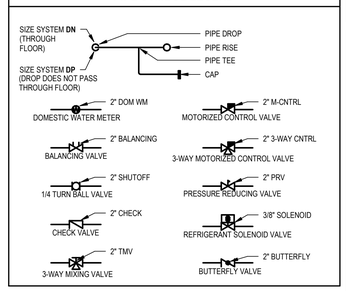
PIPING LEGEND

N2O	N2O	NITROUS OXIDE
AS	AS	ATMOSPHERIC STEAM
ATV	ATV	ATMOSPHERIC VENT
B	B	BRINE SUPPLY
BR	BR	BRINE RETURN
BBD	BBD	BOILER BLOW DOWN
BF	BF	BOILER FEED WATER
CF	CF	CHEMICAL FEED
CTBD	CTBD	COOLING TOWER BLOWDOWN
LPS	LPS	LOW PRESSURE STEAM
LPC	LPC	LOW PRESSURE STEAM CONDENSATE
MPS	MPS	MEDIUM PRESSURE STEAM
MPC	MPC	MEDIUM PRESSURE STEAM CONDENSATE
HPS	HPS	HIGH PRESSURE STEAM
HPC	HPC	HIGH PRESSURE STEAM CONDENSATE
HCS	HCS	HOT/CHILLED WATER SUPPLY
HCR	HCR	HOT/CHILLED WATER RETURN
HWS	HWS	HOT WATER SUPPLY
HWR	HWR	HOT WATER RETURN
CHS	CHS	CHILLED WATER SUPPLY
CHR	CHR	CHILLED WATER RETURN
CWS	CWS	CONDENSER WATER SUPPLY
CWR	CWR	CONDENSER WATER RETURN
D	D	DRAIN
RD	RD	REFRIGERANT DISCHARGE
RG	RG	REFRIGERANT GAS
RS	RS	REFRIGERANT SUCTION
RL	RL	REFRIGERANT LIQUID
RHG	RHG	REFRIGERANT HOT GAS
CD	CD	A.C. CONDENSATE DRAIN
MUW	MUW	MAKE UP WATER
PC	PC	PUMPED CONDENSATE
FOG	FOG	FUEL OIL GAUGE
FOS	FOS	FUEL OIL SUPPLY
FOR	FOR	FUEL OIL RETURN
FOV	FOV	FUEL OIL VENT
V	V	VENT
GMU	GMU	GLYCOL MAKE-UP
GR	GR	GLYCOL RETURN
GS	GS	GLYCOL SUPPLY
PCHS	PCHS	PRIMARY CHILLED WATER SUPPLY
PCHR	PCHR	PRIMARY CHILLED WATER RETURN
SCHS	SCHS	SECONDARY CHILLED WATER SUPPLY
SCHR	SCHR	SECONDARY CHILLED WATER RETURN
TCHS	TCHS	TERTIARY CHILLED WATER SUPPLY
TCHR	TCHR	TERTIARY CHILLED WATER RETURN
(E)	(E)	EXISTING PIPING TO REMAIN
(X)	(X)	PIPING TO BE REMOVED
		PIPE OFF BOTTOM
		PIPE OFF TOP
		RUN-OUT OFF TOP
		RUN-OUT OFF BOTTOM
		BRANCH CONNECTION (DIRECTION TO BE FIELD DETERMINED)
		PIPE UP
		PIPE DOWN
		DIRECTION OF FLOW
		PIPE BREAK
S=.01 S=.02		DRAIN PIPE SLOPE AND FLOW DIRECTION S=.01: 1/8" PER FOOT S=.02: 1/4" PER FOOT
C.O.	C.O.	CLEAN OUT

PIPE SYMBOL LEGEND



DUCTWORK LEGEND

DUCTWORK SYMBOL DESCRIPTION

12"x8"	RECTANGULAR DUCTWORK - HEIGHT x WIDTH (IN.)
12"Ø	ROUND DUCTWORK - DIMENSION IS DUCT DIAMETER (IN.)
(E) 12"x8"	EXISTING DUCTWORK TO REMAIN
(X) 12"x8"	EXISTING DUCTWORK TO BE DEMOLISHED

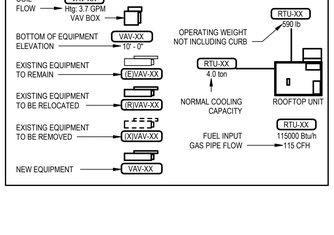
DUCT RISE / DROP LEGEND

RECTANGULAR DUCT		ROUND DUCT
	SUPPLY DUCTWORK UP	
	SUPPLY DUCTWORK DOWN	
	RETURN DUCTWORK UP	
	RETURN DUCTWORK DOWN	
	EXHAUST DUCTWORK UP	
	EXHAUST DUCTWORK DOWN	

DUCT FITTINGS AND OPTIONS LEGEND

	BEAM PENETRATION BY DUCTWORK
	CAPPED DUCTWORK
	ACOUSTICALLY LINED DUCTWORK
	FLEXIBLE CONNECTION
	RECTANGULAR TRANSITION
	RECTANGULAR TO ROUND DUCTWORK TRANSITION
	MITERED ELBOW WITH TURNING VANES
	1/2" WIRE MESH SCREEN (ON OPEN END DUCT)

DUCT ACCESSORY LEGEND



AIRFLOW SYMBOL LEGEND

	SUPPLY AIR
	RETURN OR EXHAUST AIR
U	UNDERCUT DOORWAY (BY G.C.)
DL	DOOR LOUVER (BY G.C.)

