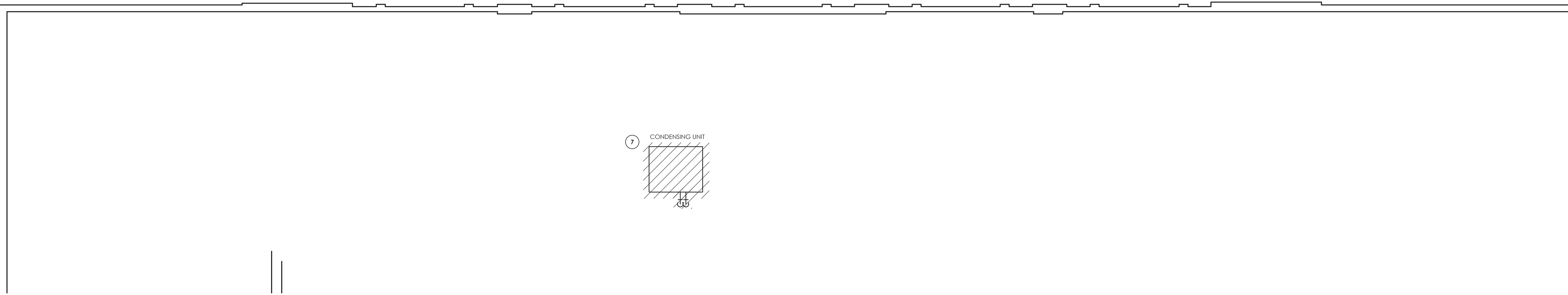
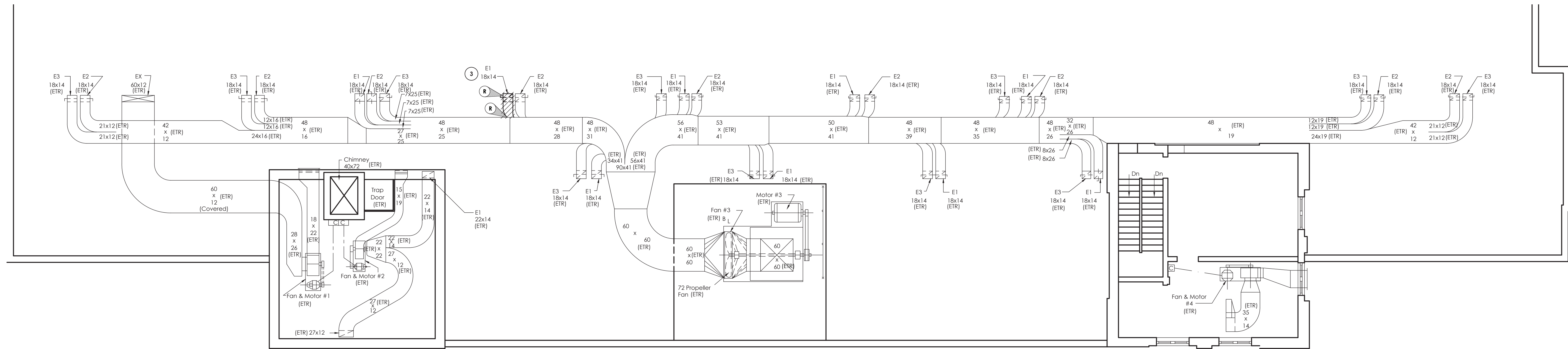


