

ADDENDUM

ADDENDUM NUMBER 3

PROJECT | Nanuet Union Free School District

Nanuet 2020 Miller Hydronic Conversion

OFFICE ADDRESS | KSQ DESIGN

215 W 40th Street, 15th Floor | New York, NY 10018 | 914.682.3700

PROJECT NUMBER | 1911002.00 Delta Engineers Number 2019.229.001

Date | 4/7/2021

NOTICE TO CONTRACTORS

This Addendum issued prior to receipt of Bid shall and does hereby become a part of the Construction Documents for the above project.

All principal Contractors shall be responsible for seeing that their Subcontractors are properly apprised of the contents of this Addendum.

All information contained in this Addendum shall supersede and shall take precedence over any conflicting information in the original Bidding Documents dated Click or tap to enter a date and all pervious addenda.

All Contractors shall acknowledge receipt of this Addendum in the space provided in the Proposal Form. Failure to do so may subject Bidder to disqualification.

A. CHANGES TO PRIOR ADDENDA

None.

B. CHANGES TO BIDDING REQUIREMENT

None.

C. CHANGES TO CONDITIONS OF THE CONTRACT

None.

D. CHANGES TO SPECIFICATIONS

None

E. CHANGES TO DRAWINGS

- **a.** Sheet MES H601: Added notes requirements for the fan coil units AHU- 1 & 2 in the gym. Replaced Sheet.
- **b.** Sheet MES E101 Deleted field installed disconnect. Replaced Sheet.

GENERAL: None

STRUCTURAL: None



ADDENDUM

ARCHITECTURAL:	None
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MECHANICAL:

Sheet MES H601

ELECTRICAL:

Sheet MES-E101:

PLUMBING: N/A

FIRE PROTECTION: N/A

ENCLOSURES:

SPEC SECTIONS

None

F. **CLARIFICATIONS**

None

SHEETS

GENERAL	CIVIL	STRUCT	ARCH	MECH	ELEC	PLUMB	FIRE PROT
				MES-M601	MES-E101		

END OF ADDENDA

DUCTLESS SPLIT SCHEDULE INDOOR FAN COIL UNIT RATED COOING OUTDOOR RATED RATED HEATING OUTDOOR RATED NOMINAL CAPACITY CLG. CONDITIONS CAPACITY HTG. CONDITIONS POWER (V/PH/HZ) DESIGN STANDARD SYSTEM TYPE CFM (MANUFACTURER & MODEL) TYPE TONS (BTU/HR) (DB/WB DEG. F) (BTU/HR) (DB/WB DEG. F) C-1/ACCU-1 OFFICE

					PU	MP SC	CHEDU	JLE						
									MINIMUM		ELECTRICAL	М	OTOR CONTROL	LER
TAG	MANUFACTURER	SERVICE	TYPE	FLUID	GPM	HEAD	RPM	IMPELLER SIZE	PUMP EFFICIENCY	HP	VOLTS/PH/HZ	TYPE	FURNISHED BY	INSTALLED BY
	V VV VV	\checkmark \checkmark					\checkmark							_ ,
P-1	BOD TACO KV 4009D	HOT WATER	VERTICAL IN LINE	WATER	3 75	70	1760	8.7	80	10	208/3/60	VFD	MECHANICAL	ELECTRICAL
P-2	BOD TACO KV 4009D	HOT WATER	VERTICAL IN LINE	WATER	375	70	1760	8.7	80	10	208/3/60	VFD	MECHANICAL	ELECTRICAL

	CABINET UNIT HEATER SCHEDULE												
			\	HEATING HEATER SCHEDULE									
MARK	CONFIGURATION	CFM	A	JR			WATER			FAN	MOTOR	REMARKS	
			EAT	LAT	EWT	LWT	PD (FT)	GPM	MBH	HP	V/PH/HZ		
CUH-1	CEILING MOUNTED	335	65	125	180	160	0.8	2.28	22	1/15	120/1/60		
CUH-2	CEILING MOUNTED	630	65	125	180	160	1.2	4.8	48	1/12	120/1/60-		

SHELL AND TUBE HEAT EXCHANGER SCHEDULE

PRESSURE LBS CONDENSATE (F) (F) GPM WPD (PSI)

HX-1 | HW EQUIPMENT | MECH ROOM | 7 | 7642 | 140 | 180 | 380 | 2.15 | 2 | .003

SERVICE

LOCATION

	AIR SEPARATOR SCHEDULE											
	MARK	SERVICE	TYPE	MEDIUM	GPM	LINE SIZE	REMARKS					
ſ	AS-1	HOT WATER	INLINE	HOT WATER	380	6	TACO AC06-125					