GRILLE, REGISTER, & DIFFUER TAG LEGEND

MECHANICAL EQUIPMENT TAG LEGEND

DRAWING NOTES

ACCU-1	EQUIPMENT TAG
1	REVISION NOTE
1	DEMOLITION WORK NOTE
1	NEW WORK NOTE
	CONNECT TO EXISTING
	CAP EXISTING
	LIMIT OF DEMOLITION
	ELECTRICAL AREA - THE AREA INDICATED IS AN ELECTRICAL ZONE. DUCTWORK, PIPING, AND SYSTEMS SHALL NOT RUN THROUGH THIS ZONE. EXCEPTION:PIPES, DUCTS, AND EQUIPMENT DEDICATED TO SERVE THE ZONE ARE ALLOWED. COORDINATE WITH ELECTRICAL CONTRACTOR AND COMPLY WITH ALL CODE CLEARANCE REQUIREMENTS.

CONTROL LEGEND

CO	CO SENSOR
CO2	CO2 SENSOR
NO2	NO2 SENSOR
SP1	STATIC PRESSURE SENSOR
DPS	DIFFERENTIAL PRESSURE SENSOR
RPM	ROOM PRESSURE MONITOR
T	HEAT/COOL THERMOSTAT
TR	REVERSE ACTING THERMOSTAT
$	SWITCH CONTROLLER
C	TIME CLOCK CONTROLLER
HS	HUMIDITY SENSOR
H	HUMIDISTAT
THS	HUMIDITY AND TEMPERATURE SENSOR
TS	TEMPERATURE SENSOR
RDO	REMOTE DAMPER OPERATOR
FMS	FACILITY MANAGEMENT PANEL
FM	FLOW METER
ECP	ENVIRONMETAL CONTROL PANEL
	CONTROL LINE

DRAWING LIST

SHEET NUMBER	SHEET NAME
H000	HVAC LEGEND
H109	HVAC ROOF LEVEL DUCT DEMOLITION PLAN
H309	HVAC ROOF LEVEL DUCT PLAN
H700	HVAC SCHEDULES AND DETAILS

VALVE LEGEND

VALVE LEGEND

IS	ISOLATION VALVE REFER TO DETAILS AND SPEC.
GV	GATE VALVE
GLV	GLOBE VALVE
BV	BALL VALVE
BFV	BUTTERFLY VALVE
DV	DRAIN VALVE
SCV	SWING CHECK VALVE
LCV	LIFT CHECK VALVE
BC	BALANCE COCK
BV	BALANCE VALVE
PRV	PRESSURE REDUCING VALVE
RV	RELIEF VALVE
SC	CONTROL VALVE
	PILOT OPERATED PRESSURE REDUCING VALVE
PLS	PIPE LINE STRAINER
BKS	BASKET STRAINER
CRD	CONCENTRIC REDUCER (ENLARGER)
ERD	ECCENTRIC REDUCER (ENLARGER)
TRM	THERMOMETER
PG	PRESSURE GAUGE
FS	FLOW SWITCH
AAV	AUTOMATIC AIR VENT
MAV	MANUAL AIR VENT
TT	THERMOSTATIC STEAM TRAP
F&TT	FLOAT & THERMOSTATIC STEAM TRAP
BT	BUCKET STEAM TRAP
PT	PRESSURE/TEMPERATURE PLUG

PIPE FITTING LEGEND

	UNION
FLG	FLANGE
EC	EXPANSION COMPENSATOR
PFC	PIPE FLEXIBLE CONNECTION
AN	PIPE ANCHOR
GD	PIPE GUIDE
	PIPE CAP
	STRAINER WITH DRAIN VALVE AND CAP

DEMOLITION / RELOCATION LEGEND

E	EXISTING MECHANICAL EQUIPMENT, DEVICE AND/OR SYSTEM TO REMAIN
X	EXISTING MECHANICAL EQUIPMENT, DEVICE AND/OR SYSTEM TO BE SELECTIVELY DEMOLISHED
XT	EXISTING MECHANICAL EQUIPMENT AND/OR DEVICE TO BE REMOVED AND TURNED OVER TO OWNER FOR RE-USE
XR	EXISTING MECHANICAL EQUIPMENT AND/OR DEVICE TO BE REMOVED, STORED AND RE-LOCATED.
XL	EXISTING MECHANICAL EQUIPMENT AND/OR DEVICE INDICATED IN NEW LOCATION

DEMOLITION / RELOCATION NOTES

PHASE LABELS SHOWN ABOVE ARE APPLIED IN SELECT AREAS AND MAY NOT ALWAYS BE PRESENT. REFER TO LINETYPE AND LINEWEIGHT TO DETERMINE EXISTING CONDITIONS AND DEMOLISHED EQUIPMENT.

