					HVAC SYMBO	DLS LIST				
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION		SYMBOL	DESCRIPTION		SYMBOL
AAD	AUTOMATIC AIR DAMPER		CONNECTION - TOP	(DBL)	DOUBLE WALL LINED DUCT		1 2000			
ACC	AIR-COOLED CONDENSING UNIT		CONNECTION - BOTTOM	20/10	DUCT SECTION - SUPPLY		24X12	SUPPLY / RETURN /	1-1/2 TIMES BRANCH SIZE	
AD	ACCESS DOOR		DIRECTION OF FLOW	20/10	DUCT SECTION - RETURN/EXHAUST			EXHAUST AIR TAKEOFFS	12X10	СТ
AFF	ABOVE FINISHED FLOOR	D	REDUCER	S A"	DUCT SECTION - ROUND DUCT IN INCHES			IAREOFFS	VD '	
AHU	AIR HANDLING UNIT	1								8
BBD	BOILER BLOW DOWN		CAP OR PLUG	AXB FO	DUCT SECTION - FLAT OVAL DUCT IN INCHES		24X12 —8"Ø	SUPPLY / RETURN /	1-1/2 TIMES BRANCH SIZE	
BD CA	BACKDRAFT DAMPER COMPRESSED AIR	—————————————————————————————————————	ELBOW DOWN	<u> </u>	ACOUSTIC THERMAL LINING			EXHAUST AIR	8.\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	8
CD	COOLING COIL CONDENSATE DRAIN		ELBOW UP		FLEXIBLE DUCTWORK		∫ √D ´	TAKEOFFS	VD VD	∇
CFM	CUBIC FEET PER MINUTE		TEE OUTLET - UP		FLEXIBLE CONNECTION	<u> </u>	<u></u>			\ <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>
CHWR	CHILLED WATER RETURN		TEE OUTLET - DOWN	l _{FC}			14"Ø		CONICAL TEE	F
CHWS	CHILLED WATER SUPPLY	——II——	UNION		FIDE DAMADED		10"Ø	SUPPLY AIR	§ 4 1913 0	$\qquad \qquad \bigvee$
CR	CONDENSER WATER RETURN	── ₩	GATE VALVE	•	FIRE DAMPER	•	VD VD	TAKEOFFS	- 10°Ø y	
CS	CONDENSER WATER SUPPLY	δ	BALL VALVE		SMOKE DAMPED	<u> </u>]		\square	
CW	DOMESTIC COLD WATER	⊗	BALANCING VALVE		SMOKE DAMPER	②	14"Ø		LATEDAL	
D (E)	DRAIN	\	STRAINER	<u> </u>				SUPPLY AIR	LATERAL S	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
(E)	EXISTING EXHAUST AIR	•			COMBINATION FIRE AND SMOKE DAMPER		VD	TAKEOFFS	4 10.\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	1
EC	ELECTRICAL CONTRACTOR	- 	STRAINER WITH BLOW-DOWN	((VD	∇
EF	EXHAUST FAN	.г.			VOLUME DAMPER					<u> </u>
ERHC	ELECTRIC REHEAT COIL		BUTTERFLY VALVE	L _{VD}	DAMPER CONTROL PARALLEL BLADE	L _{VD}	24X12 6X12 12X10		24X12	O _{CO2}
ETR	EXISTING TO REMAIN		BUTTERFLY CONTROL VALVE, PNEUMATIC 2-WAY		DAMPER CONTROL, PARALLEL BLADE		18X12	SUPPLY AIR TAKEOFFS	18X12	CH4
EUH	ELECTRIC UNIT HEATER		BUTTERFLY CONTROL VALVE, ELECTRIC ACTUATOR		DAMPER CONTROL, OPPOSED BLADE	* * *	20X12		20X12 C 6X12	O _{co}
F&T	FLOAT AND THERMOSTATIC TRAP	<u></u> ₩	GLOBE VALVE	<u> </u>	AUTOMATIC		<u></u>		+++	V _G
FCU	FAN-COIL UNIT		CHECK VALVE		AUTOMATIC AIR DAMPER		24X12	SUPPLY/RETURN	T _12X10	H
FPM	FEET PER MINUTE	<u>×</u>	TRIPLE DUTY VALVE	AAD		AAD	12X10	EXHAUST AIR	24X12	FS
GC FT	FIN-TUBE GENERAL CONTRACTOR	—— √ ——	GAS COCK, PLUG VALVE				VD VD	TAKEOFFS W/ REGISTER/GRILLE/	VD	
GR	GLYCOL RETURN	U	UNDERCUT DOOR 1"	BDD	BACK DRAFT DAMPER	BDD	<u> </u>	DIFFUSER		
GS	GLYCOL SUPPLY	— ф	LOUVERED DOOR W/ SQ. FT. OF FREE AREA	1			The		VD	V\$D VFD
НС	HVAC CONTRACTOR	4 M	AIR VENT - MANUAL		BLAST GATE			SUPPLY/RETURN		
HHWR	HEATING HOT WATER RETURN	A A	AIR VENT - AUTOMATIC	■ BG		BG		EXHAUST AIR END OF MAIN		
HHWS	HEATING HOT WATER SUPPLY		FLANGE	20/10		12X10		BRANCH TAKEOFFS	VD	[F]
НР	HEAT PUMP	" "			AIR DUCT (FIRST FIGURE IS DUCT WIDTH/TOP,	12X10				
HPC	HIGH PRESSURE CONDENSATE		CONTROL/SOLENOIND VALVE, ELECTRIC 2-WAY		SECOND FIGURE IS DUCT DEPTH)		VD	SUPPLY/RETURN	IVD	
HPS	HIGH PRESSURE STEAM		CONTROL VALVE, ELECTRIC 3-WAY	10/20 —		10/20 7	<u> </u>	EXHAUST AIR END OF MAIN	kr.	A
LF LPC	LINEAR FOOTAGE OF FIN-TUBE RADIATION	&	CONTROL VALVE, PNEUMATIC 2-WAY				VD	BRANCH TAKEOFFS	I VD	
LPG	LOW PRESSURE CONDENSATE LIQUEFIED PROPANE GAS	<u>\$</u>	CONTROL VALVE, PNEUMATIC 3-WAY		MULTI-BLADE AIR EXTRACTOR		<u>بر</u>			FS -
LPS	LOW PRESSURE STEAM		 		TURNING VANES				П	ΔΡ
МВН	1,000 BTU/HR	X	RELIEF / SAFETY VALVE	-//////	EXISTING WORK TO BE REMOVED (HATCHED)			LONG RADIUS 90° ELBOW	W R	R
MC	MECHANICAL CONTRACTOR	X	PRESSURE REDUCING VALVE	•	POINT OF CONNECTION			R/W=1.5		0
MPC	MEDIUM PRESSURE CONDENSATE	P ∨	VACUUM BREAKER		POINT OF DISCONNECTION]			FZ
MPS	MEDIUM PRESSURE STEAM		FLEXIBLE PIPE CONNECTOR	<u> </u>	AIR FLOW SENSOR					$\qquad \qquad \Longrightarrow_{\text{DI}}$
MRD	MONOFLO FITTING DOWN – HHWR		EXPANSION COMPENSATOR W/ GUIDES	B	FILTER		, c	LONG RADIUS	\mathbb{I}	
M\$D	MONOFLO FITTING DOWN – HHWS		EXPANSION JOINT					45° ELBOW R/W=1.5		OKAO
MUW	MAKE-UP WATER		PIPE ANCHOR		TRANSITION SQUARE TO ROUND					
NC NG	NORMALLY CLOSED NATURAL GAS									
NO	NORMALLY OPEN	<u>—</u>	PIPE GUIDE	-	HUMIDIFIER DISPERSION TUBE			90° ELBOW	т ^М	V
NTS	NOT TO SCALE		THERMOSTATIC TRAP	RISE				WITH TURNING		
OA	OUTSIDE AIR	FT O	FLOAT & THERMOSTATIC TRAP	RISE 	RISE IN DUCT			VANES	<u> </u>	SF
PC	PLUMBING CONTRACTOR	BT	BUCKET TRAP	R						ES
PD	PUMP DISCHARGE		THERMODYNAMIC TRAP	DROP	DROP IN DUCT				18X8 —	PF
PHWR	PRIMARY HEATING HOT WATER RETURN	—	THERMOMETER	D			18X16	90 VERTICAL SPLIT OFF		~
PHWS	PRIMARY HEATING HOT WATER SUPPLY		WELL		SQUARE CEILING DIFFUSER (4 WAY)		18X8	(PLAN VIEW)	18X16 18X8 A	•—
RA	RETURN AIR	——Ø	PRESSURE GAUGE	<u>e</u>	ROUND CEILING DIFFUSER					-7.
RD RHC	REFRIGERANT DISCHARGE HOT WATER REHEAT COIL	\Diamond	STEAM PRESSURE GAUGE		SQUARE OR RECTANGULAR CEILING GRILLE		20X10 20X10	DUCT TURNING		
RLL	REFRIGERANT LIQUID PIPE	7	WITH 1/4" NEEDLE VALVE		SUPPLY REGISTER, RETURN OR EXHAUST GRILLE		20X10	UP OR DOWN	20X10	
RSL	REFRIGERANT SUCTION PIPE	Ø			,			AIR TERMINAL UNIT-DUC	TWORK	1
RTU	ROOFTOP UNIT	-	PRESSURE GAUGE WITH 1/4" NEEDLE VALVE	1-WAY 2-WAY 3-WAY	SUPPLY DIFFUSER, 1-WAY, 2-WAY, 3-WAY		U MAX	U - UNIT TYPE MAX = MAXIMUM CFM		
RV	ROOF VENT		·					MIN = MINIMUM CFM AIR TERMINAL UNIT-DUC	TWORK	1
	SUPPLY AIR	Φ	PNEUMATIC (CONTROL) TUBING BUTTERFLY VALVE WITH PNEUMATIC	8"Ø, D-3 300 CFM	CEILING DIFFUSER WITH NECK SIZE, TYPE, & CFM		U GPM MAX	U - UNIT TYPE GPM = GALLONS PER MI		
SA		——IŢI——	AND MANUAL OPERATORS					MAX = MAXIMUM GPM		-
SA SHWR	SECONDARY HEATING HOT WATER RETURN		1		CEILING RETURN OR EXHAUST GRILLE WITH SIZE, TYPE, & CFM		MAX	FAN POWERED AIR TERMINAL UNIT		
SHWR SHWS	SECONDARY HEATING HOT WATER SUPPLY	xx	PIPING		1 99111 344 444			A DECEMBER OF THE PERSON NAMED IN COLUMN 1		
SHWR SHWS SSI	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION)	xx	PIPING PIPING BELOW GRADE	10"x10", G-3 300 CFM	WITH SIZE, TITE, & CIM		U MIN FAN	U - UNIT TYPE MAX = PRIMARY MAX C	FM	
SHWR SHWS SSI SSO	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT)			10"x10", G-3 300 CFM	SUPPLY REGISTER		U MIN FAN	1	FM M	
SHWR SHWS SSI SSO TC	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT) TEMPERATURE CONTROLS CONTRACTOR	xx	PIPING BELOW GRADE	10"x10", G-3 300 CFM			V MIN FAN	MAX = PRIMARY MAX C MIN = PRIMARY MIN CFI FAN = FAN CFM	FM M	
SHWR SHWS SSI SSO TC UH	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT) TEMPERATURE CONTROLS CONTRACTOR UNIT HEATER	—××—	PIPING BELOW GRADE BASE MOUNTED PUMP IN-LINE PUMP AIR TERMINAL UNIT WITH	10"x10", G-3 300 CFM	SUPPLY REGISTER WITH SIZE, TYPE, & CFM RETURN OR EXHAUST GRILLE			MAX = PRIMARY MAX C MIN = PRIMARY MIN CFI FAN = FAN CFM TYPE = VALANCE TYPE COIL SIZE = COIL LENGT	м 	
SHWR SHWS SSI SSO TC	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT) TEMPERATURE CONTROLS CONTRACTOR	—××—	PIPING BELOW GRADE BASE MOUNTED PUMP IN-LINE PUMP	10"x10", G-3 300 CFM	SUPPLY REGISTER WITH SIZE, TYPE, & CFM		TYPE COIL SIZE	MAX = PRIMARY MAX C MIN = PRIMARY MIN CFI FAN = FAN CFM TYPE = VALANCE TYPE	М Н GPM	
SHWR SHWS SSI SSO TC UH UV	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT) TEMPERATURE CONTROLS CONTRACTOR UNIT HEATER UNIT VENTILATOR	—××—	PIPING BELOW GRADE BASE MOUNTED PUMP IN-LINE PUMP AIR TERMINAL UNIT WITH REHEAT COIL AND SOUND	10"x10", G-3 300 CFM	SUPPLY REGISTER WITH SIZE, TYPE, & CFM RETURN OR EXHAUST GRILLE		TYPE COIL SIZE CLNG GPM HTNG GPM	MAX = PRIMARY MAX C MIN = PRIMARY MIN CFI FAN = FAN CFM TYPE = VALANCE TYPE COIL SIZE = COIL LENGT CLNG GPM = COOLING HTNG GPM = HEATING C	M H GPM GPM	
SHWR SHWS SSI SSO TC UH UV V	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT) TEMPERATURE CONTROLS CONTRACTOR UNIT HEATER UNIT VENTILATOR VENT		PIPING BELOW GRADE BASE MOUNTED PUMP IN-LINE PUMP AIR TERMINAL UNIT WITH REHEAT COIL AND SOUND ATTENUATOR AIR TERMINAL UNIT WITH SOUND ATTENUATOR	10"x10", G-3 300 CFM 10"x8", R-2 300 CFM 10"x8", G-2 300 CFM	SUPPLY REGISTER WITH SIZE, TYPE, & CFM RETURN OR EXHAUST GRILLE WITH SIZE, TYPE, & CFM AIR FLOW ACOUSTIC/THERMAL DUCTWORK LINING -		TYPE COIL SIZE CLNG GPM	MAX = PRIMARY MAX C MIN = PRIMARY MIN CFI FAN = FAN CFM TYPE = VALANCE TYPE COIL SIZE = COIL LENGT CLNG GPM = COOLING	H GPM GPM TYPE	
SHWR SHWS SSI SSO TC UH UV V WAHP	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT) TEMPERATURE CONTROLS CONTRACTOR UNIT HEATER UNIT VENTILATOR VENT WATER-TO-AIR HEAT PUMP	—××—	PIPING BELOW GRADE BASE MOUNTED PUMP IN-LINE PUMP AIR TERMINAL UNIT WITH REHEAT COIL AND SOUND ATTENUATOR AIR TERMINAL UNIT WITH	10"x10", G-3 300 CFM 10"x8", R-2 300 CFM 10"x8", G-2 300 CFM	SUPPLY REGISTER WITH SIZE, TYPE, & CFM RETURN OR EXHAUST GRILLE WITH SIZE, TYPE, & CFM AIR FLOW ACOUSTIC/THERMAL DUCTWORK LINING - 1 INCH THICK ACOUSTIC/THERMAL DUCTWORK LINING -		TYPE COIL SIZE CLNG GPM HTNG GPM	MAX = PRIMARY MAX C MIN = PRIMARY MIN CFI FAN = FAN CFM TYPE = VALANCE TYPE COIL SIZE = COIL LENGT CLNG GPM = COOLING HTNG GPM = HEATING C X = DIFFUSER OR GRILL	H GPM GPM TYPE	-
SHWR SHWS SSI SSO TC UH UV V WAHP	SECONDARY HEATING HOT WATER SUPPLY SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION) SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT) TEMPERATURE CONTROLS CONTRACTOR UNIT HEATER UNIT VENTILATOR VENT WATER-TO-AIR HEAT PUMP		PIPING BELOW GRADE BASE MOUNTED PUMP IN-LINE PUMP AIR TERMINAL UNIT WITH REHEAT COIL AND SOUND ATTENUATOR AIR TERMINAL UNIT WITH SOUND ATTENUATOR AIR TERMINAL UNIT WITH	10"x10", G-3 300 CFM 10"x8", R-2 300 CFM 10"x8", G-2 300 CFM	SUPPLY REGISTER WITH SIZE, TYPE, & CFM RETURN OR EXHAUST GRILLE WITH SIZE, TYPE, & CFM AIR FLOW ACOUSTIC/THERMAL DUCTWORK LINING - 1 INCH THICK		TYPE COIL SIZE CLNG GPM HTNG GPM	MAX = PRIMARY MAX C MIN = PRIMARY MIN CFI FAN = FAN CFM TYPE = VALANCE TYPE COIL SIZE = COIL LENGT CLNG GPM = COOLING HTNG GPM = HEATING C X = DIFFUSER OR GRILL	H GPM GPM TYPE	