HVAC SYMBOLS LIST											
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
AAD	AUTOMATIC AIR DAMPER		CONNECTION - TOP		DOUBLE WALL LINED DUCT		SUPPLY / RETURN / EXHAUST AIR TAKEOFFS		ELECTRIC/PNEUMATIC SWITCH OR RELAY		
ACC	AIR-COOLED CONDENSING UNIT		CONNECTION - BOTTOM		DUCT SECTION - SUPPLY				PNEUMATIC/ELECTRIC SWITCH OR RELAY		
AD	ACCESS DOOR		DIRECTION OF FLOW		DUCT SECTION - RETURN/EXHAUST				CURRENT TRANSDUCER		
AFF	ABOVE FINISHED FLOOR		REDUCER		DUCT SECTION - ROUND DUCT IN INCHES				OPEN/CLOSED		
AHU	AIR HANDLING UNIT		CAP OR PLUG		ACOUSTIC THERMAL LINING		SUPPLY / RETURN / EXHAUST AIR TAKEOFFS		START/STOP		
BBD	BOILER BLOW DOWN		ELBOW DOWN		FLEXIBLE DUCTWORK		SUPPLY / RETURN / EXHAUST AIR TAKEOFFS		ENABLE/DISABLE		
BD	BACKDRAFT DAMPER		ELBOW UP		FLEXIBLE CONNECTION				TEMPERATURE SENSOR (DUCT OR PIPE MOUNTED)		
CA	COMPRESSED AIR		TEE OUTLET - UP		FIRE DAMPER				HUMIDITY SENSOR (DUCT MOUNTED)		
CD	COOLING COIL CONDENSATE DRAIN		TEE OUTLET - DOWN		SMOKE DAMPER				FLOW TRANSMITTER		
CFM	CUBIC FEET PER MINUTE		UNION		COMBINATION FIRE AND SMOKE DAMPER				PRESSURE TRANSMITTER		
CHWR	CHILLED WATER RETURN		GATE VALVE		DAMPER CONTROL, PARALLEL BLADE				DIFFERENTIAL PRESSURE TRANSMITTER		
CHWS	CHILLED WATER SUPPLY		BALL VALVE		DAMPER CONTROL, OPPOSED BLADE				ELECTRIC/PNEUMATIC TRANSDUCER		
CR	CONDENSER WATER RETURN		BALANCING VALVE		MULTI-BLADE AIR EXTRACTOR				ELECTRIC/ELECTRONIC TRANSDUCER		
CS	CONDENSER WATER SUPPLY		STRAINER		TURNING VANES				DUCT SMOKE DETECTOR		
CW	DOMESTIC COLD WATER		STRAINER WITH BLOW-DOWN		HUMIDIFIER DISPERSION TUBE				SPACE THERMOSTAT		
D	DRAIN		BUTTERFLY VALVE		RISE IN DUCT				SPACE TEMPERATURE SENSOR		
(E)	EXISTING		BUTTERFLY CONTROL VALVE, PNEUMATIC 2-WAY		DROP IN DUCT				SPACE CARBON DIOXIDE SENSOR		
EA	EXHAUST AIR		BUTTERFLY CONTROL VALVE, ELECTRIC ACTUATOR		SQUARE CEILING DIFFUSER (4 WAY)				SPACE NATURAL GAS SENSOR		
EC	ELECTRICAL CONTRACTOR		GLOBE VALVE		ROUND CEILING DIFFUSER				SPACE CARBON MONOXIDE SENSOR		
EF	EXHAUST FAN		CHECK VALVE		SUPPLY REGISTER, RETURN OR EXHAUST GRILLE				SPACE SENSOR WITH GUARD		
ERHC	ELECTRIC REHEAT COIL		TRIPLE DUTY VALVE		AIR FLOW SENSOR				SPACE HUMIDISTAT		
ETR	EXISTING TO REMAIN		GAS COCK, PLUG VALVE		POINT OF CONNECTION				WATER FLOW SENSOR		
EUH	ELECTRIC UNIT HEATER		UNDERCUT DOOR 1"		POINT OF DISCONNECTION				PNEUMATIC ACTUATOR		
F&T	FLOAT AND THERMOSTATIC TRAP		LOUVERED DOOR W/ SQ. FT. OF FREE AREA		LONG RADIUS 90° ELBOW R/W=1.5				ELECTRIC ACTUATOR		
FCU	FAN-COIL UNIT		RELIEF / SAFETY VALVE		LONG RADIUS 45° ELBOW R/W=1.5				VARIABLE SPEED / FREQUENCY DRIVE		
FFM	FEET PER MINUTE		PRESSURE REDUCING VALVE		90° ELBOW WITH TURNING VANES				COOLING COIL		
FT	FIN-TUBE		VACUUM BREAKER		GAS FURNACE				HEATING COIL		
GC	GENERAL CONTRACTOR		AIR VENT - MANUAL		HUMIDIFIER				GAS FURNACE		
GR	GLYCOL RETURN		AIR VENT - AUTOMATIC		ALARM				HUMIDIFIER		
GS	GLYCOL SUPPLY		FLANGE		FLOW SWITCH				STATUS		
HC	HVAC CONTRACTOR		CONTROL/SOLENOID VALVE, ELECTRIC 2-WAY		DIFFERENTIAL STATIC PRESSURE SWITCH				RELAY		
HHWR	HEATING HOT WATER RETURN		CONTROL VALVE, ELECTRIC 3-WAY		PRESSURE GAUGE				FREEZE-STAT		
HHWS	HEATING HOT WATER SUPPLY		CONTROL VALVE, PNEUMATIC 2-WAY		DIGITAL INPUT (TO BUILDING MANAGEMENT SYSTEM)				DIGITAL OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)		
HP	HEAT PUMP		CONTROL VALVE, PNEUMATIC 3-WAY		ANALOG OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)				ANALOG INPUT (TO BUILDING MANAGEMENT SYSTEM)		
HPC	HIGH PRESSURE CONDENSATE		MULTI-BLADE AIR EXTRACTOR		ELECTRICAL INTERFACE				SPEED FEED BACK		
HPS	HIGH PRESSURE STEAM		TURNING VANES		END SWITCH				POSITION FEEDBACK		
LF	LINEAR FOOTAGE OF FIN-TUBE RADIATION		HUMIDIFIER DISPERSION TUBE		TRAVERSE AVERAGING SENSOR				PROBE SENSOR		
LPC	LOW PRESSURE CONDENSATE		RISE IN DUCT		FREEZE STAT SENSOR						
LPG	LIQUEFIED PROPANE GAS		DROP IN DUCT								
LPS	LOW PRESSURE STEAM		SQUARE CEILING DIFFUSER (4 WAY)								
MBH	1,000 BTU/HR		ROUND CEILING DIFFUSER								
MC	MECHANICAL CONTRACTOR		SUPPLY REGISTER, RETURN OR EXHAUST GRILLE								
MPC	MEDIUM PRESSURE CONDENSATE		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
MPS	MEDIUM PRESSURE STEAM		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
MRD	MONOFLO FITTING DOWN - HHWR		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
MSD	MONOFLO FITTING DOWN - HHWS		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
MUW	MAKE-UP WATER		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
NC	NORMALLY CLOSED		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
NG	NATURAL GAS		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
NO	NORMALLY OPEN		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
NTS	NOT TO SCALE		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
OA	OUTSIDE AIR		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
PC	PLUMBING CONTRACTOR		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
PD	PUMP DISCHARGE		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
PHWR	PRIMARY HEATING HOT WATER RETURN		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
PHWS	PRIMARY HEATING HOT WATER SUPPLY		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								
RA	RETURN AIR		AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE								

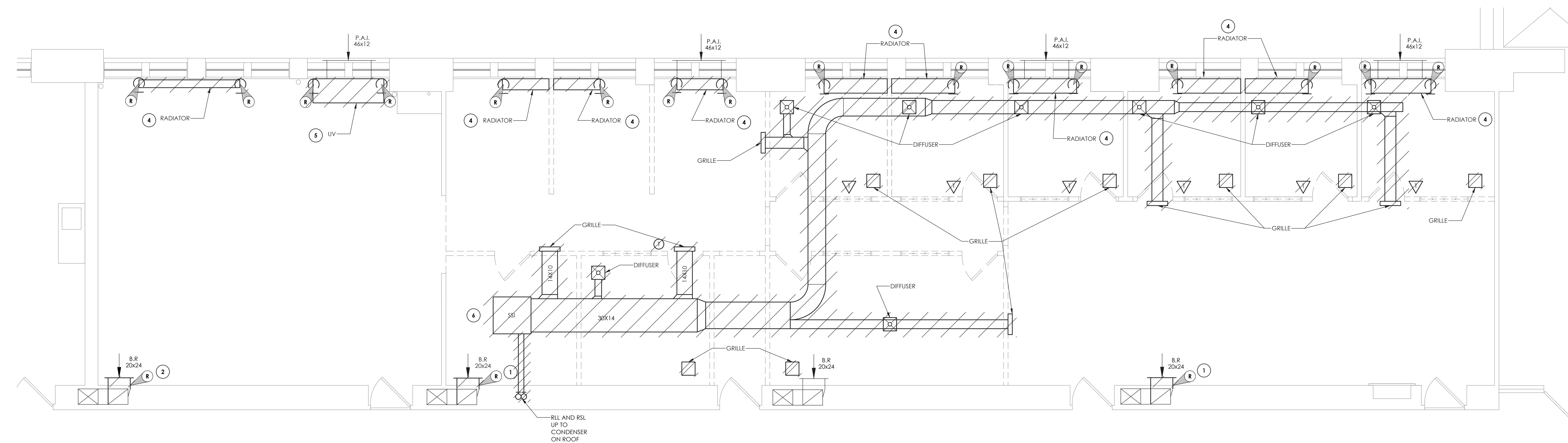
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Date last accessed: 8/31/2020 4:08 PM
Date last plotted: 12/8/2020 11:24 AM
Plotted By: Arthur Smith



