MECHANICAL VENTILATION SCHEDULE

ROOM	OCCUPANY CLASSIFICATION	FLOOR AREA (FT^2)	ROOM VOLUME (FT^3)	OCCUPANCY CLASSIFICATION	OCCUPANT LOAD (OCCUPANT/1,000 FT^2)	# OF OCCUPANTS	REQUIRED CFM/OCCUPANT	REQUIRED CFM/FT^2	BREATHING ZONE OUTDOOR AIRFLOW (CFM)	ZONE DISTRIBUTION EFFECTIVENESS		TOTAL ROOM OUTDOOR AIR REQUIRED (CFM)		ACTUAL ROOM OUTDOOR AIRFLOW RATE (CFM)	
										COOLING	HEATING	COOLING	HEATING	COOLING	HEATING
1	KINDERGARTEN SPECIAL EDUCATION	907	9,070	CLASSROOMS (AGES 5 -8)	25	23	10	0.12	339	0.8	0.8	424	424	425	425
2	FIRST GRADE SPECIAL EDUCATION	942	9,420	CLASSROOMS (AGES 5 -8)	25	24	10	0.12	353	0.8	0.8	441	441	445	445
3	READING/RESOURCE ROOM	348	3,480	OFFICE SPACES	5	2	5	0.06	31	0.8	0.8	39	39	40	40
4	SECOND & THIRD SPECIAL EDUCATION	997	9,970	CLASSROOMS (AGES 5 -8)	25	25	10	0.12	370	0.8	0.8	463	463	470	470
5	KINDERGARTEN	879	8,790	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
6	FIRST GRADE	920	9,200	CLASSROOMS (AGES 5 -8)	25	23	10	0.12	340	0.8	0.8	425	425	425	425
7	ART	870	8,700	ART CLASSROOM	20	18	10	0.18	337	0.8	0.8	421	421	425	425
8	FIRST GRADE BL	846	8,460	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	322	0.8	0.8	403	403	405	405
9	1ST GRADE	870	8,700	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	324	0.8	0.8	405	405	405	405
10	1ST GRADE	848	8,480	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	322	0.8	0.8	403	403	405	405
11	1ST GRADE	876	8,760	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
12	1ST GRADE	807	8,070	CLASSROOMS (AGES 5 -8)	25	21	10	0.12	307	0.8	0.8	384	384	385	385
13	1ST GRADE	922	9,220	CLASSROOMS (AGES 5 -8)	25	24	10	0.12	351	0.8	0.8	439	439	440	440
14	KINDERGARTEN	891	8,910	CLASSROOMS (AGES 5 -8)	25	23	10	0.12	337	0.8	0.8	421	421	425	425
15	KINDERGARTEN	950	9,500	CLASSROOMS (AGES 5 -8)	25	24	10	0.12	354	0.8	0.8	443	443	445	445
16	2ND GRADE	864	8,640	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	324	0.8	0.8	405	405	405	405
17	2ND GRADE	855	8,550	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
18	2ND GRADE	872	8,720	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
19	2ND GRADE	861	8,610	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
20	2ND GRADE	875	8,750	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
21	2ND GRADE	861	8,610	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	323	0.8	0.8	404	404	405	405
22	2ND GRADE	871	8,710	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
23	2ND GRADE	853	8,530	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	322	0.8	0.8	403	403	405	405
24	KINDERGARTEN	871	8,710	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	325	0.8	0.8	406	406	410	410
25	KINDERGARTEN	910	9,100	CLASSROOMS (AGES 5 -8)	25	23	10	0.12	339	0.9	0.9	377	377	380	380
27	AV/RESOURCE ROOM	100	1,000	OFFICE SPACES	5	1	5	0.06	11	0.9	0.9	12	12	15	15
28	PSYCHOLOGIST ROOM	148	1,480	OFFICE SPACES	5	1	5	0.06	14	0.9	0.9	16	16	20	20
30	3RD GRADE	759	7,590	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	281	0.8	0.8	351	351	355	355
31	3RD GRADE	754	7,540	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
32	3RD GRADE	751	7,510	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
33	3RD GRADE	746	7,460	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
34	1ST GRADE	754	7,540	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
35	3RD GRADE BL	759	7,590	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	281	0.8	0.8	351	351	355	355
36	1ST GRADE	759	7,590	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	281	0.8	0.8	351	351	355	355
37	2ND GRADE	762	7,620	CLASSROOMS (AGES 5 -8)	25	20	10	0.12	291	0.8	0.8	364	364	365	365
38	2ND GRADE	754	7,540	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
39	3RD GRADE	751	7,510	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
40	3RD GRADE	750	7,500	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
41	3RD GRADE	752	7,520	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.8	0.8	350	350	350	350
42	3RD GRADE	845	8,450	CLASSROOMS (AGES 5 -8)	25	22	10	0.12	321	0.8	0.8	401	401	410	410
43	LAB	751	7,510	CLASSROOMS (AGES 5 -8)	25	19	10	0.12	280	0.9	0.9	311	311	315	315
44	READING/RESOURCE ROOM	958	21,076	OFFICE SPACES	5	5	5	0.06	82	0.9	0.9	91	91	95	95
46	CONFERENCE ROOM	305	3,050	OFFICE SPACES	5	2	5	0.06	28	0.9	0.9	31	31	35	35
47	FRC/RESOURCE ROOM	222	2,220	OFFICE SPACES	5	2	5	0.06	23	0.9	0.9	26	26	30	30
48	KINDERGARTEN	964	9,640	CLASSROOMS (AGES 5 -8)	25	25	10	0.12	366	0.8	0.8	458	458	460	460
49	KINDERGARTEN	999	9,990	CLASSROOMS (AGES 5 -8)	25	25	10	0.12	370	0.8	0.8	463	463	465	465
50	ART ROOM	1075	10,750	ART CLASSROOM	20	22	10	0.18	414	0.8	0.8	518	518	520	520
51	MUSIC ROOM	983	9,830	CLASSROOMS (AGES 5 -8)	25	25	10	0.12	368	0.8	0.8	460	460	460	460
52	ENL OFFICE	399	3,990	OFFICE SPACES	5	2	5	0.06	34	0.9	0.9	38	38	40	40
54	MAIL/COPY/BOOK ROOM	586	5,860	RECEPTION AREAS	30	18	5	0.06	125	0.9	0.9	139	139	140	140
55	PSYCH A.	168	1,680	OFFICE SPACES	5	1	5	0.06	15	0.9	0.9	17	17	20	20
56	PSYCH B.	147	1,470	OFFICE SPACES	5	1	5	0.06	14	0.9	0.9	16	16	40	40
57	STAFF LOUNGE	647	6,470	OFFICE SPACES	5	4	5	0.06	59	0.9	0.9	66	66	70	70
58	ADMIN OFFICE	636	6,360	OFFICE SPACES	5	4	5	0.06	58	0.8	0.8	73	73	75	75
59	HEALTH ROOM	500	5,000	OFFICE SPACES	5	3	5	0.06	45	0.9	0.9	50	50	50	50
60	CUSTODIAN OFFICE	387	3,870	OFFICE SPACES	5	2	5	0.06	33	0.9	0.9	37	37	40	40
61	CAFETERIA	504	5,040	DINING ROOM	70	36	7.5	0.18	361	0.8	0.8	451	451	455	455
61A	OFFICE	104	1,040	OFFICE SPACES	5	1	5	0.06	11	0.9	0.9	12	12	15	15
61B	OFFICE	88	880	OFFICE SPACES	5	1	5	0.06	10	0.9	0.9	11	11	15	15
2A	NET LAB RESOURCE ROOM	163	1,630	OFFICE SPACES	5	1	5	0.06	15	0.9	0.9	17	17	20	20
46F	LIBRARY	2241	22,410	OFFICE SPACES	10	23	5	0.12	384	0.8	0.8	480	480	480	480
46G	LIBRARY OFFICE	329	3,290	OFFICE SPACES	5	2	5	0.06	30	0.8	0.8	38	38	40	40
50A	OFFICE	233	2,330	OFFICE SPACES	5	2	5	0.06	24	0.9	0.9	27	27	30	30
51A	OFFICE	123	1,230	OFFICE SPACES	5	1	5	0.06	12	0.9	0.9	13	13	15	15
53C	COUNSELOR	188	1,880	OFFICE SPACES	5	1	5	0.06	16	0.9	0.9	18	18	20	20
54E	SPEECH	167	1,670	OFFICE SPACES	5	1	5	0.06	15	0.9	0.9	17	17	20	20
55E	SPEECH	185	1,850	OFFICE SPACES	5	1	5	0.06	16	0.9	0.9	18	18	20	20
58A	ASST PRIN.	144	1,440	OFFICE SPACES	5	1	5	0.06	14	0.9	0.9	16	16	20	20

BOOSTER FAN SCHEDULE

UNIT TAG	SERVES	FAN						BASIS OF DESIGN		NOTES
		TYPE	DRIVE	AIRFLOW (CFM)	ESP (IN WC)	MOTOR HP	V/PH/HZ	MANUFACTURER	MODEL NUMBER	
BF-2A	CC-2A	INLINE	DIRECT	20	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-43-1	CC-43-1	INLINE	DIRECT	165	0.25	0.75	120/1/60	S&P	TD-150	SEE NOTES
BF-43-2	CC-43-2	INLINE	DIRECT	170	0.25	0.75	120/1/60	S&P	TD-150	SEE NOTES
BF-44-1	CC-44-1	INLINE	DIRECT	50	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-44-2	CC-44-2	INLINE	DIRECT	45	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-46	CC-46	INLINE	DIRECT	35	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-47	CC-47	INLINE	DIRECT	30	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-50A	CC-50A	INLINE	DIRECT	30	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-60	CC-60	INLINE	DIRECT	40	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-61A	CC-61A	INLINE	DIRECT	15	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES
BF-61B	CC-61B	INLINE	DIRECT	15	0.25	0.45	120/1/60	S&P	TD-100	SEE NOTES

BOOSTER FAN SCHEDULE NOTES:

1. PROVIDE ELECTONICALLY COMMUTATED MOTOR, DISCONNECT SWITCH, MOTORIZED BACKDRAFT DAMPER, AND PROGRAMABLE TIMECLOCK.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. : MNY-2300128.00

Structural Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
78 ROSMAN RD, THIELLS, NY 10984
THIELLS ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
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Drawing Title
MECHANICAL SCHEDULES - 1

Drawing No.
TES-M-003

UNIT VENTILATOR SCHEDULE

UNIT TAG	LOCATION	CONFIGURATION	TOTAL SUPPLY AIRFLOW (CFM)	MINIMUM OUTSIDE AIRFLOW		COOLING					HEATING			FILTER	ELECTRICAL			UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN)	UNIT DEPTH (IN)	BASIS OF DESIGN		NOTES
				COOLING	HEATING	EADB (°F)	EAWB (°F)	LADB (°F)	LAWB (°F)	MIN TOTAL CAPACITY (CFM)	EADB (°F)	LADB (°F)	REQUIRED TOTAL CAPACITY (MBH)	MERV	MCA	MAX FUSE SIZE	V/PH/HZ				MANUFATURER	MODEL NUMBER	
UV-1	ROOM-1	VERTICAL	1500	425	425	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-2	ROOM-2	VERTICAL	1500	445	445	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-3	ROOM-3	VERTICAL	750	40	40	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.19	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-4	ROOM-4	VERTICAL	1500	470	470	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	471	106 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-5	ROOM-5	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-6	ROOM-6	VERTICAL	1500	425	425	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-7	ROOM-7	VERTICAL	1500	425	425	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-8	ROOM-8	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-9	ROOM-9	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-10	ROOM-10	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-11	ROOM-11	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-12	ROOM-12	VERTICAL	1500	385	385	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-13	ROOM-13	VERTICAL	1500	440	440	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-14	ROOM-14	VERTICAL	1500	425	425	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-15	ROOM-15	VERTICAL	1500	445	445	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-16	ROOM-16	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-17	ROOM-17	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-18	ROOM-18	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	55.36	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-19	ROOM-19	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-20	ROOM-20	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-21	ROOM-21	VERTICAL	1500	405	405	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-22	ROOM-22	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-23	ROOM-23	VERTICAL	750	405	405	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.19	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-24	ROOM-24	VERTICAL	1500	410	410	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-25	ROOM-25	VERTICAL	1250	425	425	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	4.19	15	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-30	ROOM-30	VERTICAL	1250	355	355	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-31	ROOM-31	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-32	ROOM-32	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-33	ROOM-33	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-34	ROOM-34	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	55.36	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-35	ROOM-35	VERTICAL	1250	355	355	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-36	ROOM-36	VERTICAL	1250	355	355	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-37	ROOM-37	VERTICAL	1250	365	365	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-38	ROOM-38	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-39	ROOM-39	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-40	ROOM-40	VERTICAL	1250	350	350	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-41	ROOM-41	VERTICAL	1500	350	350	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-42-1	ROOM-42	VERTICAL	1500	205	205	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	420	93 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-42-2	ROOM-42	VERTICAL	1500	205	205	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-48	ROOM-48	VERTICAL	1500	460	460	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-49	ROOM-49	VERTICAL	1500	465	465	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-50	ROOM-50	VERTICAL	1500	520	520	80.0	67.0	54.76	51.26	44,600	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE15000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-51	ROOM-51	VERTICAL	1250	460	460	80.0	67.0	54.76	51.26	37,100	45.0	95	63.8	13	8.38	20	115/1/60	470	105 x 30	21-1/8	TRANE	VUVE12500Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-51A	ROOM-51A	VERTICAL	750	15	15	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.19	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-57	ROOM-57	VERTICAL	750	70	70	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.19	15	115/1/61	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-58	ROOM-58	VERTICAL	750	75	75	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.19	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-58A	ROOM-58A	VERTICAL	750	20	20	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.19	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-58B	ROOM-58A	VERTICAL	750	35	35	80.0	67.0	54.76	51.26	22,300	45.0	95	63.8	13	4.19	15	115/1/60	320	69 x 30	21-1/8	TRANE	VUVE07500Z0N1DJA2B00FFBA0C430A5C524600Y023	SEE NOTES
UV-61	ROOM-61	VERTICAL	1000	455	455	80.0	67.0	54.76	51.26	29,700	45.0	95	63.8	13	8.38	20	115/1/60	405	81 x 30	21-1/8	TRANE	VUVE10000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-46F-1	ROOM-46F	VERTICAL	1000	240	240	80.0	67.0	54.76	51.26	29,700	45.0	95	63.8	13	8.38	20	115/1/60	405	81 x 30	21-1/8	TRANE	VUVE10000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES
UV-46F-1	ROOM-46F	VERTICAL	1000	240	240	80.0	67.0	54.76	51.26	29,700	45.0	95	63.8	13	8.38	20	115/1/60	405	81 x 30	21-1/8	TRANE	VUVE10000Z0N1DJA2B00FFBA0C430A5C524600Y033	SEE NOTES

UNIT VENTILATOR SCHEDULE NOTES:

1. BASIS OF DESGN IS TRANE
2. CONTROLS TO BE FACTORY INSTALLED AND COMMISSIONED BY TRANE.
3. PROVIDE UNITS WITH VARIABLE FAN AIRFLOW CONTROL SEQUENCE
4. PROVIDE FACTORY-MOUNTED, PRE-PROGRAMMED, WIRELESS BACNET DDC CONTROL
5. PROVIDE WITH WIRELESS ZONE TEMPERATURE SENSOR
6. EQUIPMENT MANUFACTURER TO PROVIDE 2 YEAR PARTS AND LABOR WARRANTY
7. PROVIDE UNIT VENTILATORS WITH BLOW THROUGH CONFIGURATION
8. PROVIDE LEV KIT TO MEET SCHEDULE PERFORMANCE CAPACITY
9. PROVIDE DELUXE PIPING PACKAGE TO INCLUDE UNION, STRAINER, P/T PORT AND SHUTOFF VALVE ON THE SUPPLY LINE
10. PROVIDE DELUXE PIPING PACKAGE TO INCLUDE UNION, CONTROL VALVE AND MANUAL CIRCUIT SETTER ON THE RETURN LINE
11. PROVIDE A DRAIN PAN THAT IS NON-CORROSIVE AND REMOVABLE
12. PROVIDE SHELVING FROM HVAC CUSTOM ENCLOSURE FOR ALL CLASSROOMS AS REQUIRED
13. PROVIDE 21.25" DEEP END COVER AND FULL SHEET METAL BACK
14. PROVIDE A 2" SUBBASE FOR EACH UNIT VENTILATOR AT MINIMUM
15. MC TO PROVIDE NEW WALL BOXES AND WALL SLEEVES TO ACCOMMODATE THE EXISTING WALL OPENING
16. PROVIDE COLOR OPTIONS TO ARCHITECT FOR ALL UNIT VENTILATORS PRIOR TO RELEASING THE UNIT VENTILATORS FOR PRODUCTION
17. PROVIDE DX COOLING COIL IN EACH UNIT VENTILATOR
18. PROVIDE A 4 PIPE REHEAT HYDRONIC COIL IN EACH UNIT VENTILATOR WITH CONTROLS AND CONTROL VALVE.
19. PROVIDE DISCONNECT SWITCH.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901
PROJ. NO. : MNY-2300128.00

Structural Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
78 ROSMAN RD, THIELLS, NY 10984
THIELLS ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue New City, NY 10956 Tel 845-708-9200
www.shilale.com

Drawing Title
MECHANICAL SCHEDULES - 2

Drawing No.
TES-M-004

OUTDOOR CONDENSING UNIT SCHEDULE

UNIT #	LOCATION	TOTAL CAPACITY COOLING CAPACITY (BTU/hr)	HEATING CAPACITY (MBH)	EER	IEER	REFRIGERANT	REFRIGERANT SAFETY CLASS	REFRIGERANT CHARGE (LBS)	HEATING TYPE	CONDENSER	COMPRESSOR	ELECTRICAL							UNIT WEIGHT (LBS)	BASIS OF DESIGN		REMARKS
										EA DB °F (COOLING/HEATING)	TYPE (QUANTITY)	VOLTS	PHASE	Hz	CIRCUIT 1 MOCP FUSE (A)	CIRCUIT 1 MCA (A)	CIRCUIT 2 MOCP FUSE (A)	CIRCUIT 2 MCA (A)		MANUFACTURER	MODEL #	
ACCU-1A	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.25	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-1B	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.25	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-2	ROOF	288,000	320,000	11.3	23.5	R410A	A1	41.38	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	60	60	60	1,360	TRANE	TURYE2883BN41AN	SEE NOTES
ACCU-3A	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.25	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-3B	ROOF	216,000	243,000	12.2	24.6	R410A	A1	35.25	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	56	45	44	1,235	TRANE	TURYE2163BN41AN	SEE NOTES
ACCU-4	ROOF	264,000	295,000	11.7	23.9	R410A	A1	35.25	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	60	60	56	1,302	TRANE	TURYE2643BN41AN	SEE NOTES
ACCU-5	ROOF	264,000	295,000	11.7	23.9	R410A	A1	35.25	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	60	60	56	1,302	TRANE	TURYE2643BN41AN	SEE NOTES
ACCU-6	ROOF	288,000	320,000	11.3	23.5	R410A	A1	41.38	HEAT PUMP	90/11	SCROLL (2)	208	3	60	60	60	60	60	1,360	TRANE	TURYE2883BN41AN	SEE NOTES
ACCU-7	ROOF	72,000	80,000	13.5	25.30	R410A	A1	14.31	HEAT PUMP	90/11	SCROLL (2)	208	3	60	35	32	-	-	512	TRANE	TUHYE0723AN41AN	SEE NOTES

OUTDOOR CONDENSING UNIT SCHEDULE NOTES:

1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
3. EFFICIENCY VALUES FOR EER, IEER, COP ARE BASED ON AHRI 1230 TEST METHOD FOR MIXTURE OF DUCTED & NON-DUCTED INDOOR UNITS.
4. FOR SYSTEMS WITH MULTIPLE MODULES, REFRIGERANT PIPE DIMENSIONS INDICATE TOTAL SYSTEM COMBINED PIPING DOWNSTREAM OF MODULE TWINNING.
5. ADDED FIELD CHARGE LISTED IS IN ADDITION TO FACTORY CHARGE, THIS MUST BE UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT.
6. ADD COLD WEATHER LOW AMBIENT KIT.

