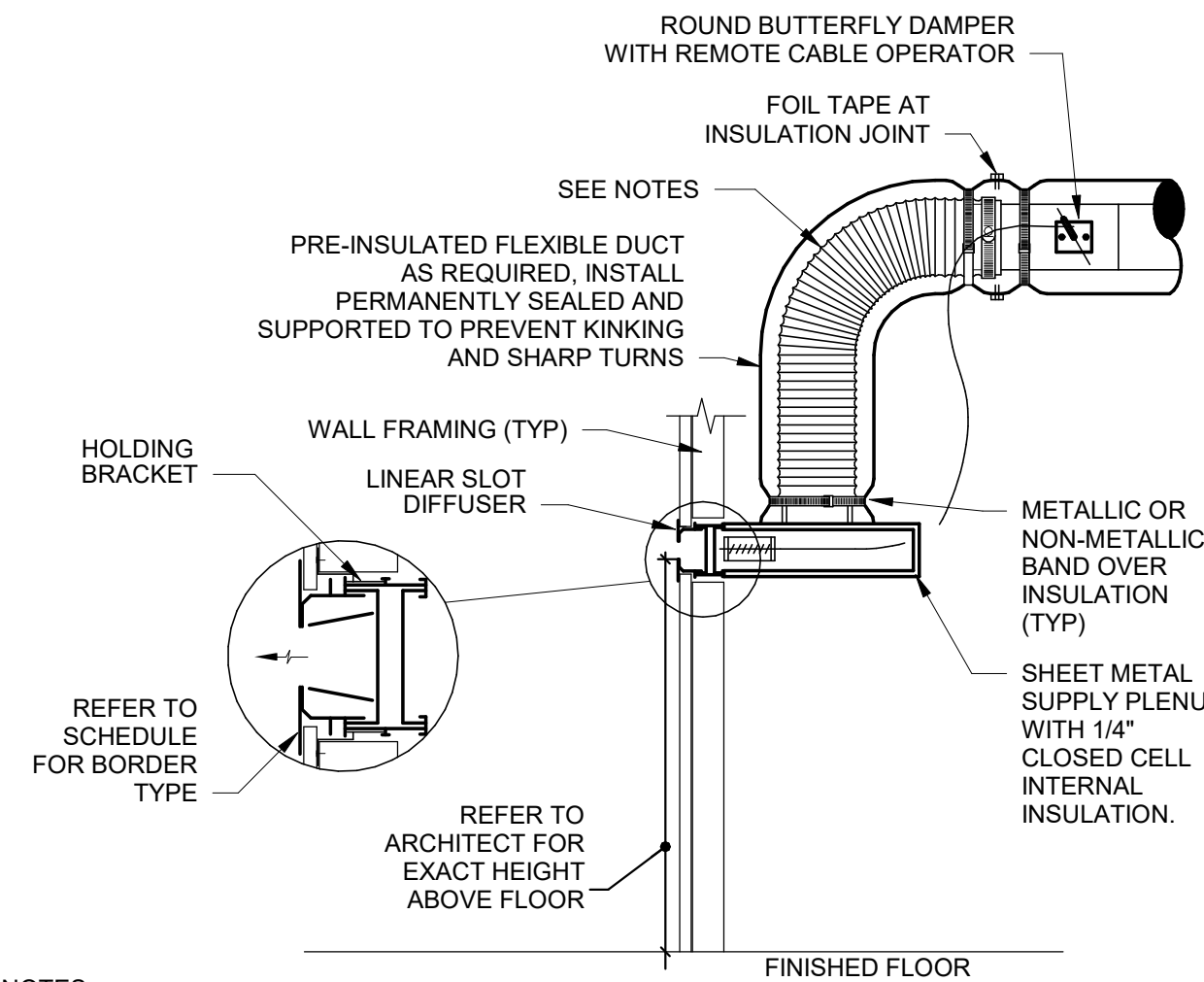
SLOT WIDTH	MIN. WIDTH (W)	NOMINAL LENGTH	PLENUM LENGTH	INLET SIZE	A	B
1"	2-3/4"	24, 36, 48, 60	21-3/4", 33-3/4", 45-3/4", 57-3/4"	6" OVAL	6-1/4"	5-1/4"
1-1/2"	3-3/4"	24, 36, 48, 60	21-3/4", 33-3/4", 45-3/4", 57-3/4"	8" OVAL	8-1/4"	5-1/4"
2"	4-3/4"	24, 36, 48, 60	21-3/4", 33-3/4", 45-3/4", 57-3/4"	10" OVAL	10-1/4"	5-1/4"

PLENUM DIMENSIONS FOR WHEN PLENUM MUST FIT BETWEEN FRAMING

SLOT WIDTH	MIN. WIDTH (W)	NOMINAL LENGTH	PLENUM LENGTH	INLET SIZE	A	B
1"	2-3/4"	22, 34, 46, 58	19-3/4", 31-3/4", 43-3/4", 55-3/4"	6" OVAL	6-1/4"	5-1/4"
1-1/2"	3-3/4"	22, 34, 46, 58	19-3/4", 31-3/4", 43-3/4", 55-3/4"	8" OVAL	8-1/4"	5-1/4"
2"	4-3/4"	22, 34, 46, 58	19-3/4", 31-3/4", 43-3/4", 55-3/4"	10" OVAL	10-1/4"	5-1/4"