KEYNOTE SYMBOLS LEGEND

#	DEMOLITION KEYNOTE SYMBOL
#	NEW WORK KEYNOTE SYMBOL

KEYNOTE SYMBOLS NOTES

"#" - 1,2,3 ETC. - NUMERIC TYPE DESIGNATOR

ABBREVIATIONS

AAV	AUTOMATIC AIR VENT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ARCH.	ARCHITECT
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CLOSED
CA	COMBUSTION AIR
CAP	CAPACITY
CAS	COMBUSTION AIR SUPPLY
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CO	CLEAN OUT
CONN.	CONNECT
CONTR	CONTRACTOR
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
CV	CONTROL VALVE
DB	DRY BULB TEMPERATURE (°F)
DDC	DIRECT DIGITAL CONTROL
DIA.	DIAMETER
DN	DOWN
DR.	DRAIN
DWG	DRAWING
EA	EACH
E.A.	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EL	EXPANSION LOOP
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETBR	EXISTING TO BE REMOVED
ETR	EXISTING TO REMAIN
EWT	ENTERING WATER TEMPERATURE
EX.	EXISTING
EXH	EXHAUST
FMS	FACILITY MANAGEMENT SYSTEM
FA	FREE AREA
FAI	FRESH AIR INTAKE
FLA	FULL LOAD AMPS
FLD	FLOOR DRAIN
FPC	FIRE PROTECTION CONTRACTOR
FPI	FINS PER INCH
FPM	FEET PER MINUTE
FT	FEET
GAL	GALLONS
GC	GENERAL CONTRACTOR
GE	GENERAL EXHAUST
GPM	GALLONS PER MINUTE
GUH	GAS FIRED UNIT HEATER
HC	HEATING COIL
HE	HOOD EXHAUST
HP	HORSE POWER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
IN	INCHES
ID	INSIDE DIAMETER
KE	KITCHEN EXHAUST
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LD	LOUVERED DOOR
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSANDS OF BRITISH THERMAL UNITS PER HOUR
MEC	MECHANICAL CONTRACTOR
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PSI	POUNDS PER SQUARE INCH
RA	RETURN AIR
RM	ROOM
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SF	SQUARE FEET
SP	STATIC PRESSURE
SPD	SPEED
SS	STAINLESS STEEL
SST	SATURATED SUCTION TEMPERATURE
TA	TRANSFER AIR
TD	TRANSFER AIR DUCT
TE	TOILET EXHAUST
TSTAT	THERMOSTAT
TYP	TYPICAL
UC	UNDERCUT DOOR
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VFD	VARIABLE FREQUENCY DRIVE
WB	WET BULB TEMPERATURE (°F)
WMS	WIRE MESH SCREEN

EQUIPMENT TAGS

AC	COMPUTER ROOM AIR CONDITIONING UNIT
ACCU	AIR COOLED CONDENSING UNIT
AFS	AIR FLOW STATION
AHU	AIR HANDLING UNIT
ARC	AIR COOLED REFRIGERANT CONDENSER
B	BOILER
CAV	CONSTANT AIR VOLUME BOX
CH	CHILLER
CP	CONDENSATE PUMP
CT	COOLING TOWER
CUH	CABINET UNIT HEATER (STEAM OR WATER)
CV	CONVECTOR
DC	DRY COOLER
DH	DUCT HEATING COIL
EB	ELECTRIC BASEBOARD
EC	EVAPORATIVE COOLER
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EH	EXHAUST HOOD
ER	EXHAUST REGISTER
ERV	ENERGY RECOVERY VENTILATOR
F	FAN (GENERIC)
FB	FILTER BOX
FCU	FAN COIL UNIT
FP	FAN POWERED AIR TERMINAL
FTR	FIN TUBE RADIATION
H	HUMIDIFIER
HP	WATER SOURCE HEAT PUMP
HX	HEAT EXCHANGER
LU	LOUVER
MUA	GAS FIRED MAKE-UP AIR UNIT
P	PUMP
RCP	RADIANT CEILING PANEL
RG	RETURN GRILLE
RR	RETURN REGISTER
RH/IH	RELIEF HOOD/ INTAKE HOOD
RTU	ROOFTOP UNIT
SA	SOUND ATTENUATOR
SD	SUPPLY DIFFUSER
SG	SUPPLY GRILLE
SR	SUPPLY REGISTER
UH	UNIT HEATER
UV	UNIT VENTILATOR
VAV	VARIABLE AIR VOLUME BOX
VFD	VARIABLE FREQUENCY DRIVE
VI	VIBRATION ISOLATION
WFS	WATER FLOW STATION