NUMBER

FOULING

REMARKS

		CE	EILIN	G DIFI	FUSER	SCHEE	ULE							
MADIC	MARK USE TYPE PERFORMANCE MOUNTING MATERIAL FINISH ACCESSORIES													
MARK	USE	ITPL	CFM	MAX. NC	MOUNTING	MATERIAL	FINISH	ACCESSURIES	PRICE					
R-1	EXHAUST	AIRFOIL RETURN GRILLE	1000	35	30/16	STEEL	WHITE		MODEL 60					
R-2	EXHAUST	AIRFOIL RETURN GRILLE	1250	35	36/16	STEEL	WHITE		MODEL 60					
R-3	EXHAUST	AIRFOIL RETURN GRILLE	750	35	24/16	STEEL	WHITE		MODEL 60					
R-4	EXHAUST	SQUARE DIFFUSER	100	35	24/24	STEEL	WHITE	PROVIDE WITH MANUAL DAMPER	MODEL PDR					
S-4	SUPPLY	SQUARE DIFFUSER	100	35	24/24	STEEL	WHITE	PROVIDE WITH MANUAL DAMPER	MODEL SPD					

	LOUVER SCHEDULE													
MARK	LOCATION	FUNCTION	BLADE STYLE	WIDTH/HEIGHT (IN.)	FRAME DEPTH (IN.)	CFM	FREE AREA (SQFT)	PRESS. DROP (IN. WC)	MATERIAL	FINISH	ACCESSORIES			
L-1	CLASSROOM	EXHASUT	LOUVER DAMPER	22/22	4	1000	1.4	.1	ALUMINUM	BRUSHED	BIRDSCREEN, ACTUATOR			
L-2	CLASSROOM	EXHAUST	LOUVER DAMPER	26/22	4	1250	1.4	.1	ALUMINUM	BRUSHED	BIRDSCREEN, ACTUATOR			
L-3	CLASSROOM	EXHAUST	LOUVER DAMPER	18/22	4	750	1.4	.1	ALUMINUM	BRUSHED	BIRDSCREEN, ACTUATOR			
L-4	OFFICES	OUTDOOR AIR	LOUVER DAMPER	6/24	4	100	.6	.1	ALUMINUM	BRUSHED	BIRDSCREEN, ACTUATOR			
L-5	OFFICES	EXHAUST	LOUVER DAMPER	6/24	4	100	.6	.1	ALUMINUM	BRUSHED	BIRDSCREEN, ACTUATOR			

ENERGY RECOVERY VENTILATOR SCHEDULE												
MARK	SERVICE TYPE AIR FLOW RANGE (CFM) STATIC PRESSURE ELECTRICAL DATA											
ERV-1	OFFICES	BOX 100 0.5 120/1/60 .6 9 15 RENEWAIRE EV130										

EXHAUST FAN SCHEDULE													
			STATIC	=	CONEC		Е	LECTRICAL					
MARK	TYPE	CFM	PRESSURE (IN. WG)	FAN RPM	SONES (MAX)	DRIVE	HP	VOLTS/PH/HZ	MANUFACTURER/MODEL NUMBER	NOTES			
EF-1	INLINE	1000	.125	638	3	DIRECT	3/4	120/1/60	GREENHECK SQ-140-VG	-			
EF-2	INLINE	1250	.125	750	4.4	DIRECT	3/4	120/1/60	GREENHECK SQ-140-VG	-			
EF-3	INLINE	750	.125	790	3	DIRECT	1/2	120/1/60	GREENHECK SQ-120-VG	_			

	AIR HANDLING UNIT SCHEDULE																						
				AIR S	IDE					WAT	ER SIDE					F	AN						
			(CUBIC FEET	/MINUTE				TEMPERATURE CAPACITY WPD				MOTOR ELECTRICAL					٩L	BASIS OF DE				
TAG	SERVICE	TOTAL	O.A.	EAT	LAT	TSP	ESP	FLUID	EWT	LWT	GPM	МВН	FT H20	TYPE	DRIVE	НР	ВНР	VOLT	PH	HZ	MANUFACTURER	MODEL	COMMENT
AHU-1	GYM	3600	750	53	102.3	1.7	1	WATER	180	146.4	12	196.6	1.76	CENTR	BELT	3	2.17	208	3	60	MAGIC AIRE	HBB40	1,2,4,5,6
AHU-2	GYM	3600	750	53	102.3	1.7	1	WATER	180	146.4	12	196.6	1.76	CENTR	BELT	3	2.17	208	3	60	MAGIC AIRE	HBB40	1,3,4,5,6 <i>/</i>