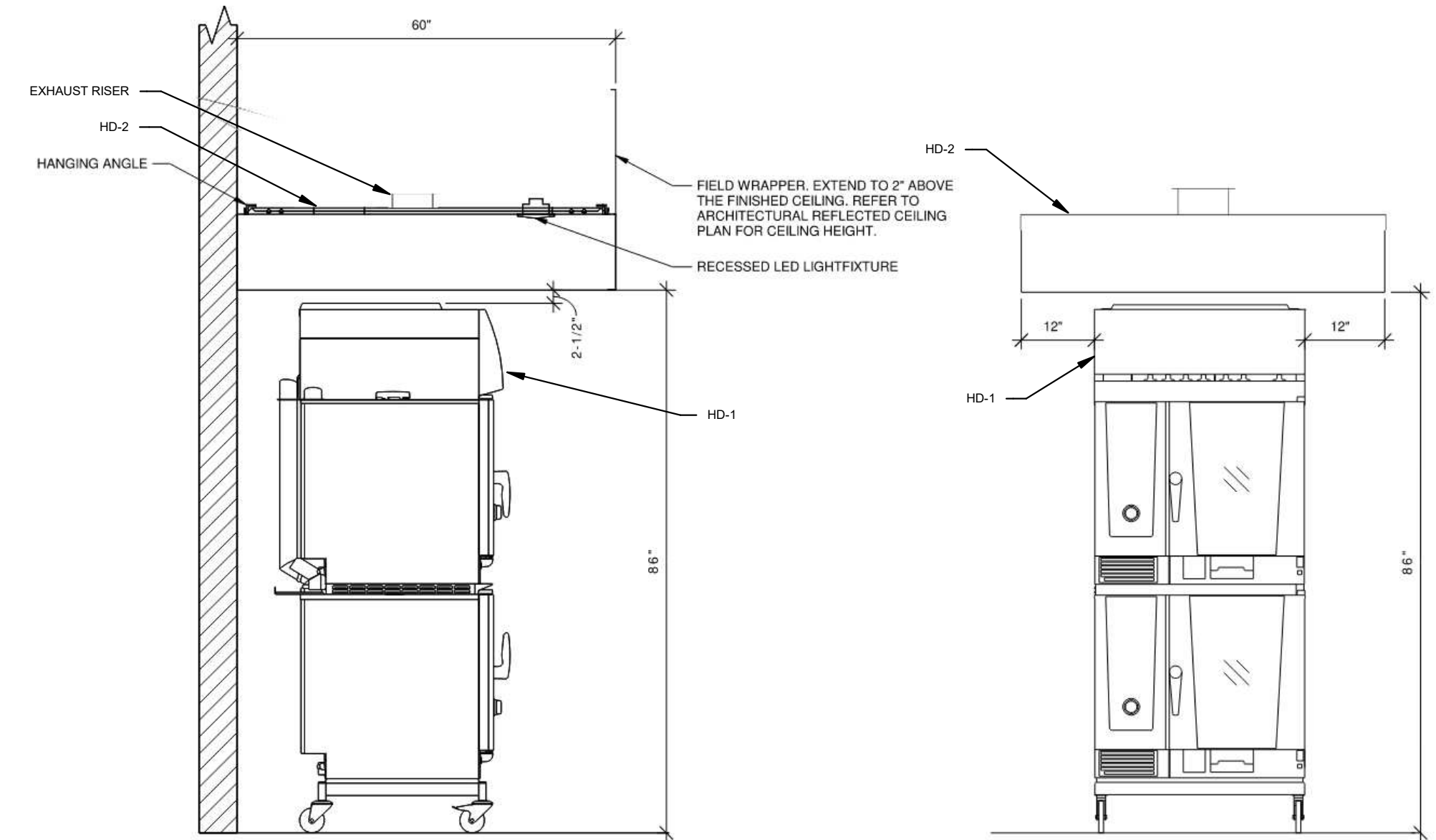
- NOTES:
- PLENUM MAY BE MOUNTED ON LINEAR SLOT DIFFUSER OR ARCHITECTURAL SLOT.
 - PROVIDE 1/4" THICK INTERNAL CLOSED CELL INSULATION ON ALL PLENUMS.
 - MINIMUM WIDTH INCLUDES 1/4" CLOSED CELL INTERNAL INSULATION.
 - COVE SLOT PLENUM CONSTRUCTION DIMENSIONS TO BE USED FOR PLENUMS SUPPLYING OUT OF LIGHT COVES ONLY.
 - COVE SLOT PLENUMS SHALL BE CONSTRUCTED TO FIT BETWEEN SLOT FRAMING AT 24", 36", 48" OR 60" ON CENTER.