GENERAL NOTES

1. MECHANICAL WORK IS INDICATED DIAGRAMMATIC. EXACT LOCATIONS OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD (SPACING SUBJECT TO ARCHITECT'S REVIEW AND APPROVAL) TO AVOID CONFLICT WITH OTHER TRADES AND EXISTING SITE CONDITIONS.
2. THE CONTRACTOR SHALL VISIT AND CAREFULLY EXAMINE THE SITE TO IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE WORK OF THIS SECTION. REPORT IN WRITING TO THE ARCHITECT CONDITIONS WHICH MIGHT ADVERSELY AFFECT WORK. NO EXTRA PAYMENT WILL BE PROVIDED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY AN EXPERIENCED OBSERVER.
3. WORK REQUIRING INTERRUPTION OF BUILDING SERVICES SHALL BE CAREFULLY REVIEWED AND COORDINATED WITH THE OWNER TO MINIMIZE FREQUENCY AND DURATION OF SERVICE INTERRUPTIONS.
4. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF CEILING GRID, DIFFUSERS, AND GRILLES.
5. ALL INSTALLATIONS SHALL PERMIT AND PROVIDE ACCESSIBILITY FOR SERVICE AND REPLACEMENT OF ALL NEW EQUIPMENT AND EXISTING EQUIPMENT IMPACTED BY THIS WORK.
6. COORDINATE ALL OPENINGS IN FLOORS WITH STRUCTURAL DRAWINGS AND GENERAL CONTRACTOR.
7. COORDINATE ALL ROOF OPENINGS WITH ARCHITECT AND STRUCTURAL ENGINEER.
8. REFER TO STRUCTURAL FRAMING PLANS FOR EXACT LOCATION OF ALL ROOF MOUNTED EQUIPMENT.
9. ALL MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF GOVERNING LOCAL, STATE, AND FEDERAL SEISMIC CODES. PARTICULAR ATTENTION SHALL BE MADE TO VIBRATION ISOLATION, ANCHORING, AND BALANCING REQUIREMENTS.
10. PROVIDE SMOKE DETECTORS AND SMOKE DAMPERS WHERE SHOWN ON THE MECHANICAL DRAWINGS. COORDINATE THE QUANTITY AND EXACT LOCATION WITH ACTUAL SHEET METAL SHOP DRAWINGS, TO BE PROVIDED BY MECHANICAL CONTRACTOR, AND APPROVED BY ENGINEER. PROVIDE SMOKE DETECTORS AND SMOKE DAMPERS IN BOTH SUPPLY AND RETURN DUCTS ON ALL AIR HANGLERS AS SHOWN IN MECHANICAL DRAWINGS.
11. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH CODES AND STANDARDS SET FORTH IN NFPA, SMACNA, AND ASHRAE FOR LOW PRESSURE DUCTWORK SYSTEMS.
12. ALL EXPOSED DUCTWORK SHALL BE PAINTED TO MATCH CEILING. REFER TO ARCHITECTURAL DRAWINGS.
13. PROVIDE MANUAL VOLUME DAMPERS AT ALL BRANCH DUCTS FOR AIR BALANCING.
14. ALL SHEET METAL PLENUMS AT OUTSIDE AIR LOUVERS SHALL BE INSULATED WITH RIGID INSULATION, AS PER SPECIFICATIONS.
15. RUN-OUTS TO RETURN AND EXHAUST REGISTERS, OR GRILLES ABOVE GYP BOARD CEILINGS, SHALL BE RIGID DUCTED. NO FLEXIBLE DUCT WORK SHALL BE ALLOWED ON RETURN OR EXHAUST REGISTERS.
16. ALL DUCTS, PIPES, AND EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE WITH PROPER ALLOWANCES FOR CONTRACTION, EXPANSION, AND VIBRATION ELIMINATION.
17. PROVIDE 12"x10" ACCESS PANELS AT ALL BASEBOARD CONTROL VALVES. COORDINATE EXACT LOCATIONS WITH GENERAL CONTRACTOR.
18. PROVIDE COPPER 3/4" RUN-OUTS TO HOT WATER REHEAT COILS, CABINET HEATERS AND UNIT HEATERS UNLESS NOTED OTHERWISE.
19. PROVIDE SWING JOINTS AT ALL BRANCH CONNECTIONS TO HYDRONIC EQUIPMENT.
20. ROOM THERMOSTATS SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE SHOWN OR DIRECTED. COORDINATE LOCATIONS WITH ARCHITECTURAL WALL PROTECTIONS.
21. COORDINATE EXACT LOCATION OF UNIT HEATERS WITHIN ELECTRIC ROOMS WITH ELECTRICAL CONTRACTOR.
22. REFER TO SPECIFICATIONS FOR TYPE OF VALVE TO BE USED. VALVES ARE SHOWN ON PLANS FOR PLACEMENT ONLY.
23. ALL DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR FREE AREA REQUIRED.
24. ALL DIFFUSER, REGISTER, AND GRILLE SIZES INDICATED ON FLOOR PLANS ARE NECK SIZE REQUIRED.
25. ALL DRAINAGE AND AC CONDENSATE PIPING IS TO BE SLOPED A MINIMUM OF 1/4" PER ONE FOOT IN THE DIRECTION OF DRAINAGE."
26. NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED ON THIS PROJECT.
27. COORDINATE ENTIRE INSTALLATION WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATIONS.
28. PERFORM DUCT LEAK TESTING IN ACCORDANCE WITH THE SPECIFICATIONS AND SMACNA GUIDELINES OF ALL DUCTWORK EXCEPT CLASS 2 AND CLASS 3 THROUGHOUT THE PROJECT SCOPE. REFER TO INSTALLATION OF DUCTWORK SECTION OF THE DIVISION 23 00 00 SPECIFICATIONS.