1
H101
ROOF DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

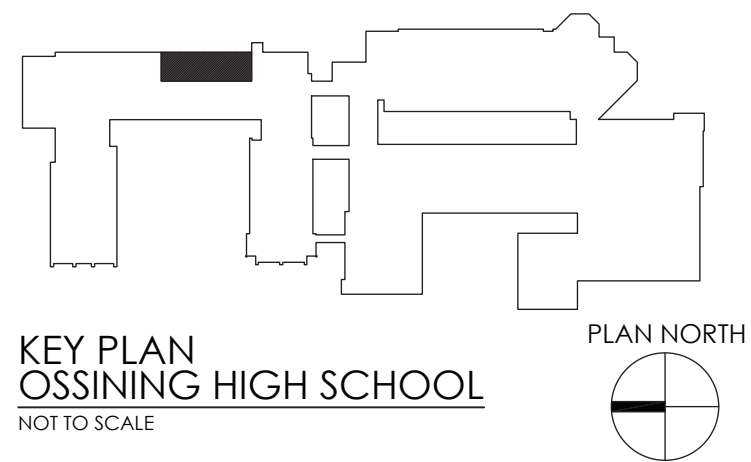


2
H101
ATTIC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



3
H101
FIRST FLOOR DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

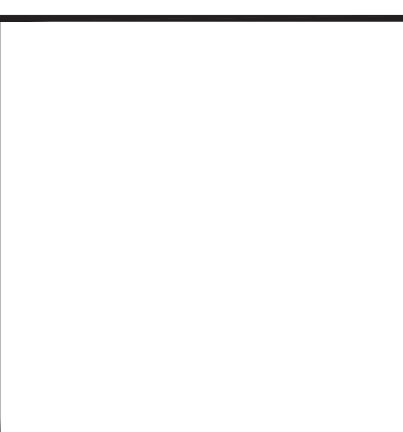
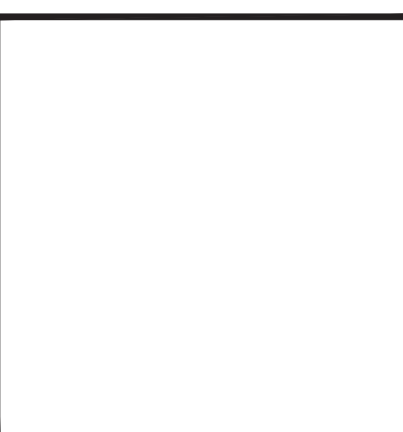
- KEY NOTES:**
- 1 REMOVE EXISTING GRILLE, ABANDON DUCTWORK, G.C. TO PATCH WALL WITH LIKE CONSTRUCTION.
 - 2 REMOVE EXISTING GRILLE, PREPARE FOR NEW WORK.
 - 3 REMOVE EXISTING DUCTWORK FROM ROOF PENETRATION BACK TO MAIN. PREPARE FOR NEW WORK.
 - 4 REMOVE EXISTING STEAM RADIATOR AND PIPING BACK TO FLOOR. PREPARE FOR NEW WORK.
 - 5 REMOVE EXISTING UNIT VENTILATOR AND PIPING BACK TO FLOOR, G.C. TO SEAL AND INSULATE PENETRATION AT INTERIOR OF BUILDING. PREPARE FOR NEW WORK.
 - 6 REMOVE EXISTING FAN COIL UNIT AND ALL ASSOCIATED DUCTWORK, PIPING AND CONTROLS. REMOVE PIPING UP TO CONDENSER ON ROOF. PREPARE FOR NEW WORK.
 - 7 REMOVE EXISTING CONDENSING UNIT AND ALL ASSOCIATED PIPING, WIRING AND SUPPORTS. PREPARE FOR NEW WORK.
- GENERAL NOTES:**
1. ALL CONTROLS WORK SHALL BE DONE USING THE EXISTING BUILDING MANAGEMENT SYSTEM. CONTACT AUTOMATED CONTROL LOGIC, INC. (ACL) FOR ALL CONTROLS WORK.



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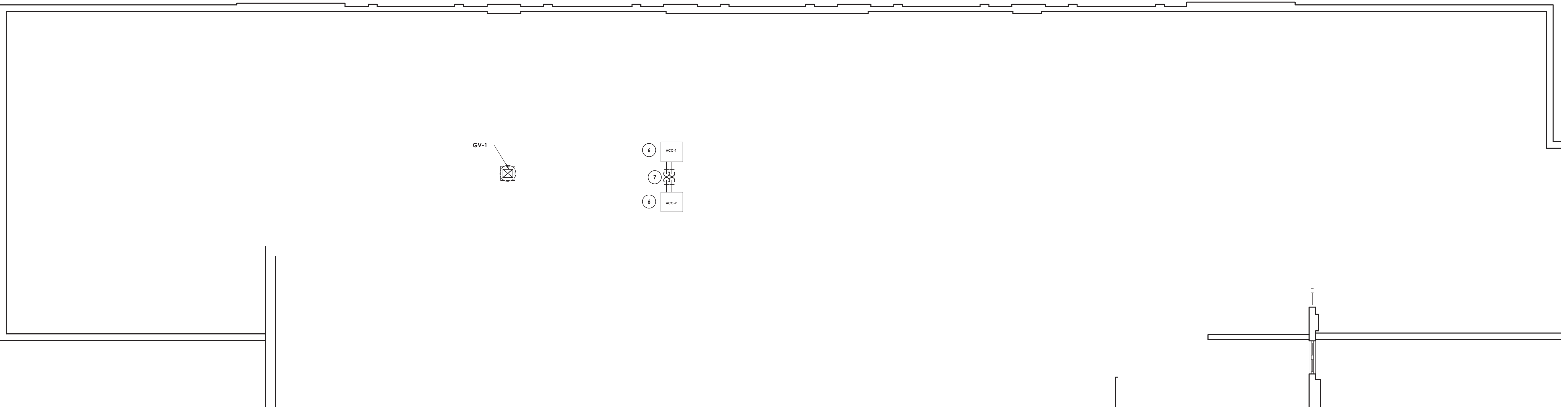