LINING - 2 INCH THICK

ACOUSTIC/THERMAL DUCTWORK PLENUM

WALL TO WALL FIN TUBE ENCLOSURE

SYMBOLS GENERAL NOTES:

DESCRIPTION

CURRENT TRANSDUCER

OPEN/CLOSED

ENABLE/DISABLE

FLOW TRANSMITTER

PRESSURE TRANSMITTER

DUCT SMOKE DETECTOR

SPACE TEMPERATURE SENSOR

SPACE CARBON DIOXIDE SENSOR

SPACE CARBON MONOXIDE SENSOR

VARIABLE SPEED / FREQUENCY DRIVE

DIFFERENTIAL STATIC PRESSURE SWITCH

DIGITAL INPUT (TO BUILDING MANAGEMENT SYSTEM)

DIGITAL OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)

ANALOG OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)

ANALOG INPUT (TO BUILDING MANAGEMENT SYSTEM)

SPACE NATURAL GAS SENSOR

SPACE SENSOR WITH GUARD

SPACE HUMIDISTAT

WATER FLOW SENSOR

PNEUMATIC ACTUATOR

ELECTRIC ACTUATOR

COOLING COIL

HEATING COIL

GAS FURNACE

FLOW SWITCH

PRESSURE GAUGE

ELECTRICAL INTERFACE

SPEED FEED BACK

POSITION FEEDBACK

FREEZE STAT SENSOR

TRAVERSE AVERAGING SENSOR

END SWITCH

FREEZE-STAT

HUMIDIFIER

ALARM

STATUS

RELAY

SPACE THERMOSTAT

START/STOP

ELECTRIC/PNEUMATIC SWITCH OR RELAY

PNEUMATIC/ELECTRIC SWITCH OR RELAY

TEMPERATURE SENSOR (DUCT OR PIPE MOUNTED)

HUMIDITY SENSOR (DUCT MOUNTED)

DIFFERENTIAL PRESSURE TRANSMITTER

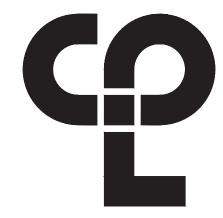
ELECTRIC/PNEUMATIC TRANSDUCER

ELECTRIC/ELECTRONIC TRANSDUCER

1) VALVE AND DAMPER ACTUATOR TYPES (ELECTRIC OR PNEUMATIC) WHICH ARE INDICATED IN HVAC TEMPERATURE CONTROL DRAWINGS SHALL SUPERSEDE TYPE INDICATED ON ALL OTHER HVAC DRAWINGS.

HVAC CONTRACTOR GENERAL NOTES:

- A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS WITHIN THE BUILDING PRIOR TO COMMENCEMENT OF ALL DEMOLITION AND NEW WORK.
- B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND REPLACE EXISTING CEILINGS, UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS, FOR PERFORMING DEMOLITION OR NEW WORK WITHIN THE BUILDING. THE EXISTING CEILINGS SHALL BE REMOVED IN A MANNER TO AVOID DAMAGE TO THE CEILING SYSTEMS. STORAGE OF CEILING SYSTEM COMPONENTS FOR REINSTALLATION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE STORAGE OF ALL MATERIAL SHALL BE IN AREAS OR LOCATIONS APPROVED BY THE OWNER. THE OWNER WILL NOT COMPENSATE FOR ANY DAMAGED OR LOST MATERIAL WHILE IN STORAGE. AFTER COMPLETION OF ALL DEMOLITION OR NEW WORK, THE CONTRACTOR SHALL REINSTALL THE CEILING SYSTEMS TO MATCH THE ORIGINAL INSTALLATION.
- DEMOLITION DRAWINGS SHOW MAJOR EQUIPMENT, PIPING, AND DUCTWORK REMOVALS. THE INTENT IS NOT TO IDENTIFY ALL MISCELLANEOUS PIPING, PIPING ACCESSORIES, DUCTWORK, DUCTWORK ACCESSORIES, SUPPORTS, CONTROLS, CONTROL ACCESSORIES, CONTROL WIRING, CONDUIT, AND PNEUMATIC CONTROL TUBING TO BE DISCONNECTED AND REMOVED, BUT IS THE REQUIREMENT UNDER THIS CONTRACT. NO EQUIPMENT, PIPING, OR DUCTWORK SHALL BE ABANDONED IN PLACE, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL EQUIPMENT INDICATED TO BE TURNED OVER TO THE OWNER SHALL BE DISCONNECTED AND REMOVED FROM THE EXISTING SYSTEMS AND DELIVERED (INCLUDING LOADING AND UNLOADING) TO A STORAGE AREA WITHIN THE BUILDING AS SELECTED BY THE OWNER. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR ANY EQUIPMENT DAMAGED DURING REMOVAL AND DELIVERY. ANY DAMAGE TO EQUIPMENT PRIOR TO DISCONNECTING SHOULD BE REPORTED TO THE OWNER'S REPRESENTATIVE. IF NOT REPORTED, THE CONTRACTOR TAKES FULL RESPONSIBILITY FOR REPAIRS TO THE EQUIPMENT.
- BEFORE DISCONNECTING, REMOVING, OR SERVICING ANY AIR CONDITIONING EQUIPMENT OR SYSTEMS CONTAINING REFRIGERANTS, THE EQUIPMENT OR SYSTEMS SHALL BE EVACUATED OF ALL REFRIGERANT PER THE LATEST ADOPTED RULES AND REGULATIONS BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA). THE CONTRACTOR OR TECHNICIAN PERFORMING THE WORK SHALL BE CERTIFIED BY AN EPA APPROVED CERTIFYING AGENCY OR ORGANIZATION.
- ALL DUCTWORK, PIPING, AND CONDUIT PENETRATIONS THROUGH RATED WALLS OR FLOORS SHALL BE PROVIDED WITH FIRE/SMOKE STOPPINGS PER SPECIFICATION. REFER TO CODE ANALYSIS DRAWING FOR ALL RATED WALL LOCATIONS. ALL FLOORS SHALL BE CONSIDERED RATED.
- G. UNLESS SHOWN ON THE ARCHITECTURAL DRAWINGS, IT IS THE RESPONSIBILITY OF THIS CONTRACT TO PATCH AND FINISH ALL EXISTING DUCTWORK OR PIPE PENETRATIONS THROUGH FLOORS, ROOFS, INTERIOR WALLS, AND EXTERIOR WALLS AFTER DEMOLITION WORK. IN ADDITION, ALL NEW PENETRATIONS SHALL BE PROVIDED FOR INSTALLATION OF MECHANICAL SYSTEMS INCLUDING, BUT NOT LIMITED TO, EQUIPMENT, CURBING, DUCTWORK, PIPING, CONTROLS, ETC. PATCHING AND FINISHING SHALL MATCH EXISTING CONSTRUCTION INCLUDING FIRE RATINGS. PROVIDE LINTELS PER LINTEL SCHEDULE.
- H. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL AIR VENTS AND DRAINS IN THE PIPING SYSTEMS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AIR VENTS AT ALL SYSTEM HIGH POINTS AND AT AREAS WITHIN THE PIPING SYSTEMS THAT COULD ACCUMULATE OR TRAP AIR WHICH WOULD PREVENT PROPER VENTING OR OPERATION OF THE SYSTEMS. DRAINS SHALL BE PROVIDED AT ALL LOW POINTS WITHIN THE PIPING SYSTEM TO FACILITATE COMPLETE DRAINING OF THE SYSTEM.
- PROVIDE THERMAL EXPANSION COMPENSATORS AND THERMAL EXPANSION LOOPS IN PIPING SYSTEM PER INDUSTRY STANDARDS.