7 SUPPLY PLENUM CONSTRUCTION DETAIL
NTS

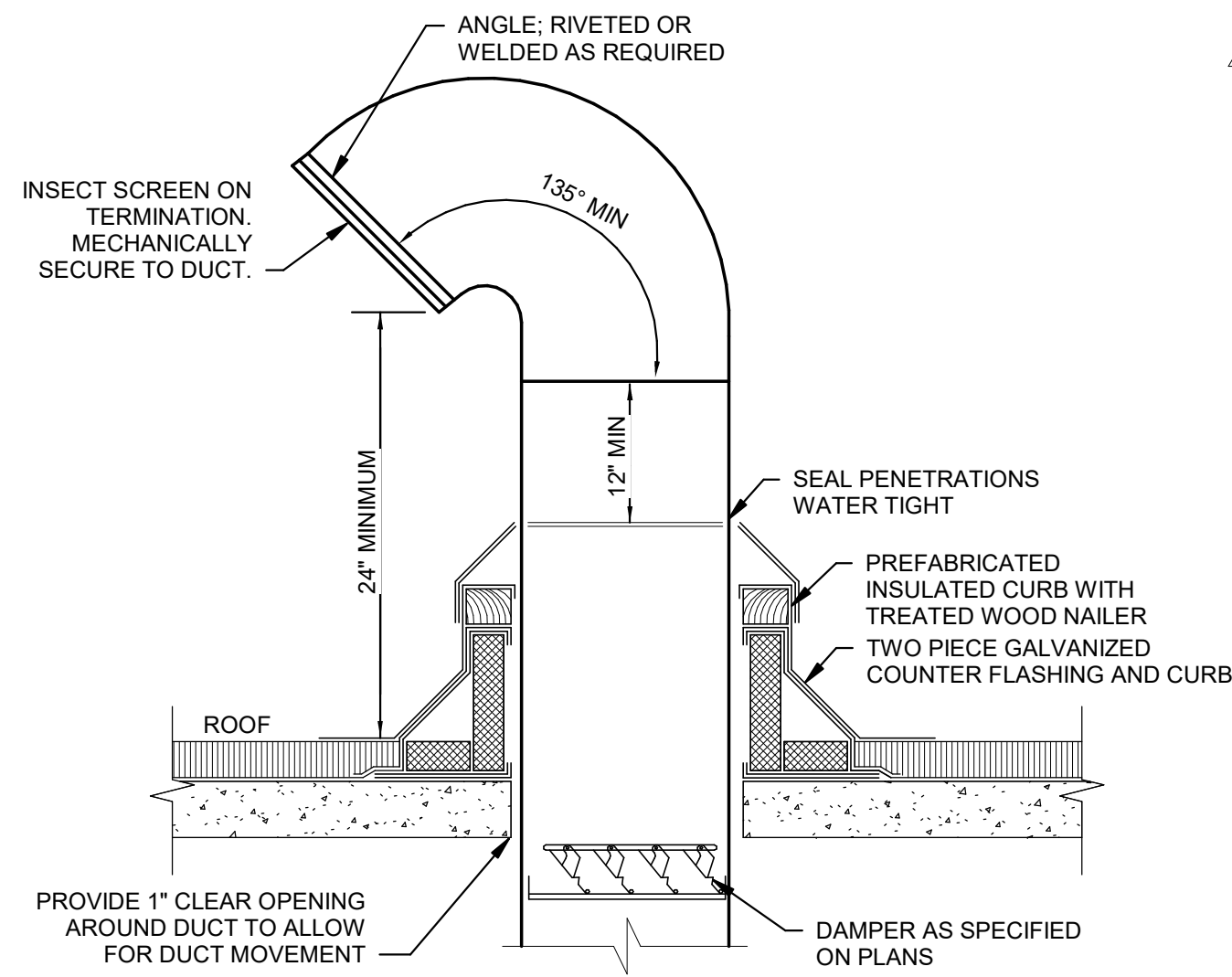


- NOTES:
- EXTEND HARD METAL DUCT SO THAT MAXIMUM FLEXIBLE DUCT LENGTH DOES NOT EXCEED 5'-0". PROVIDE RIGID 90° ELBOW WHERE REQUIRED TO KEEP FLEXIBLE DUCT WITHIN 5'-0" LENGTH LIMITATION.
 - COORDINATE EXACT LENGTH AND LOCATION OF SLOT DIFFUSER WITH ARCHITECT'S REFLECTED CEILING PLAN.
 - REFER TO DIFFUSER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EACH SCHEDULED BORDER TYPE.
 - REFER TO SPECIFICATIONS FOR FLEXIBLE DUCTWORK INSTALLATION REQUIREMENTS.

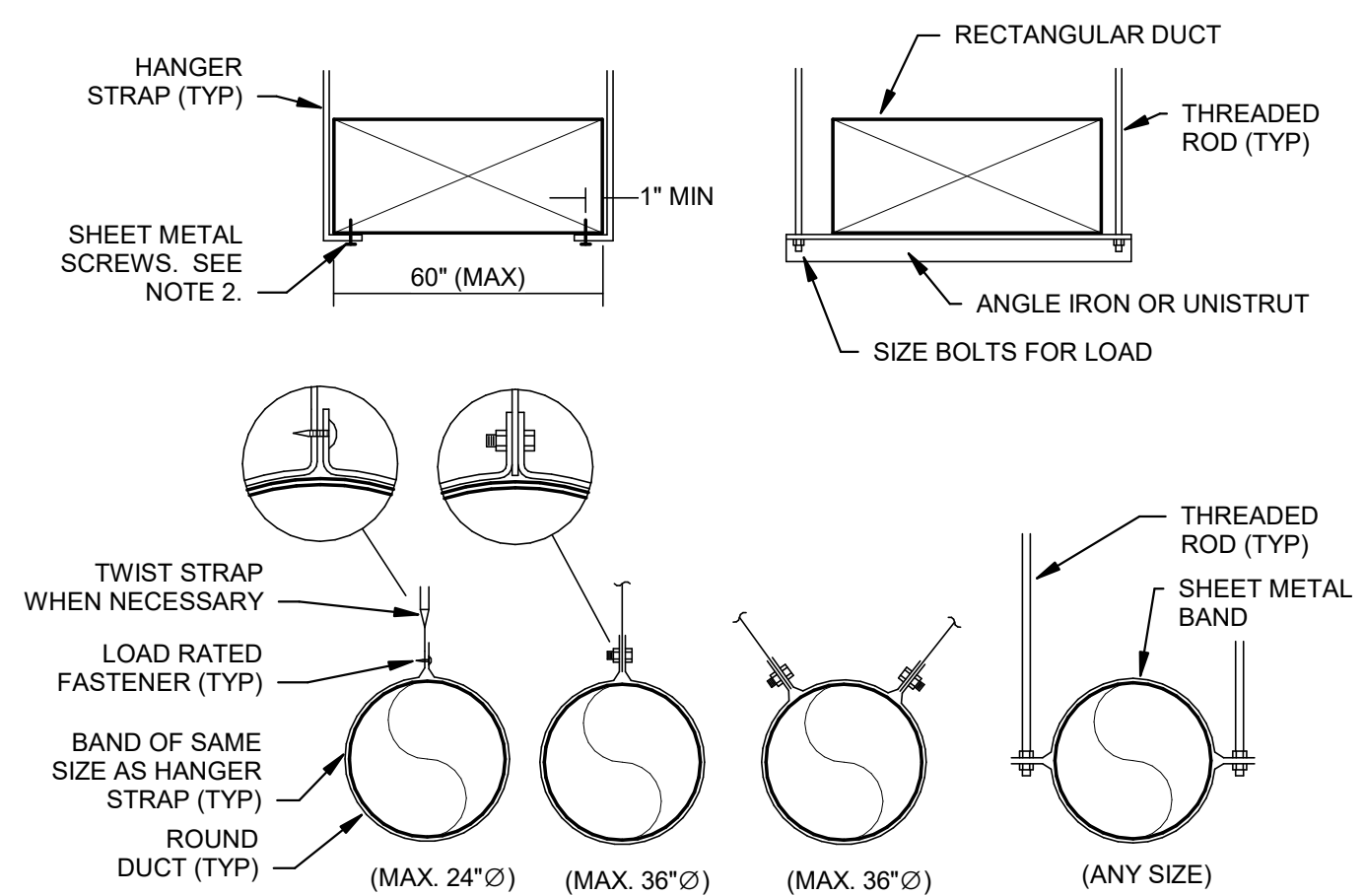
6 SIDEWALL LINEAR SLOT DIFFUSER DETAIL
NTS