EXHAUST GRILL SCHEDULE

UNIT TAG	BASIS OF DESIGN		NOTES
	MANUFATURER	MODEL NUMBER	
EG-1	KRUEGER	EGC545	SEE NOTES
EG-2	KRUEGER	1700	SEE NOTES

INDOOR VRF UNIT SCHEDULE

UNIT TAG	LOCATION	CONFIGURATION	TOTAL SUPPLY AIRFLOW (CFM)	CAPACITY (BTU/H)		REFRIDGERANT	REFRIGERANT SAFTEY CLASS	V/PH/HZ	POWER COOLING (kW)	POWER HEATING (kW)	MCA	MFS	UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN)	UNIT DEPTH (IN)	BASIS OF DESIGN		NOTES
				COOLING	HEATING											MANUFACTURER	MODEL NUMBER	
AHU-59	ROOM-59	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-52	ROOM-52	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-46G	ROOM-46G	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-54	ROOM-54	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-28	ROOM-28	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-57A	ROOM-57A	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-55	ROOM-55	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-56	ROOM-56	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-53C	ROOM-53C	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/59	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-52	ROOM-52	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-ST	STORAGE	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
AHU-PE	PE	WALL -MOUNTED	920	24,000	27,000	R410A	A1	208/1/60	0.07	0.07	0.63	15	46	46-1/16 x 14-3/8	11-5/8	TRANE	TPKFYP024KM142A	SEE NOTES
CC-2A	ROOM-2A	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
CC-44-1	ROOM-44	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.02	0.02	0.29	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012FM140A	SEE NOTES
CC-44-2	ROOM-44	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.02	0.02	0.29	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012FM140A	SEE NOTES
CC-43-1	ROOM-43	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.02	0.02	0.29	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012FM140A	SEE NOTES
CC-43-2	ROOM-43	CEILING-CASSETTE	565	12,000	13,500	R410A	A1	208/1/60	0.02	0.02	0.29	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP012FM140A	SEE NOTES
CC-46	ROOM-46	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
CC-47	ROOM-47	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
CC-50A	ROOM-50A	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
CC-55E	ROOM-55E	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
CC-60	ROOM-60	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
CC-61A	ROOM-61A	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
CC-61B	ROOM-61B	CEILING-CASSETTE	280	5,000	5,600	R410A	A1	208/1/60	0.02	0.02	0.24	15	46	33-3/32 x 33-3/32	10-3/16	TRANE	TPLFYP005FM140A	SEE NOTES
AHU-54E	ROOM-54E	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
AHU-55E	ROOM-55E	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
AHU-62	ROOM-62	WALL-MOUNTED	191	6,000	6,700	R410A	A1	208/1/60	0.02	0.01	0.24	15	24.5	30-7/16 x 11-25/32	9-11/32	TRANE	TPKFYP006LM140A	SEE NOTES
OAU-1	GYM STORAGE	OUTSIDE AIR UNIT	450	36,000	21,000	R410A	A1	208/1/60	-	-	3.3	15	109	35-7/16 x 47-1/16	15	TRANE	TPEFYP036OA140A	SEE NOTES
OAU-2	ELEC. CLOSET	OUTSIDE AIR UNIT	450	36,000	21,000	R410A	A1	208/1/60	-	-	3.3	15	109	35-7/16 x 47-1/16	15	TRANE	TPEFYP036OA140A	SEE NOTES

INDOOR VRF UNIT SCHEDULE NOTES:

1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
4. SEE SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.
5. FULL DEMAND CORRECTED CAPACITY INCLUDES DE-RATE ASSOCIATED WITH INDOOR VS. OUTDOOR CONNECTED CAPACITY INDICATED ON OUTDOOR UNIT
6. PROVIDE UNIT MOUNTED DISCONNECT SWITCH.

OUTDOOR AIR UNIT SCHEDULE

UNIT TAG	LOCATION	TOTAL SUPPLY AIRFLOW (CFM)	CAPACITY (BTU/H)		REFRIDGERANT	REFRIGERANT SAFTEY CLASS	V/PH/HZ	MCA	MFS	UNIT WEIGHT LBS	UNIT DIMENSIONS (LxH, IN)	UNIT DEPTH (IN)	BASIS OF DESIGN		NOTES
			COOLING	HEATING									MANUFACTURER	MODEL NUMBER	
OAU-1	PE STORAGE	400	36,000	21,000	R410A	A1	208/1/60	3.3	15	109	47-1/16 x 35-7/16	15	TRANE	TPEFYP036OA140A	SEE NOTES
OAU-2	2ND FL STORAGE	400	36,000	21,000	R410A	A1	208/1/60	3.3	15	109	47-1/16 x 35-7/16	15	TRANE	TPEFYP036OA140A	SEE NOTES

OUTDOOR AIR UNIT SCHEDULE NOTES:

1. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB)
2. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB)
4. SEE SCHEMATIC PIPING/CONTROL DIAGRAM FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.
5. FULL DEMAND CORRECTED CAPACITY INCLUDES DE-RATE ASSOCIATED WITH INDOOR VS. OUTDOOR CONNECTED CAPACITY INDICATED ON OUTDOOR UNIT SCHEDULE FOR ASSOCIATED SYSTEM.PARTIAL CORRECTED CAPACITY ASSUMES SUFFICIENT DIVERSITY EXISTS SUCH THAT THE CONNECTED CAPACITY DE-RATE DOES NOT APPLY.IT IS THE DESIGNER'S RESPONSIBILITY TO ENSURE "DIAMOND SYSTEM BUILDER" IS SET IN THE APPROPRIATE OUTPUT CAPACITY SETTING (FULL DEMAND/PARTIAL DEMAND) PRIOR TO GENERATING THIS SCHEDULE.
6. IT IS RECOMMENDED TO ALWAYS BASE HEATING CORRECTED CAPACITY ON FULL DEMAND.
7. MECHANICAL CONTRACTOR TO PROVIDE A FACTORY DISCONNECT. INSTALLATION BY ELECTRICAL CONTRACTOR.

BRANCH CONTROLLER SCHEDULE

UNIT TAG	MODEL NUMBER	TYPE (DOUBLE / MAIN / SUB)	NUMBER OF PORTS	CONNECTED CAPACITY TO BC (BTU/H)	V/PH/HZ	POWER COOLING (kW)	POWER HEATING (kW)	MCA	NOTES
BC-1A	TCMBM0108JA11N4	MAIN	8	288,000.0	208/1/60	0.66	0.37	0.8	NOTES
BC-1B	TCMBM0108JA11N4	MAIN	8	264,000.0	208/1/60	0.66	0.37	0.8	NOTES
BC-2	TCMBM1012JA11N4	MAIN	12	413,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-3A	TCMBM0108JA11N4	MAIN	8	276,000.0	208/1/60	0.66	0.37	0.8	NOTES
BC-3B	TCMBM1012JA11N4	MAIN	12	288,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-4	TCMBM1012JA11N4	MAIN	12	372,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-5	TCMBM1012JA11N4	MAIN	12	364,000.0	208/1/60	0.95	0.52	1.2	NOTES
BC-6A	TCMBM1016KA11N4	MAIN	16	392,000.0	208/1/60	1.25	0.66	1.6	NOTES
BC-6B	TCMBS0104KB11N4	SUB	4	63,000.0	208/1/60	0.3	0.15	0.4	NOTES

VRF HEAT RECOVERY BRANCH CIRCUIT CONTROLLER SCHEDULE NOTES:

1. INCLUDE DIAMONDBACK BALL VALVES BV-SERIES, 700PSIG WORKING PRESSURE, FULL PORT, 410A RATED.
2. FOR SUB BC CONTROLLER CMB-P-NU-GB1 OR -GB, THE TOTAL CONNECTABLE INDOOR UNIT CAPACITY CAN BE 126,000 BTUS OR LESS. IF TWO SUB BC CONTROLLERS ARE USED, THE TOTAL INDOOR UNIT CAPACITY CONNECTED TO BOTH SUB BC CONTROLLERS ALSO CANNOT EXCEED 126,000 BTUS. FOR SUB BC CONTROLLER CMB-P1016NU-HB1 THE TOTAL CONNECTABLE INDOOR UNIT CAPACITY CAN BE 126,000 BTUS OR LESS. HOWEVER, IF TWO SUB CONTROLLERS ARE USED, AND ONE OF THEM IS CMB-1016NU-HB1, THE TOTAL INDOOR UNIT CAPACITY CONNECTED TO BOTH SUB CONTROLLERS MUST NOT EXCEED 168,000 BTUS.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
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Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
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SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
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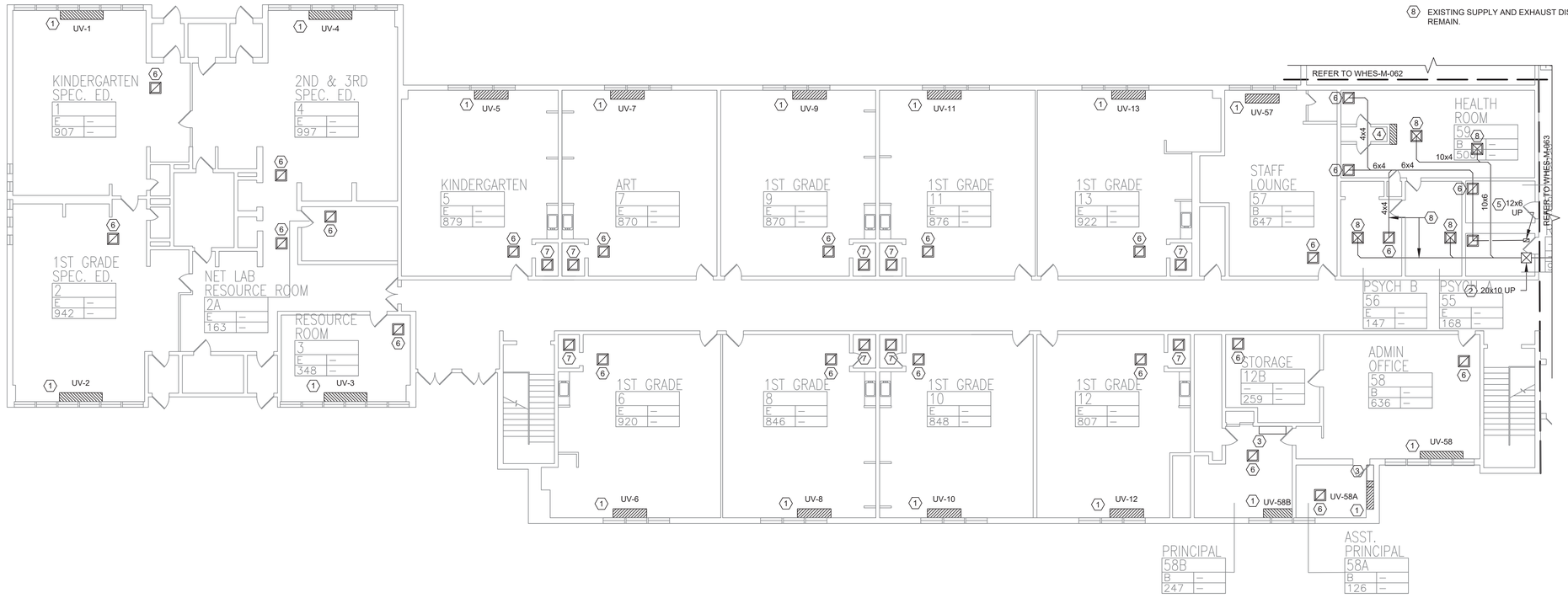
Drawing Title
MECHANICAL SCHEDULES - 3

Drawing No.
TES-M-005

KEYED NOTES:

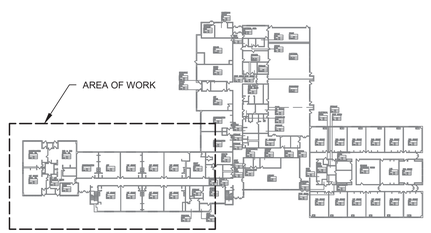
1. DISCONNECT, REMOVE UNIT VENTILATOR CUT AND CAP HOT WATER SUPPLY AND RETURN TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN. DISCONNIECT ASSOCIATED THERMOSTAT. TYP. 13. SEE DETAIL 2/WHES-M-501.
2. EXISTING FRESH AIR DUCT UP TO SECOND FLOOR HEATING VENTILATOR UNIT TO REMAIN.
3. EXISTING WALL HUNG UNIT TO REMAIN.
4. DISCONNECT, REMOVE WALL HUNG UNIT, AND ASSOCIATED PIPING AND THERMOSTAT.
5. EXISTING EXHAUST TO UP TO ROOF FAN TO REMAIN.
6. EXISTING ROOM EXHAUST TO REMAIN.
7. EXISTING BATHROOM EXHAUST TO REMAIN.
8. EXISTING SUPPLY AND EXHAUST DISTRIBUTION SYSTEM TO REMAIN.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE



1 FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 1

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

GREENMAN PEDERSEN, INC
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Structural Engineer:

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SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
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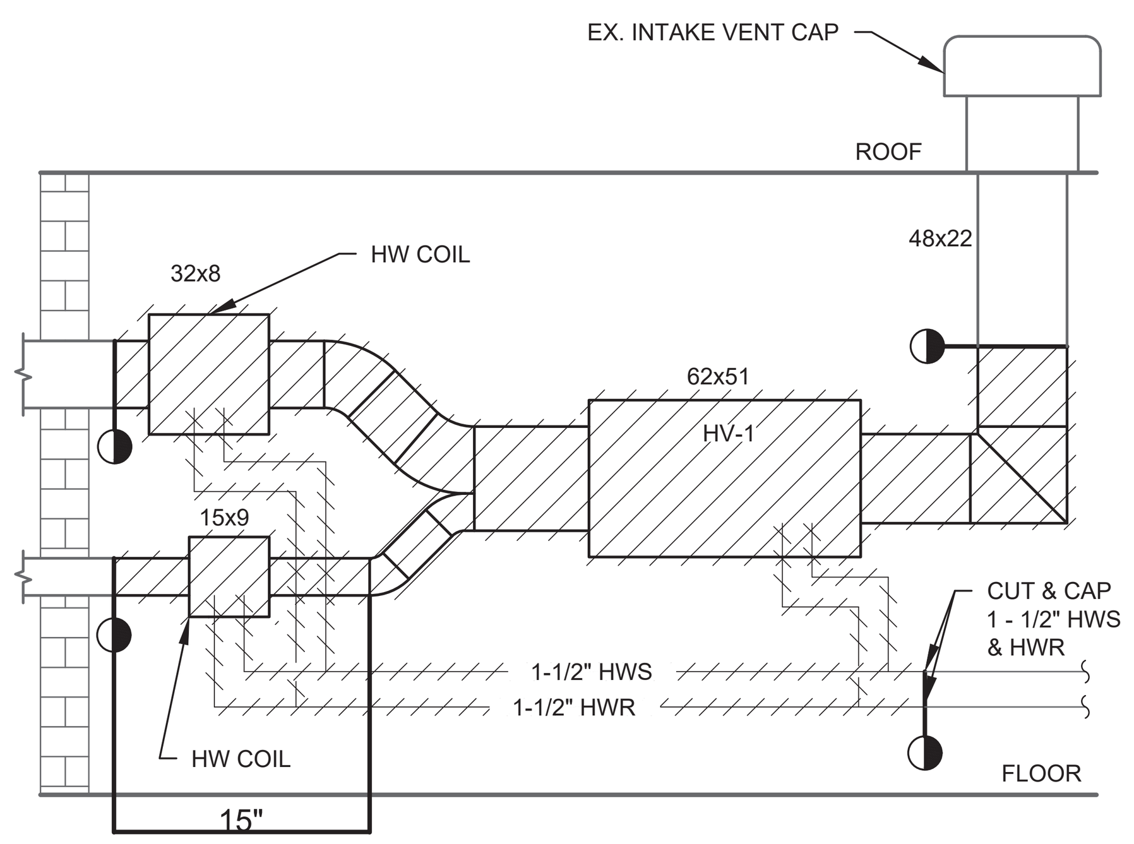
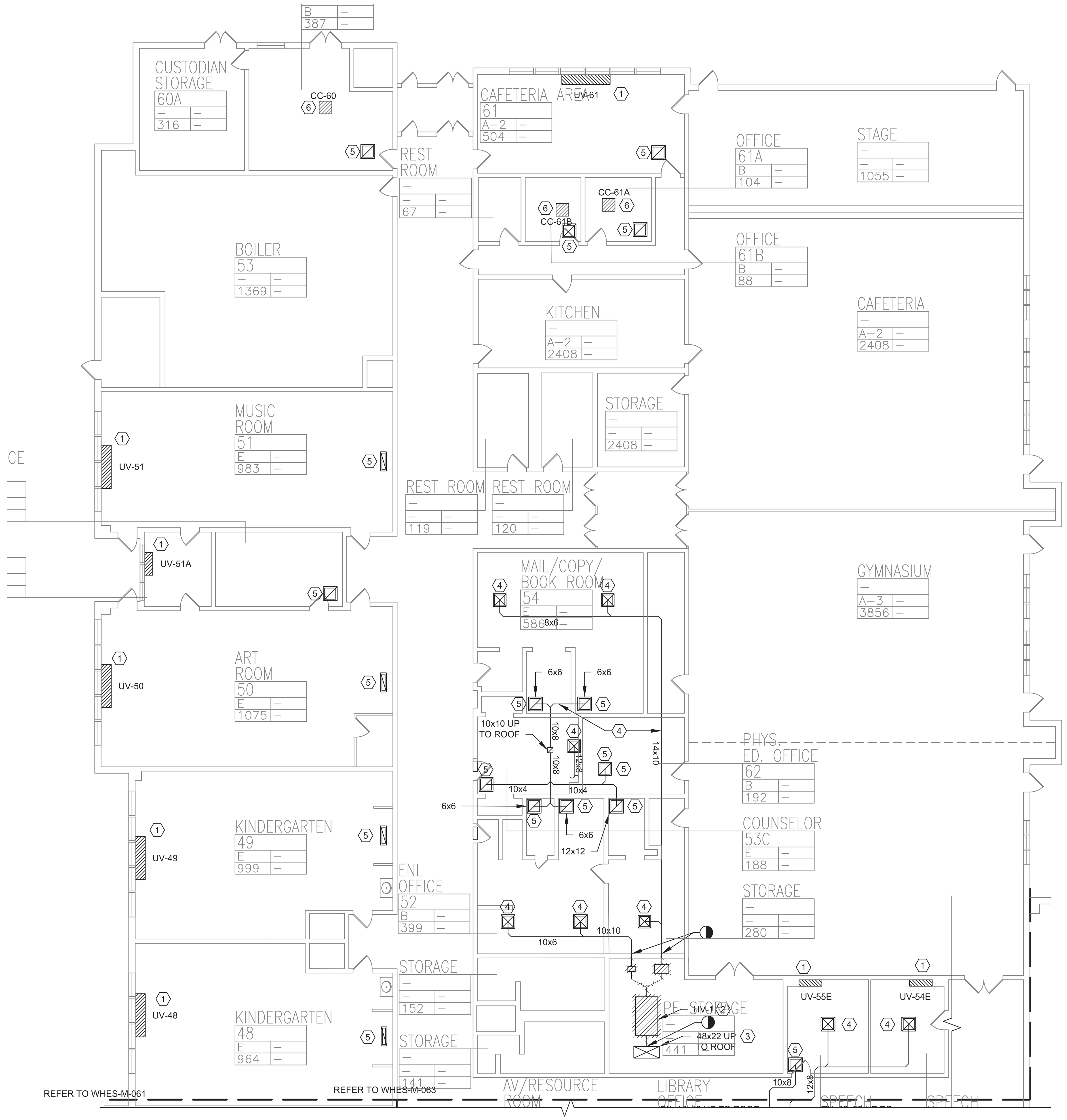
Drawing Title
FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 1

Drawing No.
TES-M-061



2 HV-1 REMOVAL DETAIL
SCALE: NOT TO SCALE

3 HV-1 REMOVAL IMAGE
SCALE: NOT TO SCALE

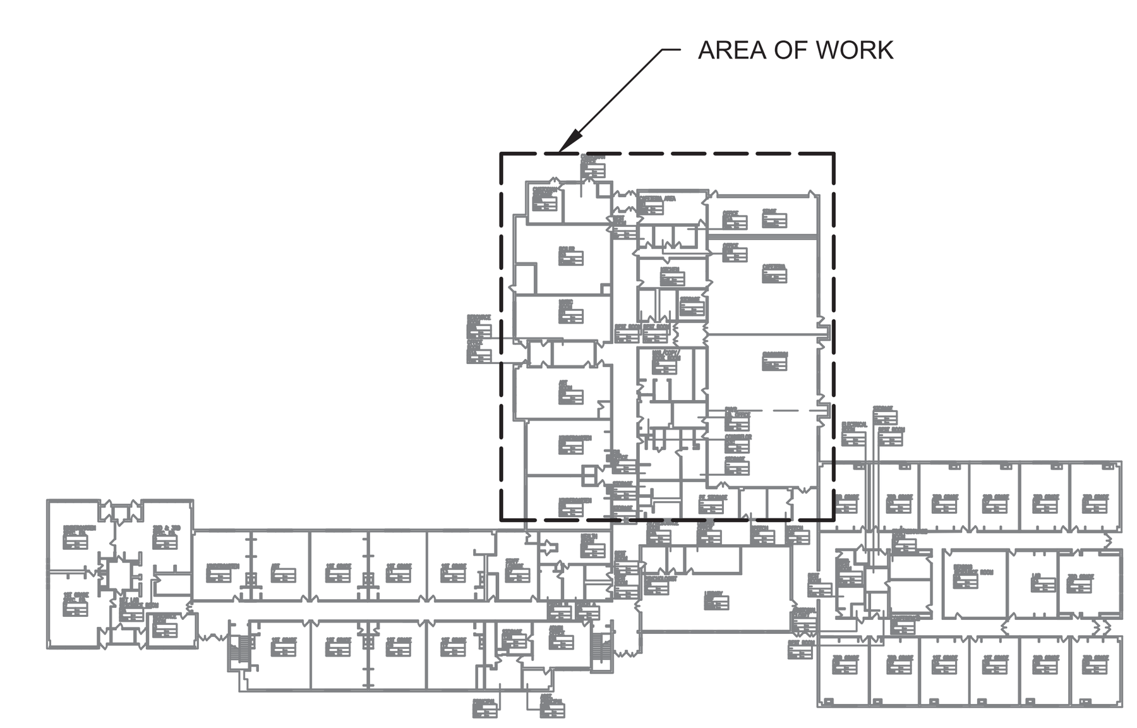


1 FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 2
SCALE: 3/32" = 1'- 0"

KEYED NOTES:

1. DISCONNECT, REMOVE UNIT VENTILATOR , CUT AND CAP HOT WATER SUPPLY AND RETURN TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN. DISCONNECT ASSOCIATED THERMOSTAT. TYP. 5. SEE DETAIL 2/M-051
2. DISCONNECT AND REMOVE EXISTING HEATING VENTILATOR BLOWER, ASSOCIATED DUCTWORK AND HEATING VENTILATOR COILS. CAP HWS AND HWR. SEE DETAIL 2/M062.CONTRACTOR TO RELOCATE STORED ITEMS LOCATED BELOW HEATING VENTILATOR BEFORE REMOVAL.
3. EXISTING FRESH AIR DUCT UP TO ROOF TO REMAIN.
4. EXISTING SUPPLY DIFFUSERS AND DUCTWORK TO REMAIN.
5. EXISTING ROOM EXHAUST AND DUCTWORK TO REMAIN.
6. DISCONNECT, REMOVE EXISTING CEILING CASSETTE, REMOVE ALL PIPING AND CONDENSATE UNIT ON ROOF. PATCH AS REQUIRED.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by: VF/AW
Checked by: EF
Project No.: 43040
Scale: AS NOTED
Date: 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901, PROJ. NO. : MNY-23001 28.00

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
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SED# 50-02-01-06-0-024-XXX
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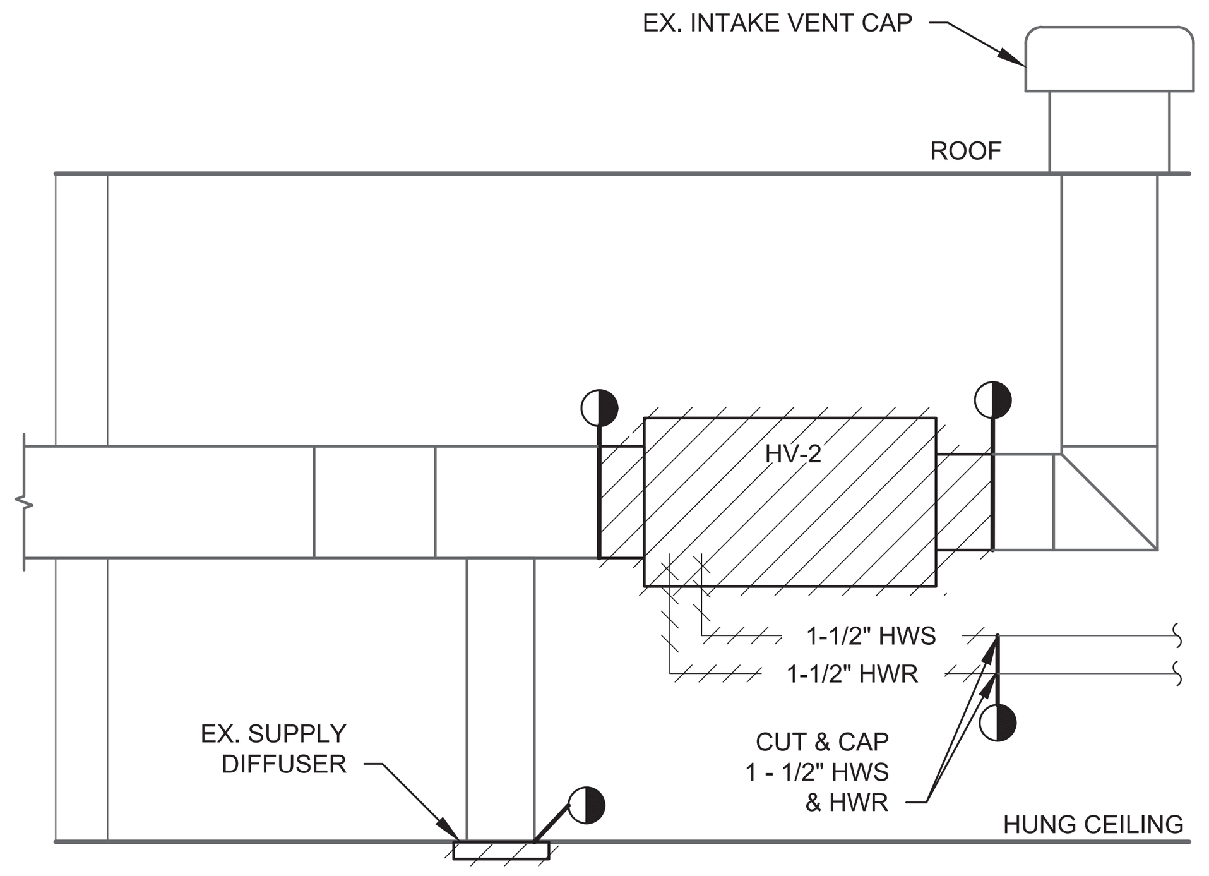
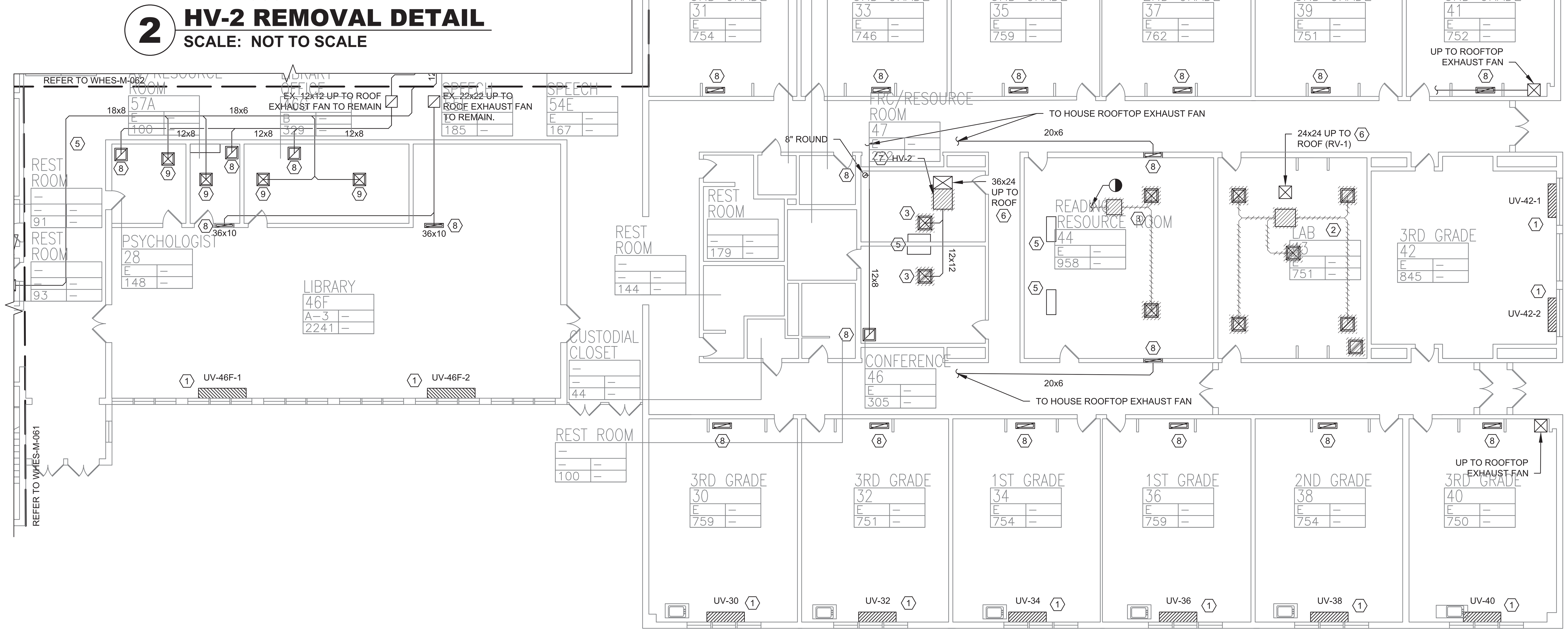
Drawing Title: FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 2

Drawing No. TES-M-062



2 HV-2 REMOVAL DETAIL

SCALE: NOT TO SCALE



1 FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 3

SCALE: 3/32" = 1'- 0"

KEYED NOTES:

1. DISCONNECT, REMOVE UNIT VENTILATOR CUT AND CAP HOT WATER SUPPLY AND RETURN TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN. DISCONNECT ASSOCIATED THERMOSTAT. TYP. 16. SEE DETAIL 2/M-501.
2. EXISTING RESERC. SYSTEM TO BE REMOVED.
3. EXISTING SUPPLY DIFFUSERS TO BE REMOVED.
4. EXISTING FRESH AIR DUCT TO REMAIN.
5. EXISTING WALL HUNG UNITS TO REMAIN.
6. EXISTING FRESH AIR INTAKE UP THROUGH ROOF TO REMAIN.
7. EXISTING HEATING VENTILATOR UNIT TO BE REMOVED. SEE DETAIL 2/M063.
8. EXISTING ROOM EXHAUST TO REMAIN.
9. EXISTING SUPPLY DIFFUSER AND SYSTEM TO REMAIN.

0 1/2 1

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No.	Date	Revisions
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Scale	AS NOTED
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Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
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UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
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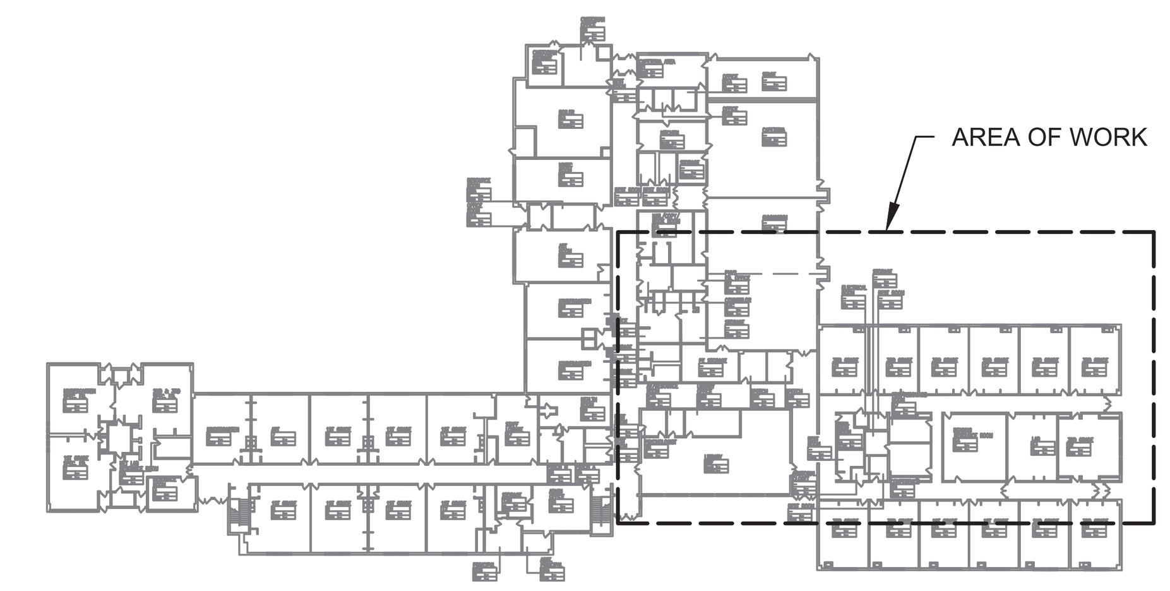

KEY PLAN

PLAN NORTH

Drawing Title: FIRST FLOOR PARTIAL REMOVAL - MECHANICAL - 3

Drawing No. TES-M-063

KEYED NOTES:

1. DISCONNECT, REMOVE UNIT VENTILATOR CUT AND CAP HOT WATER SUPPLY AND RETURN TEMPORARILY FOR REUSE. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN. DISCONNECT ASSOCIATED THERMOSTAT.
2. EXISTING H.V. UNIT TO BE REMOVED. SEE DETAIL 2/TES-M-064.
3. EXISTING ROOM EXHAUST TO REMAIN.
4. EXISTING BATHROOM EXHAUST TO REMAIN.