CPL | Architecture Engineering Planning 50 Front St. Suite 202 Newburgh, NY 12550 CPLteam.com

PROJECT INFORMATION

Project Number 14428.20

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address

22 EDWARD ST, OSSINING, NY 10562

OSSINING PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROFESSIONAL STAMPS

SHEET INFORMATION

Issued 09/05/23

Project Status BID SET Drawn By CNH

Checked By Drawing Title

NOT TO SCALE

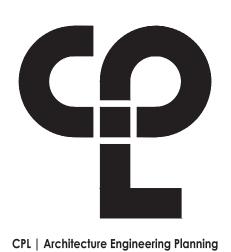
HVAC NOTES AND SYMBOLS

GENERAL DEMOLITION NOTES:

- COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR DEMOLITION.
- 2. COORDINATE DEMOLITION WORK WITH ALL OTHER TRADES.
- 3. CONTRACTOR SHALL RECORD TOTAL AIRFLOW FOR EQUIPMENT PRIOR TO DISCONNECT AND REMOVAL.
- 4. COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS
- 5. UNLESS OTHERWISE DIRECTED, EXISTING BUILDING MANAGEMENT CONTROLS SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
- 6. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

- REMOVE EXISTING CABINET UNIT HEATER. DISCONNECT ALL ASSOCIATED PIPING AND CONTROLS. REMOVE ALL BRANCH PIPING BACK TO MAINS AND CAP. COORDINATE WITH OTHER TRADES.
- DISCONNECT EXHAUST AIR DUCT. PREPARE FOR NEW DUCTWORK CONNECTION.
- REMOVE DUCTWORK FROM POINT INDICATED UP TO UNIT ON ROOF. PREPARE REMAINING DUCTWORK FOR RECONNECTION.
- REMOVE REFRIGERANT PIPING FROM POINT INDICATED UP TO UNIT ON ROOF. INDOOR UNIT TO REMAIN. PRIOR TO REMOVAL, EVACUATE PIPING AND DISPOSE OF ALL REFRIGERANT PER THE LATEST ADAPTED RULES AND REGULATIONS BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA). CONTRACTOR OR TECHNICIAN PERFORMING THE WORK SHALL BE AN EPA APPROVED AGENCY OR ORGANIZATION.
- (5) REMOVE DUCT RISER UP TO EXHAUST FAN ON ROOF.



50 Front St. Suite 202

Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION

Project Number 14428.20

OSSINING UNION FREE SCHOOL
DISTRICT

2022-2023 CIP

District Office Address
22 EDWARD ST, OSSINING, NY 10562

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

OSSINING

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED. THE ALTERING PARTY SHALL AFFIX TO THE ITEM THER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED B THER ISCANAILER AND THE DATE OF SUCK ALTERATION AND A SPECIFIC DESCRIPTION OF

SHEET INFORMATION

FIRST FLOOR AREA 1 HVAC DEMOLITION PLAN

> PES H101.1

KEY PLAN:

TRUE
NORTH

GENERAL DEMOLITION NOTES:

- COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR DEMOLITION.
- 2. COORDINATE DEMOLITION WORK WITH ALL OTHER TRADES.
- 3. CONTRACTOR SHALL RECORD TOTAL AIRFLOW FOR EQUIPMENT PRIOR TO DISCONNECT AND REMOVAL.
- 4. COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS
- 5. UNLESS OTHERWISE DIRECTED, EXISTING BUILDING MANAGEMENT CONTROLS SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
- 6. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

KEY PLAN:

- REMOVE EXISTING GRILLE/DIFFUSER. PREPARE DUCTWORK FOR NEW CONNECTION.
- REMOVE DUCTWORK FROM POINT INDICATED UP TO UNIT ON ROOF. PREPARE REMAINING DUCTWORK FOR RECONNECTION.
- REMOVE FIN TUBE RADIATION. REMOVE ASSOCIATED PIPING AND CONTROLS. PREPARE FOR NEW FIN TUBE CONNECTION.

CPL | Architecture Engineering Planning
50 Front St. Suite 202
Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION

14428.20

Project Number

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address
22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

-

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSE ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM, ANY MAY, IF, AN ITEM BEARING THE STAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTER PARTY SHALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWE THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION

SHEET INFORMATION

Prowing Title
FIRST FLOOR AREA 2 HVAC
DEMOLITION PLAN

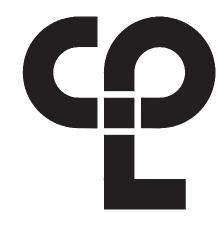
PES H 101 2

GENERAL DEMOLITION NOTES:

- COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR DEMOLITION.
- 2. COORDINATE DEMOLITION WORK WITH ALL OTHER TRADES.
- 3. CONTRACTOR SHALL RECORD TOTAL AIRFLOW FOR EQUIPMENT PRIOR TO DISCONNECT AND REMOVAL.
- 4. COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS
- 5. UNLESS OTHERWISE DIRECTED, EXISTING BUILDING MANAGEMENT CONTROLS SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION.
- MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.
- 7. WHERE EXISTING EQUIPMENT IF TO BE REMOVED AND REINSTALLED, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND STORAGE OF THE EQUIPMENT DURING CONSTRUCTION.

KEY NOTES:

- REMOVE EXISTING EXHAUST FAN AND RETAIN FOR REINSTALLATION AT NEW LOCATION. REMOVE EXISTING CURB AND ACCESSORIES. REPAIR ANY ROOF DECK PENETRATIONS.
- REMOVE EXISTING DUCTLESS SPLIT CONDENSING UNIT AND RETAIN FOR REINSTALLATION AT NEW LOCATION. REMOVE ALL PIPING, CONTROLS AND EQUIPMENT RAILS. REPAIR ANY ROOF DECK PENETRATIONS. PRIOR TO REMOVAL, EVACUATE PIPING AND DISPOSE OF ALL REFRIGERANT PER THE LATEST ADAPTED RULES AND REGULATIONS BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA). CONTRACTOR OR TECHNICIAN PERFORMING THE WORK SHALL BE AN EPA APPROVED AGENCY OR ORGANIZATION.
- REMOVE EXISTING 30"X22" RETURN GRILLE. DISCONNECT DUCTWORK BACK TO MAIN AND PREPARE FOR NEW CONNECTION.
- REMOVE EXISTING IN-WALL CONVECTOR. DISCONNECT ALL PIPING, STEAM SPECIALTIES, AND CONTROLS. PIPING TO BE REMOVED BACK TO ISOLATION VALVES. ISOLATION VALVES SHALL NOT BE REMOVED. CONFIRM ISOLATION VALVE IS OPERABLE AND WILL HOLD SYSTEM PRESSURE. REPORT ANY DEFICIENCIES.
- REMOVE EXISTING GRAVITY INTAKE VENTILATOR AND RETAIN FOR REINSTALLATION AT NEW LOCATION. REMOVE ROOF CURB AND MODIFY ROOF DECK AS REQUIRED FOR NEW DUCT CHASE.
- REMOVE EXISTING EXHAUST FAN AND RETAIN FOR REINSTALLATION AT NEW LOCATION. REMOVE EXISTING CURB AND MODIFY ROOF DECK AS REQUIRED FOR NEW DUCT CHASE.



CPL | Architecture Engineering Planning

50 Front St. Suite 202

Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION

14428.20

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address
22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMEN

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATION'S FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE SEAL OF AN ACHITECT, ENGINEER OR SURVEYOR IS ALTERED. THE ALTERNO PARTY SHALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THAL ALTERATION.

Drawn By Checked By
CNH JJM
Drawing Title
SECOND FLOOR AREA 1 HVAC
DEMOLITION PLAN

PES H102

KEY PLAN:

TRUE

NORTH

OSSINING UNION FREE SCHOOL

22 EDWARD ST, OSSINING, NY 10562

1/8" = 1'-0"

ROOF AREA 2 HVAC DEMOLITION PLAN

- COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR NEW WORK.
- 2. COORDINATE NEW WORK WITH ALL OTHER TRADES.
- COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS.
- 4. UNLESS OTHERWISE DIRECTED, ALL BUILDING MANAGEMENT CONTROLS ARE EXISTING TO BE RECONNECTED TO THE NEW EQUIPMENT. RECONNECTION IS THE RESPONSIBILITY OF THIS CONTRACT.
- 5. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

KEY PLAN:

- 1) PROVIDE CABINET UNIT HEATER.
- ROUTE EXHAUST DUCTWORK UP CHASE TO SECOND FLOOR. COORDINATE WITH PLUMBING PIPING AND EQUIPMENT.
- ROUTE OUTSIDE AIR DUCTWORK UP CHASE TO SECOND FLOOR. COORDINATE WITH PLUMBING PIPING AND EQUIPMENT.
- ROUTE DUCTWORK UP TO SECOND FLOOR. PROVIDE TRANSITION TO 26"X26" DUCT. PROVIDE FIRE DAMPER IN FLOOR.



PROJECT INFORMATION

14428.20

Project Number

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address
22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT. ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND THE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE

SHEET INFORMATION

TRUE

FIRST FLOOR AREA 1 HVAC DUCTWORK NEW WORK PLAN

> PES H201.1

FIRST FLOOR AREA 1 HVAC NEW WORK PLAN
SCALE: 1/8" = 1'-0"

- COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR NEW WORK.
- 2. COORDINATE NEW WORK WITH ALL OTHER TRADES.
- COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS.
- 4. UNLESS OTHERWISE DIRECTED, ALL BUILDING MANAGEMENT CONTROLS ARE EXISTING TO BE RECONNECTED TO THE NEW EQUIPMENT. RECONNECTION IS THE RESPONSIBILITY OF THIS CONTRACT
- 5. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

KEY PLAN:

- 1) PROVIDE NEW DIFFUSER/GRILLE. BALANCE TO SPECIFIED CFM.
- CONNECT NEW ROOFTOP UNIT DUCT DROPS TO POINTS INDICATED. PROVIDE ALL REQUIRED DUCT SUPPORTS, HANGERS, AND MISCELLANEOUS ACCESSORIES.
- PROVIDE NEW FIN TUBE RADIATION. PROVIDE ASSOCIATED PIPING AND CONTROLS. CONFIRM CABINET STYLE AND COLOR WITH ARCHITECT.