C	OMMENTS	
	011 4 4 5 5 1 4 0	

KINDERGARTEN

17

- 2. Left Hand Coil Connections
- 1. 2" MERV 8 + 4" MERV 13 FILTERS

10,497

5. PROVIDE 1" FOIL-FACED, CLOSED CELL INSULATION ON CASING INTERIOR 3. Right Hand Coil Connections

		VENT	ΓΙLΑΤ	ION RI	EQUIR	EMENTS		
SPACE DESIGNATION	AREA AREA SF	OCCUP /1000 SF	ANTS TOTAL	VENTILATION PER OCCUP.	REQUIRED PER SF	UNCORRECTED VENTILATION	EFFICIENCY FACTOR	CORRECTED CFM
GYMNASIUM	3,744	7	26	20.00	0.18	1,200	80%	1,500
NEW CAFETERIA	1,869	70	131	7.50	0.18	1,320	80%	1,650
OLD CAFETERIA	2,400	70	168	7.50	0.18	1,690	80%	2,110
STANDARD CLSRM	805	25	20	10.00	0.12	300	80%	380
	The state of the s		The state of the s					

1,104 | 25 | 28 | 10.00 | 0.12

ORRECTED CFM	
1,500	
1,650	
2,110	
380	
260	
510	
6,410	

13

4. PROVIDE WITH FACTORY MOUNTED AND WIRED COMBINATION STARTER DISCONNECT

14

5,130

													UNIT	VENT	ILATO	R SCH	EDULE									
		HEATING										C	OOLING	_												
		CUBIC FEET/MINUTE AIR				AIR S	SIDE			WATER SIE	DE		ENTERING AIR		LEAVING AIR MBH			FAN MOTOR		R	BASIS OF DESIGN					
TAG	SERVICE	CONFIGURATION	NOMINAL	OPERATION	OUTSIDE	EAT	LAT	EWT	LWT	GPM	PD (FT)	MBH	TYPE	DBT	WBT	DBT	WBT	TOTAL	SENSIBLE	APD	TYPE	НР	V/PH/HZ	MANUFACTURER	MODEL	Notes
UV-1	CLASSROOMS	VERTICAL	1250	1000	380	45	100	180	138	3.30	1.39	67.19	VRF	78.8	66.7	59	57	32.40	20.70		ECM	1/2	120/1/60	MAGIC AIR	MAUVF4	1,3,4,5
UV-2	CLASSROOMS	VERTICAL	1500	1250	510	43	101	180	140	4.15	2.3	83.00	VRF	79.3	67.0	59	56	42.20	26.70		ECM	1/2	120/1/60	MAGIC AIR	MAUVF5	1,3,4,5
UV-3	CLASSROOMS	VERTICAL	1000	750	260	47	103	180	145	3.10	4.18	53.00	VRF	78.2	66.4	58	55	28.60	18.00		ECM	1/3	120/1/60	MAGIC AIR	MAUVF3	1,3,4,5
UV-4	CAFETERIA	VERTICAL	1500	1500	675	40	112	180	137	5.30	4	110.00	VRF	80.1	67.3	59	55	44.00	28.60		ECM	1/2	120/1/60	MAGIC AIR	MAUVF5	2,3,4,5

COMMENTS

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- 1. 2 ROW HOT WATER COIL 2. 3 ROW HOT WATER COIL
- 3. 4 ROW R410-A COOLING COIL FOR FUTURE CONNECTION TO VRF ACCU. 4. 2" MERV 10 FILTER

11

5. PROVIDE 24" EXTENSION/UTILITY CABINET ON THE RIGHT SIDE FOR FUTURE AC CONTROL PANEL AND EXPANSION VALVE.

10

	HOT WATER COIL SCHEDULE														
	0514	4.55	EAT	LAT DB (F)		FLU	P5111P1/0								
IBH	CFM	APD	DB/WB (°F)		FLUID	GPM	EWT (F)	LWT (F)	WPD (FT.)	REMARKS					
570	7000	.25	40	125	HOT WATER	32	180	140	5	1, 3					
350	3700	.25	40	125	HOT WATER	16	180	140	5						
										-					

4. SEVEN REQUIRED	
\triangle	

	EXPANSION TANK SCHEDULE												
MARK	SERVICE	TYPE	MEDIUM	FILL PRESS. (PSIG)	MAX. PRESS. (PSIG)	TANK VOLUME (GALLONS)	ACCEPT. VOLUME (GALLONS)	LENGTH (IN)	ZE DIAM. (IN)	REMARKS			
EX-1	HEATING	BLADDER (ASME)	WATER	27	45	475	475	84	40	TACO CA1800-125			