0 1/2 1
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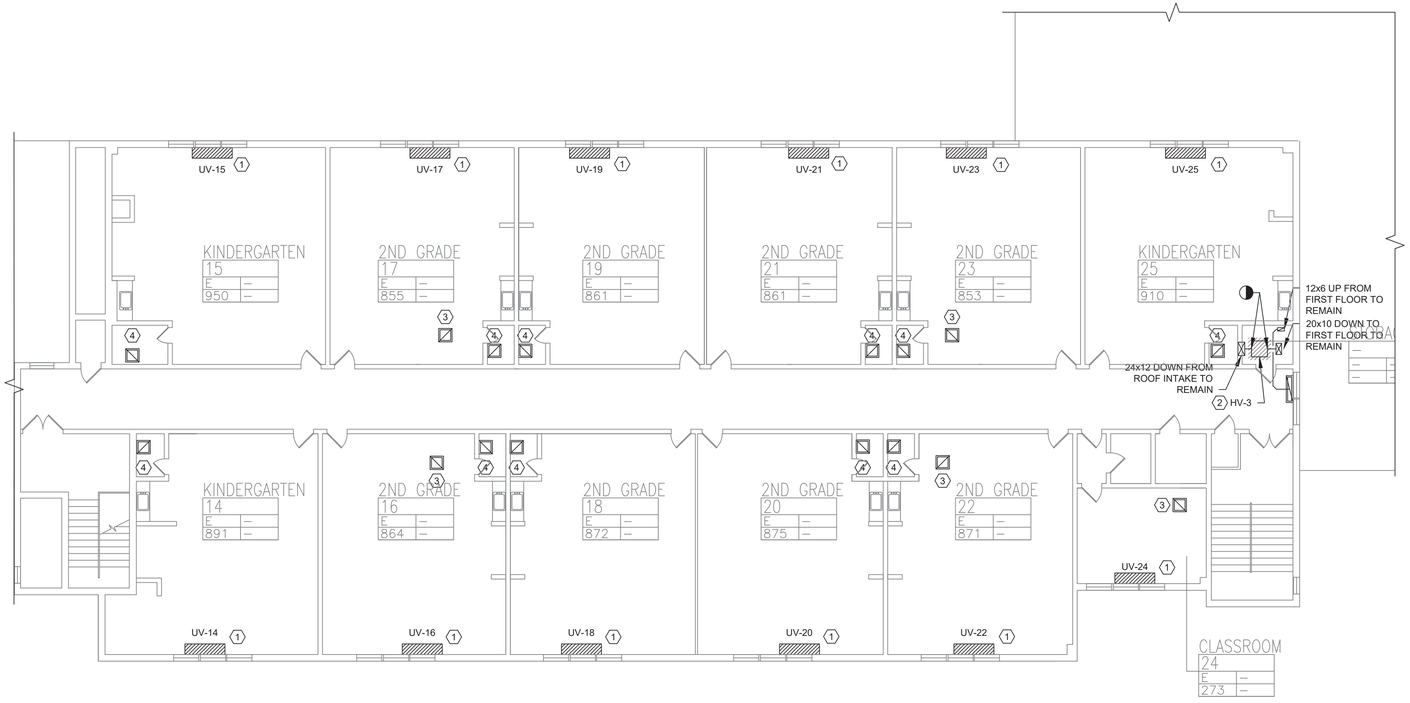

1 SECOND FLOOR REMOVAL - MECHANICAL
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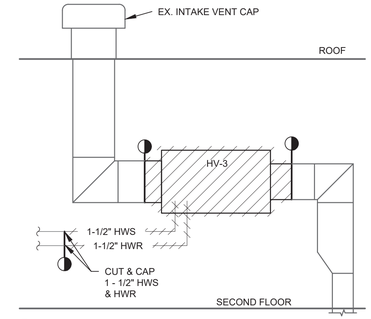
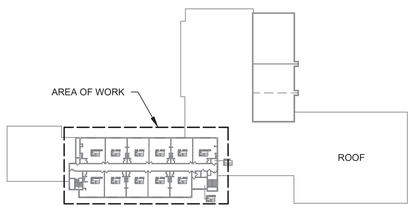


2 HV-3 REMOVAL DETAIL
SCALE: NOT TO SCALE



KEY PLAN

PLAN NORTH

No.	Date	Revisions
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SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
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ROCKLAND COUNTY

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Drawing Title
SECOND FLOOR REMOVAL - MECHANICAL

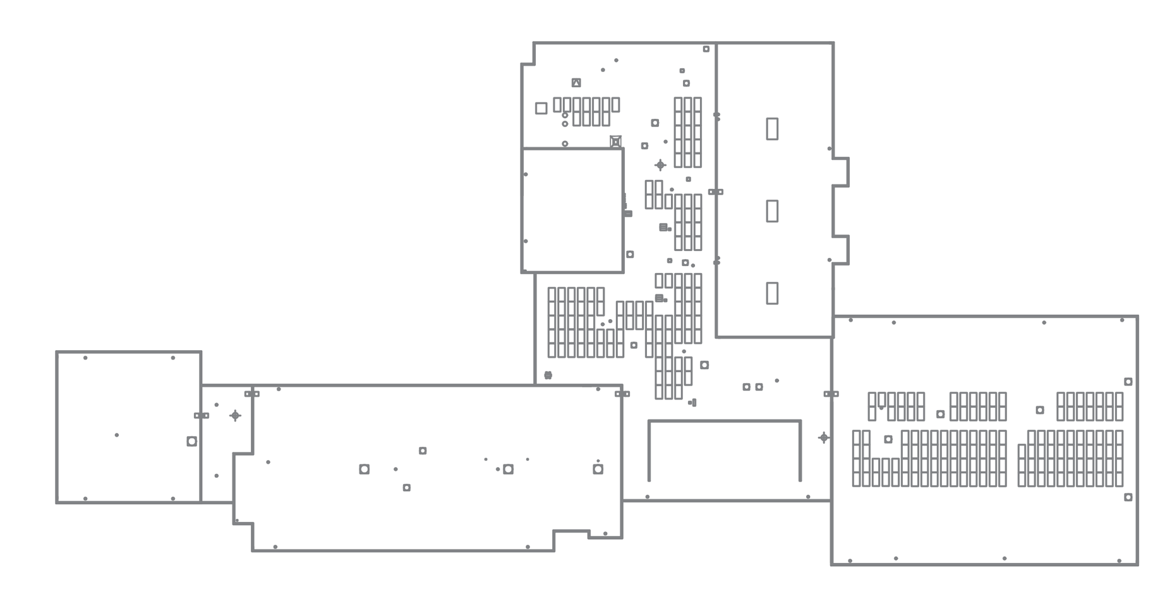
Drawing No.
TES-M-064

KEYED NOTES:

1. EXHAUST FAN TO REMAIN AND BALANCE AS NECESSARY.
2. FRESH AIR INTAKE FOR FRESH AIR SYSTEM TO REMAIN.
3. EXISTING CONDENSER FOR EXISTING WALL HUNG UNIT TO REMAIN.

1 ROOF REMOVAL - MECHANICAL

SCALE: 3/64" = 1'- 0"



KEY PLAN

PLAN NORTH

0 1/2 1
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No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

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Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
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SED# 50-02-01-06-0-024-XXX
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Drawing Title
ROOF REMOVAL - MECHANCIAL

Drawing No.
TES-M-065

GENERAL NOTES:

1. RELIEF PATH FOR OUTSIDE AIR IS VIA EXHAUST GRILLES IN EXHAUST ROOMS.

KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL AND CONNECT WALL HUNG AIR HANDLER, CONDENSATE PUMP AND DRAIN PIPING. SEE INSTALLATION MANUAL.
3. INSTALL AND CONNECT CEILING CASSETTE, CONDENSATE PUMP, AND FRESH AIR DUCT AS INDICATED. SEE DETAIL 1/M503.
4. INSTALL AND CONNECT SYSTEM THERMOSTAT.
5. EXISTING DUCTWORK UP TO NEW OAU-2 TO REMAIN.
6. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
7. BALANCE FRESH AIR SUPPLY.
8. EXISTING WALL HUNG UNITS TO REMAIN.
9. INSTALL 6"x6" INSULATED FRESH AIR DUCT IN SUSPENDED CEILING. SEE M502 AND M504 FOR INSTALLATION.
10. INSTALL NEW WALL LOUVER AND BIRD SCREEN, SEE DETAIL 5/M504.
11. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
12. INSULATE ALL EXISTING DUCTWORK.
13. INSTALL ¾" COPPER CONDENSATE PIPE TO RUN OUTSIDE ON SPLASH BLOCK.
14. PROVIDE INLINE BOOSTER FAN, SEE BOOSTER FAN SCHEDULE ON TES-M-003.
15. INSTALL ¾" COPPER CONDENSATE PIPING ABOVE CEILING TO RUN OUTSIDE ON SPLASH OR NEAREST JANITORS CLOSET.

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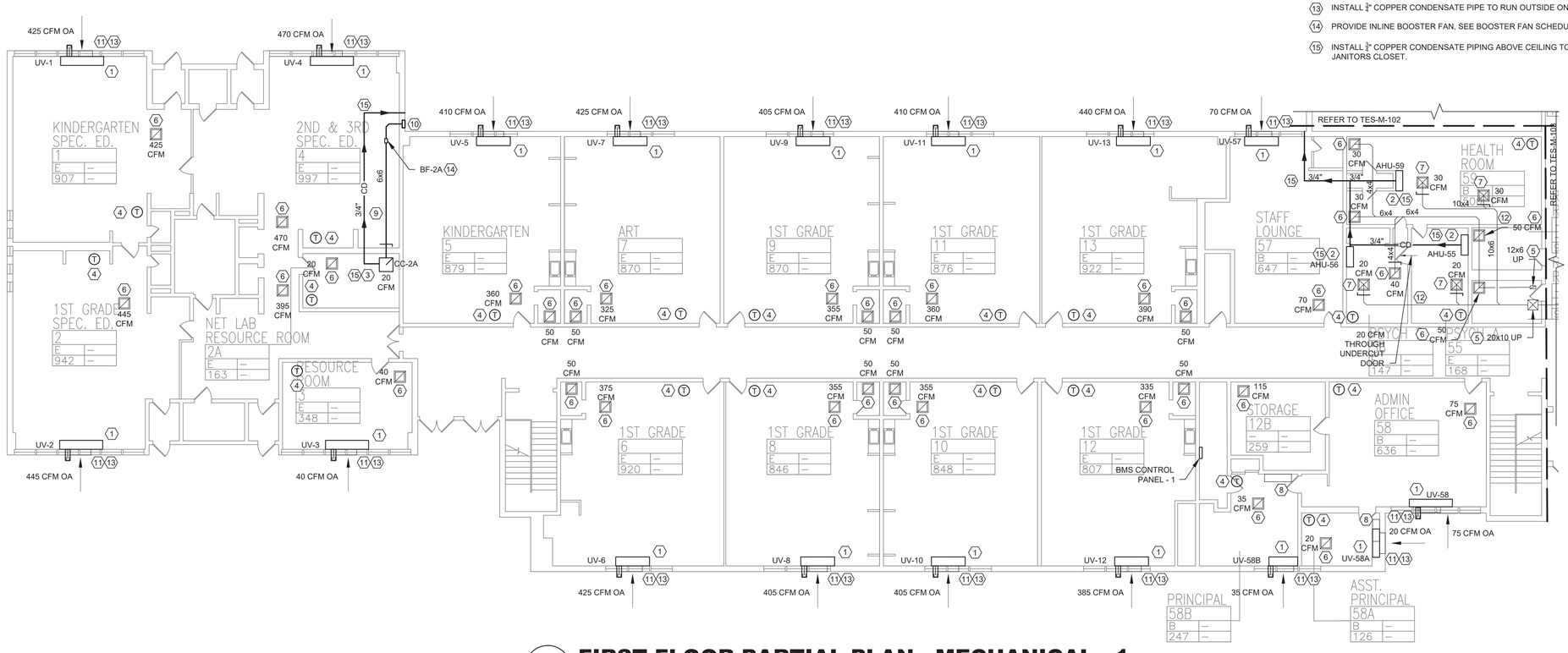
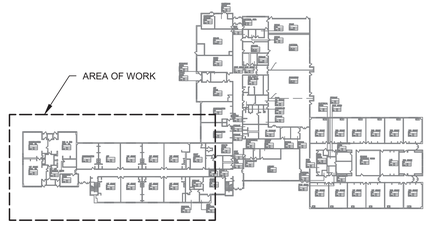


1 FIRST FLOOR PARTIAL PLAN - MECHANICAL - 1

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

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Structural Engineer:

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THIELLS
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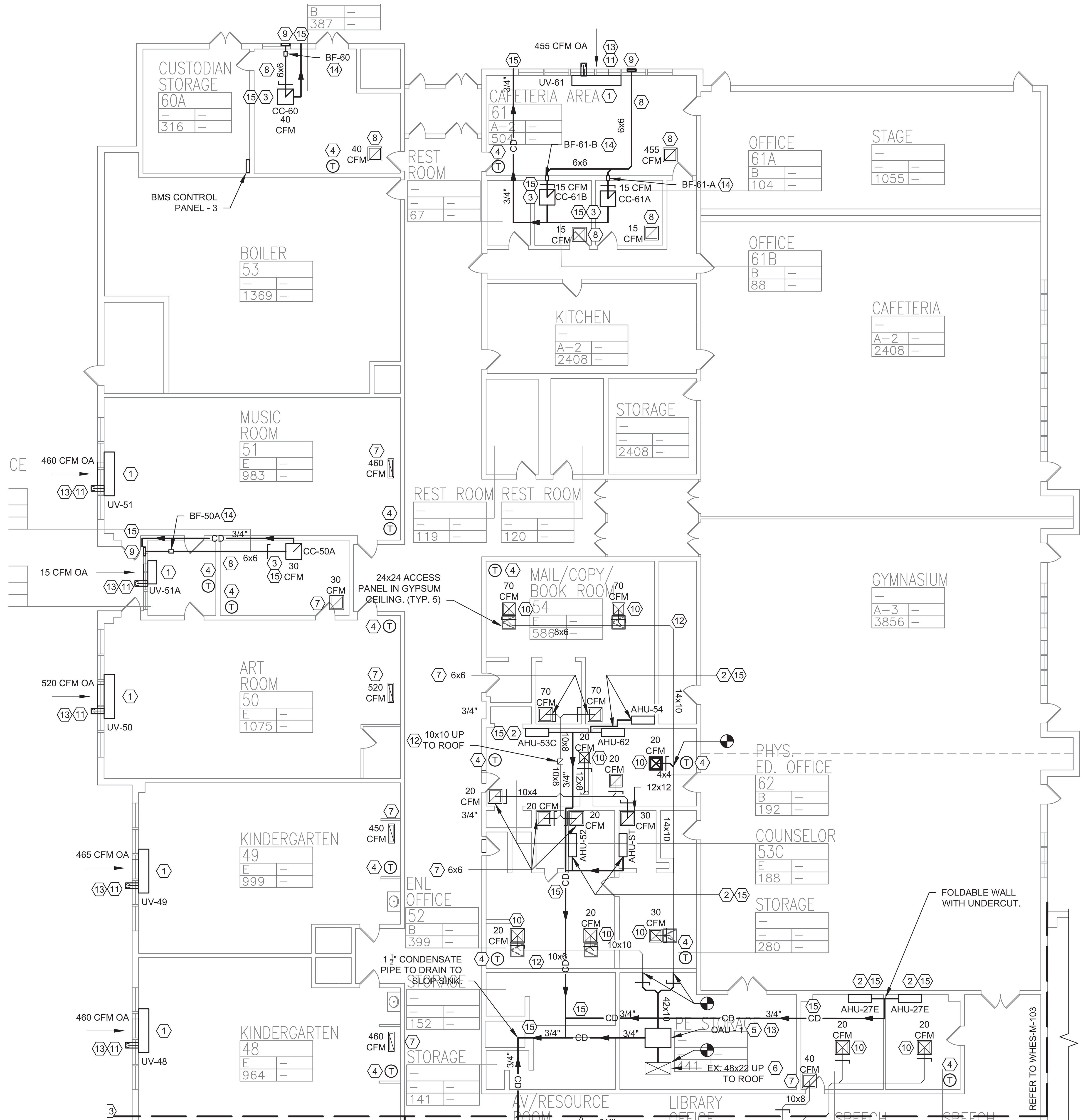
Drawing Title
FIRST FLOOR PARTIAL PLAN - MECHANICAL - 1

Drawing No.
TES-M-101



1 FIRST FLOOR PARTIAL PLAN - MECHANICAL - 2

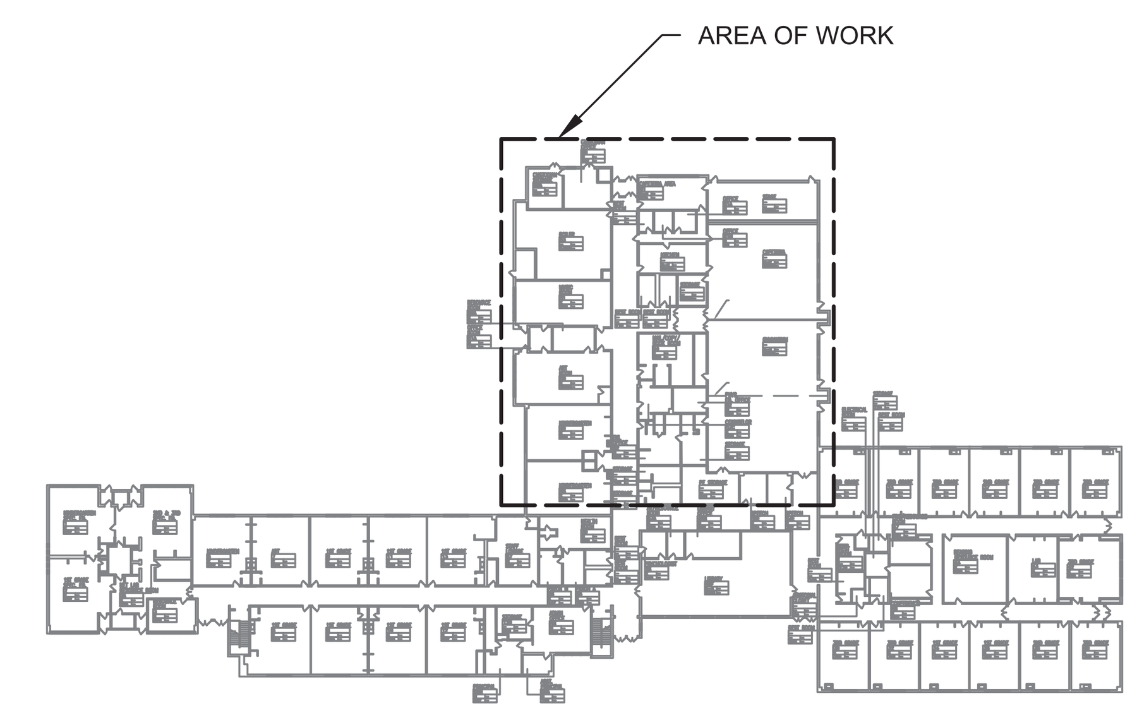
SCALE: 3/32" = 1'- 0"

KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL AND CONNECT WALL HUNG AIR HANDLER, CONDENSATE PUMP AND DRAIN PIPING. SEE INSTALLATION MANUAL.
3. INSTALL AND CONNECT CEILING CASSETTE AND FRESH AIR DUCT AS INDICATED. SEE DETAIL 1/M503.
4. INSTALL AND CONNECT SYSTEM THERMOSTAT.
5. INSTALL OAU - 1, CONNECT TO EXISTING FRESH AIR DISTRIBUTION SYSTEM. SEE DETAILS 4/M504.
6. FRESH AIR DUCT UP THROUGH ROOF TO REMAIN.
7. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
8. INSTALL 6"x6" FRESH AIR DUCT IN SUSPENDED CEILING. SEE 5/M504.
9. INSTALL NEW WALL LOUVER AND BIRD SCREEN, SEE DETAIL 5/M504.
10. BALANCE FRESH AIR SUPPLY.
11. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
12. INSULATE ALL EXISTING DUCTWORK.
13. INSTALL $\frac{3}{4}$" COPPER CONDENSATE PIPE TO RUN OUTSIDE ON SPLASH BLOCK.
14. PROVIDE INLINE BOOSTER FAN, SEE BOOSTER FAN SCHEDULE ON TES-M-003.
15. INSTALL $\frac{3}{4}$" COPPER CONDENSATE PIPING ABOVE CEILING TO RUN OUTSIDE ON SPLASH OR NEAREST JANITORS CLOSET.

GENERAL NOTES:

1. RELIEF PATH FOR OUTSIDE AIR IS VIA EXHAUST GRILLES IN EXHAUST ROOMS.



KEY PLAN

PLAN NORTH

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by: VF/AW
Checked by: EF
Project No.: 43040
Scale: AS NOTED
Date: 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901, PROJ. NO. : MNY-2300128.00

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
78 ROSMAN RD, THIELLS, NY 10984
THIELLS ROCKLAND COUNTY

MICHAEL SHILALE ARCHITECTS, L.L.P.
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Drawing Title: FIRST FLOOR PARTIAL PLAN - MECHANICAL - 2

Drawing No. TES-M-102

GENERAL NOTES:

1. RELIEF PATH FOR OUTSIDE AIR IS VIA EXHAUST GRILLES IN EXHAUST ROOMS.

KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL AND CONNECT WALL HUNG AIR HANDLER, CONDENSATE PUMP AND DRAIN PIPING. SEE INSTALLATION MANUAL.
3. INSTALL AND CONNECT CEILING CASSETTE AND FRESH AIR DUCT AS INDICATED. SEE DETAIL 1/M503.
4. INSTALL AND CONNECT SYSTEM THERMOSTAT.
5. EXISTING UP DUCT UP TO FRESH AIR TO REMAIN.
6. EXISTING FRESH AIR DISTRIBUTION SYSTEM TO REMAIN.
7. EXISTING WALL HUNG UNITS TO REMAIN
8. INSTALL AND CONNECT NEW EXHAUST DUCT ABOVE CEILING.
9. INSTALL AND CONNECT FRESH AIR DUCT.
10. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
11. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
12. BALANCE NEW EXHAUST.
13. BALANCE FRESH AIR.
14. INSULATE EXISTING DUCTWORK.
15. INSTALL ¾" COPPER CONDENSATE PIPE TO RUN OUTSIDE ON SPLASH BLOCK
16. PROVIDE INLINE BOOSTER FAN, SEE BOOSTER FAN SCHEDULE ON TES-M-003.
17. INSTALL ¾" COPPER CONDENSATE PIPING ABOVE CEILING TO RUN OUTSIDE OR NEAREST JANITORS CLOSET.
18. INSTALL AND BALANCE NEW EXHAUST GRILLE/

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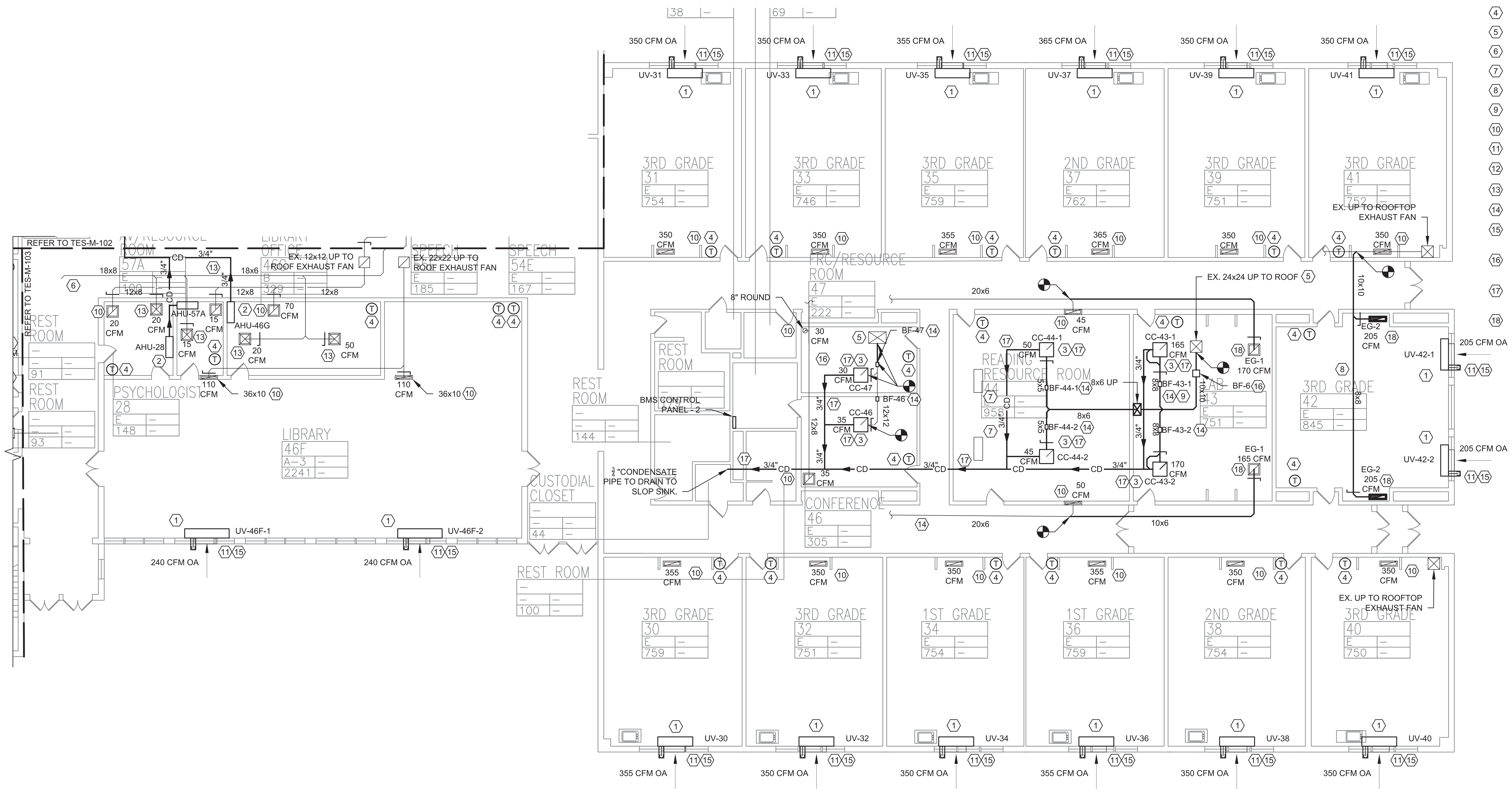
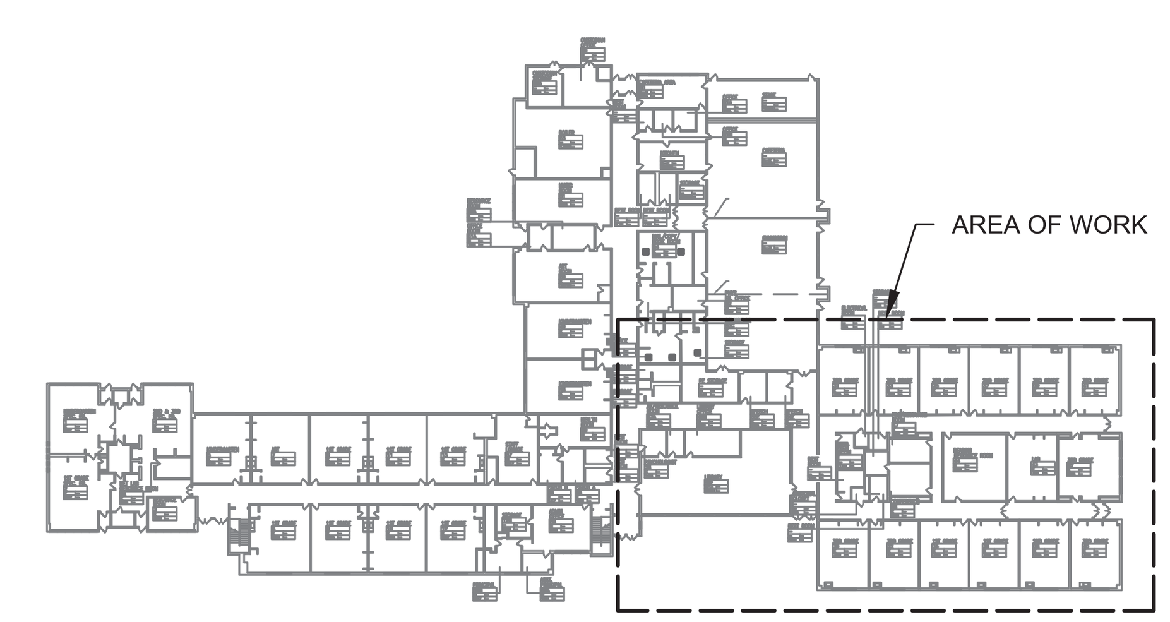


1 FIRST FLOOR PARTIAL PLAN - MECHANICAL - 3

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by: VF/AW
Checked by: EF
Project No.: 43040
Scale: AS NOTED
Date: 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901 PROJ. NO. : MNY-2300138.00

Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

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SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

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Drawing Title: FIRST FLOOR PARTIAL PLAN - MECHANICAL - 3

Drawing No. TES-M-103

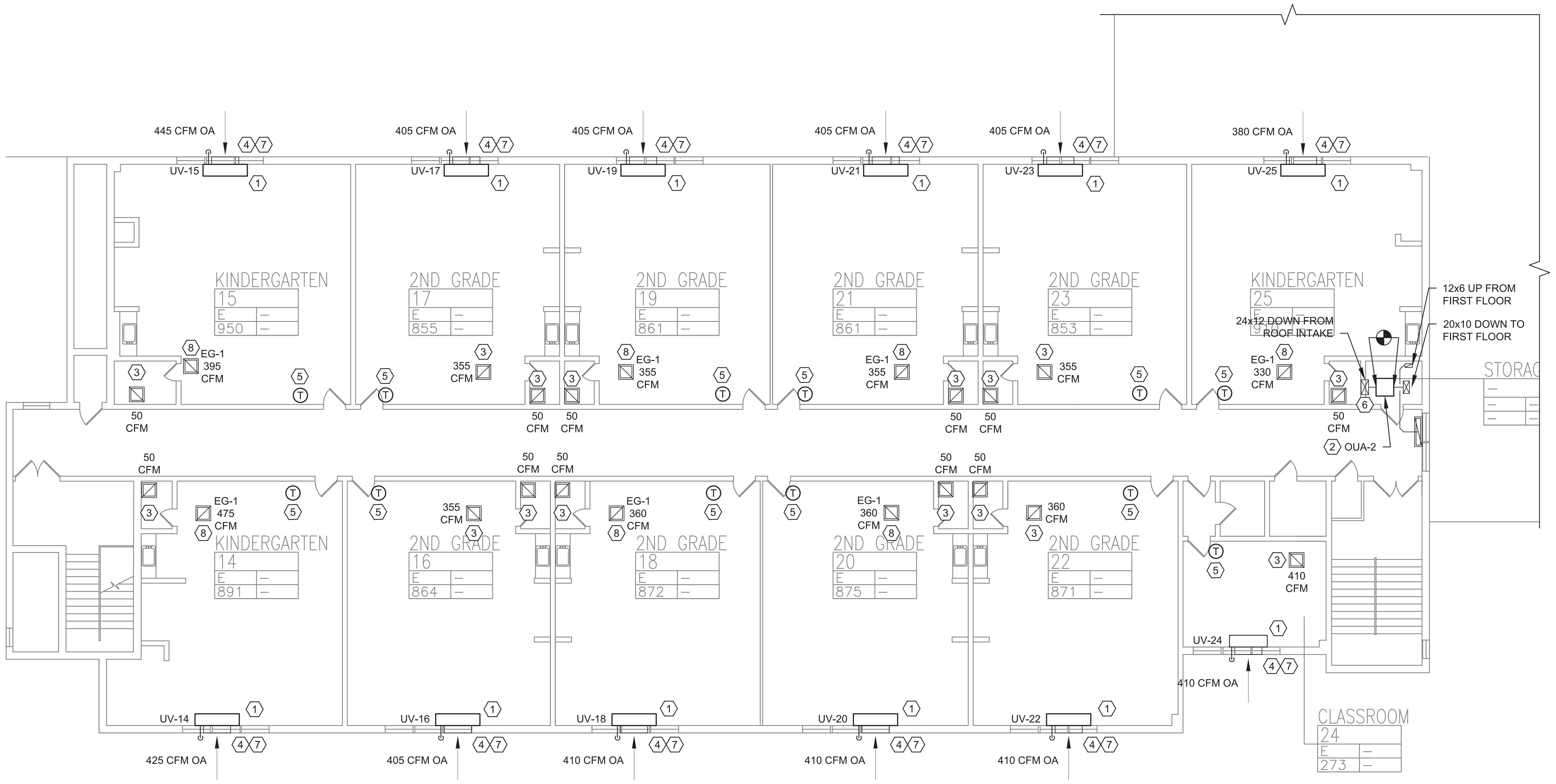
KEYED NOTES:

1. INSTALL AND CONNECT DX HEAT PUMP WITH HOT WATER BACKUP UNIT VENTILATOR, CONNECT HOT WATER SUPPLY AND RETURN TO EXISTING HOT WATER SYSTEM. CONNECT TO EXISTING OUTSIDE SLEEVE, PATCH AND MODIFY AS REQUIRED. SEE DETAILS 5/M501, 2/M502, 3/M502.
2. INSTALL OAU - 2, CONNECT TO EXISTING FRESH AIR DISTRIBUTION SYSTEM. SEE DETAILS 4/M504.
3. BALANCE EXISTING ROOM AND BATHROOM EXHAUST.
4. EXISTING OUTSIDE LOUVER AND SLEEVE TO REMAIN.
5. INSTALL AND CONNECT SYSTEM THERMOSTAT.
6. INSULATE EXISTING DUCTWORK.
7. PROVIDE $\frac{3}{4}$" COPPER CONDENSATE PIPE TO RUN OUTSIDE.
8. INSTALL AND BALANCE NEW EXHAUST GRILLE.