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK OF THIS SECTION. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY EXPERIENCED OBSERVERS.
2. PRIOR TO COMMENCING WORK OF THIS SECTION, EXAMINE SITE AND CONDITIONS UNDER WHICH WORK WILL BE PERFORMED. DETERMINE EXACT LOCATIONS OF EXISTING EQUIPMENT, PIPING AND CONTROLS. REPORT TO OWNER ANY CONDITIONS THAT MIGHT ADVERSELY AFFECT WORK. COMMENCEMENT OF WORK SHALL BE CONSTRUED AS COMPLETE ACCEPTANCE OF EXISTING CONDITIONS AND PREPARATORY WORK.
3. ABANDONING OF DUCTWORK, PIPING OR EQUIPMENT IN PLACE SHALL NOT BE ALLOWED. COMPLETE REMOVAL REQUIRED UNLESS NOTED OTHERWISE.
4. PIPING TO BE REMOVED: REMOVE PORTION OF PIPING INDICATED TO BE REMOVED AND CAP REMAINING PIPING WITH SAME OR COMPATIBLE PIPING MATERIAL.
5. DUCTS TO BE REMOVED: REMOVE PORTION OF DUCTS INDICATED TO BE REMOVED AND CAP REMAINING DUCTS WITH SAME OR COMPATIBLE DUCTWORK MATERIAL.
6. EQUIPMENT TO BE REMOVED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT.
7. EQUIPMENT TO BE REMOVED AND SALVAGED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT AND DELIVER TO OWNER.
8. COMPLY WITH ALL STATE AND LOCAL CODES AS TO REMOVAL AND DISPOSAL OF EQUIPMENT REMOVED FROM THE SITE.
9. COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE BEGINNING SELECTIVE DEMOLITION.
10. REMOVE PREVIOUSLY ABANDONED WORK IN THE WAY OF EXISTING CONSTRUCTION, OR AS NOTED.
11. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
12. COMPLY WITH ANSI A10.6 (SAFETY REQUIREMENTS FOR DEMOLITION OPERATIONS) AND NFPA 241 (STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS).
13. PERMITS: GIVE ALL REQUIRED NOTICES. FILE ALL REQUIRED PLANS AND SPECIFICATIONS RELATING TO THE WORK OF THIS SECTION WITH THE PROPER AUTHORITIES AND PAY FOR ANY REQUIRED PERMITS.
14. ALL AIR-CONDITIONING EQUIPMENT AND SYSTEMS SHALL BE REMOVED WITHOUT RELEASING REFRIGERANTS. REFRIGERANT RECOVERY IS TO BE PERFORMED BY A REFRIGERANT RECOVERY TECHNICAN CERTIFIED BY AN EPA-APPROVED CERTIFICATION PROGRAM.
15. ALL EQUIPMENT AND SYSTEMS TO BE DEMOLISHED UNDER THIS SECTION AND NOT DESIRED BY OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL SUCH EQUIPMENT FROM THE SITE PROMPTLY AFTER DETACHMENT FROM BUILDING STRUCTURE.
16. STORAGE OR SALE OF REMOVED ITEMS OR MATERIALS ON-SITE IS NOT PERMITTED.
17. IT IS UNKNOWN WHETHER HAZARDOUS MATERIALS WILL BE ENCOUNTERED IN THE WORK. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; IMMEDIATELY NOTIFY ARCHITECT AND OWNER.
18. EXISTING PIPING SHOWN ON DRAWINGS DOES NOT INDICATE FULL EXTENT OF PIPING DEMOLITION. FIELD VERIFICATIONS REQUIRED.