	BOILER FEED UNIT SCHEDULE										
	BOILER	PUMP	PUMP DISCHARGE	DISCHARGE RECEIVER	INLET SIZE	TANK	ELEC	TRICAL			
MARK	CAPACITY BHP	GPM	PRESSURE (PSIG)	SIZE (IN)	CAPACITY (GAL)	(IN)	(GAL)	MOTOR HP	V/PH/HZ	REMARKS	
BFU-1	150	21	50	1-1/2	125	4	260	2	208/3/60	SHIPCO 21 PMC-50	

CONVECTOR SCHEDULE												
MARK	CONFIGURATION		HEA	ATING		. REMARKS						
	CONTROCKATION	EWT	LWT	GPM	MBH	NEMANNS						
C-1	SLOPE TOP	180	140	.4	7.5	36"L x 32"H						
C-2	SLOPE TOP	180	140	.6	11.5	52"L x 32"H						
C-3	SLOPE TOP	180	140	.8	14.5	64"L x 32"H						

	FINTUBE RADIATION SCHEDULE											
TAG	FLUID	OUTPUT BTU/FT	AVE. WATER TEMP.	ACTIVE ELEMENT	TUBE SIZE	FINS/ FT	CABI HEIGHT		MTG. HEIGHT	MANUFACTURER	MODEL	COMMENTS
FTR-1	WATER	940	160	4-1/4"X3-5/8"	3/4	50	24	5/5/16	18	STERLING	VERSA-LINE JVB	1
TR-2	WATER	850	160	4-1/4"X3-5/8"	3/4	50	NO ENC	LOSURE	18	STERLING	BARE STYLE B	1
FTR-3	WATER	1420	160	4-1/4"X3-5/8"	3/4	50	NO ENCLOSURE		18	STERLING	BARE STYLE B	2

COMMENTS

- 1. MOUNT HW FIN HIGH IN ENCLOSURE TO ALLOW FUTURE REFRIGERANT PIPING TO RUN BELOW.
- 2. TWO TIER

		REVIS
		No.
	С	A
Notes		
1,3,4,5		
1,3,4,5		
1,3,4,5		

ISSUED: ISSUE FOR BID

DATE: MARCH 15, 2021 **SCALE:** As indicated

SHEET NAME: HVAC SCHEDULES

SHEET NUMBER:

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318 | 208-230/1/60 | 9 | SMARTFLEX DHX09NWB21S & DHX09CSB21S HEAT PUMP 0.75 9,000 95/75 11,000 47/43 WALL CASSETTE

SERVICE DUCT MOUNTED 670 KITCHEN HC-2 CAFETERIA DUCT MOUNTED | 1 | 290 | 0.2 | 55 | 95 | HOT WATER | 10 | 180 | 160 | 5 HC-3 PTAC IN UNIT
 DUCT MOUNTED
 195
 3600
 .25
 61
 90
 HOT WATER
 10
 180
 140
 5
 HC-4 ERV-1

1. CONTRACTOR TO FIELD VERIFY REQUIRED DIMENSIONS 2. PROIDE NECESSARY ADAPTORS TO FIT WITH ERV DISCHARGE

ARCHITECT

CAROLINA

CAROLINA

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Owner

NEW YORK OKLAHOMA NORTH

TEXAS COLORADO SOUTH

Nanuet Union Free School District

103 Church St, Nanuet, NY 10954

Green Path Environmental, Inc.