OSSINING UNION FREE SCHOOL DISTRICT
OSSINING HIGH SCHOOL
GUIDANCE OFFICE RENOVATIONS
29 SOUTH HIGHLAND AVENUE, OSSINING, NEW YORK 10562
SED # 66-14-01-03-0-003-039

DATE	DRAWN	CHECKER
08/31/2020	BKM	AJS
SCALE	AS SHOWN	
SHEET TITLE		
MECHANICAL DEMOLITION PLANS		

PROJECT NUMBER
14428.12

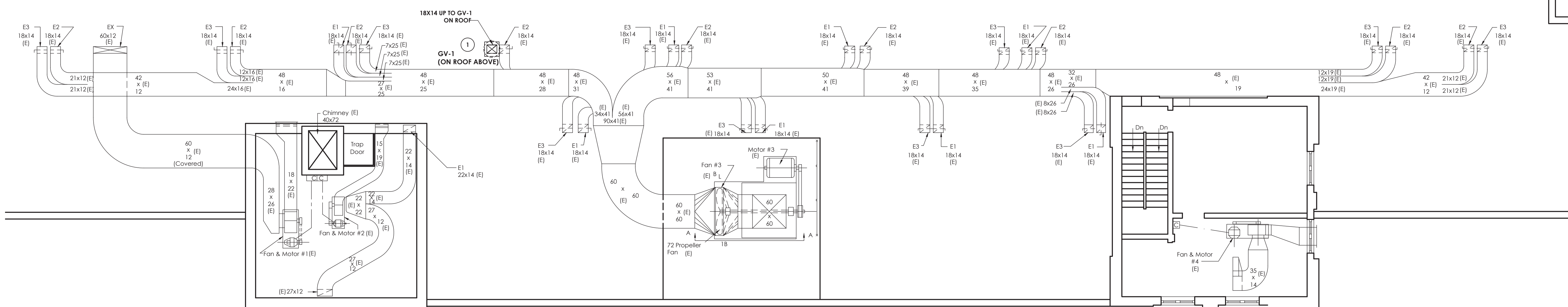
OHS
H101
DRAWING NUMBER



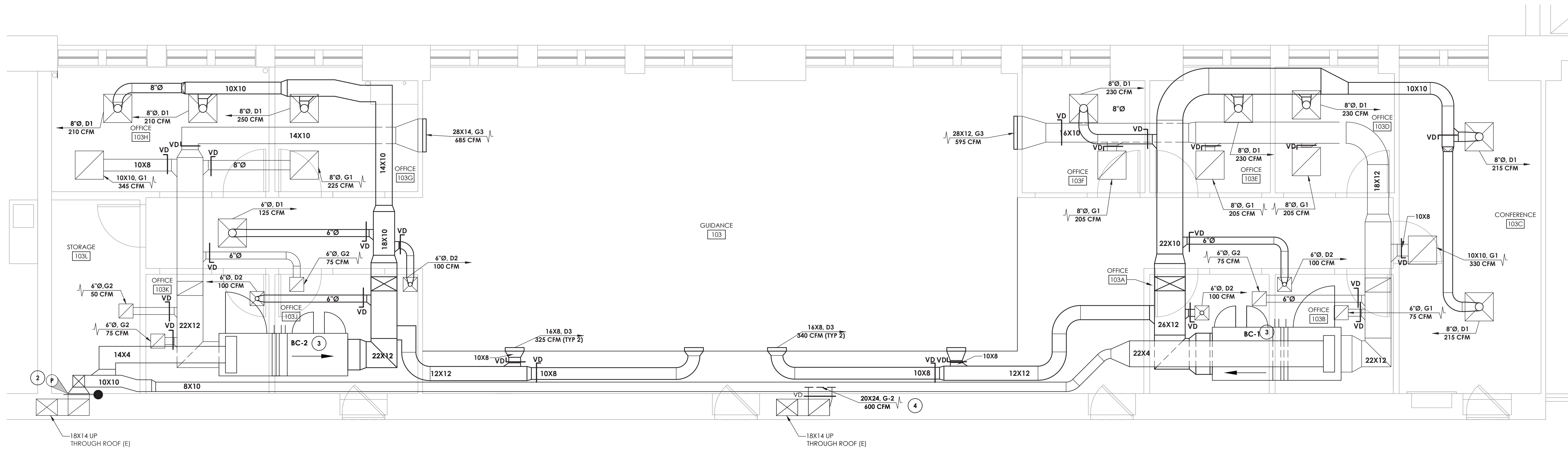
1 ROOF NEW WORK PLAN
SCALE: 1/8" = 1'-0"

- KEY NOTES:**
1. EXTEND EXISTING 18X14 DUCT FROM ATTIC SPACE FLOOR UP TO GV-1 ON ROOF ABOVE. PROVE 2" CURB FOR GV-1.
 2. CONNECT OUTSIDE AIR DUCT INTAKE TO EXISTING WALL PENETRATION WHERE GRILLE WAS REMOVED. MODIFY OPENING AS REQUIRED TO CONNECT NEW OUTSIDE AIR DUCT. PROVIDE NEW FIRE DAMPER.
 3. INSTALL BLOWER COIL UNIT ABOVE DROP CEILING. PROVIDE SPACE FOR FILTER ACCESS. COORDINATE FINAL LOCATION WITH THE G.C.
 4. INSTALL NEW 20X24 GRILLE IN EXISTING LOCATION APPROXIMATELY 12" ABOVE FINISHED FLOOR. BALANCE TO 400 CFM.
 5. INSTALL NEW 4-WAY CEILING CASSETTE IN LOCATION SHOW.
 6. PROVIDE 12" RAIL TYPE CONDENSER UNIT STAND.
 7. PROVIDE NEW PIPE PORTAL AND RUN RRI AND RSL LINES, APPROXIMATE 35" VERTICAL DROP, TO AND FROM BC-1 AND BC-2.