PROJECT INFORMATION

14428.20

Project Number

OSSINING UNION FREE SCHOOL DISTRICT

CPL | Architecture Engineering Planning

50 Front St. Suite 202 Newburgh, NY 12550

CPLteam.com

2022-2023 CIP

District Office Address

22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SUPEYFOR, TO A LITER AN ITEM BEARING THE SEAL OF AM ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERMORPARTY SHALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF

SHEET INFORMATION

Issued

TRUE

Drawn By Checked By

CNH JJM

Drawing Title

FIRST FLOOR AREA 2 HVAC DUCTWORK NEW WORK PLAN

> PES H201.2

- 1. COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR NEW WORK.
- 2. COORDINATE NEW WORK WITH ALL OTHER TRADES.
- 3. COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS.
- 4. UNLESS OTHERWISE DIRECTED, ALL BUILDING MANAGEMENT CONTROLS ARE EXISTING TO BE RECONNECTED TO THE NEW EQUIPMENT. RECONNECTION IS THE RESPONSIBILITY OF THIS CONTRACT.
- 5. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

KEY PLAN:

- PROVIDE NEW DUCTED VRF AIR HANDLING UNIT WITH ASSOCIATED DUCTWORK AND ACCESSORIES. COORDINATE UNIT INSTALLATION WITH NEW STRUCTURE AND UTILITIES ABOVE THE CEILING. UNIT LOCATION AND ORIENTATION SHALL MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES INCLUDING FILTER ACCESS.
- PROVIDE NEW CASSETTE STYLE VRF FAN COIL UNIT WITH ASSOCIATED ACCESSORIES. COORDINATE UNIT INSTALLATION WITH NEW STRUCTURE AND UTILITIES ABOVE THE CEILING. UNIT LOCATION AND ORIENTATION SHALL MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES.
- ROUTE DUCTWORK UP FROM CHASE TO RELOCATED EXHAUST FAN ON ROOF. COORDINATE WITH PLUMBING PIPING AND EQUIPMENT. PROVIDE FIRE DAMPER AND ACCESS DOOR AT SECOND FLOOR.
- (4) MOUNT EXHAUST FAN AS HIGH AS POSSIBLE.
- TRANSITION TO 26"X26" DUCT IN CHASE. ROUTE UP TO EF-12 ON ROOF. PROVIDE FIRE DAMPER AND ACCESS DOOR AT SECOND FLOOR.
- ROUTE DUCTWORK UP FROM CHASE TO NEW GV-1 ON ROOF.
 COORDINATE WITH PLUMBING PIPING AND EQUIPMENT. PROVIDE FIRE DAMPER AND ACCESS DOOR AT SECOND FLOOR.

CPL | Architecture Engineering Planning
50 Front St. Suite 202
Newburgh, NY 12550
CPLteam.com

PROJECT INFORMATION

Project Number 14428.20

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address
22 EDWARD ST, OSSINING, NY 10562

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

OSSINING

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY MAY, IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PARTY SHALL AFRIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THER SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE

SHEET INFORMATION

TRUE

Project Status
BID SET

Drawn By Checked By

CNH JJM

Drawing Title

SECOND FLOOR AREA 1 HVAC DUCTWORK NEW WORK PLAN

> PES H202

1 SECOND FLOOR AREA 1 HVAC DUCTWORK NEW WORK PLAN

SCALE: 1/8" = 1'-0"

- 1. COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR NEW WORK.
- 2. COORDINATE NEW WORK WITH ALL OTHER TRADES.
- 3. COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS.
- 4. UNLESS OTHERWISE DIRECTED, ALL BUILDING MANAGEMENT CONTROLS ARE EXISTING TO BE RECONNECTED TO THE NEW EQUIPMENT. RECONNECTION IS THE RESPONSIBILITY OF THIS CONTRACT.
- 5. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

- PROVIDE NEW DOAS UNIT AND CURB. CONTRACTOR SHALL PROVIDE AND INSTALL ROOFTOP UNIT ACCORDING TO CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO DETAILS AND SCHEMATICS. COORDINATE AND INTEGRATE WITH BMS CONTROLS. CONTRACTOR SHALL EXECUTE AND DOCUMENT ALL MANUFACTURER'S SUGGESTED START UP AND TESTING. CONNECT DUCTWORK, PIPING AND CONTROLS AND PREPARE FOR COMMISSIONING.
- REINSTALL EXISTING CONDENSING UNIT. RECONNECT TO EXISTING UNIT CONTROLS AND MAINTAIN EXISTING SEQUENCE OF OPERATION. PROVIDE ROOF SUPPORTS. PROVIDE REFRIGERANT LINES AND ACCESSORIES AS PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING INDICATED ON DRAWING IS SHOWN TO INDICATE SUGGESTED PATH AND MAY NOT REPRESENT ACTUAL PIPING CONFIGURATION. SIZING AND CIRCUITING IS THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE PIPE CHASE FOR REFRIGERANT LINES. PROVIDE PIPE PORTAL. ALL PIPE RAILS AND ROOF CURB SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE ROOF MEMBRANE BY A QUALIFIED ROOFING CONTRACTOR. CURBS AND RAILS SHALL BE WIND RATED.
- REINSTALL EXISTING EXHAUST FAN. RECONNECT TO EXISTING UNIT CONTROLS AND MAINTAIN EXISTING SEQUENCE OF OPERATION. PROVIDE NEW ROOF CURB. ROOF CURB SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE ROOF MEMBRANE BY A QUALIFIED ROOFING CONTRACTOR. CURBS AND RAILS SHALL BE WIND RATED.
- PROVIDE NEW VRF SYSTEM IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO, CONDENSING UNIT(S), INDOOR FAN COIL UNITS, PIPING, CONTROLS, AND EQUIPMENT RAILS. SYSTEM SHALL BE DESIGNED BY MANUFACTURER'S APPROVED TECHNICIANS. REFRIGERANT PIPING INDICATED ON DRAWING IS SHOWN TO INDICATE SUGGESTED PATH AND MAY NOT REPRESENT ACTUAL PIPING CONFIGURATION. SIZING AND CIRCUITING IS THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE PIPE CHASE FOR REFRIGERANT LINES. PROVIDE PIPE PORTAL. ALL PIPE RAILS AND ROOF CURB SHALL BE ANCHORED TO THE ROOF DECK AND FLASHED INTO THE ROOF MEMBRANE BY A QUALIFIED ROOFING CONTRACTOR. CURBS AND RAILS SHALL BE WIND RATED.
- (5) REINSTALL EXISTING GRAVITY INTAKE VENTILATOR AND PROVIDE NEW ROOF CURB.



CPL | Architecture Engineering Planning 50 Front St. Suite 202 Newburgh, NY 12550 CPLteam.com

PROJECT INFORMATION

14428.20

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address

22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

SHEET INFORMATION KEY PLAN: 09/05/23 1/8" = 1'-0" Project Status TRUE BID SET ROOF AREA 1 HVAC NEW WORK

- COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR NEW WORK.
- 2. COORDINATE NEW WORK WITH ALL OTHER TRADES.
- COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS.
- 4. UNLESS OTHERWISE DIRECTED, ALL BUILDING MANAGEMENT CONTROLS ARE EXISTING TO BE RECONNECTED TO THE NEW EQUIPMENT. RECONNECTION IS THE RESPONSIBILITY OF THIS CONTRACT.
- 5. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.
- 6. REFER TO SHEET \$203 FOR MECHANICAL CONTRACTOR STRUCTURAL WORK.
- 7. REFER TO SHEET A205 FOR MECHANICAL CONTRACTOR ROOFING WORK.

KEY NOTES:

CONTRACTOR SHALL PROVIDE ROOFTOP UNIT AND CURB ACCORDING TO CONTRACT DOCUMENTS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. REFER TO DETAILS AND SCHEMATICS. COORDINATE AND INTEGRATE WITH BMS CONTROLS. CONTRACTOR SHALL EXECUTE AND DOCUMENT ALL MANUFACTURER'S SUGGESTED START UP AND TESTING. RECONNECT DUCTWORK, PIPING AND CONTROLS AND PREPARE FOR COMMISSIONING.



PROJECT INFORMATION

Project Number 14428.20

OSSINING UNION FREE SCHOOL DISTRICT

Project Name **2022-2023 CIP**

District Office Address

22 EDWARD ST, OSSINING, NY 10562

OSSINING
PARK ELEMEN

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER REGULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSE ARCHITECT, ENGINEER OR LAND SURVEYOR, TO ALTER AN ITEM, NAY WAY, IF, AN ITEM BEARING THE STAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED. THE ALTER PARTY SHALL AFTIX OT THE TIEM THEIR SEAL AND THE NOTATION, TAITERED BY FOLLOWS THEIR SIGNATURE AND THE OBSTRONG AND A SPECIFIC DESCRIPTION.

THEIR SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SEAL AND THE NOTATION AND A SEAL TERRATION.

SHEET INFORMATION

Drawn By Checked By
CNH JJM
Drawing Title
ROOF AREA 2 HVAC NEW WORK

PES Drawing Number

KEY PLAN:

TRUE NORTH

KINDERGARTEN **CLASSROOM** (DL S.A.) 107 1030 SF RUN PIPING OUTSIDE OF WALL. PROVIDE PIPE COVERING AND CONNECT PER MANUFACTURER'S RECOMMENDATIONS <u>CLASSROOM</u> 137 885 SF NURSE 108 675 SF 1/4" RLL & 3/8" RSL UP TO 2ND FLOOR— 2 CUH-2 RUN PIPING IN WALL. CONNECT TO UNIT PER MANUFACTURE'S RECOMMENDATIONS **CLASSROOM** PRE-K 136 890 SF CLASSROOM (DL S.A) 134 900 SF CLASSROOM (SPECIAL EDU 8:1:3) 1-1/4" HHWS&R UP— 109 640 SF —1" LPS UP TO CONV-1 TO CONV-1 (E)2-1/2" HHWR— (E)2-1/2" HHWS— — (E)2-1/2" HHWR— — (E)2-1/2" HHWS — 2ND FLOOR F.F.E. = 187'-9" (E)PIPING DOWN TO CRAWLSPACE— PRE-K
CLASSROOM
(DL S.A)

135
890 SF (E) 1" LPS/LPC DN TO CRAWLSPACE PHYS. ED. OFFICE 155 SF

1 FIRST FLOOR AREA 1 HVAC PIPING NEW WORK PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR NEW WORK.
- 2. COORDINATE NEW WORK WITH ALL OTHER TRADES.
- COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS.
- 4. UNLESS OTHERWISE DIRECTED, ALL BUILDING MANAGEMENT CONTROLS ARE EXISTING TO BE RECONNECTED TO THE NEW EQUIPMENT. RECONNECTION IS THE RESPONSIBILITY OF THIS CONTRACT.
- 5. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

- 1 PROVIDE ALL ASSOCIATED PIPING, PIPING ACCESSORIES AND CONTROLS REQUIRED FOR NEW CABINET UNIT HEATER.
- CONNECT REFRIGERANT PIPING TO EXISTING INDOOR SPLIT SYSTEM UNIT. REFRIGERANT PIPING INDICATED ON DRAWING IS SHOWN TO INDICATE SUGGESTED PATH AND MAY NOT REPRESENT ACTUAL PIPING CONFIGURATION. SIZING AND CIRCUITING IS THE RESPONSIBILITY OF THE CONTRACTOR. RECHARGE WITH R410A REFRIGERANT. RECONNECT TO BMS SYSTEM AND RESUME EXISTING SEQUENCE OF OPERATION.
- TIE HEATING HOT WATER SUPPLY AND RETURN PIPING INTO EXISTING MAIN. PROVIDE ISOLATION VALVES. RE-BALANCE HYDRONIC SYSTEM.