DELTA Engineers, Architects, & Land Surveyors, DPC 220 Harborside Dr, Suite 202

<u>SED CONTROL NUMBERS</u> MILLER ES #: 50-01-08-03-0-001-022

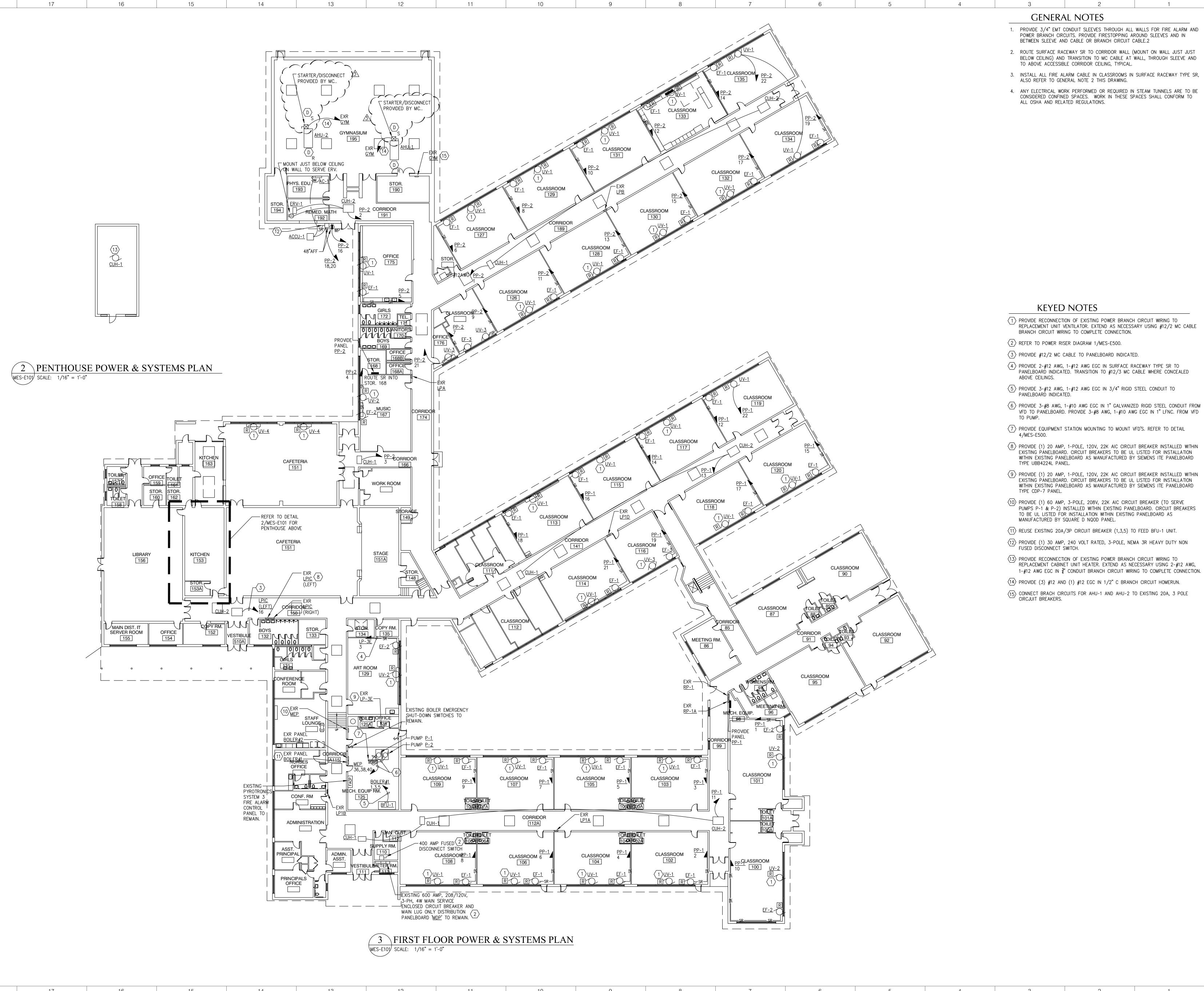
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Nanuet High School Global Learning Commons

NANUET MILLER ES **HYDRONIC** CONVERSION 2020

103 Church St, Nanuet, NY 10954



1. PROVIDE 3/4" EMT CONDUIT SLEEVES THROUGH ALL WALLS FOR FIRE ALARM AND POWER BRANCH CIRCUITS. PROVIDE FIRESTOPPING AROUND SLEEVES AND IN

2. ROUTE SURFACE RACEWAY SR TO CORRIDOR WALL (MOUNT ON WALL JUST JUST BELOW CEILING) AND TRANSITION TO MC CABLE AT WALL, THROUGH SLEEVE AND

3. INSTALL ALL FIRE ALARM CABLE IN CLASSROOMS IN SURFACE RACEWAY TYPE SR,

4. ANY ELECTRICAL WORK PERFORMED OR REQUIRED IN STEAM TUNNELS ARE TO BE CONSIDERED CONFINED SPACES. WORK IN THESE SPACES SHALL CONFORM TO

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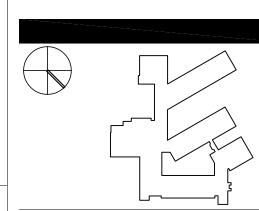
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SED CONTROL NUMBERS MILLER ES #: 50-01-08-03-0-001-022



NANUET MILLER ES **HYDRONIC** CONVERSION 2020

103 Church St, Nanuet, NY 10954



REVISIONS ADDENDUM 3

ISSUED: ISSUE FOR BID **DATE:** MARCH 15, 2021

SHEET NUMBER:

SCALE: As indicated SHEET NAME: FIRST FLOOR POWER & SYSTEMS

MES-E101