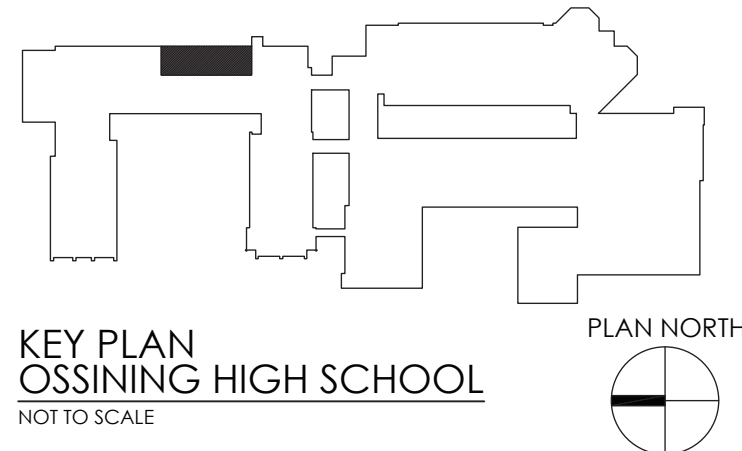
- GENERAL NOTES:**
1. ALL CONTROLS WORK SHALL BE DONE USING THE EXISTING BUILDING MANAGEMENT SYSTEM. CONTACT AUTOMATED CONTROL LOGIC, INC. (ACL) FOR ALL CONTROLS WORK.



2 ATTIC NEW WORK PLAN
SCALE: 1/8" = 1'-0"



3 FIRST FLOOR NEW WORK PLAN
SCALE: 1/4" = 1'-0"

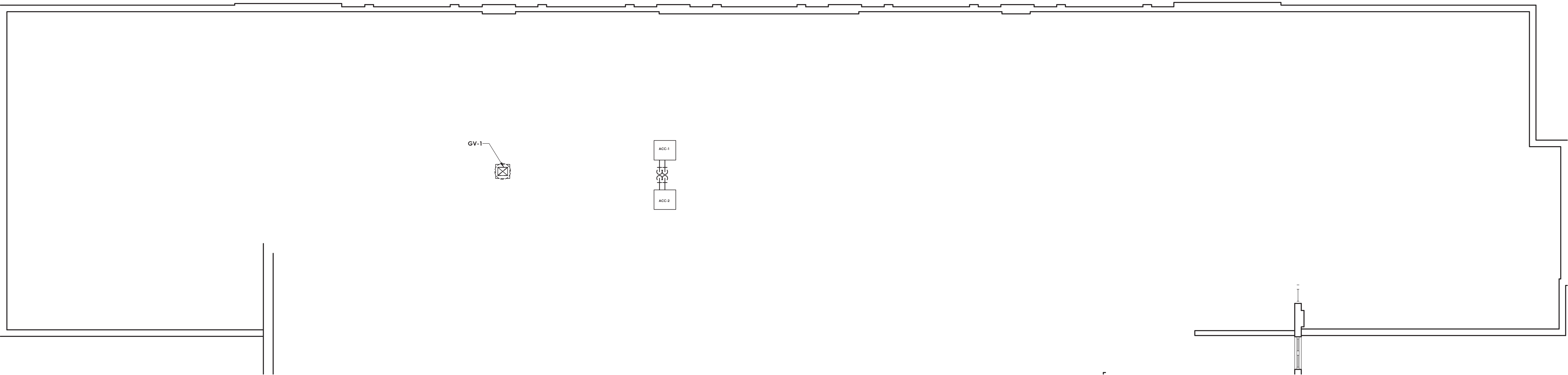


OSSINING UNION FREE SCHOOL DISTRICT
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GUIDANCE OFFICE RENOVATIONS
29 SOUTH HIGHLAND AVENUE, OSSINING, NEW YORK 10562
SED # 66-14-01-03-0-003-039

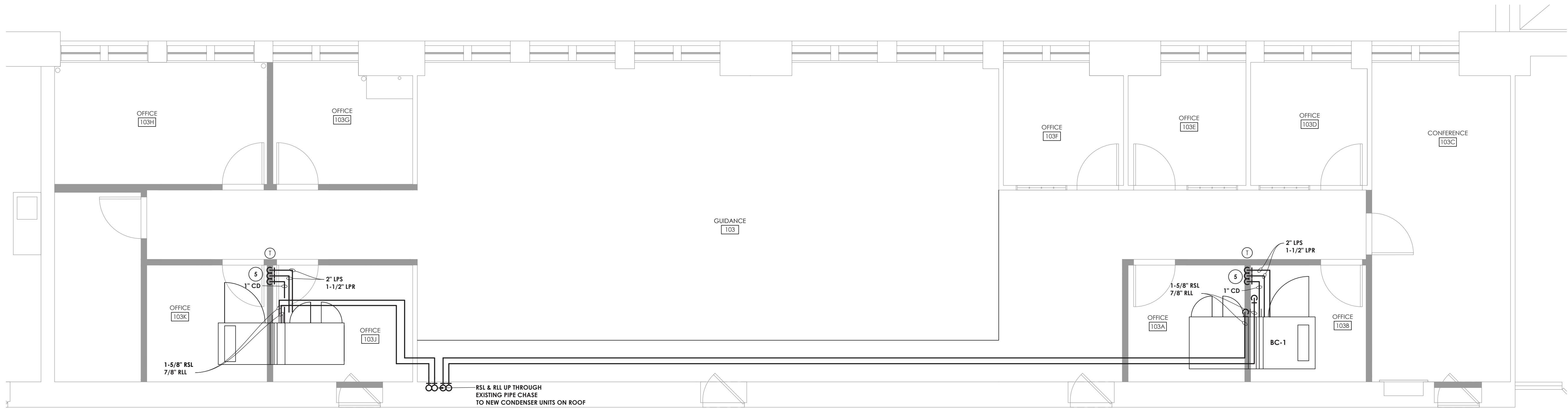
DATE	DRAWN	CHECKED
08/31/2020	AJS	AJS
SCALE	AS SHOWN	
SHEET TITLE		
MECHANICAL DUCTWORK NEW WORK PLANS		