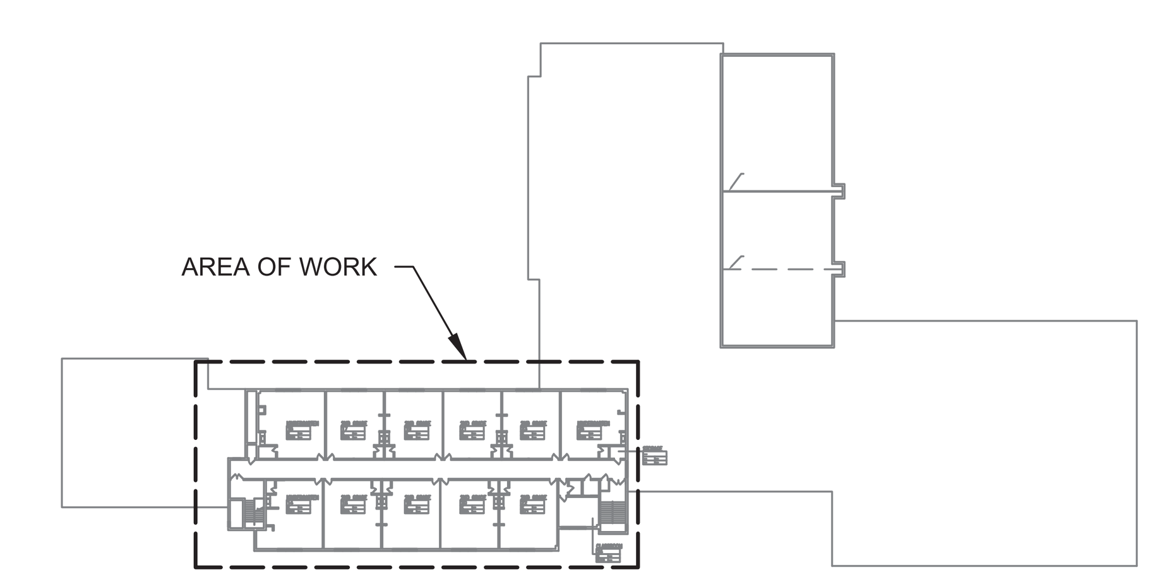
GENERAL NOTES:

1. RELIEF PATH FOR OUTSIDE AIR IS VIA EXHAUST GRILLES IN EXHAUST ROOMS.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 SECOND FLOOR PLAN - MECHANICAL - 1
SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by	VF/AW
Checked by	EF
Project No.	43040
Scale	AS NOTED
Date	03-04-25

Mechanical & Electrical Engineer:	GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901 PROJ. NO. : MNY-2300128.00
Structural Engineer:	GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

78 ROSMAN RD, THIELLS, NY 10984
THIELLS ROCKLAND COUNTY

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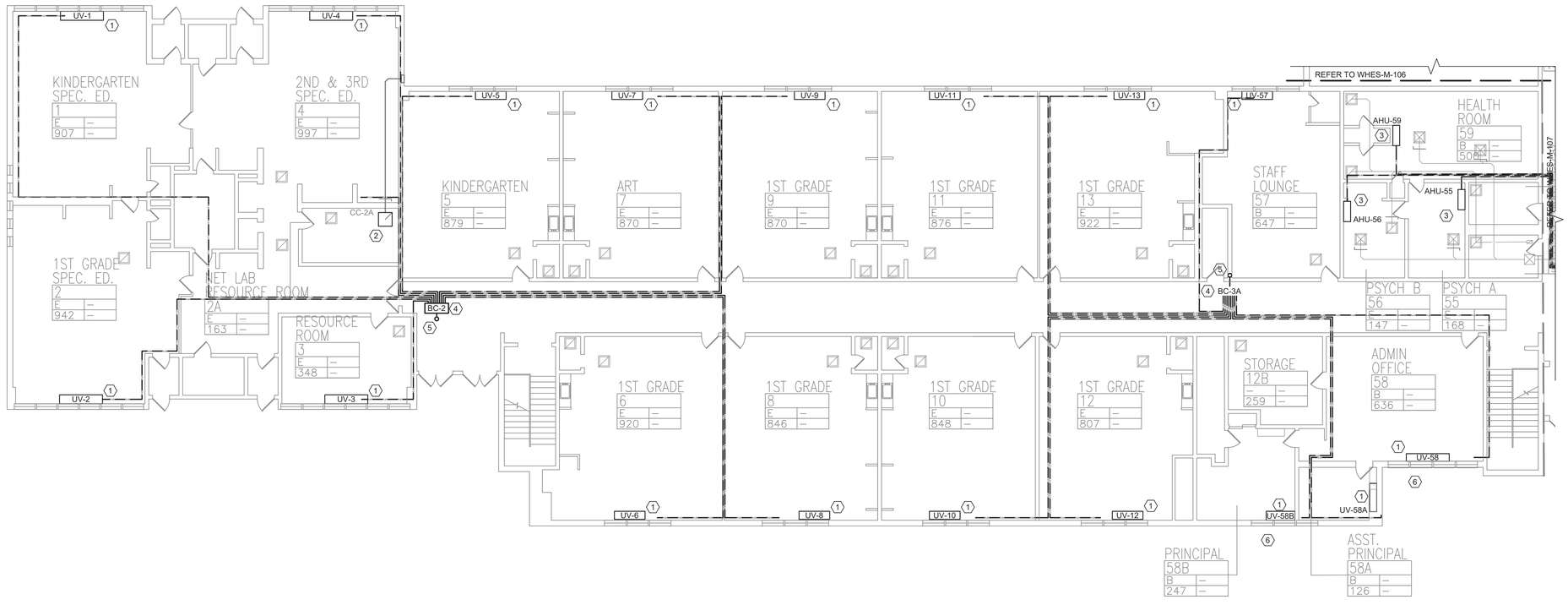
Drawing Title
SECOND FLOOR PLAN - MECHANICAL

Drawing No.
TES-M-104

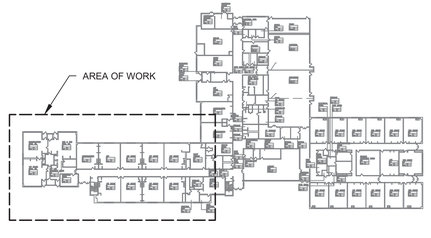
KEYED NOTES:

1. NEW UNIT VENTILATOR.
2. NEW CEILING CASSETTE.
3. NEW WALL HUNG AC UNIT.
4. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
5. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING. COORDINATE WITH ARCHITECT DRAWINGS .



1 FIRST FLOOR PARTIAL PLAN - REFRIGERANT PIPING - 1

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

GREENMAN PEDERSEN, INC
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Mechanical & Electrical Engineer:

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Structural Engineer:

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
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ROCKLAND COUNTY
THIELLS

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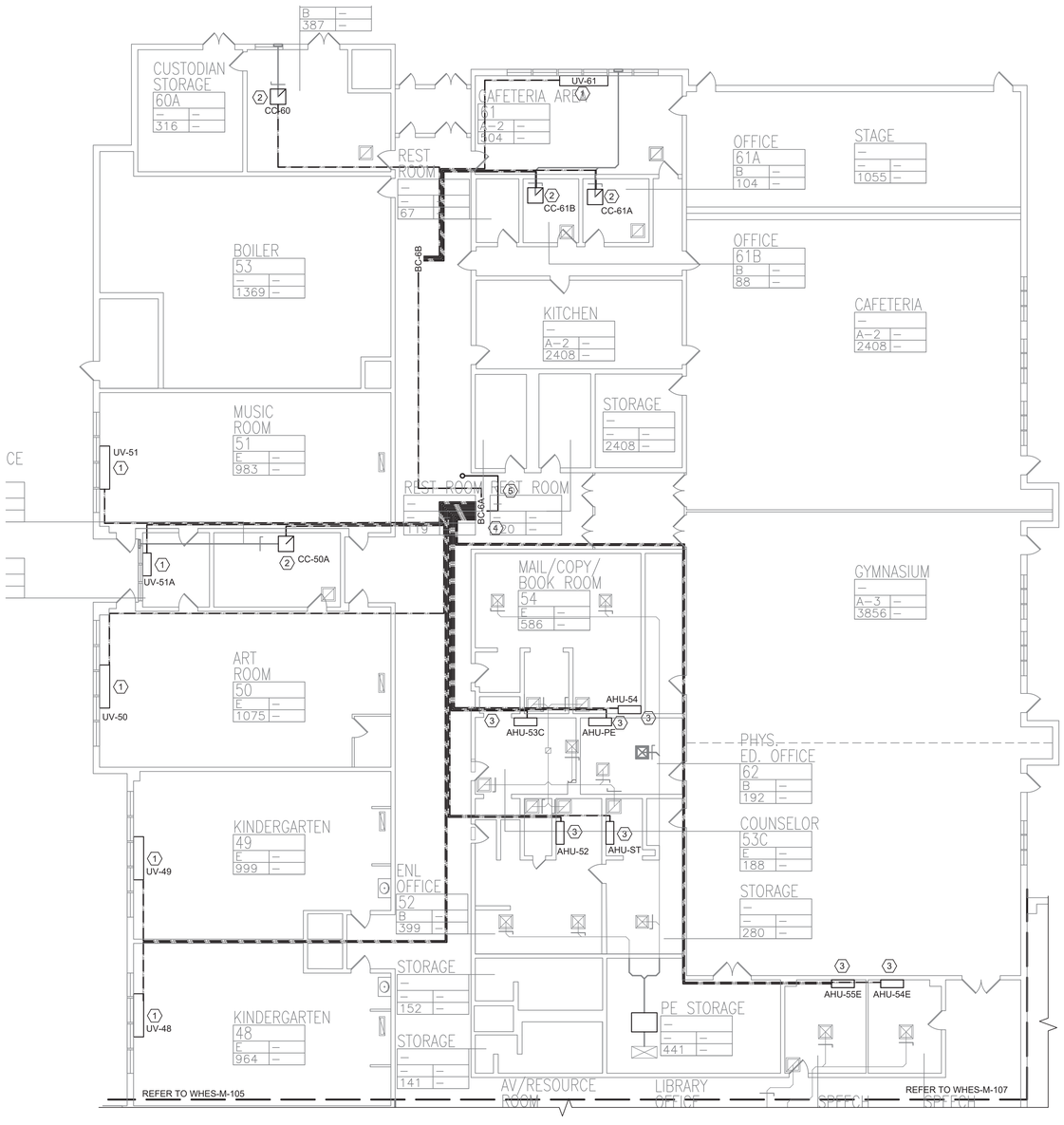
Drawing Title
FIRST FLOOR PART. PLAN - REFG. PIPING - 1

Drawing No.
TES-M-105



KEYED NOTES:

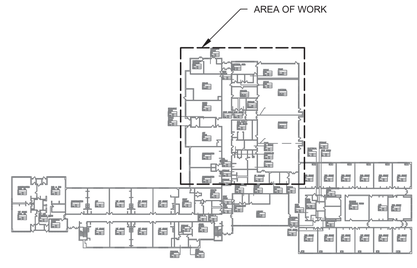
1. NEW UNIT VENTILATOR.
2. NEW CEILING CASSETTE.
3. NEW WALL HUNG AC UNIT.
4. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
5. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING. COORDINATE WITH ARCHITECT DRAWINGS

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1", THEN DRAWING IS NOT TO FULL SCALE

1 FIRST FLOOR PARTIAL PLAN - REFRIGERANT PIPING - 2

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 4304O
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
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PROJ. NO. 19PC250155.00

Structural Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 302
SUFFERN, NY 10901

UNIVENT REPLACEMENT
AT STONY POINT,
THIBILLS, WEST HAV
ELEMENTARY SCHOOL
SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX
178 BOSMAN RD.
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THIEBILS
ROCKLAND COUNTY

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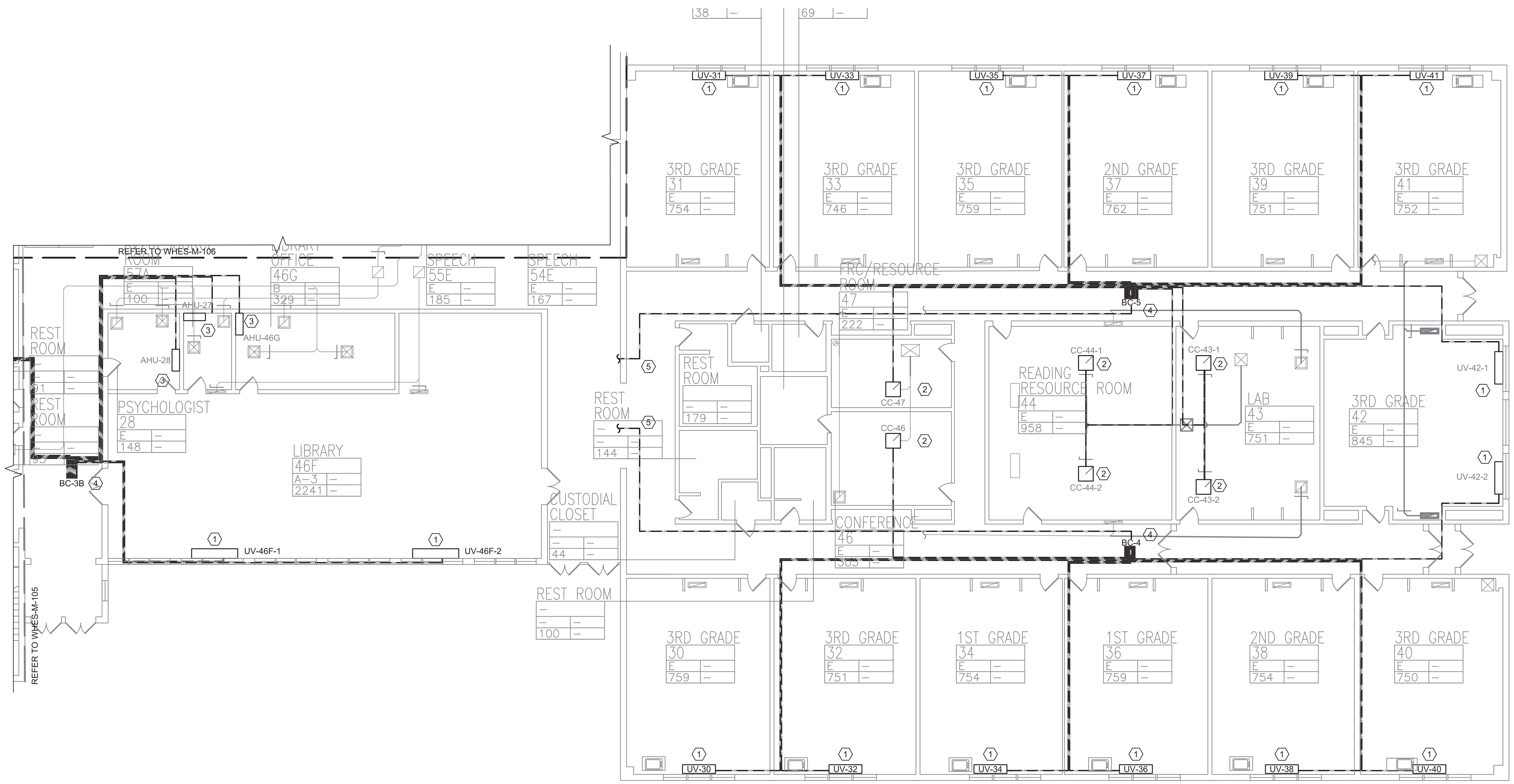
Drawing Title
FIRST FLOOR PART. PLAN - REFG. PIPING - 2

Drawing No.
TES-M-106

KEYED NOTES:

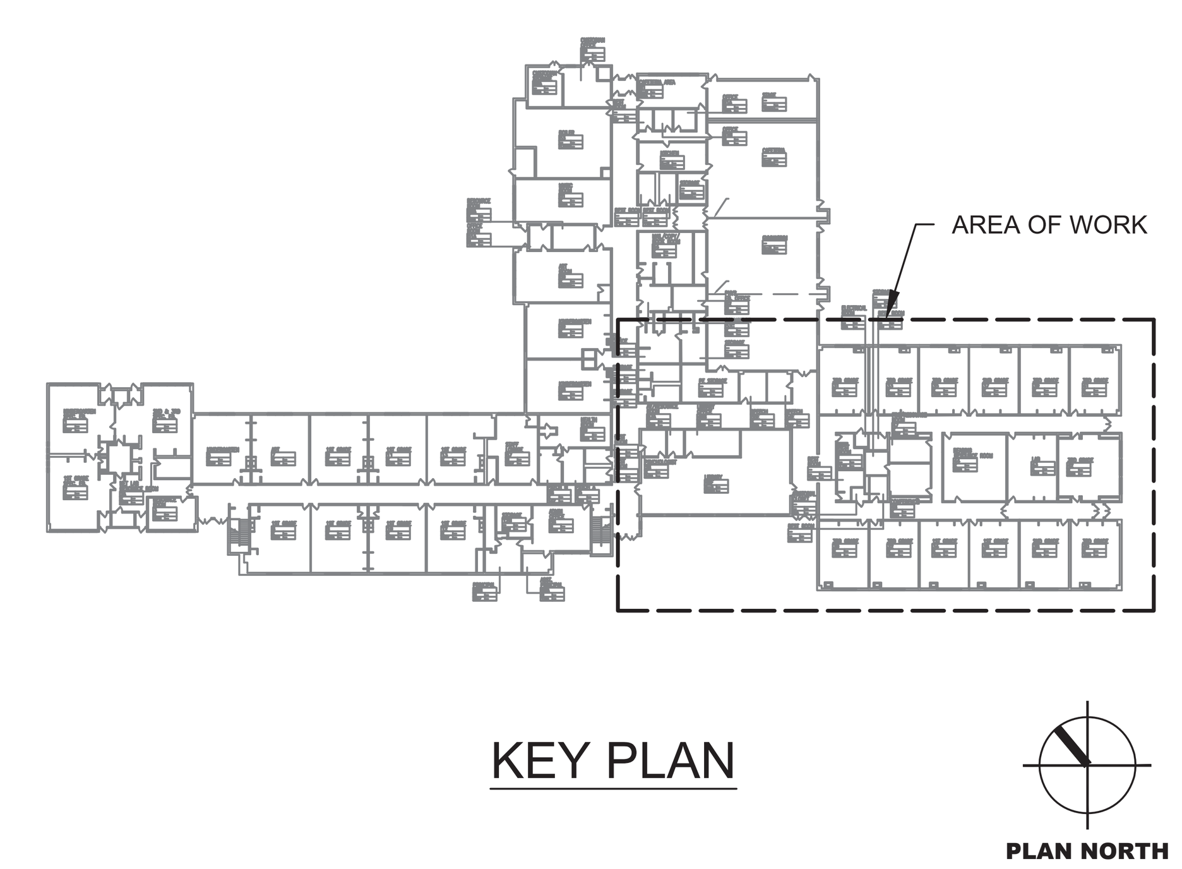
1. NEW UNIT VENTILATOR.
2. NEW CEILING CASSETTE.
3. NEW WALL HUNG AC UNIT.
4. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
5. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING. COORDINATE WITH ARCHITECT DRAWINGS .