50 Front St. Suite 202

Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION

Project Number 14428.20

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address
22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REQULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHIECT, ENGINEER OR LAND SURVEYOR, TO ALTER ANT IREM IN ANY YAY, IF AN IREM BEARING THE STAL OF AN ARCHIECT, ENGINEER OR SURVEYOR IS ALTERED, THE ALTERING PLATTY'S HALL AFFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED B THEN SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF

SHEET INFORMATION

TRUE

| Scale | | O9/05/23 | 1/8" = 1'-0" | Project Status | BID SET | Drawn By | Checked By | CNH | JMM | JMM |

FIRST FLOOR AREA 1 HVAC
PIPING NEW WORK PLAN

PES

KEY PLAN:

SECOND FLOOR AREA 1 HVAC PIPING NEW WORK PLAN SCALE: 1/8" = 1'-0"

GENERAL NOTES:

- 1. COORDINATE WITH BUILDING OWNER FOR ANY NECESSARY SHUT-DOWN OF BUILDING SYSTEMS REQUIRED FOR NEW WORK.
- 2. COORDINATE NEW WORK WITH ALL OTHER TRADES.
- 3. COORDINATE LOCATION OF MECHANICAL EQUIPMENT WITH PLUMBING AND ELECTRICAL CONTRACTORS.
- 4. UNLESS OTHERWISE DIRECTED, ALL BUILDING MANAGEMENT CONTROLS ARE EXISTING TO BE RECONNECTED TO THE NEW EQUIPMENT. RECONNECTION IS THE RESPONSIBILITY OF THIS CONTRACT.
- 5. MAINTAIN ROOF WARRANTY FOR ALL EQUIPMENT REMOVALS AND INSTALLATIONS.

KEY NOTES:

- 1 PROVIDE ASSOCIATED PIPING, REFRIGERANT LINES AND ACCESSORIES AS PER MANUFACTURER'S RECOMMENDATIONS TO DUCTED VRF SYSTEM UNIT. REFRIGERANT PIPING INDICATED ON DRAWING IS SHOWN TO INDICATE SUGGESTED PATH AND MAY NOT REPRESENT ACTUAL PIPING CONFIGURATION. SIZING AND CIRCUITING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 2 PROVIDE ASSOCIATED PIPING, REFRIGERANT LINES AND ACCESSORIES AS PER MANUFACTURER'S RECOMMENDATIONS TO CASSETTE STYLE VRF SYSTEM UNIT. REFRIGERANT PIPING INDICATED ON DRAWING IS SHOWN TO INDICATE SUGGESTED PATH AND MAY NOT REPRESENT ACTUAL PIPING CONFIGURATION. SIZING AND CIRCUITING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 3) PROVIDE NEW FIN TUBE RADIATION UNIT WITH ASSOCIATED PIPING AND CONTROLS. PROVIDE TUBE END CAPS AND COORDINATE WITH ARCHITECT.
- 4 PROVIDE NEW HOT WATER COIL WITH ASSOCIATED PIPING AND CONTROLS.
- PROVIDE RECESSED STEAM CONVECTOR, PROVIDE ALL ASSOCIATED PIPING AND CONTROLS ACCESSORIES.

CPL | Architecture Engineering Planning 50 Front St. Suite 202

Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION

Project Number 14428.20

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address

22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

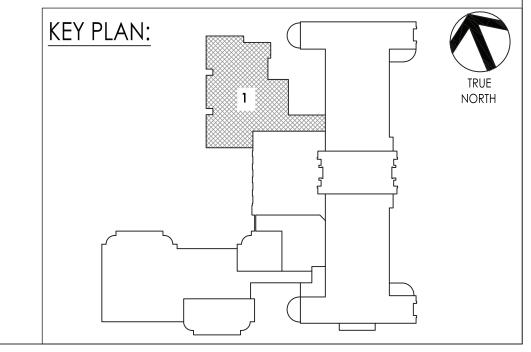
PROFESSIONAL STAMPS

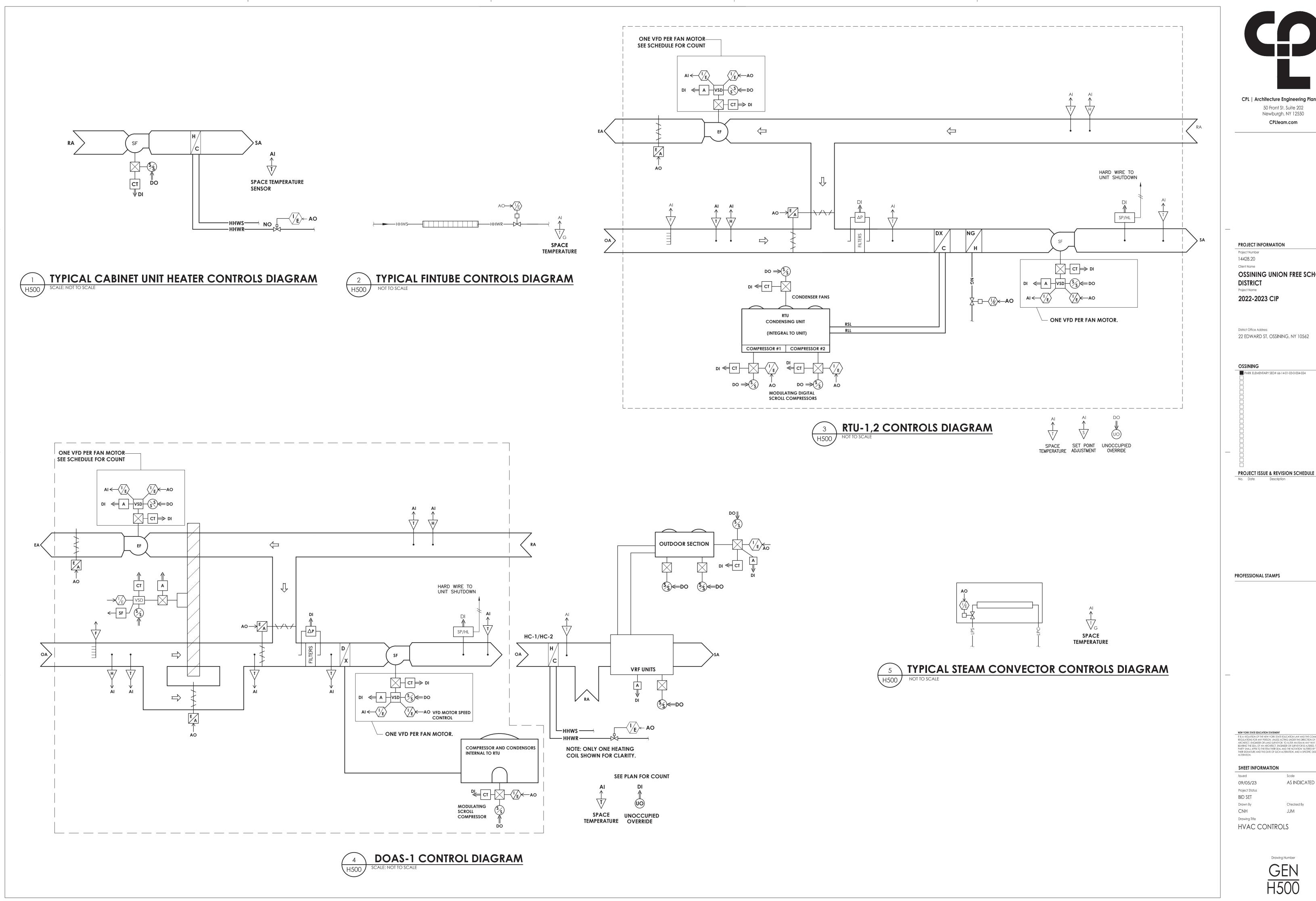
SHEET INFORMATION

1/8" = 1'-0" 09/05/23 Project Status **BID SET**

Drawn By Checked By CNH

SECOND FLOOR AREA 1 HVAC PIPING NEW WORK PLAN







PROJECT INFORMATION

OSSINING UNION FREE SCHOOL **DISTRICT**

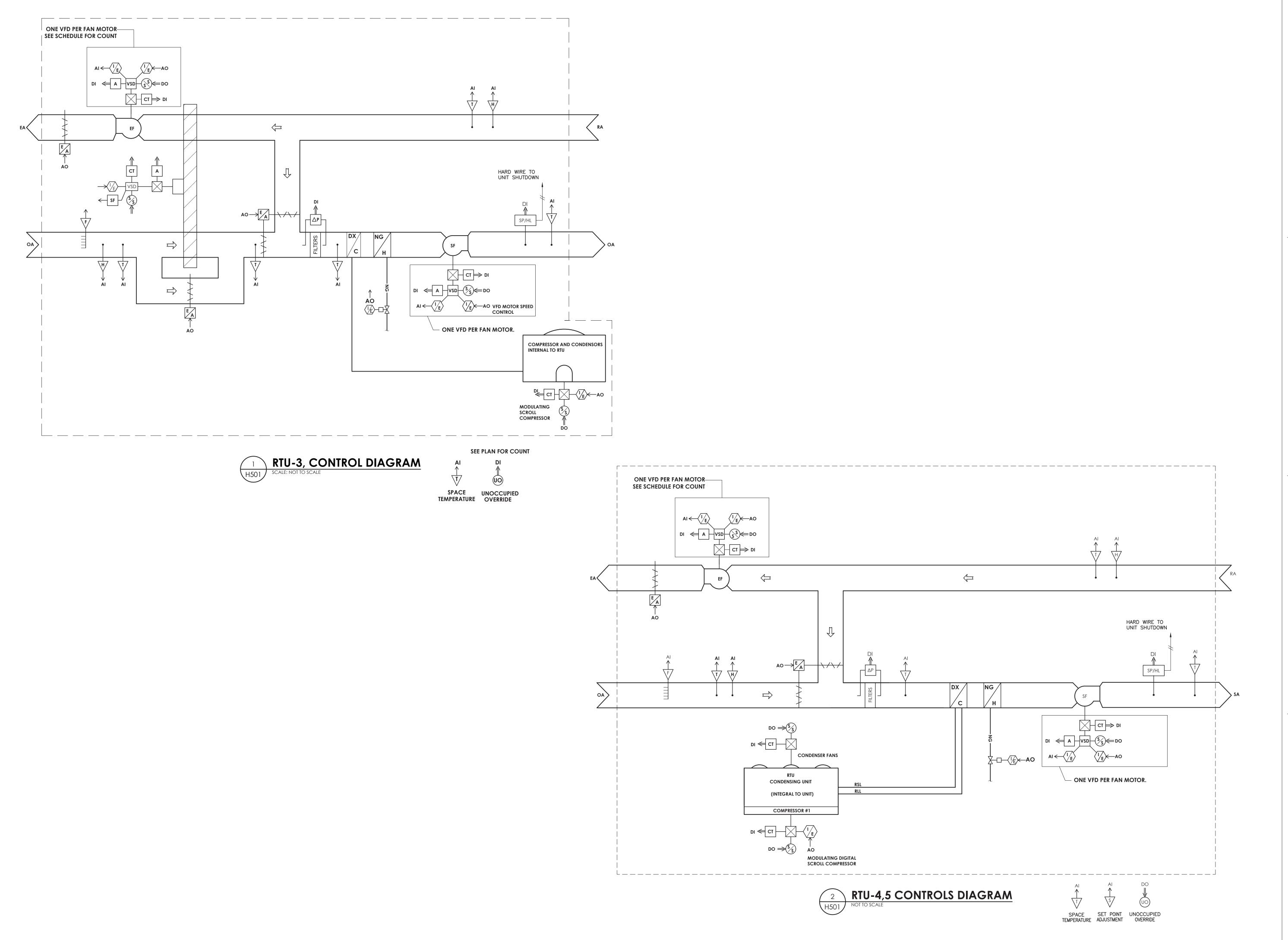
District Office Address 22 EDWARD ST, OSSINING, NY 10562

PROFESSIONAL STAMPS

SHEET INFORMATION

AS INDICATED

HVAC CONTROLS



CPL | Architecture Engineering Planning
50 Front St. Suite 202
Newburgh, NY 12550
CPLteam.com