PROJECT NUMBER
14428.12
OHS H201
DRAWING NUMBER

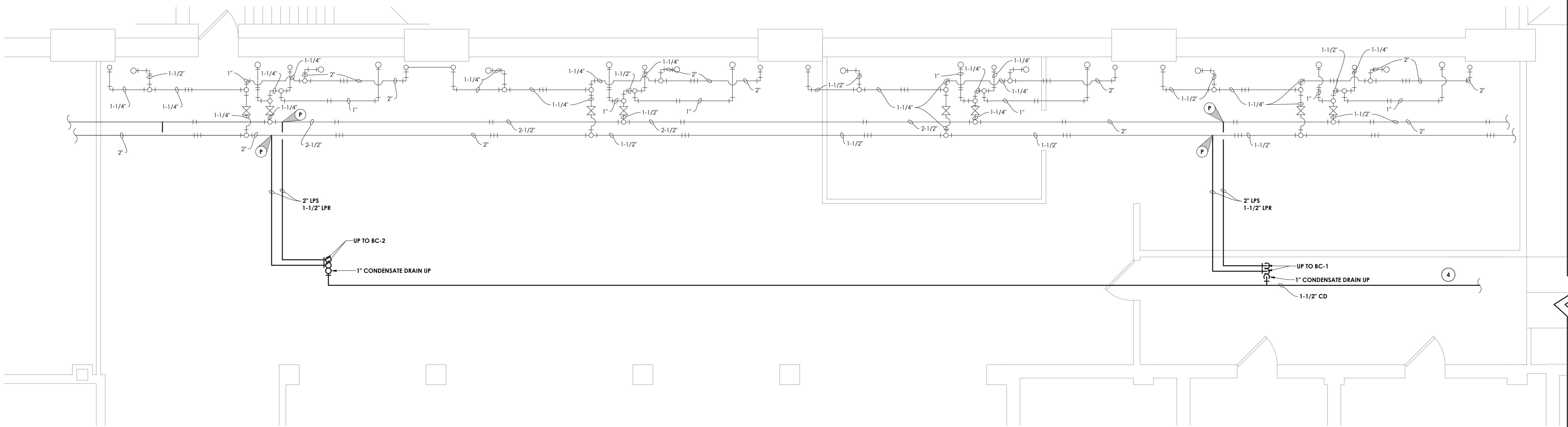
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Date last accessed: 8/31/2020 4:09 PM
Date last plotted: 12/8/2020 11:25 AM
Plotted By: Arthur Smith



1
H301
ROOF NEW WORK PLAN
SCALE: 1/8" = 1'-0"



2
H301
FIRST FLOOR NEW WORK PLAN
SCALE: 1/4" = 1'-0"



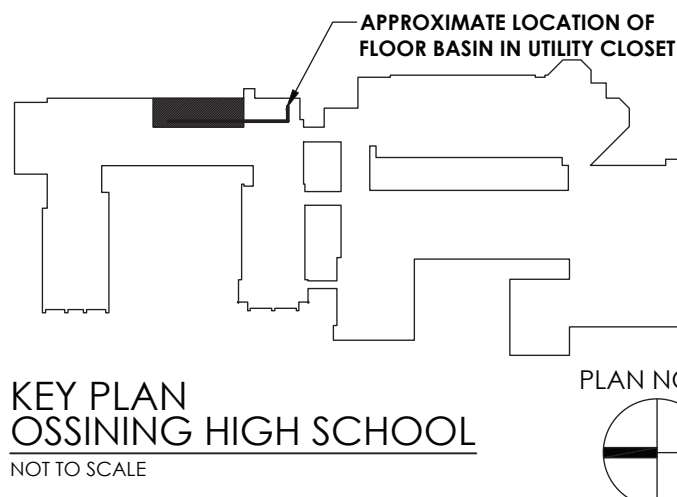
3
H301
BASEMENT NEW WORK PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. REINSULATE APPROXIMATELY 135 FEET OF PIPING WHERE INSULATION WAS REMOVED BY ABATEMENT CONTRACTOR IN BASEMENT.
2. ALL CONTROLS WORK SHALL BE DONE USING THE EXISTING BUILDING MANAGEMENT SYSTEM. CONTACT AUTOMATED CONTROL LOGIC, INC. (ACL) FOR ALL CONTROLS WORK.

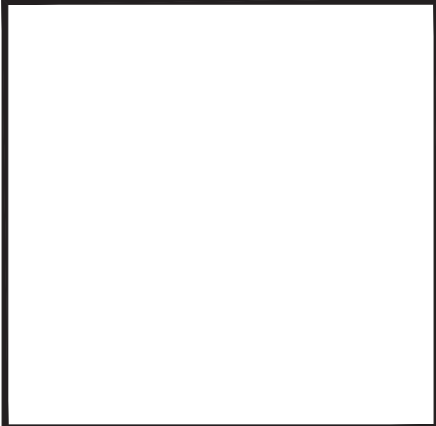
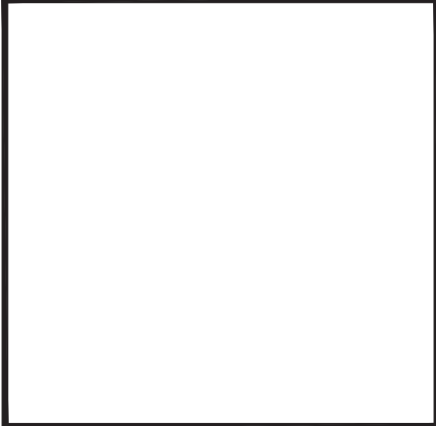
KEY NOTES:

1. CONTRACTOR RESPONSIBLE TO PROVIDE END CAPS, FILLER PIECES, VALVE ENCLOSURE AS PART OF A COMPLETE INSTALLATION TO COVER ENTIRE EXTERIOR WALL AS SHOWN. MECHANICAL CONTRACTOR TO PROVIDE QUARTER ROUND WOOD MOLDING ALONG TOP OF RADIATOR COVER. CONNECT NEW RADIATORS TO EXISTING PIPING, MODIFY PIPING AS NECESSARY TO COMPLETE INSTALLATION.
2. INSTALL NEW HEAT PUMP ON ROOF ABOVE GUIDANCE SUITE. PROVIDE QUICK HEAT PUMP STAND TO ELEVATE HEAT PUMP 36" OFF THE ROOF. RUN NEW PIPING IN PIPE PORTAL AND THROUGH EXISTING DUCT CHASE DOWN TO THE GUIDANCE SUITE. MAINTAIN ALL ROOF WARRANTIES.
3. INSTALL NEW CONDENSER ON ROOF ABOVE GUIDANCE SUITE ON EQUIPMENT SUPPORT RAILS. RUN NEW 1-5/8" RSL AND 5/8" RLL LINES IN PIPE PORTAL THROUGH EXISTING PIPE CHASE DOWN TO NEW DOAS-1. MAINTAIN ALL ROOF WARRANTIES.
4. ROUTE NEW 1-1/2" CONDENSATE DRAIN TO NEAREST FLOOR BASIN IN EXISTING UTILITY CLOSED. APPROXIMATELY 50 FEET OF PIPING ADDITIONAL PIPING TO FLOOR BASIN. SEE KEY PLAN FOR LOCATION.
5. RUN PIPING IN WALL DOWN TO LOWER LEVEL AS INDICATED. COORDINATE WORK THE G.C.