5 HOOD ELEVATIONS
NTS

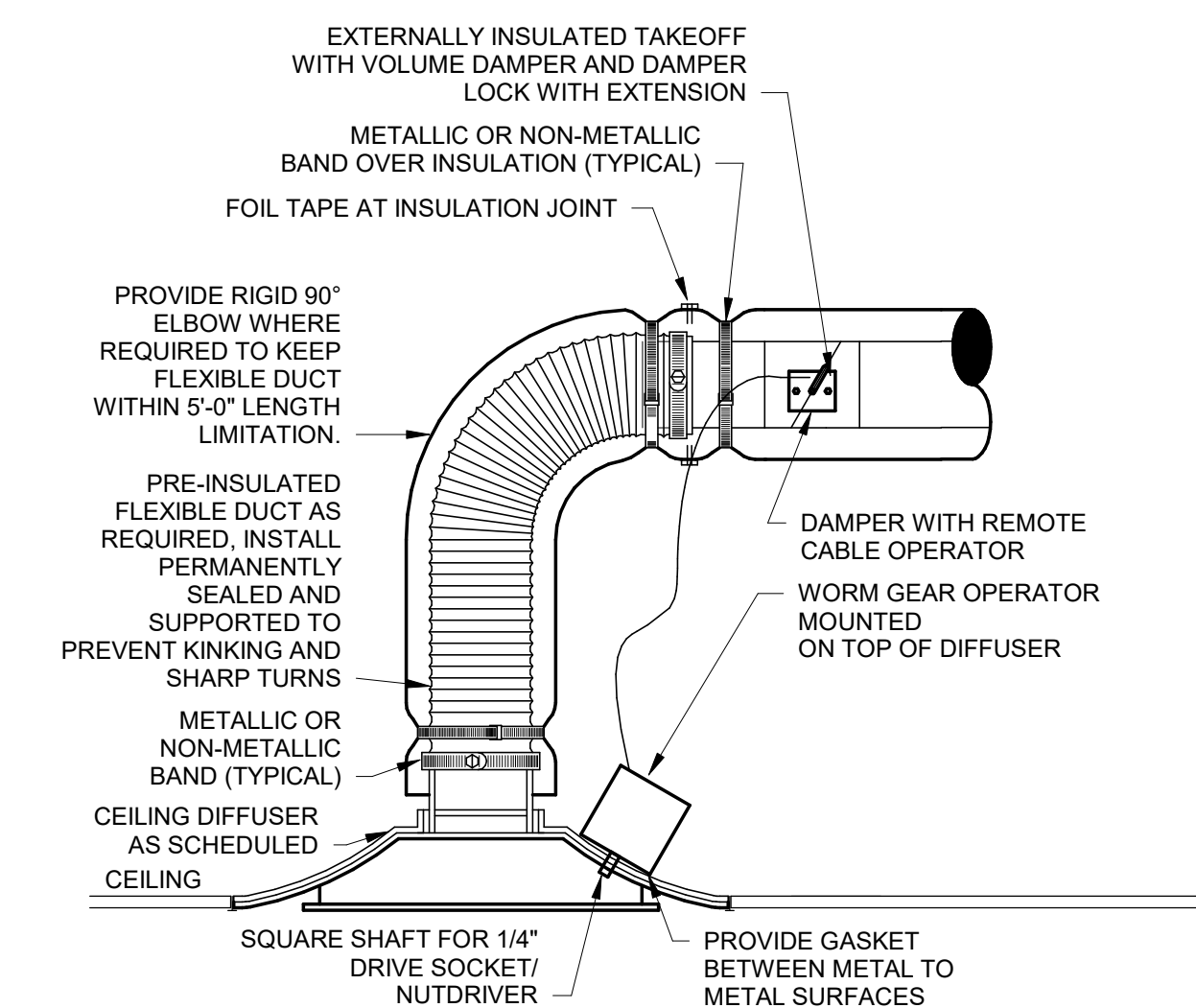


4 ROOF GOOSENECK DETAIL
NTS



- NOTES:
- USE THREADED ROD FOR RECTANGULAR DUCTS LARGER THAN 60" WIDE.
 - OMIT SHEET METAL SCREWS IF HANGER STRAP IS CONTINUOUS AND LOOPS UNDER ENTIRE RECTANGULAR DUCT.
 - FOR ROUND DUCTS LARGER THAN 36" Ø, USE TWO HANGER RODS TO SUPPORT DUCT FROM EACH SIDE. HANGERS MUST NOT DEFORM DUCT SHAPE.