100% CD

FITZEMEYER & TOCCI ASSOCIATES, INC.
300 Unicorn Park Drive, 5th Floor
Woburn, MA 01801
(P) 781.481.0210 (F) 781.481.0203

Key Plan:

Owner:

CITY OF WORCESTER

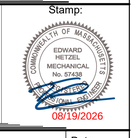
Project Name:

WORCESTER MA SULLIVAN MS AHU REPL

140 APRICOT ST, WORCESTER, MA 01603

North Arrow

Stamp:



Rev.	Description	Date

Scale Bar:

Drawing Title:

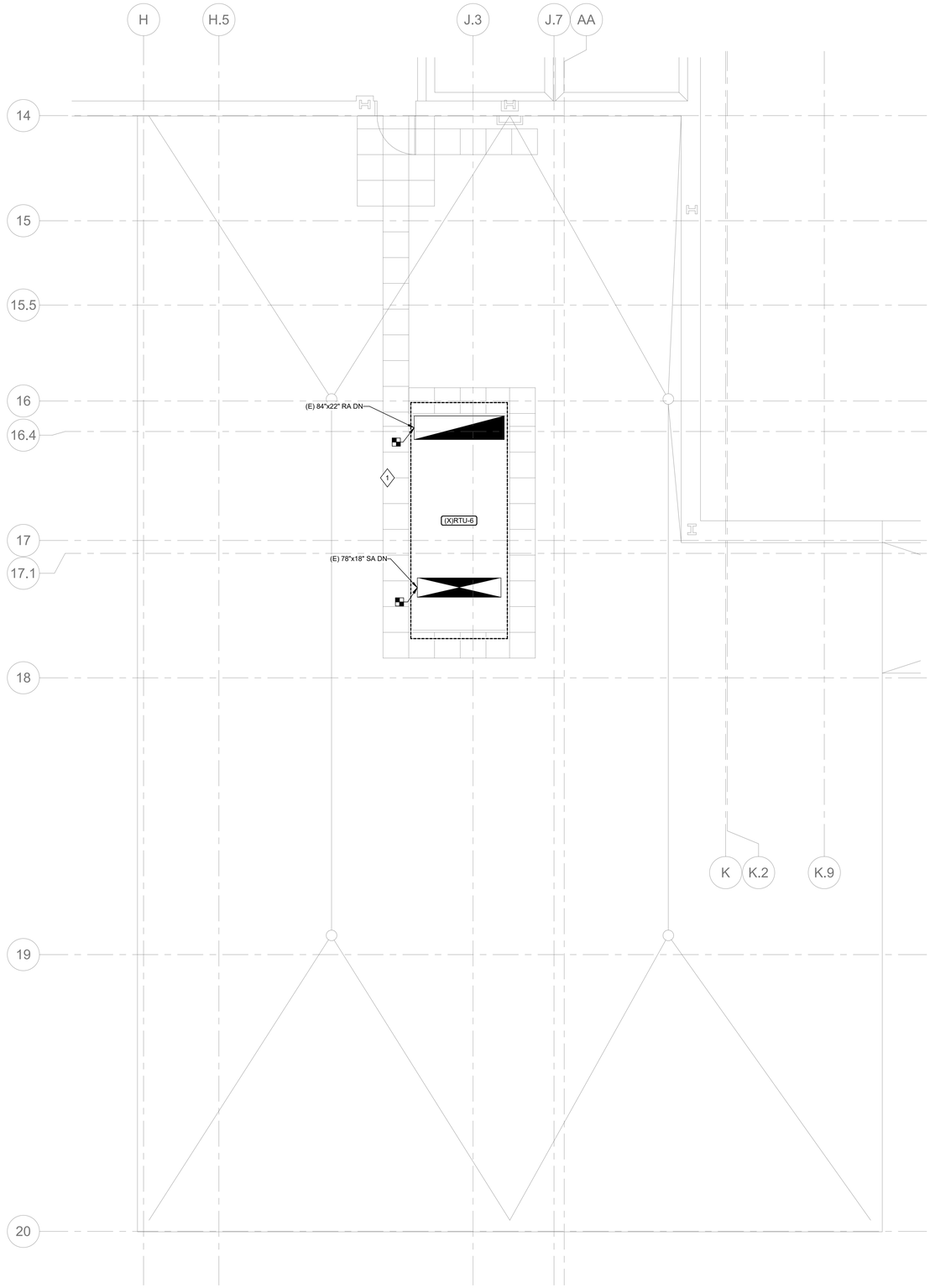
HVAC LEGEND

Date	08/19/2026
Scale	NTS
Drawn By	AMV
Checked By	TH
Project Number	210538.16

Drawing No.

H000

KEYNOTES	
1	DEMOLISH AND REMOVE EXISTING RTU AND ASSOCIATED CURB, CONTRLS, AND ACCESSORIES. RETAIN SUPPLY AND RETURN DROPS FOR RECONFIGURATION DURING NEW WORK PHASE.