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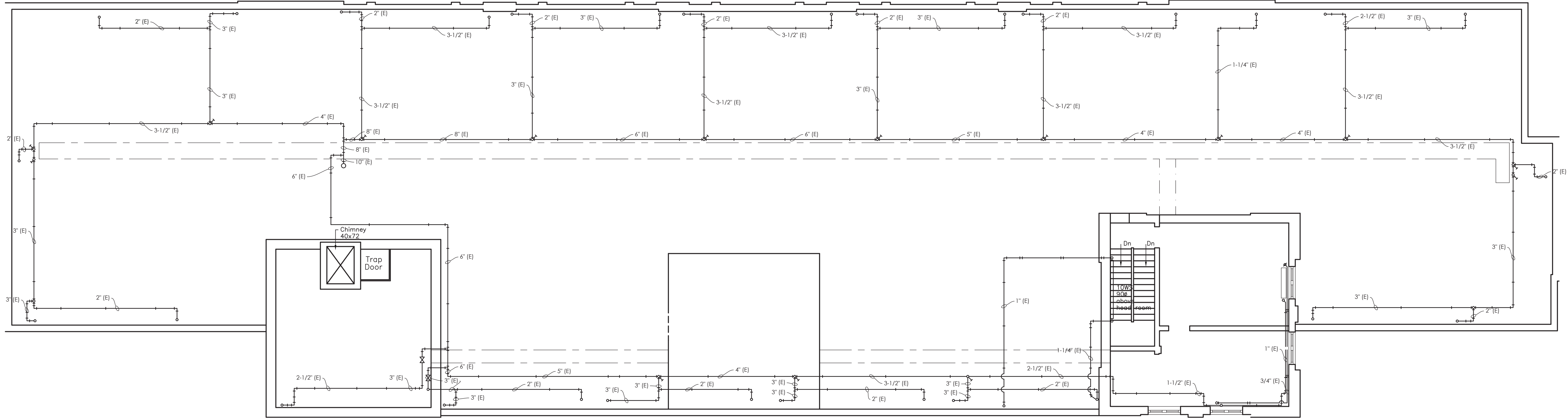
OSSINING UNION FREE SCHOOL DISTRICT
OSSINING HIGH SCHOOL
GUIDANCE OFFICE RENOVATIONS
29 SOUTH HIGHLAND AVENUE, OSSINING, NEW YORK 10562
SED #66-14-01-03-0-003-039

DATE	DRAWN	CHECKED
08/31/2020	BKM	AJS
SCALE	AS SHOWN	
SHEET TITLE		
MECHANICAL PIPING NEW WORK PLANS		

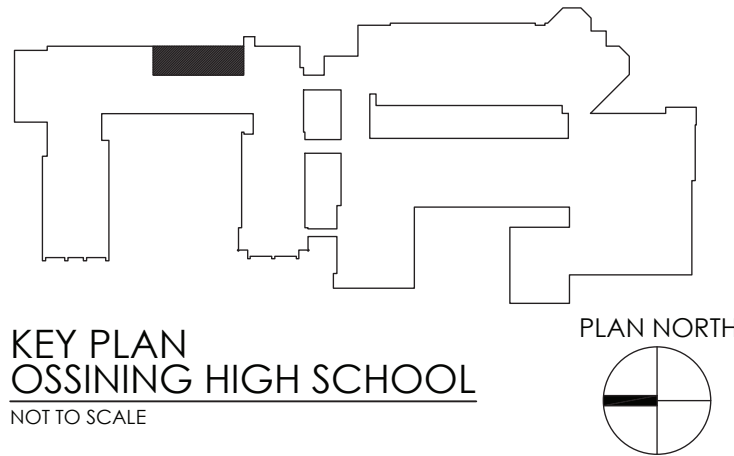
PROJECT NUMBER
14428.12
OHS
H301
DRAWING NUMBER

GENERAL NOTES:

1. REINSULATE ALL PIPING WHERE INSULATION WAS REMOVED BY ABATEMENT CONTRACTOR. APPROXIMATELY 200 LINEAR FEET OF PIPE.



1
H302
ATTIC NEW WORK PLAN
SCALE: 1/8" = 1'-0"



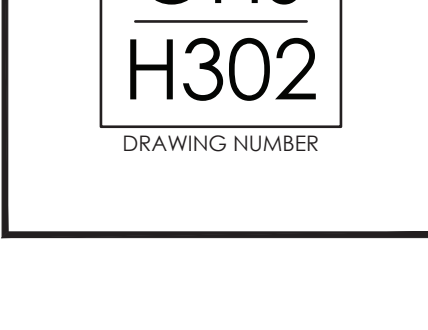
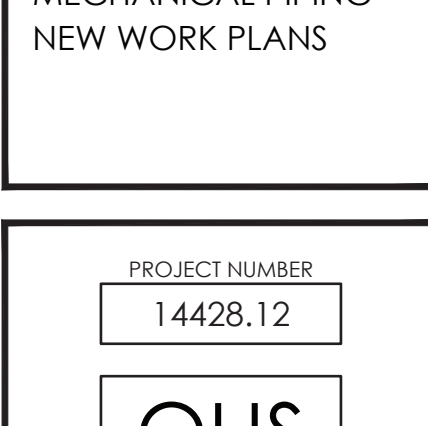
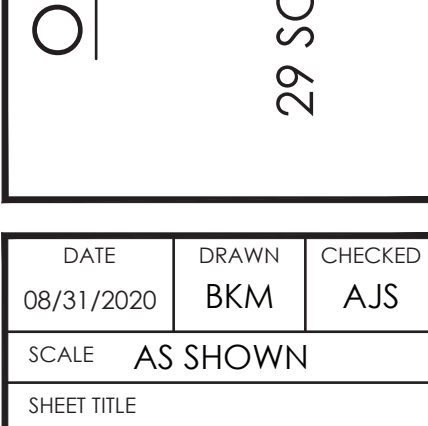
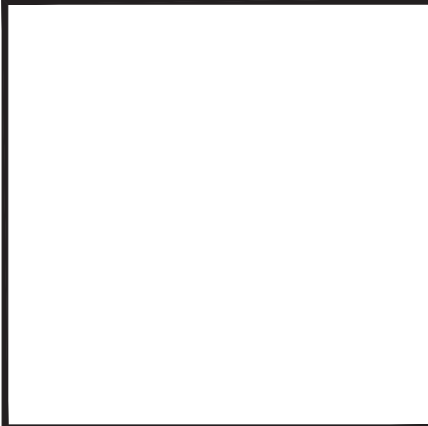
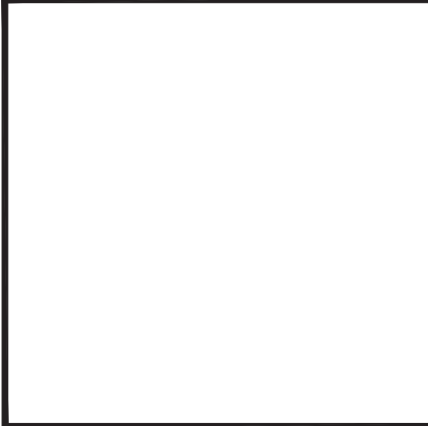
KEY PLAN
OSSINING HIGH SCHOOL
NOT TO SCALE