2 DUCT HANGER LOWER ATTACHMENT DETAILS
NTS

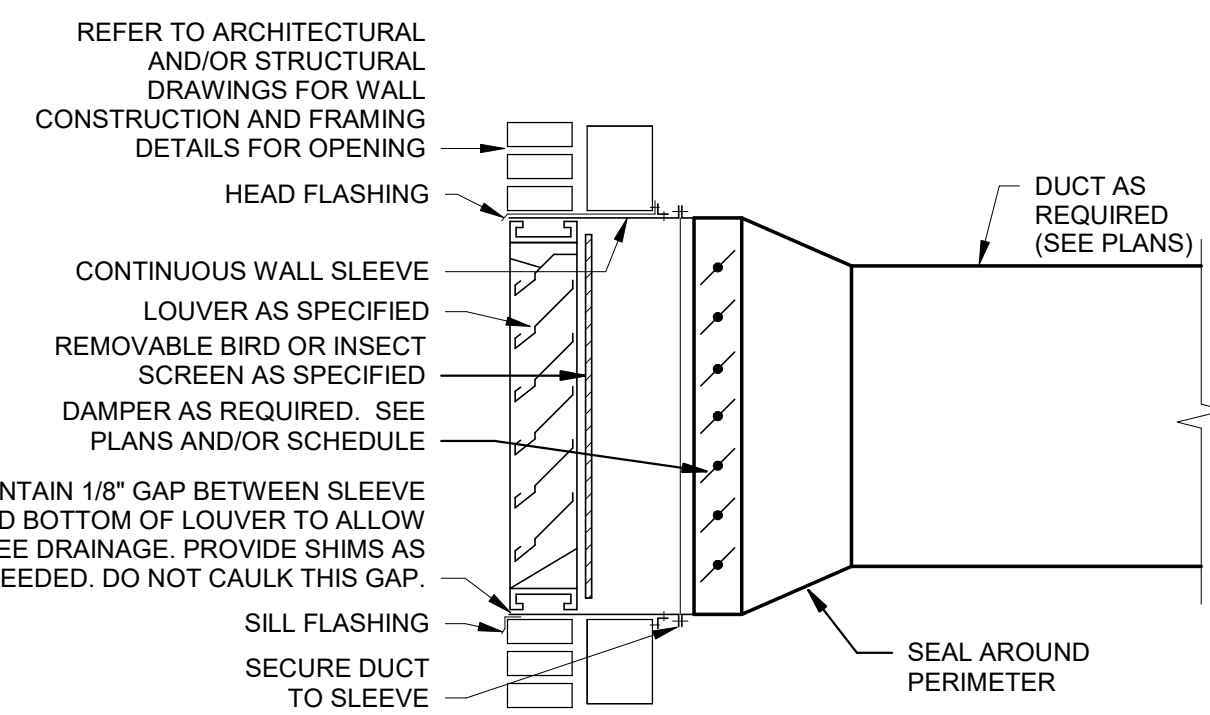


- NOTES:
- FLEXIBLE DUCT LENGTH MAY NOT EXCEED 5'-0". EXTEND RIGID DUCT AS REQUIRED.
 - REFER TO SPECIFICATIONS FOR FLEXIBLE DUCTWORK INSTALLATION REQUIREMENTS.