PROJECT INFORMATION

Project Number 14428.20

OSSINING UNION FREE SCHOOL DISTRICT

Project Name **2022-2023 CIP**

District Office Address
22 EDWARD ST, OSSINING, NY 10562

OSSINING

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

N YORK STATE EDUCATION STATEMENT

A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONERS
SULATIONS FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED
CHIECT, ENGINEER OR LAND SURVEYOR. TO ALTER AN IERM IN ANY WAY, IF AN IERM
KING THE SEAL OF ANA RCHIECT, ENGINEER OR SURVEYOR IS LATERED, THE ALTERING
RYS SHALL AFEK TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED B
BY SHALL AFEK TO THE TIEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED B
BY SCHALTURE AND THE NATE OF SUCKLA LITER ALTERNAL AND A SECRETOR SCHOOL OF

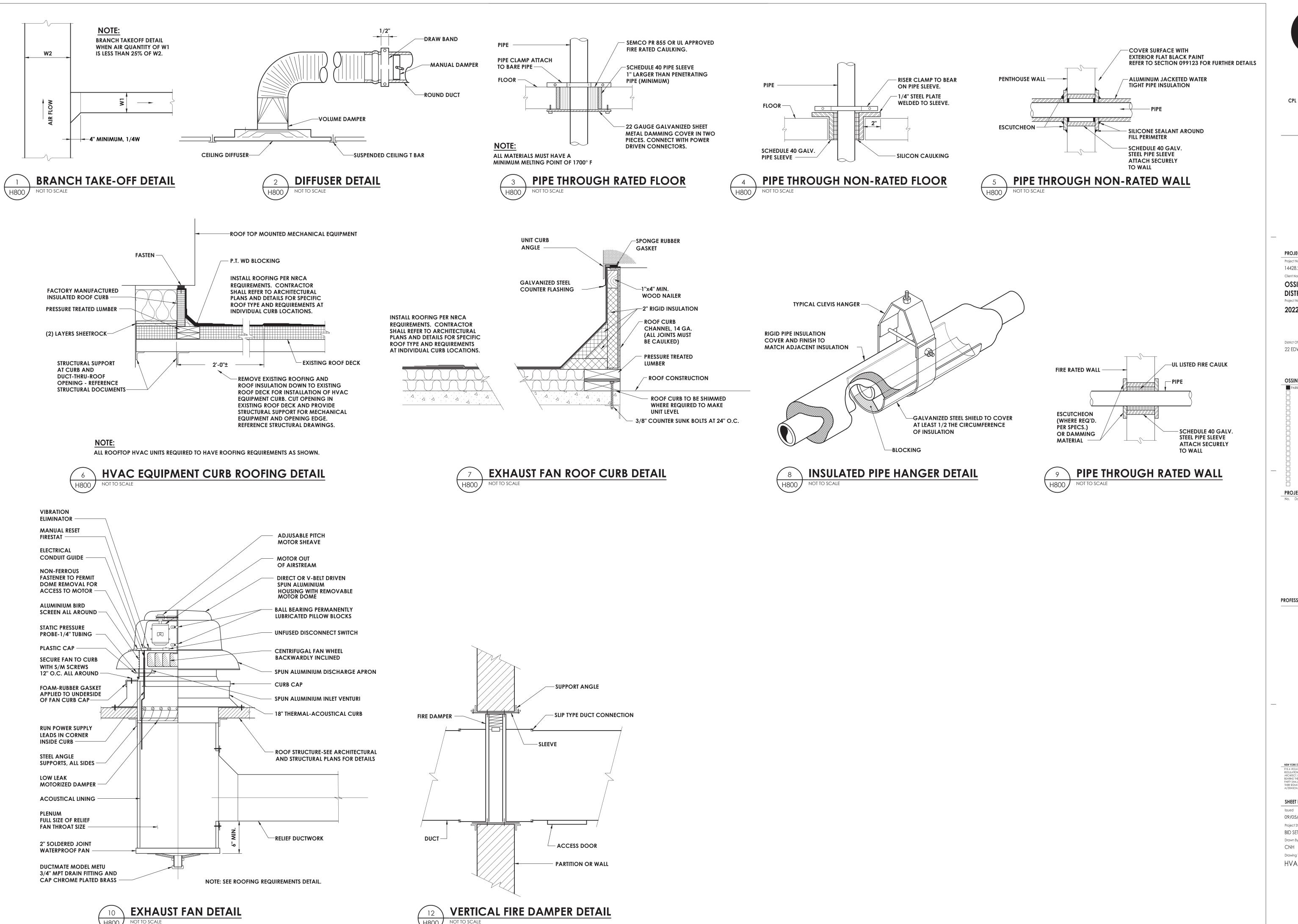
SHEET INFORMATION

Issued Scale

O9/05/23 AS INDICATED
Project Status
BID SET
Drawn By Checked By
CNH JJM

Drawing Title
HVAC CONTROLS

GE H50



NOT TO SCALE

(H800)

(H800)

CPL | Architecture Engineering Planning 50 Front St. Suite 202 Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION Project Number 14428.20 **OSSINING UNION FREE SCHOOL**

DISTRICT

District Office Address

2022-2023 CIP

22 EDWARD ST, OSSINING, NY 10562

OSSINING PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

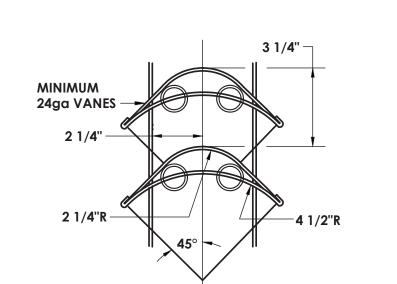
PROFESSIONAL STAMPS

SHEET INFORMATION

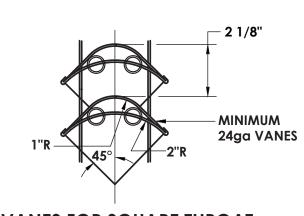
Issued 09/05/23 AS INDICATED Project Status

BID SET Drawn By Checked By Drawing Title HVAC DETAILS

Drawing Number

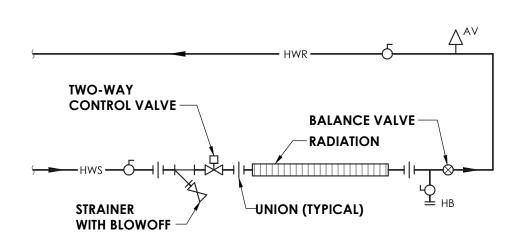


VANES FOR SQUARE THROAT ELBOWS OVER 20" WIDE



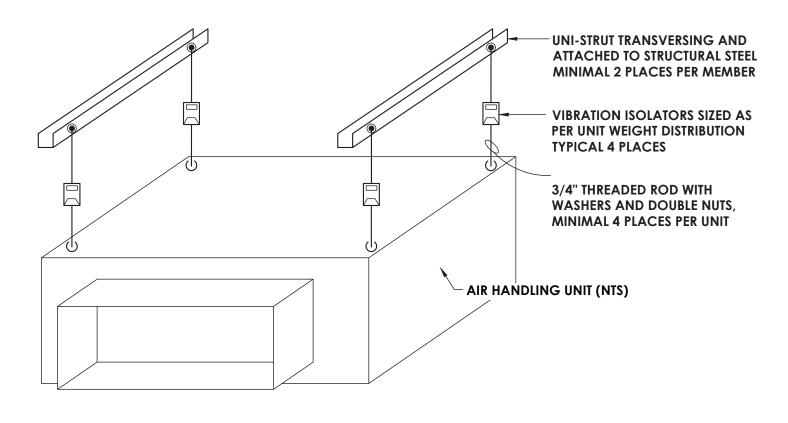
VANES FOR SQUARE THROAT ELBOWS THRU 20" WIDE





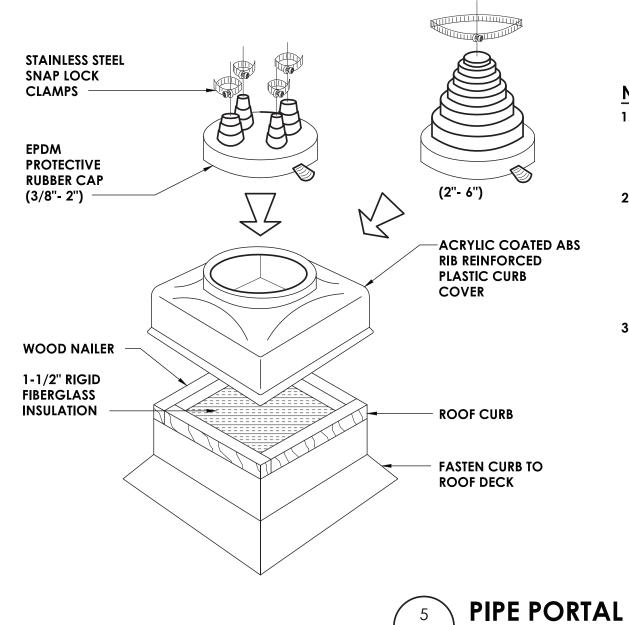
FIN-TUBE RADIATION DETAIL

ACCESS DOOR



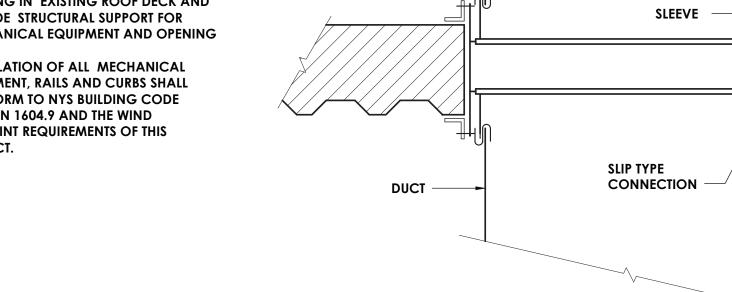
INDOOR UNIT SUPPORT INSTALLATION DETAIL

SUPPORT ANGLES

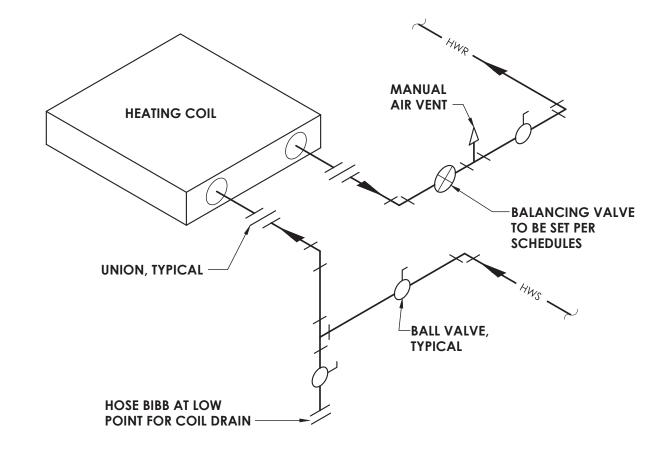


NOTES:

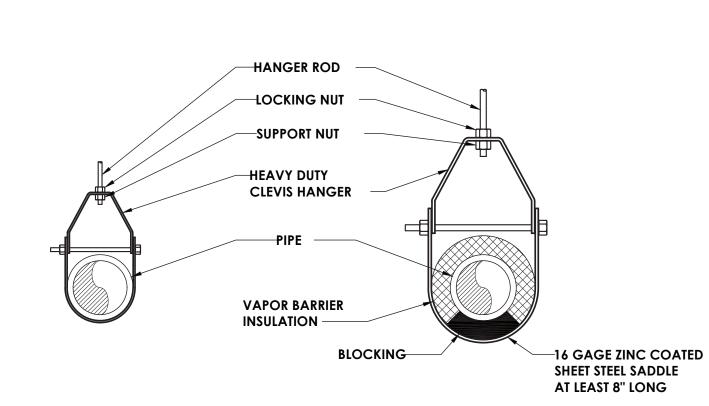
- INSTALL ROOFING PER NRCA RECOMMENDATIONS. COORDINATE WITH OWNER AND EXISTING ROOFING MANUFACTURER TO MAINTAIN WARRANTY.
- REMOVE EXISTING ROOFING AND ROOF INSULATION DOWN TO EXISTING ROOF DECK AS NECESSARY FOR INSTALLATION OF HVAC EQUIPMENT CURB. CUT OPENING IN EXISTING ROOF DECK AND PROVIDE STRUCTURAL SUPPORT FOR MECHANICAL EQUIPMENT AND OPENING
- INSTALLATION OF ALL MECHANICAL **EQUIPMENT, RAILS AND CURBS SHALL** CONFORM TO NYS BUILDING CODE SECTION 1604.9 AND THE WIND **RESTRAINT REQUIREMENTS OF THIS** PROJECT.