1 H109 HVAC ROOF LEVEL DUCT DEMOLITION PLAN
1/4" = 1'-0"
0 2' 4' 8'

100% CD

FITZEMEYER & TOCCI ASSOCIATES, INC.
300 Unicorn Park Drive, 5th Floor
Woburn, Ma 01801
(P) 781.481.0210 (F) 781.481.0203

Key Plan:

Owner:
CITY OF WORCESTER

Project Name:

WORCESTER MA SULLIVAN MS AHU REPL

140 APRICOT ST, WORCESTER, MA 01603

North Arrow

Stamp:
COMMONWEALTH OF MASSACHUSETTS
EDWARD HETZEL
MECHANICAL
No. 57428
REGISTERED PROFESSIONAL ENGINEER
08/19/2026

Rev.	Description	Date

Scale Bar:

Drawing Title:

HVAC ROOF LEVEL DUCT DEMOLITION PLAN

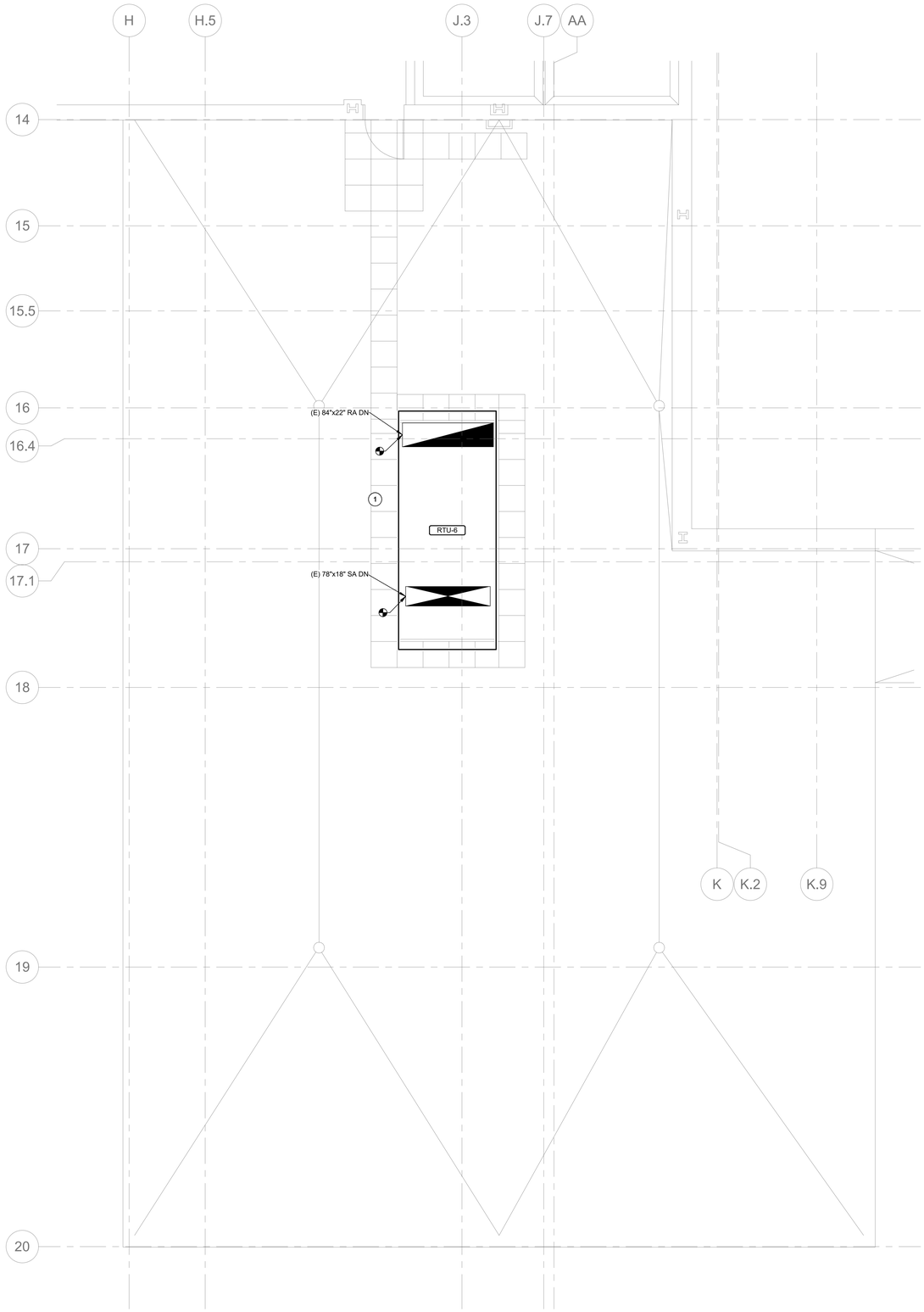
Date	08/19/2026
Scale	1/4" = 1'-0"
Drawn By	AMV
Checked By	TH
Project Number	210538.16

Drawing No.

H109

KEYNOTES	
1	INSTALL NEW RTU AT LOCATION OF PREVIOUSLY DEMOLISHED UNIT. INSTALL WITH NEW ROOF CURB. RECONFIGURE EXISTING SUPPLY AND RETURN RISERS TO CONNECT TO NEW RTU SUPPLY/RETURN CONNECTIONS.