1 CEILING DIFFUSER DETAIL
NTS

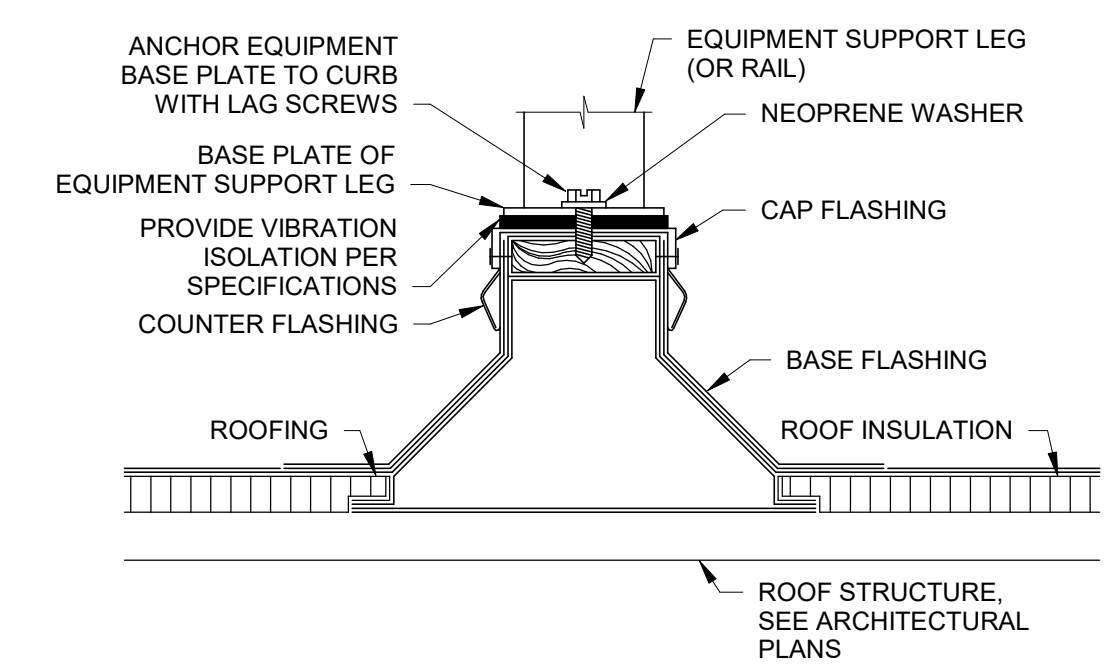
THESE DRAWINGS & SPECIFICATIONS ARE CONFIDENTIAL AND SHALL REMAIN THE SOLE PROPERTY OF SWEETGREEN CORPORATION. THEY SHALL NOT BE REPRODUCED IN WHOLE OR IN PART, SHARED WITH THIRD PARTIES OR USED IN ANY MANNER ON OTHER PROJECTS OR EXTENSIONS TO THIS PROJECT WITHOUT THE PRIOR WRITTEN CONSENT OF SWEETGREEN CORPORATION. THESE DRAWINGS & SPECIFICATIONS ARE INTENDED TO EXPRESS DESIGN INTENT FOR A PROTOTYPICAL SWEETGREEN STORE WHICH IS SUBJECT TO CHANGE AT ANY TIME AND MAY NOT REFLECT ACTUAL SITE CONDITIONS. NEITHER PARTY SHALL HAVE ANY OBLIGATION OR LIABILITY TO THE OTHER (EXCEPT AS STATED ABOVE) UNTIL A WRITTEN AGREEMENT IS FULLY EXECUTED.

STAMP:



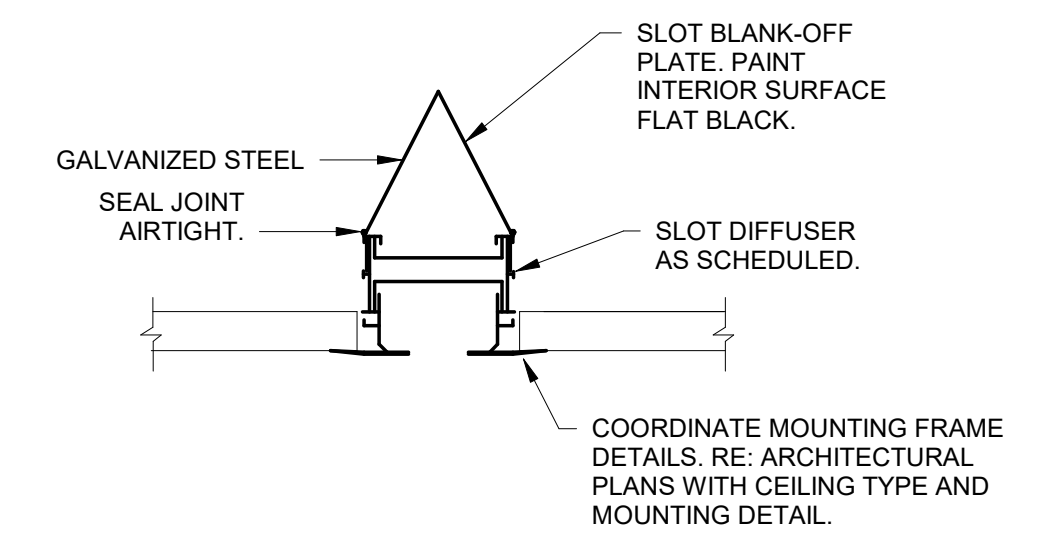
- NOTES:
1. SEAL ALL JOINTS AND SEAMS OF PLENUM AND DUCT TO PROVIDE WATER TIGHT CONSTRUCTION. PROVIDE INSULATION FOR PLENUM AND DUCT PER SPECIFICATIONS.
 2. MINIMUM DEPTH OF PLENUM SHALL BE 2'-0".
 3. DISTANCE FROM EDGE OF PLENUM TO TRANSITION SHALL BE NOT MORE THAN DEPTH OF PLENUM ON ALL SIDES.
 4. SEAL GAP BETWEEN LOUVER AND SLEEVE WATER TIGHT ON TOP AND SIDES. DO NOT SEAL THE BOTTOM SO THAT WATER MAY BE PERMITTED TO DRAIN FREELY.