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 FIRST FLOOR PARTIAL PLAN - REFRIGERANT PIPING - 3

SCALE: 3/32" = 1'- 0"



KEY PLAN

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by	VF/AW
Checked by	EF
Project No.	43040
Scale	AS NOTED
Date	03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
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SUFFERN, NY 10901
PROJ. NO. : MNY-2300128.00

Structural Engineer: GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
SUITE 202
SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

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THIELLS ROCKLAND COUNTY

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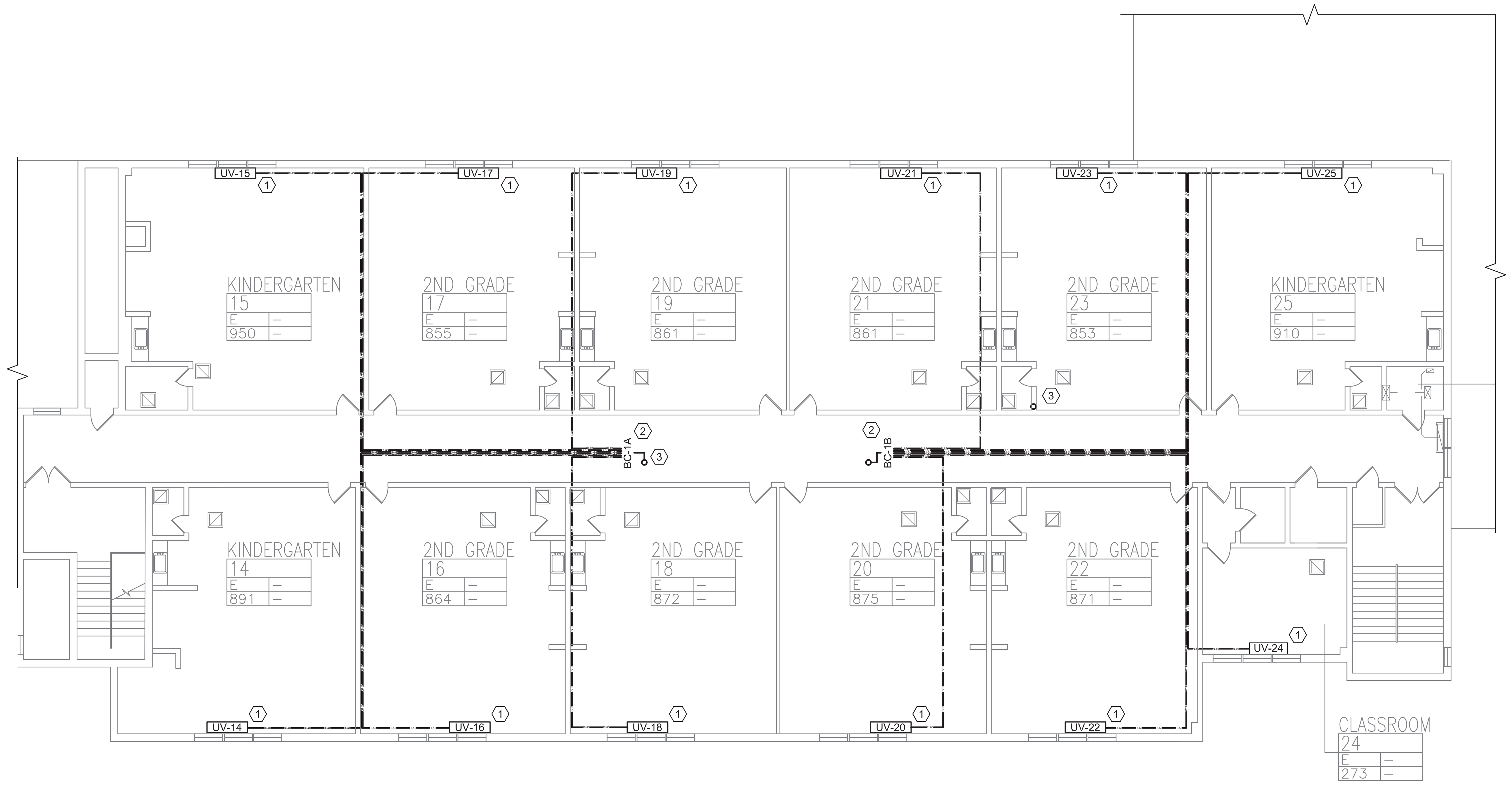
Drawing Title
FIRST FLOOR PART. PLAN - REFG. PIPING - 3

Drawing No.
TES-M-107

KEYED NOTES:

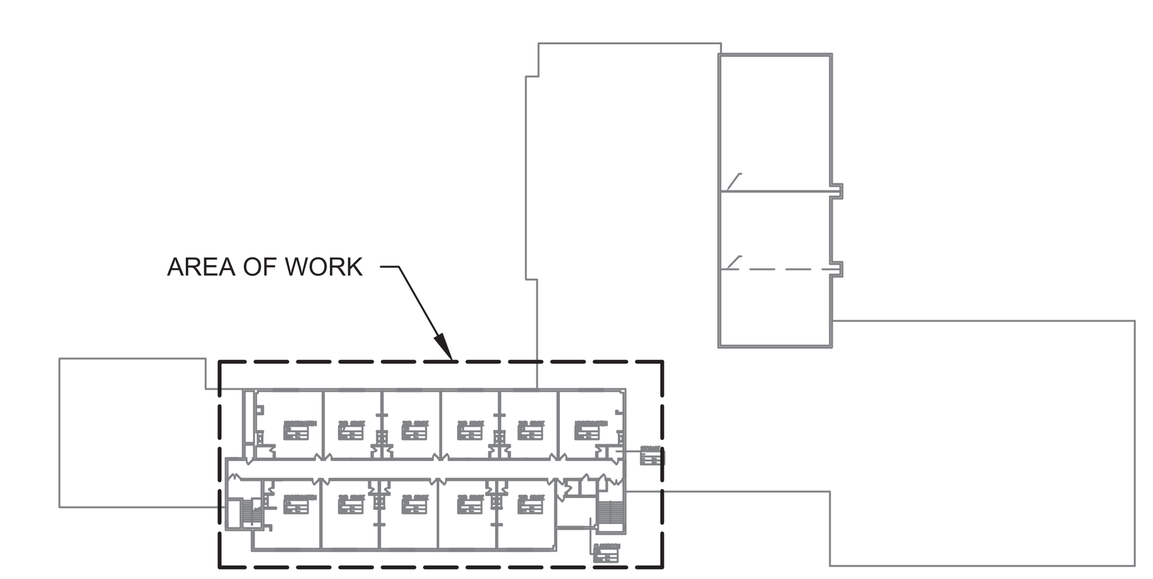
1. NEW UNIT VENTILATOR.
2. INSTALL BRANCH CONTROLLER IN SUSPENDED CEILING. SEE DETAIL 5/M502.
3. INSTALL, ROUTE, AND CONNECT REFRIGERANT PIPING AS INDICATED ABOVE SUSPENDED CEILING. COORDINATE WITH ARCHITECT DRAWINGS .

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 SECOND FLOOR PLAN - REFRIGERANT PIPING

SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901, PROJ. NO. 1 MNY-2300188.00

Structural Engineer: GREENMAN PEDERSEN, INC, 2 EXECUTIVE BOULEVARD, SUITE 202, SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAV ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-XXX
SED# 50-02-01-06-0-025-XXX
SED# 50-02-01-06-0-024-XXX

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THIELLS ROCKLAND COUNTY

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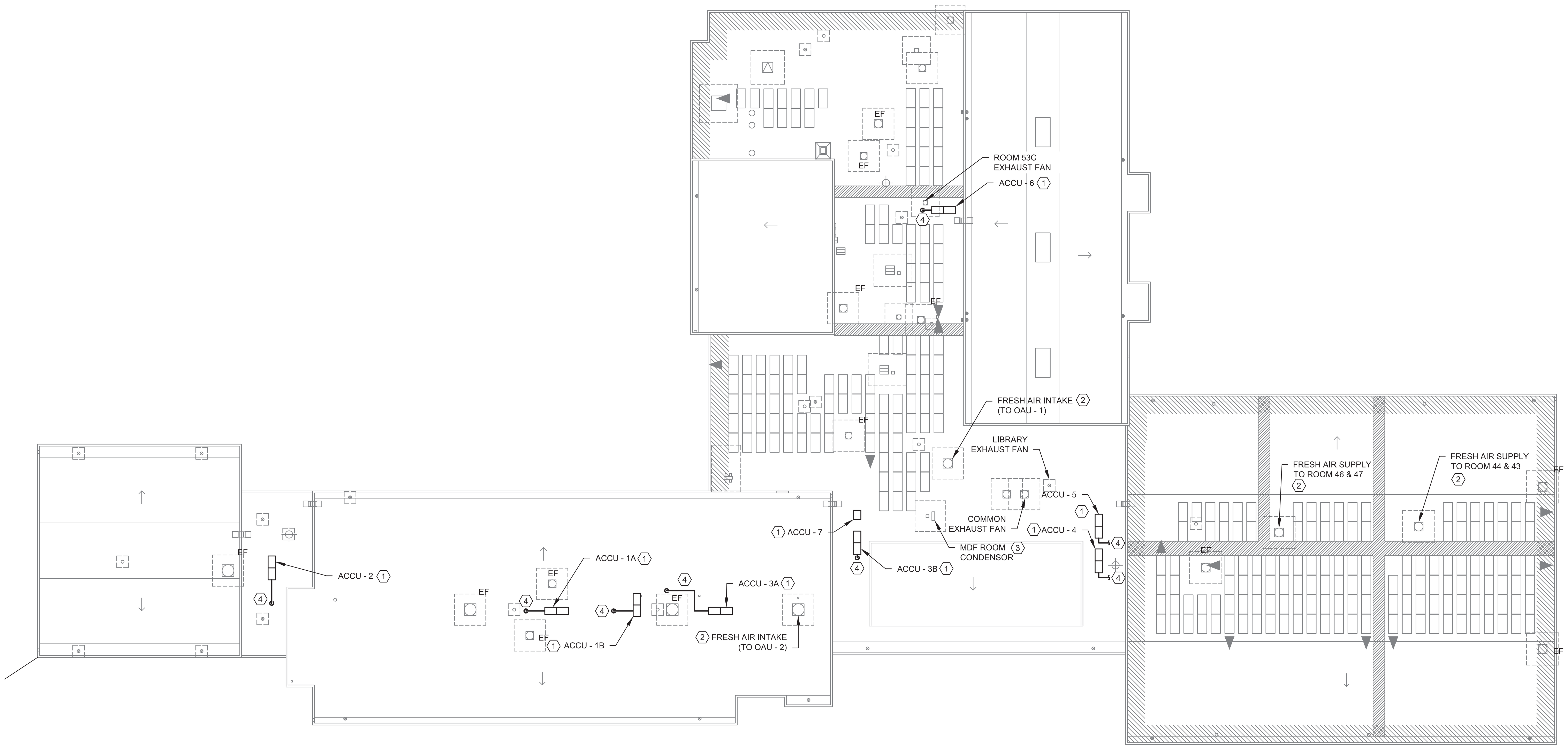
Drawing Title: SECOND FLOOR PLAN - REFG. PIPING

Drawing No. TES-M-108

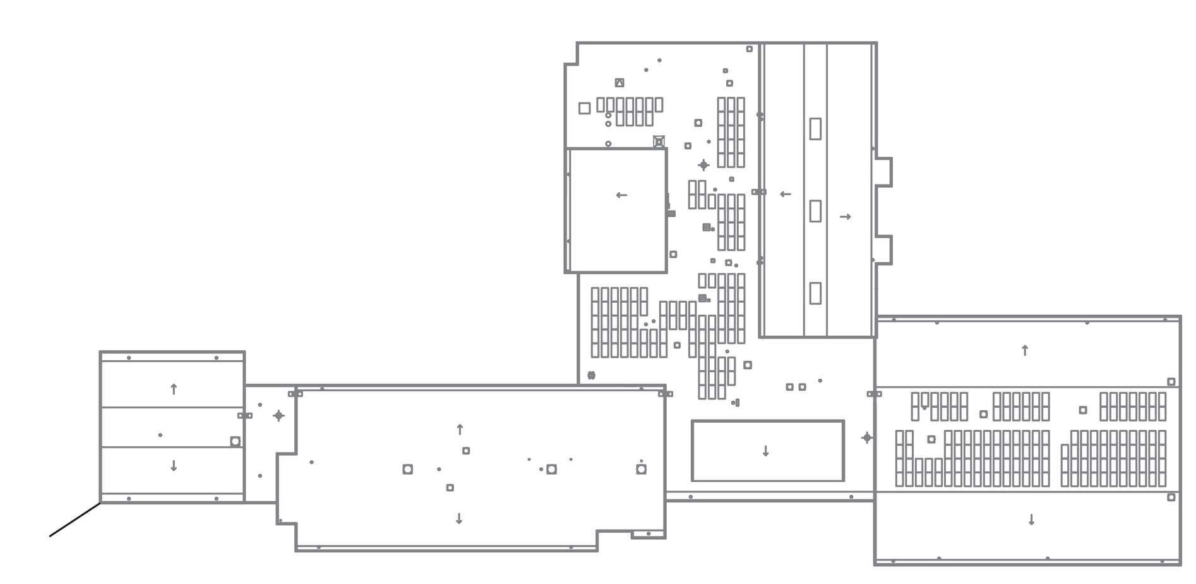
KEYED NOTES:

1. INSTALL AND CONNECT ACCU AS SHOWN. SEE STRUCTURAL DRAWINGS FOR COORDINATION AS REQUIRED. SEE DETAILS 1/M502, 2/M503, 3/M503, AND 4/M503.
2. FRESH AIR INTAKE FOR FRESH AIR SYSTEM TO REMAIN.
3. EXISTING CONDENSER FOR EXISTING WALL HUNG UNIT TO REMAIN.
4. REFRIGERANT LIQUID AND SUCTION PIPING.

0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE



1 MECHANICAL ROOF PLAN
SCALE: 3/32" = 1'- 0"



KEY PLAN

PLAN NORTH

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by: VF/AW
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Project No.: 43040
Scale: AS NOTED
Date: 03-04-25

Mechanical & Electrical Engineer:
GREENMAN PEDERSEN, INC
2 EXECUTIVE BOULEVARD
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SUFFERN, NY 10901
PROJ. NO. : MNY-2300128.00

Structural Engineer:
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SUFFERN, NY 10901

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THIELLS ROCKLAND COUNTY

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Drawing Title
ROOF PLAN - MECHANCIAL

Drawing No.
TES-M-109

SEQUENCE OF OPERATIONS
UNIT VENTILATOR

BUILDING AUTOMATION SYSTEM INTERFACE:
THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED BYPASS, MORNING WARM-UP / PRE-COOL, OCCUPIED / UNOCCUPIED AND HEAT / COOL MODES. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS.

OCCUPIED MODE:
DURING OCCUPIED PERIODS THE SUPPLY FAN WILL RUN CONTINUOUSLY AND THE OUTSIDE AIR DAMPER WILL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. VRF HEATING/COOLING OR THE HOT WATER COIL VALVE WILL OPERATE TO MAINTAIN THE ACTIVE SPACE TEMPERATURE SETPOINT. VRF HEATING WILL OPERATE AS THE FIRST FORM OF HEAT. THE UNIT WILL UTILIZE HOT WATER HEAT AND FIN TUBE RADIATION IN CONDITIONS WHERE VRF HEAT IS NOT ABLE TO MEET THE HEATING DEMAND.

UNOCCUPIED MODE:
WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START, THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED AND HEATING WILL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.) PLUS THE UNOCCUPIED DIFFERENTIAL OF 2.0 DEG. F (ADJ.) THE SUPPLY FAN WILL STOP AND HEATING WILL BE DISABLED. WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START, THE OUTSIDE AIR DAMPER WILL OPEN IF ECONOMIZING IS ENABLED AND REMAIN CLOSED IF ECONOMIZING IS DISABLED AND COOLING WILL MODULATE TO MAINTAIN SPACE TEMPERATURE. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN WILL STOP, COOLING WILL BE DISABLED AND THE OUTSIDE AIR DAMPER WILL CLOSE.

OPTIMAL START:
THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS.

MORNING WARM-UP MODE:
DURING OPTIMAL START, WHEN THE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT, A MORNING WARM-UP MODE WILL BE ACTIVATED. WHEN MORNING WARM-UP IS INITIATED, THE UNIT WILL ENABLE THE HEATING AND SUPPLY FAN. THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT (ADJ.), THE UNIT WILL TRANSITION TO THE OCCUPIED MODE.

PRE-COOL MODE:
DURING OPTIMAL START, WHEN THE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT, PRE-COOL MODE WILL BE ACTIVATED. WHEN PRE-COOL IS INITIATED, THE UNIT WILL ENABLE THE FAN AND COOLING OR ECONOMIZER. THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED, UNLESS ECONOMIZING. WHEN THE SPACE TEMPERATURE REACHES OCCUPIED COOLING SETPOINT (ADJ.), THE UNIT WILL TRANSITION TO THE OCCUPIED MODE.

OCCUPIED BYPASS:
THE BAS SHALL MONITOR THE STATUS OF THE "ON" AND "CANCEL" BUTTONS OF THE SPACE TEMPERATURE SENSOR OR MOVEMENT AS DETECTED BY A SPACE OCCUPANCY SENSOR. WHEN AN OCCUPIED BYPASS REQUEST IS RECEIVED FROM A SPACE SENSOR, THE UNIT SHALL TRANSITION FROM ITS CURRENT OCCUPANCY MODE TO OCCUPIED BYPASS MODE AND THE UNIT SHALL MAINTAIN THE SPACE TEMPERATURE TO THE OCCUPIED SETPOINTS (ADJ.).

SPACE TEMPERATURE CONTROL:
CASCADE ZONE CONTROL WILL BE USED IN THE OCCUPIED, OCCUPIED BYPASS, AND OCCUPIED STANDBY MODES. IT MAINTAINS ZONE TEMPERATURE BY CONTROLLING THE DISCHARGE AIR TEMPERATURE TO CONTROL THE ZONE TEMPERATURE WHILE MINIMIZING THE FAN SPEED. THE SPACE TEMPERATURE WILL BE MAINTAINED BETWEEN THE OCCUPIED COOLING SETPOINT OF 74.0 DEG. F (ADJ.) AND THE OCCUPIED HEATING SETPOINT OF 71.0 DEG. F (ADJ.). THE UNIT WILL TRANSITION TO THE COOLING MODE WHEN THE SPACE TEMPERATURE RISES ONE DEGREE ABOVE THE OCCUPIED COOLING SETPOINT OF 74.0 DEG. F (ADJ.). THE UNIT WILL TRANSITION TO THE HEATING MODE WHEN THE SPACE TEMPERATURE DROPS ONE DEGREE BELOW THE OCCUPIED HEATING SETPOINT OF 74.0 DEG. F (ADJ.).