HORIZONTAL FIRE DAMPER DETAIL \H801

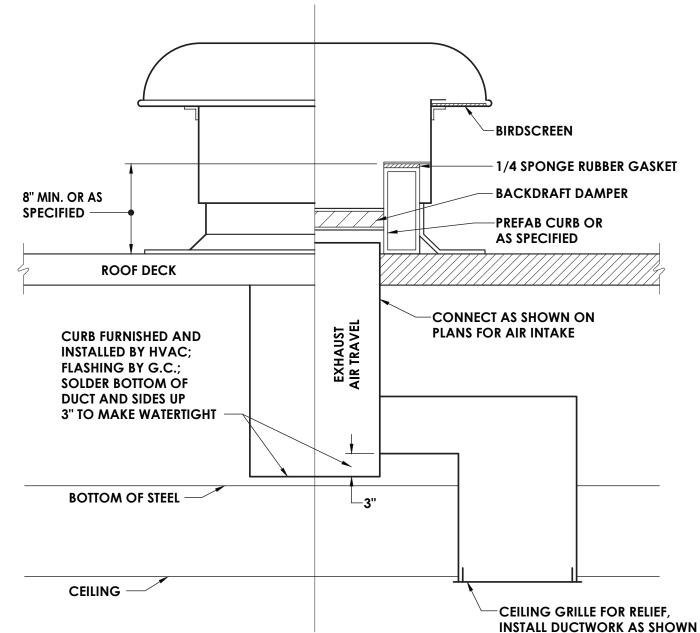


CABINET UNIT HEATER AND UNIT HEATER COIL PIPING SCHEMATIC



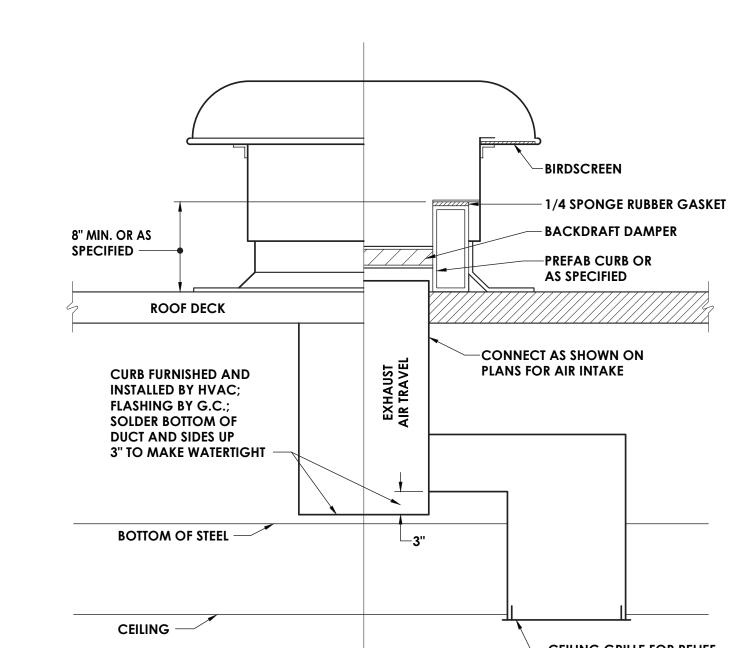
CLEVIS HANGER SINGLE HORIZONTAL RUNS NO VAPOR BARRIER INSULATION

CLEVIS HANGER SINGLE HORIZONTAL RUNS WITH VAPOR BARRIER INSULATION









CPL | Architecture Engineering Planning

50 Front St. Suite 202

Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION

OSSINING UNION FREE SCHOOL

Project Number 14428.20

DISTRICT

2022-2023 CIP

District Office Address

OSSINING

22 EDWARD ST, OSSINING, NY 10562

PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

PROFESSIONAL STAMPS

SHEET INFORMATION
Issued
09/05/23

AS INDICATED Project Status BID SET Drawn By Checked By CNH Drawing Title HVAC DETAILS

GEN

MOTOR WATTS MOTOR FLA

SSO-1 AREA 1 ROOF

12,000

2. VARIABLE SPEED INVERTER DRIVEN COMPRESSOR.

3. PROVIDE BACNET INTEGRATION PACKAGE FOR FULL INTEGRATION WITH BUILDING MANAGEMENT SYSTEM.

12,000

4. PROVIDE WIND BAFFLE.

1. FACTORY MOUNTED DISCONNECT.

NOTES:

5. SIZE REFRIGERANT PIPING AND SPECIALTIES PER MANUFACTURER'S RECOMMENDATIONS.

				STE	AM CON	VECTOR S	CHEDULE			
TAG	HEAT	PRESSURE	FLUID	EAT		ENCL	OSURE		TYPICAL UNIT MFG	NOTES:
IAG	(BTUH)	(PSIG)	TLUID	(°F)	H (IN.)	L (IN.)	D (IN.)	STYLE	& MODEL NO.	INOILS.
CONV-1	5141	2	STEAM	65	20	36	4	RECESSED	STERLING FWG-A	1,2,3
NOTES:										

VRF/SPLIT SYSTEM INDOOR UNITS

7.5

7.5

7.5

HEATING CAPACITY | COOLING CAPACITY |

MBH

I. PROVIDE ACCESS DOORS IN ENCLOSURE AS NECESSARY FOR ACCESS TO SHUTOFF VALVES, CONTROL VALVE AND ACCESSORIES.

2. ENCLOSURE COLOR TO BE SELECTED BY ARCHITECT.

OUTDOOR

AIRFLOW CFM

3. COORDINATE HEIGHT WITH ELECTRICAL DEVICES.

RELC	OCATED OUTDOOR CONDENSI	NG UNIT SCHEDULE (FOR INFORMA	TIONAL USE ON	LY)				
		ELECTRICAL D	ATA			VA/EICLIT	TYPICAL		
COOLING CAPACITY HEATING CAPACITY	FAN DATA	0011005000000	0)/075) / / / 5	0)/075) / / / 0 /	POWER	WEIGHT	UNIT MFG	NOTES:	

COMPRESSOR RLA SYSTEM MFA SYSTEM MCA

9.5

TAG

SSO-3

SSO-4

1. EXISTING EQUIPMENT RELOCATED TO NEW LOCATIONS

LOCATION

AREA 1 ROOF

REL	LOCATED GRA	AVITY INTAKE	VENTILATOR SCH	IEDULE (F	OR INFOR	MATIONAL USE ONLY	()
TAG	THROAT SIZE	HOOD SIZE	HOOD VELOCITY	CFM	SP IN W.G.	TYPICAL UNIT MFG & MODEL NO.	NOTES:
GV-1	-	-	-	50	-	•	1
NOTES:	IT RELOCATED TO NEW LO	CATIONS					

POWER

(V/Hz/Ø)

208/60/1

208/60/1

208/60/1

208/60/1

208/60/1

208/60/1

208/60/1

208/60/1

208/60/1

208/60/1

112

112

112

43

MOCP

15

15

MCA

4.83

2.7

4.83

4.83

0.51

0.51

TYPICAL UNIT MFG

FUJITSU AIRSTAGE ARUH48TLAV2

FUJITSU AIRSTAGE ARUH36TLAV2

FUJITSU AIRSTAGE ARUH48TLAV2

FUJITSU AIRSTAGE ARUH48TLAV2

FUJITSU AIRSTAGE AUUA7TLAV2

FUJITSU AIRSTAGE AUUA7TLAV2

FUJITSU AIRSTAGE AUUA7TLAV2

FUJITSU AIRSTAGE AUUA14TLAV2

FUJITSU AIRSTAGE AUUA14TLAV2

FUJITSU AIRSTAGE AUUA14TLAV2

& MODEL NO.

NOTES:

1,2,4,5,6

1,2,4,5,6

1,2,4,5,6

1,2,4,5,6

1,2,3,4,5,6,7

1,2,3,4,5,6,7

1,2,3,4,5,6,7

1,2,3,4,5,6,7

1,2,3,4,5,6,7

1,2,3,4,5,6,7

SSI-3 1766/1589/1354 235 - CLASSROOM SSI-4 234 - CLASSROOM 1766/1589/1354 232C - SMALL GROUP 318/265/206 318/265/206 851-6 231 - OFFICE 318/265/206 234B - OFFICE 8-122 232 - CORRIDOR 401/330/259 232 - CORRIDOR 401/330/259 SSI-10 232 - CORRIDOR 401/330/259 NOTES: . UNIT MOUNTED AND WIRED DISCONNECT.

AIRFLOW (H/M/L)

CFM

1766/1589/1354

1324/1030/824

 $2. \ \ PROVIDE\ BACNET\ INTEGRATION\ PACKAGE\ FOR\ FULL\ INTEGRATION\ WITH\ BUILDING\ MANAGEMENT\ SYSTEM.$

3. COLOR WHITE.

4. TOUCH PANEL CONTROLLER.

5. PROVIDE MANUFACTURER'S CONDENSATE PUMP.

6. PROVIDE DRAIN PAN LEVEL SENSOR.

7. CEILING CASSETTE MODULES TO FIT IN 24X24 CEILING GRID.

(LB)

57.8

LOCATION

237 - CLASSROOM

236 - CLASSROOM

(V/Hz/∅)

115/60/1

115/60/1

SSI-1

SSI-2

& MODEL

NO. CARRIER

38MHRQ12A--1

		R	ELOCATED I	EXHAUST	FAN SCHE	DULE (FOR	INFORMA	ATIONAL	USE ONLY)	
TAG	TYPE	CFM	SP	RPM		El	LECTRICAL			TYPICAL UNIT MFG	NOTES:
IAG	''''	CITAL	IN W.G.	KI W	HP	BHP	VOLTS	PHASE	AMPS	& MODEL NO.	NOILS.
EF-10	DOWNBLAST	140	0.1	893	1/10	1/10	115	1	60	GREENHECK G-095-VG	1
EF-11	DOWNBLAST	360	0.1	773	.25	.02	115	1	60	GREENHECK G-070-VG	1
EF-12	DOWNBLAST	6000	0.546	1725	1.5	1.07	208	3	60	GREENHECK HB-300-15	1
NOTES:											

1. EXISTING EQUIPMENT RELOCATED TO NEW LOCATIONS

						CABINET	UNIT HEA	TER SCHE	DULE					
TAG	LOCATION	TYPE	HEATING CAPACITY (MBH)	CFM	GPM	# OF ROWS	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	POWER (V/Hz/Ø)	MCA (A)	TYPICAL UNIT MFG & MODEL NO.	NOTES:
CUH-1	STAIRWELL	WALL	18.6	332	1.86	1	180	160	65	116.7	120/60/1	.65	STERLING CBS-WI-03	1,2
CUH-2	CORRIDOR	RECESSED WALL	25.4	430	2.54	1	180	160	65	114.7	120/60/1	1.4	STERLING RW-1120-04	1,2

1. PROVIDE WITH 2-POSITION CONTROL VALVE AND AUTOMATIC BALANCING VALVE LOCATED IN PIPING END COMPARTMENT.

2. COLOR BY ARCHITECT.

						F	IN TUBE S	CHEDULE					
TAG	BTU/FT.	GPM	TUBE	FINS /	EWT	LWT	EAT		ENCLOSUR	E	ELEMENT	TYPICAL UNIT MFG	NOTES:
IAG	B10/F1.	GFM	SIZE (IN.)	FT.	(°F)	(°F)	(°F)	H (IN.)	D (IN.)	STYLE	LENGTH (FT.)	& MODEL NO.	NOTES.
FT-1	1000	0.5	3/4	32	180	160	65	14	4.5	SLOPE TOP	6	STERLING JVA-ARS	1,2,3,4
FT-2	1000	5.1	3/4	40	180	160	65	14	4-3/8	FLAT TOP	16	STERLING JVA-F14	1,2,3,4
NOTES.													