6 LOUVER INSTALLATION DETAIL
NTS

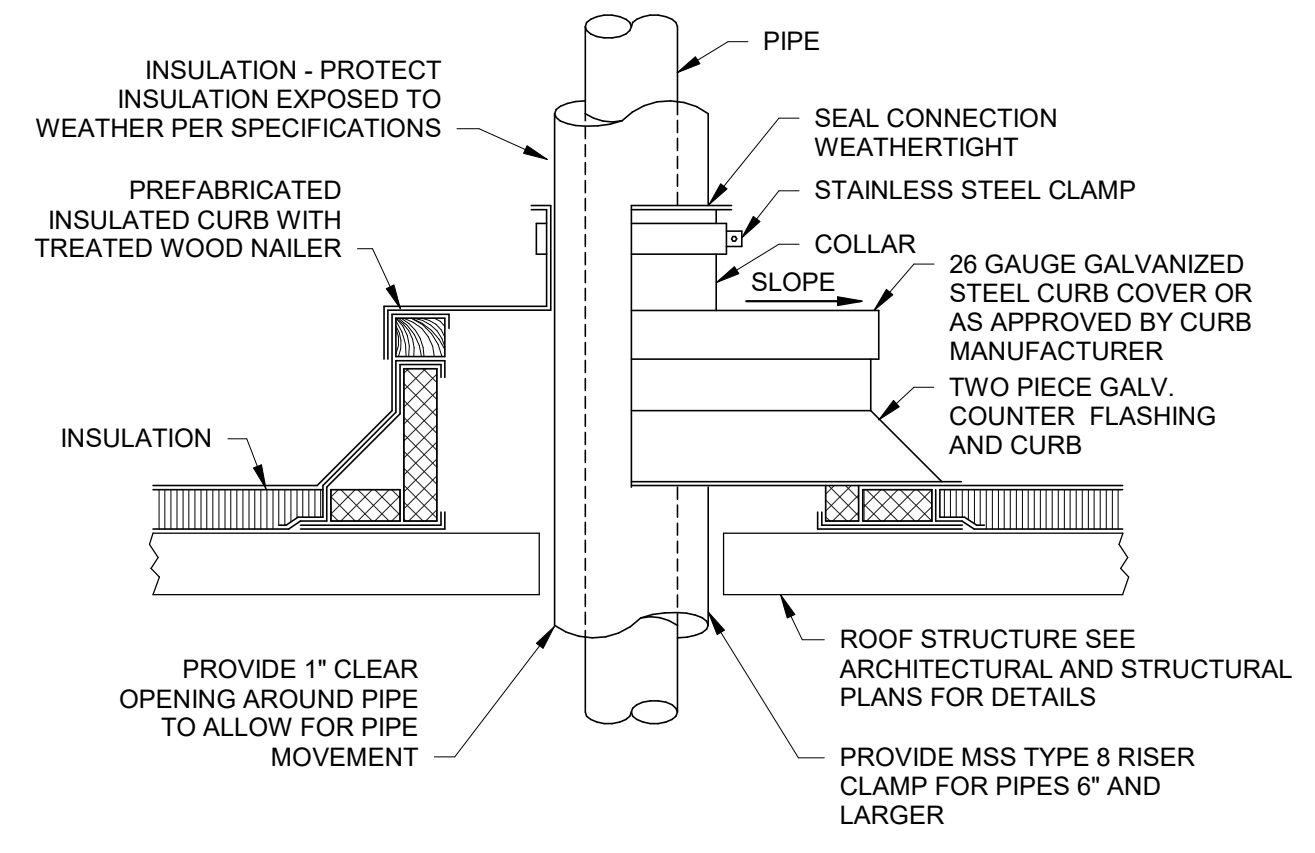


- NOTES:
1. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR EQUIPMENT SUPPORTS, ANCHORING AND SEISMIC/WIND RESISTANCE.

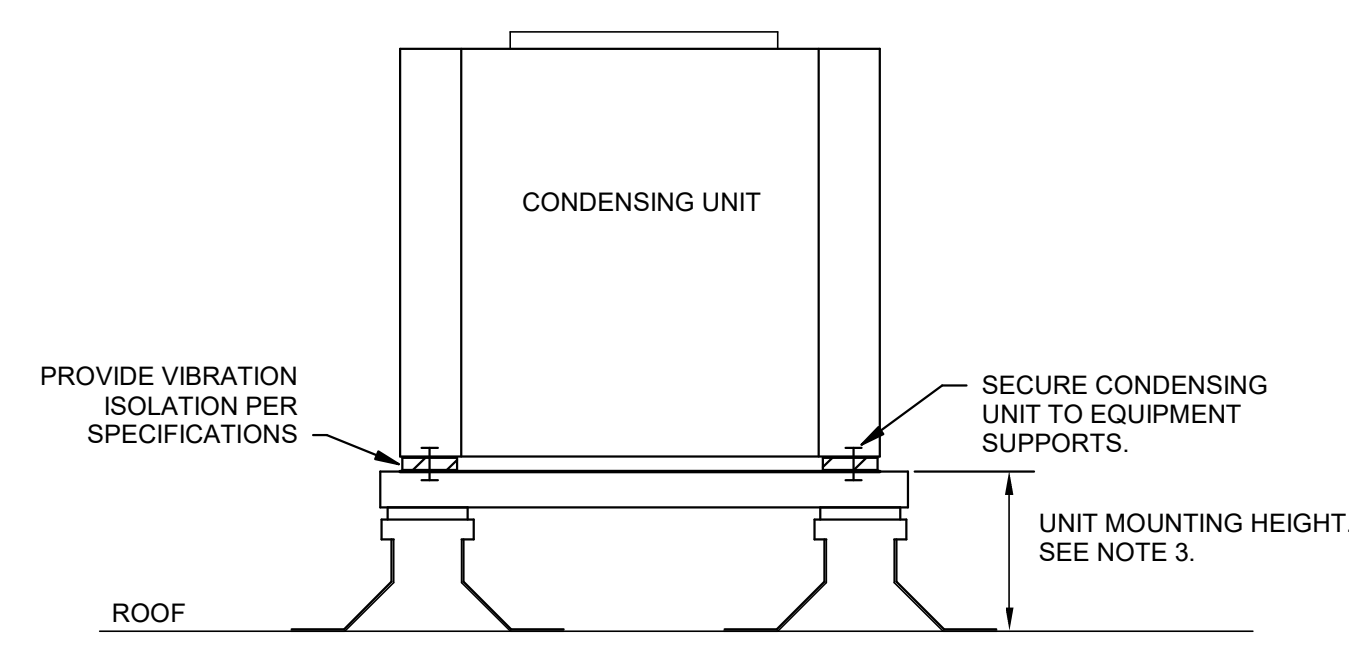
5 ROOF EQUIPMENT SUPPORT RAIL DETAIL
NTS