100% CD



1 H309 HVAC ROOF LEVEL DUCT PLAN
1/4" = 1'-0"
0 2' 4' 8'

FITZEMEYER & TOCCI ASSOCIATES, INC.
300 Unicorn Park Drive, 5th Floor
Woburn, Ma 01801
(P) 781.481.0210 (F) 781.481.0203

Key Plan:

Owner:
CITY OF WORCESTER

Project Name:

WORCESTER MA SULLIVAN MS AHU REPL

140 APRICOT ST, WORCESTER, MA 01603

North Arrow

Stamp:
COMMONWEALTH OF MASSACHUSETTS
EDWARD HETZEL
MECHANICAL
No. 57428
REGISTERED PROFESSIONAL ENGINEER
08/19/2026

Rev.	Description	Date

Scale Bar:

Drawing Title:

HVAC ROOF LEVEL DUCT PLAN

Date	08/19/2026
Scale	1/4" = 1'-0"
Drawn By	AMV
Checked By	TH
Project Number	210538.16

Drawing No.

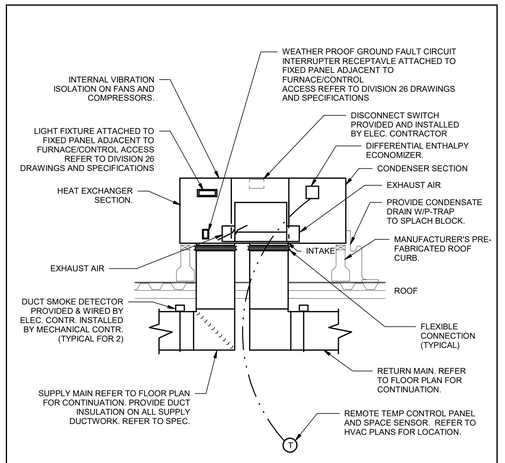
H309

AIR HANDLING UNIT SCHEDULE

NOTES:

1. UNIT SHALL BE CONFIGRED AS DOWNFLOW UNIT.
2. PROVIDE WITH BOTTOM RETURN WITH INTAKE/RELIEF SECTION, PRE-FILTER, DX COOLING COIL SECTION, FAN SECTION, BOTTOM DISCHARGE AND AIRSIDE ECONOMIZER.
3. PROVIDE STAINLESS STEEL DRAINPANS.
4. PROVIDE SINGLE POINT POWER WITH INTEGRAL DISCONNECT.
5. PROVIDE WITH BACNET CARD FOR INTEGRATION WITH EXISTING BMS.
6. PROIVDE 10K SCCR RATING.
7. REFER TO PROJECT SPECIFICATIONS FOR ALL REQUIRED OPTIONS AND ACCESSORIES.

						SUPPLY FAN							RELIEF FAN					COOLING COIL										PRE-FILTER						
							PRESS			MOTOR				PRESS		MOTOR					CAP	AIRSIDE												
ID	MANUFACTURER	MODEL NO.	ARRANGEMENT	SUPPLY CFM	OA CFM	SUPPLY FAN CFM	ESP IN-WG	TSP IN-WG	DRIVE TYPE	QTY	POWER W	RPM	RETURN CFM	ESP IN-WG	DRIVE TYPE	QTY	POWER W	RPM	TYPE	NOMINAL CAP TON	TOTAL BTU/H	SENSIBLE BTU/H	EAT(db) °F	EAT(wb) °F	LAT(db) °F	LAT(wb) °F	PD IN-WG	ROWS	THICKNESS	EFF	WEIGHT	MCA	MOCP	VOLT	PH	REMARKS
RTU-6	TRANE	INTELLIPAK	DOWNFLOW	6600 CFM	1000 CFM	6600 CFM	2.50 in-wg	3.14 in-wg	DIRECT	2	5.0 hp	2777	6600 CFM	2.00 in-wg	DIRECT	1	6.0 hp	1831	PACKAGED DX	20 ton	258999 Btu/h	197000 Btu/h	80.0 °F	65.0 °F	51.0 °F	50.0 °F	0.00 in-wg	4	2"	MERV-8	6089 LB	79 A	90 A	480 V	3	NOTES 1-6



NOTE:
ROOF OPENINGS PER APPROVED SHOP DRAWINGS. ROOF OPENING SHALL NOT BE ENTIRE BOTTOM OF UNIT. OPENING SHALL BE MINIMUM SIZE REQUIRED FOR DUCT DUCT CONNECTIONS.

1 ROOF TOP UNIT INSTALLATION SCALE: NTS

100% CD

FITZEMEYER & TOCCI ASSOCIATES, INC.
300 Unicorn Park Drive, 5th Floor
Woburn, Ma 01801
(P) 781.481.0210 (F) 781.481.0203

Key Plan:

Owner:
CITY OF WORCESTER

Project Name:

WORCESTER MA SULLIVAN MS AHU REPL

140 APRICOT ST, WORCESTER, MA 01603

North Arrow

Stamp:
COMMONWEALTH OF MASSACHUSETTS
EDWARD HETZEL
MECHANICAL
No. 57428
REGISTERED PROFESSIONAL ENGINEER
08/19/2026

Rev.	Description	Date

Scale Bar:

Drawing Title:
HVAC SCHEDULES AND DETAILS

Date	08/19/2026
Scale	NTS
Drawn By	AMV
Checked By	TH
Project Number	210538.16

Drawing No.
H700