1. PROVIDE ACCESS DOORS IN ENCLOSURE AS NECESSARY FOR ACCESS TO SHUTOFF VALVES, CONTROL VALVE AND ACCESSORIES.

2. ENCLOSURE COLOR TO BE SELECTED BY ARCHITECT.

3. PROVIDE WITH WALL-TO-WALL ENCLOSURE. 4. COORDINATE HEIGHT WITH ELECTRICAL DEVICES.

DEDICATED OUTDOOR AIR SY	STEWS SCHEDIILE

													I	DEDIC	ATED O	JTDO	OR AIR	SYSTEMS	SCHEDU	LE													
		SUPPLY	FAN				RELIEF/EXH	AUST FAN		CC	OLING	CAPACI	ITY							ENERGY I	RECOVER	Υ					EL	ECTRICAL					
TAC	A IDEL OVA	ECD.			OA	AIDEL OVA	EÇD			TOTAL SEN	10	EAT°F	LA1	TOE				WINTER					Ç	SUMMER			DOMED			EED	WEIGHT	TYPICAL UNIT MFG	NOTES:
IAG	AIRFLOW (CFM)	ESP (IN. W.C.)	MOTOR	FAN BHP	(CFM)	AIRFLOW (CFM)	(IN. W.C.)	MOTOR HP	FAN BHP	MBH MB	IS '		LAI	1 1	EAT°F		LAT°F	TOTAL	EFFEC	TIVENESS	EAT°	F	LAT°F	TOTAL	EFFE	CTIVENESS	POWER (V/Hz/Ø)	MCA	МОСР	LLIX	(LBS.)	& MODEL NO.	NOILS.
	(- 1	(, , , , , , , , , , , , , , , , , , ,	""								DE	B WB	DB	WB	DB W	B D	B WB	MBH	TOTAL	SENSIBLE	DB	WB	DB WB	MBH	TOTAL	SENSIBLE	(, , , ,						
DOAS-1	2270	0.75	2	1.56	2270	2465	1.34	2	1	94 69	84.2	.2 66.7	57.2	55.9	-2 -3	41	1.4 32.2	120	68.1	72.3	95	70	84.2 66.7	25	72.9	71.5	208/60/3	44	60	12.4	1452	AAON - RN007	1,2,3,4,5,6,7

1. 24" INSULATED CURB. EXTEND EXISTING CONTROLS TO NEW UNITS.

2. FACTORY MOUNTED AND WIRED DISCONNECT.

3. FACTORY UNIT CONTROLS WITH BACNET INTERFACE. 4. BOTTOM SUPPLY CONNECTION. BOTTOM RETURN/EXHAUST CONNECTION.

5. PROVIDE ENERGY WHEEL. 6. PROVIDE CONVENIENCE OUTLET.

7. PROVIDE 2IN. MERV 13 FILTERS.

CPL | Architecture Engineering Planning 50 Front St. Suite 202 Newburgh, NY 12550 CPLteam.com

PROJECT INFORMATION

14428.20

OSSINING UNION FREE SCHOOL DISTRICT

2022-2023 CIP

District Office Address 22 EDWARD ST, OSSINING, NY 10562

OSSINING PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

PROFESSIONAL STAMPS

SHEET INFORMATION **I**ssued 09/05/23

NOT TO SCALE Project Status BID SET Drawn By CNH Drawing Tit**l**e

HVAC SCHEDULES

																	ROOFTC	OP AIR C	COND	ITION	IING (UNIT SCHEE	ULE															
		SUPPLY F	FAN				RELIEF/EXH	IAUST FAN			COO	ING CA	PACITY			HEATING	CAPACI	ΓΥ							ENERG	SY RECOVERY						Е	LECTRICAL					
TAG	A IDEL OVA	ECD			OA	AIDELOVA	ECD					EA	го Е	LAT°F		MIN.							WINTER					SUN	лмеr			DOWED			EED	WEIGHT	TYPICAL UNIT MFG	NOTES:
IAG	AIRFLOW (CFM)	ESP (IN. W.C.)	MOTC HP	OR FAN	(CFM)	(CFM)	(IN. W.C.)	MOTOR HP	FAN BHP	TOTAL MBH	SENS	LA	Г	LAIF	TYP	PRESSURE	TOTAL	EAT °F	LAI °F	EA	\T°F	LAT°F	TOTAL	EFFE	CTIVENESS	EAT°F	LA	°F 7	TOTAL	EFFEC [*]	TIVENESS	POWER (V/Hz/Ø)	MCA	МОСР	LEK	(LBS.)	& MODEL NO.	NOTES.
	(0,	(,	5111		(3.7)	(1	2111	141511	171511	DB	WB	OB WB		(IN. W.C.)	741511			DB	WB	DB WB	MBH	TOTAL	SENSIBL	E DB WE	B DB	WB	MBH [TOTAL	SENSIBLE	(' / ' '=/ ~ /						
RTU-1	2900	1.75	3	1.78	1010	1010	0.75	2	0.9	93	75	83.9	66.8	57.6 55.3	NG	6	156	43.9	93.7	-	-		-	-	-		-	-	-	-	-	208/60/3	58	70	11.5	1900	AAON - RN009	1,2,3,4,6,7
RTU-2	3800	1.75	3	2.87	1620	1620	0.75	2	1.45	146	118	85.3	67.2	53.7 53.1	NG	6	234	38.2	95.2	-	-		-	-	-		-	-	-	-	-	208/60/3	79	90	11	2139	AAON - RN013	1,2,3,4,6,7
RTU-3	5300	2.35	7.5	4.27	2725	2725	1.19	5	2.99	212	179	80	65.6	53.5 53.1	NG	6	219	59.1	97.3	-2	-3	49.3 39	161.5	74.2	74.7	95 70	82.2	66.2	32.9	73.8	73.9	208/60/3	115	125	10	3379	AAON - RN016	1,2,3,4,6,7
RTU-4	1900	1.5	2	1.64	590	590	0.5	1	0.52	64	51	83.3	66.6	55 54	NG	6	81	46.3	85.8	-	-		-	-	-		-	-	-	-	-	208/60/3	43	60	11.6	1050	AAON - RQ006	1,2,3,4,5,6,7
RTU-5	1640	1.5	2	0.95	990	990	0.5	1	0.49	68	55	88.4	68.1	54.2 53.2	NG	6	120	25.4	93.7	-	-		-	-	-		-	-	-	-	-	208/60/3	40	60	11.1	1511	AAON - RN007	1,2,3,4,6,7

NOTES:

1. 24" INSULATED CURB. EXTEND EXISTING CONTROLS TO NEW UNITS. 2. FACTORY MOUNTED AND WIRED DISCONNECT.

3. FACTORY UNIT CONTROLS WITH BACNET INTERFACE.

4. BOTTOM SUPPLY CONNECTION. BOTTOM RETURN/EXHAUST CONNECTION.

5. PROVIDE ENERGY RECOVERY WHEEL.

6. PROVIDE CONVENIENCE OUTLET. 7. PROVIDE 2IN. MERV 13 FILTERS.

			LOUVER SC	UEDIII E			
	1		LOUVER 3C	HEDULE			
TAG	SERVICE	CFM	FREE AREA VELOCITY (FPM)	SIZE (IN)	PRESSURE DROP	TYPICAL UNIT MFG & MODEL NO.	NOTES:
L-1	EXHAUST	100	508	16x6	0.038	GREENHECK ESD-202-16x6	1,2
NOTES:			·			·	

NOTES: 1. PROVIDE BIRD SCREEN.

2. PROVIDE MOTORIZED BACKDRAFT DAMPER.

1. AEROBLADE DESIGN, DOUBLE DEFLECTION, EXTRUDED ALUMINUM.

REGISTERS, GRILLES, AND DIFFUSERS SCHEDULE						
TAG	APPLICATION	MATERIAL	TYPE	FINISH	DESIGN EQUIP.	NOTES:
D-1	SUPPLY - 3 CONE DIFFUSER	STEEL	LAY-IN	WHITE	TITUS: TMS	-
D-2	SUPPLY - 3 CONE DIFFUSER	STEEL	LAY-IN	WHITE	TITUS: PMC	-
G-1	RETURN/EA - LOUVERED GRILLE	STEEL	LAY-IN	WHITE	TITUS: 350FL	1
G-2	RETURN/EA - LOUVERED GRILLE	STEEL	SURFACE MOUNT	WHITE	TITUS: 350FL	1
G-3	RETURN/EA - LOUVERED GRILLE	STEEL	LAY-IN	WHITE	TITUS: PMR	-
NOTES:						

HOT WATER COIL SCHEDULE AIR DATA WATER DATA MFG SIZE TYPICAL UNIT MFG ROWS NOTES: TAG SERVICE TEMP (°F) TEMP (°F) MAX APD MAX APD MIN. HxL (IN.) & MODEL NO. (IN. WC) (IN. WC) MBH ENT ENT LVG LVG HC-1 DOAS-1 660 92.1 0.17 33.9 3.5 160 3.2 14x12 CAPITAL W8-1412 1,2 HC-2 DOAS-1 1680 85.3 0.15 81.9 8.4 180 24x18 CAPITAL W8-2418 1,2 NOTES:

1. REFER TO PLAN FOR COIL CONNECTION HAND.

2. TUBE OD 0.625, TUBE SPACING 1.5x1.299.

CPL | Architecture Engineering Planning 50 Front St. Suite 202 Newburgh, NY 12550

CPLteam.com

PROJECT INFORMATION Project Number

14428.20

OSSINING UNION FREE SCHOOL **DISTRICT**

2022-2023 CIP

District Office Address 22 EDWARD ST, OSSINING, NY 10562

OSSINING PARK ELEMENTARY SED# 66-14-01-03-0-004-024

PROJECT ISSUE & REVISION SCHEDULE

No. Date Description

PROFESSIONAL STAMPS

NEW YORK STATE EDUCATION STATEMENT

IT IS A VICUATION OF THE NEW YORK STATE EDUCATION LAW AND THE COMMISSIONER'S REGULATIONS FOR ANY PERSON, UNILESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, ENGINEER OR SLAVEYFOR. TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE SEAL OF AN ARCHITECT, ENGINEER OR SURVEYOR IS ALTERED. THE ALTERING PARTY SHALL AFIX TO THE ITEM THEIR SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SCHATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

SHEET INFORMATION

Drawing Tit**l**e

Issued Scale 09/05/23 NOT TO SCALE Project Status BID SET Drawn By CNH

HVAC SCHEDULES