4 SLOT BLANK OFF PLATE DETAIL
NTS

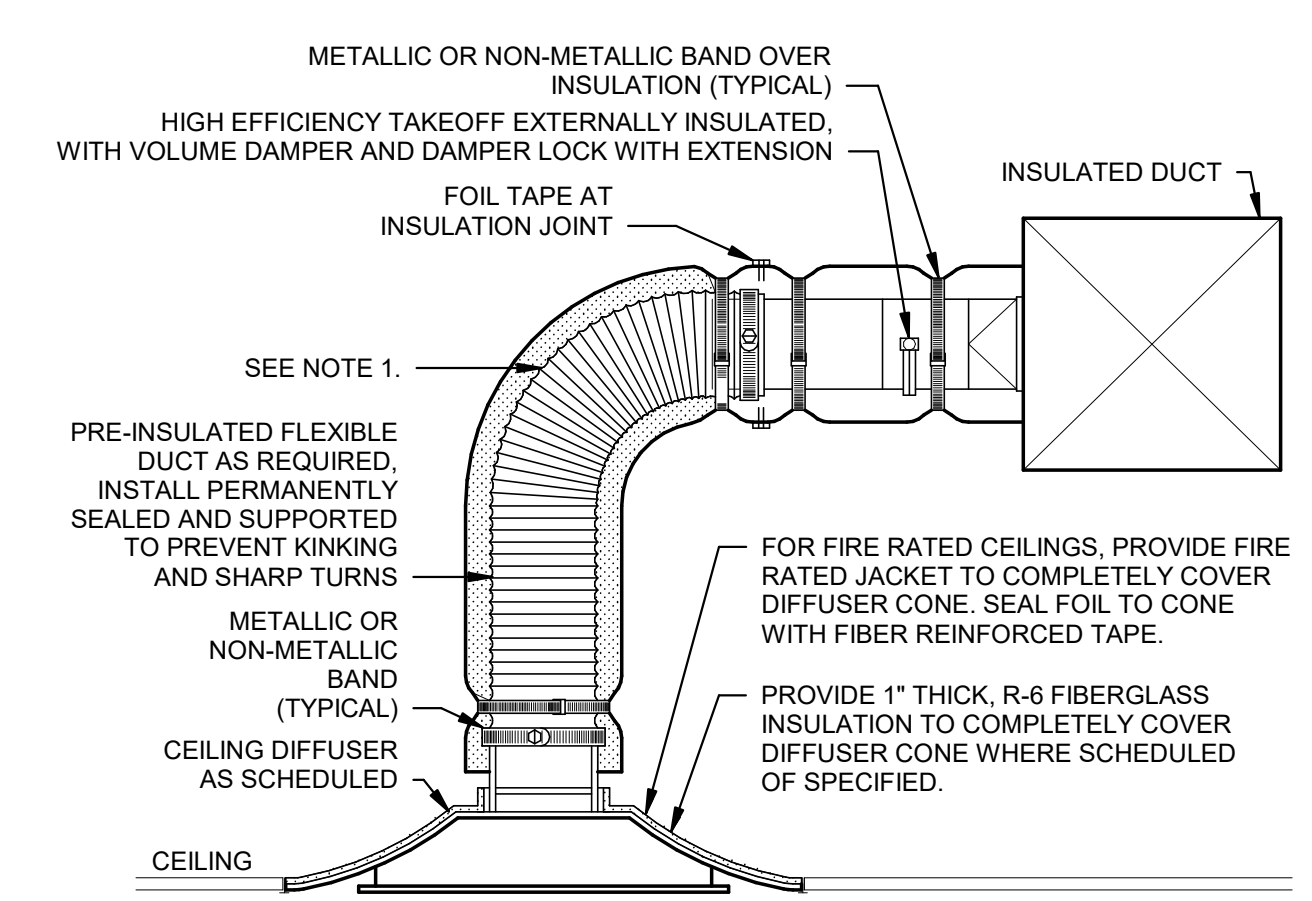


3 PIPE ROOF PENETRATION DETAIL
NTS



- NOTES:
1. SUPPORT AND ANCHOR OUTDOOR UNITS IN COMPLIANCE WITH LOCAL SEISMIC AND WIND RESTRAINT REQUIREMENTS.
 2. SEE MECHANICAL EQUIPMENT ANCHORS AND SUPPORT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 3. REFER TO THE EQUIPMENT SCHEDULE AND MANUFACTURER'S REQUIREMENTS FOR UNIT MOUNTING HEIGHT.

2 CONDENSING UNIT SUPPORT DETAIL
NTS



- NOTES:
1. EXTEND RIGID METAL DUCT SO THAT MAXIMUM FLEXIBLE DUCT LENGTH DOES NOT EXCEED 5'-0". PROVIDE RIGID 90° ELBOW WHERE REQUIRED TO KEEP FLEXIBLE DUCT WITHIN 5'-0" LENGTH LIMITATION.

1 LAY-IN CEILING DIFFUSER DETAIL
NTS

PROJECT INFORMATION:
ONE LOUDOUN
PROJECT INFORMATION:
20347 EXCHANGE ST SUITE 180
ASHBURN, VA 20147

DRAWN BY: DLJ
CHECKED BY: CMM
PROJECT MANAGER: RC
SG DESIGN MANAGER: AS
SG CONSTR. MANAGER: RC
PROJECT NO: 222136
TEMPLATE VERSION: 06.01.2020

REVISIONS
REV. DATE DESCRIPTION
07.01.2022 PERMIT SET

HVAC DETAILS

M-401