DATE	DRAWN	CHECKED
08/31/2020	BKM	AJS
SCALE	AS SHOWN	
SHEET TITLE		
MECHANICAL PIPING		
NEW WORK PLANS		

PROJECT NUMBER
14428.12
OHS H302
DRAWING NUMBER

OSSINING UNION FREE SCHOOL DISTRICT
OSSINING HIGH SCHOOL
GUIDANCE OFFICE RENOVATIONS
29 SOUTH HIGHLAND AVENUE, OSSINING, NEW YORK 10562
SED # 66-14-01-03-0-003-039

REVISIONS	NO.	DATE	DESCRIPTION





AIR COOLED CONDENSER UNIT SCHEDULE														
MARK#	LOCATION	SERVES	NOMINAL TONS	NET CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ELECTRICAL DATA		REFRIGERANT	OPERATING WEIGHT (LBS)	TYPICAL UNIT MFG & MODEL NO.	REMARKS:			
						VOLTS	POWER (KW)							
ACCU-1	ROOF	BC-1	5	55.7	39.5	208/3	21.2	4.55	R-410A	14 / 12	205	YORK YCD0831S	1	
ACCU-2	ROOF	BC-2	4	44.2	30.2	208/3	16.4	4.1	R-410A	15.75 / 12.75	4	200	YORK YCD4831S	1
<u>REMARKS:</u>														
1. PROVIDE FACTORY MOUNTED DISCONNECT.														
2.														
3.														

GRAVITY VENTILATOR SCHEDULE								
MARK	LOCATION	SERVICE	THROAT AREA (SQ. FT.)	HOOD AREA (SQ. FT.)	AIR FLOW (CFM)	SP (IN. W.G.)	TYPICAL UNIT MFG & MODEL NO.	REMARKS:
GV-1	ROOF	DOAS-1 OUTSIDE AIR	1	4.7	600	0.026	GREENHECK GRSL-16	1
REMARKS:	1. PROVIDE WITH WIRE MESH BIRD SCREEN.							

REGISTERS, GRILLES, AND DIFFUSERS							
MARK	APPLICATION	MATERIAL	TYPE	FINISH	FACE SIZE	DESIGN EQUIP.	REMARKS
D1	SUPPLY	STEEL	LAY IN	WHITE	24X24	PRICE SCD	-
D2	SUPPLY	STEEL	LAY IN	WHITE	12X12	PRICE SCD	-
D3	SUPPLY	STEEL	SIDE WALL	WHITE	SEE PLANS	PRICE S10	-
G1	RETURN/VEA	STEEL	LAY IN	WHITE	24X24	PRICE PDDR	-
G2	RETURN/VEA	STEEL	LAY IN	WHITE	12X12	PRICE PDDR	-
G3	RETURN/VEA	STEEL	SIDE WALL	WHITE	SEE PLANS	PRICE S30	-
REMARKS:							

OSSISING HIGH SCHOOL OUTSIDE AIR CALCULATIONS											
						TOTAL					
				Occupant	OCCUPANCY	O.A. PER	O.A. PER				
Equipment			TOTAL	Density	FOR	PERSON	SQ. FT.	Vbz		Vbz/Vbz	REQUIRED
Tag	Space	Occupancy Classification	SQ. FT.	#/100sq.ft.	VENTILATION	(CFM)	(CFM)	(CFM)	Ez		EXHAUST
BC-2	Office 103H	Office	135	5	1	5	0.06	13	0.8	16	
BC-2	Office 103G	Office	85	5	1	5	0.06	10	0.8	13	
BC-2	Office 103K	Office	77	5	1	5	0.06	10	0.8	12	
BC-2	Office 103J	Office	90	5	1	5	0.06	10	0.8	13	
BC-1,2	Guidance 103	Main Entry Lobby	1254	10	13	5	0.06	140	0.8	175	
BC-1	Office 103F	Office	77	5	1	5	0.06	10	0.8	12	
BC-1	Office 103E	Office	75	5	1	5	0.06	10	0.8	12	
BC-1	Office 103D	Office	75	5	1	5	0.06	10	0.8	12	
BC-1	Office 103A	Office	91	5	1	5	0.06	10	0.8	13	
BC-1	Office 100B	Office	91	5	1	5	0.06	10	0.8	13	
BC-1	Conference 103C	Conference Room	230	50	12	5	0.06	74	0.8	92	
BC-1	Storage 103L	Storage	86	--	--	--	--	--	--	--	

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OSSINING UNION FREE SCHOOL DISTRICT
OSSINING HIGH SCHOOL
GUIDANCE OFFICE RENOVATIONS
 29 SOUTH HIGHLAND AVENUE, OSSINING, NEW YORK 10562
 SED #66-14-01-03-0-003-039

DATE 08/31/2020	DRAWN BKM	CHECKED AJS
SCALE AS SHOWN		
SHEET TITLE MECHANICAL SCHEDULES AND DETAILS		

PROJECT NUMBER	14428.12
OHS	
H800	
DRAWING NUMBER	