ECONOMIZER CONTROL:
ECONOMIZING WILL BE ENABLED WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW THE ECONOMIZING ENABLE SETPOINT OF 65.0 DEG. F (ADJ.). ECONOMIZING WILL BE DISABLED WHEN THE OUTDOOR AIR TEMPERATURE IS GREATER THAN 5.0 DEG. F ABOVE THE ECONOMIZER ENABLE SETPOINT. WHEN ECONOMIZING IS ENABLED THE OUTSIDE AIR DAMPER WILL MODULATE BETWEEN THE MINIMUM DAMPER POSITION AND 100% OPEN TO MAINTAIN THE OCCUPIED COOLING SETPOINT. IF THE OUTDOOR AIR TEMPERATURE SENSOR FAILS, ECONOMIZING WILL BE DISABLED AND AN ALARM WILL BE ANNUNCIATED AT THE BAS.

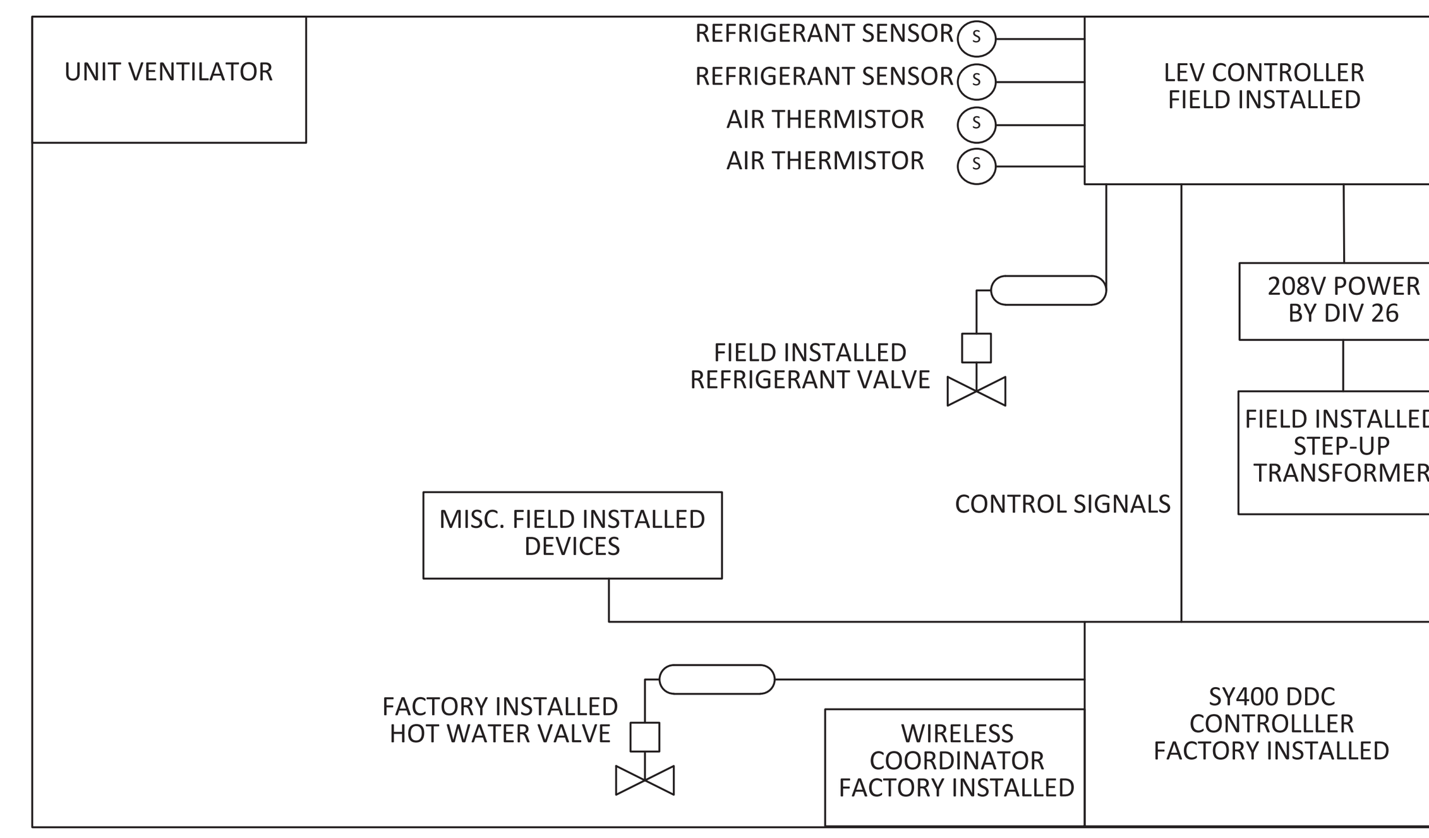
SUPPLY FAN OPERATION:
THE SUPPLY FAN SHALL CYCLE ON DEMAND DURING THE UNOCCUPIED MODE. WHEN THE CONTROLLER TRANSITIONS TO THE OCCUPIED MODE, THE SUPPLY FAN SHALL START AT HIGH SPEED BEFORE TRANSITIONING TO CONTINUOUS OPERATION AT THE SELECTED SPEED. THE SUPPLY FAN STATUS SHALL BE MONITORED BY A DIFFERENTIAL PRESSURE SWITCH. IF THE SUPPLY FAN FAILS THE FAN SHALL BE COMMANDED OFF AND AN ALARM WILL BE ANNUNCIATED AT THE BAS. A MANUAL RESET SHALL BE REQUIRED TO RESTART THE FAN.

FREEZE PROTECTION:
A HARDWIRED, LOW LIMIT TEMPERATURE SWITCH WILL BE ELECTRICALLY INTERLOCKED WITH THE SAFETY CIRCUIT. IF THE LOW LIMIT TEMPERATURE SWITCH IS TRIPPED 38.0 DEG. F (ADJ.), THE SUPPLY FAN WILL BE COMMANDED OFF, WATER VALVES WILL OPEN TO 100%, OUTSIDE AIR DAMPER WILL CLOSE, AND AN ALARM WILL BE ANNUNCIATED AT THE BAS.THE CONTROLLER WILL AUTOMATICALLY ATTEMPT TO RESTART THE UNIT AFTER 30 MINUTES. IF THE UNIT RESTARTS SUCCESSFULLY WITH NO LOW TEMPERATURE CONDITION, THE DIAGNOSTIC IS CLEARED. IF A SECOND LOW TEMPERATURE CONDITION OCCURS WITHIN A 24 HOUR PERIOD THE UNIT WILL BE LOCKED OUT UNTIL MANUALLY RESET.

FILTER TIMER:
THE FAN-RUN TIME (HRS) WILL BE COMPARED TO THE FILTER MAINTENANCE TIMER SETPOINT. ONCE THE SETPOINT IS REACHED A FILTER TIMER ALARM DIAGNOSTIC WILL BE ANNUNCIATED AT THE BAS. WHEN THE DIAGNOSTIC IS CLEARED, THE FILTER-MAINTENANCE TIMER IS RESET TO ZERO, AND THE TIMER BEGINS ACCUMULATING FAN-RUN TIME AGAIN.

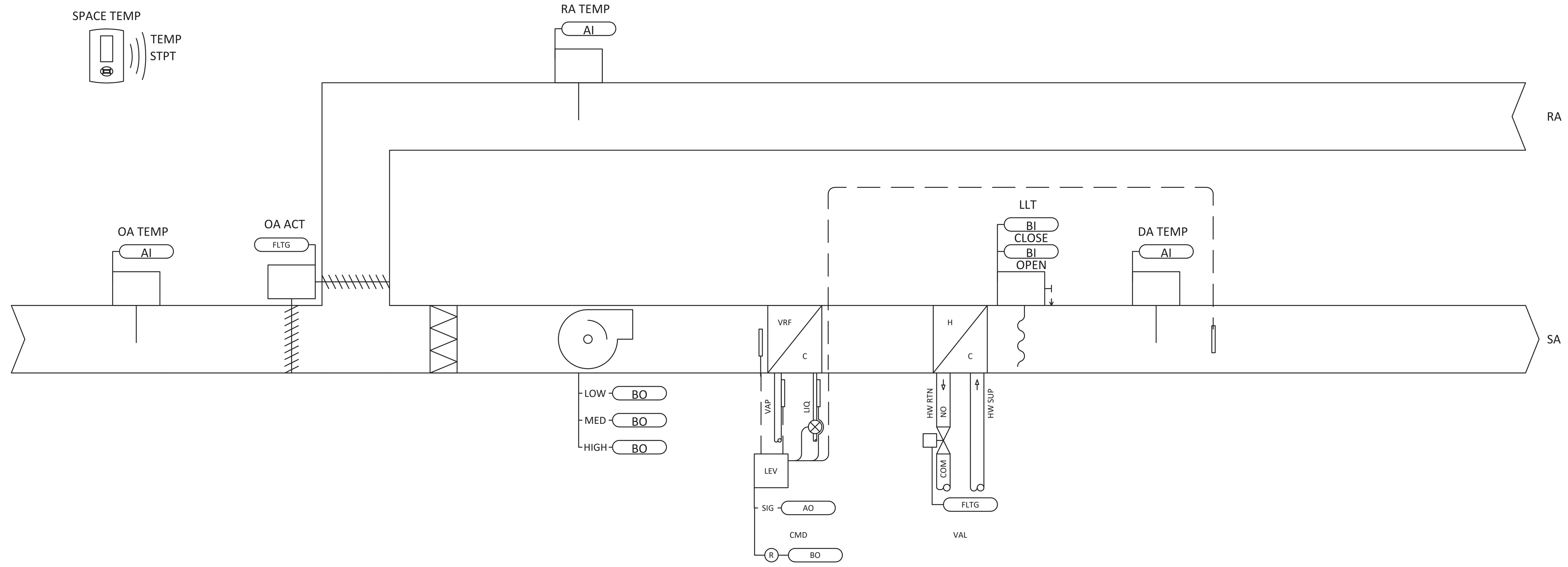
FIN TUBE RADIATOR:
THE FIN TUBE RADIATOR WILL ACT AS SECOND STAGE OF HEAT.

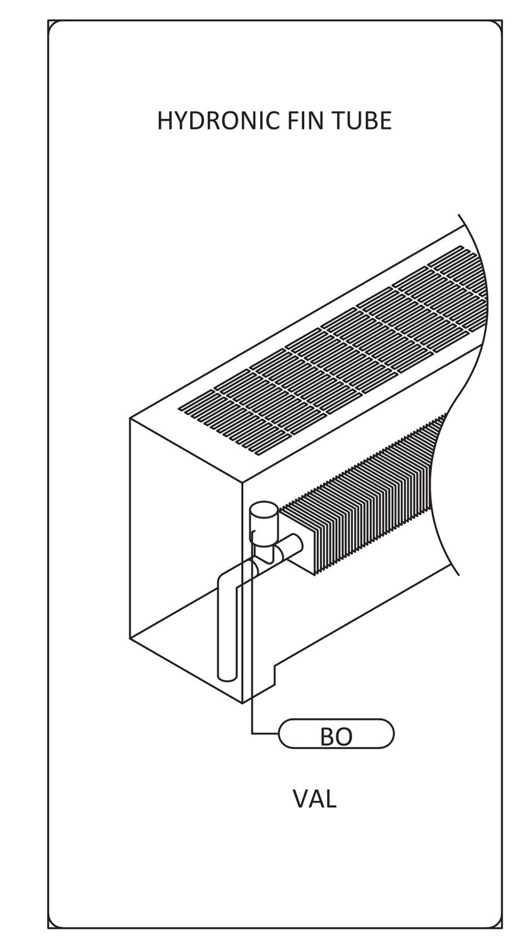
(UNIT VENTILATOR W/ VRF LEV)



ALL ITEMS DENOTED AS FIELD INSTALLED ARE TO BE FIELD INSTALLED BY THE ATC CONTRACTOR. ATC CONTRACTOR TO COORDINATE WITH EQUIPMENT MANUFACTURER ON FURNISHING OF ITEMS

UNIT VENTILATOR W/ VRF LEV





1 UNIT VENTILATOR FLOW DIAGRAM & SEQUENCE OF OPERATIONS
SCALE: NONE

SEQUENCE OF OPERATIONS
VRF INDOOR UNITS

BUILDING AUTOMATION SYSTEM INTERFACE:
THE BUILDING AUTOMATION SYSTEM (BAS) WILL SEND THE CONTROLLER OCCUPIED / UNOCCUPIED MODES AND SETPOINTS. IF A BAS IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS THE CONTROLLER WILL OPERATE USING DEFAULT MODES AND SETPOINTS .

OCCUPIED MODE:
DURING OCCUPIED PERIODS, THE SUPPLY FAN WILL RUN CONTINUOUSLY. VRF HEATING OR COOLING WILL MODULATE TO MAINTAIN THE OCCUPIED SPACE TEMPERATURE SETPOINT.

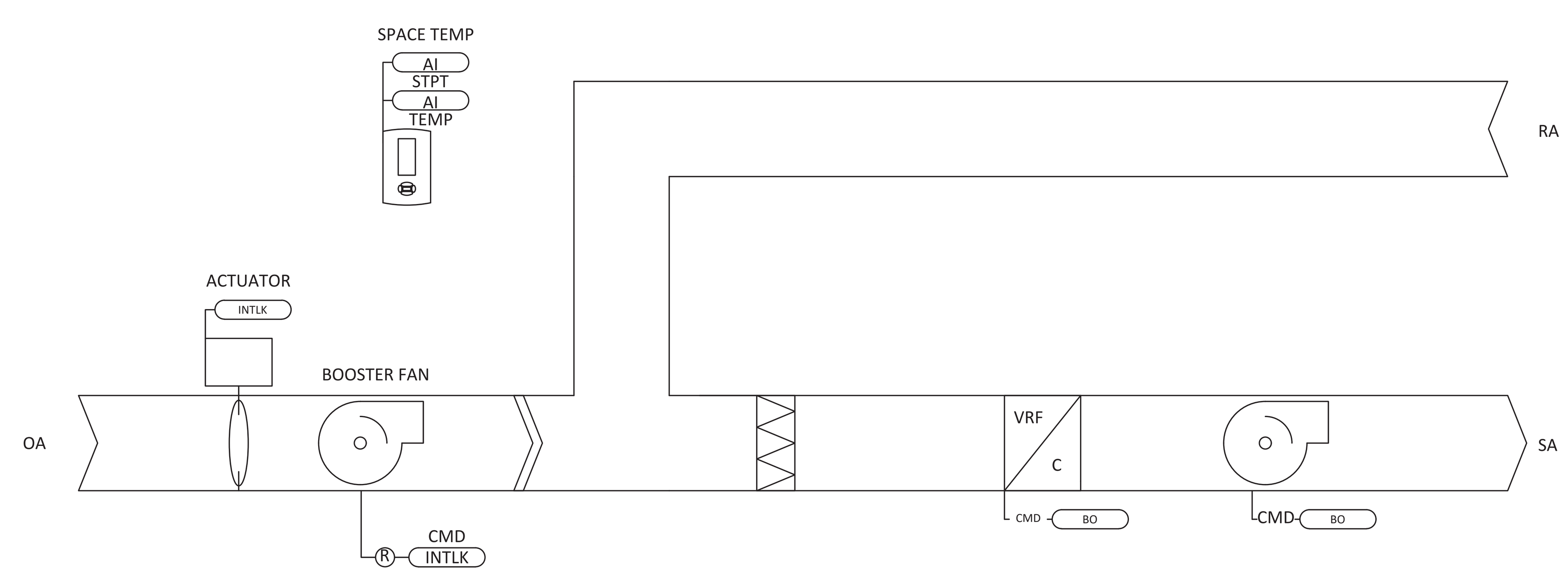
UNOCCUPIED MODE:
WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED HEATING SETPOINT OF 60.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START AND VRF HEATING WILL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT PLUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.), THE SUPPLY FAN WILL STOP AND THE VRF HEATING WILL BE DISABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85.0 DEG. F (ADJ.), THE SUPPLY FAN WILL START AND VRF COOLING WILL BE ENABLED. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.), THE SUPPLY FAN WILL STOP AND THE VRF COOLING WILL BE DISABLED.

COOLING MODE:
THE UNIT CONTROLLER WILL USE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR COOLING. WHEN THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT, THE UNIT CONTROLLER WILL MODULATE VRF COOLING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. ONCE THE SPACE TEMPERATURE FALLS BELOW THE SETPOINT, VRF COOLING WILL BE DISABLED.

HEATING MODE:
THE UNIT CONTROLLER WILL USE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR HEATING. WHEN THE SPACE TEMPERATURE FALLS BELOW THE SETPOINT, THE UNIT CONTROLLER WILL MODULATE VRF HEATING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. ONCE THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT, VRF HEATING WILL BE DISABLED.

BOOSTER FAN:
THE BOOSTER FAN WILL BE INTERLOCKED WITH THE INDOOR UNIT. THE FAN WILL RUN WHEN THE UNIT SUPPLY FAN IS RUNNING.

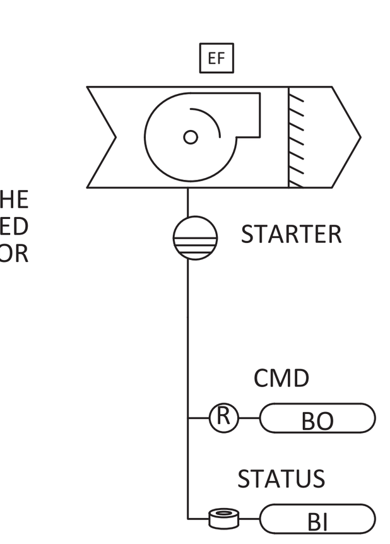
OUTDOOR AIR DAMPER:
THE OUTDOOR AIR DAMPER WILL BE INTERLOCKED WITH THE INDOOR UNIT. THE FAN WILL BE OPEN WHEN THE UNIT SUPPLY FAN IS RUNNING.



2 VRF FLOW DIAGRAM & SEQUENCE OF OPERATIONS
SCALE: NONE

SEQUENCE OF OPERATIONS
EXHAUST FANS

OCCUPANCY CONTROL:
THE EXHAUST FANS WILL BE ENABLED WHEN THE CONTROLLER IS IN THE OCCUPIED MODE AND DISABLED IN THE UNOCCUPIED MODE. THE BAS WILL MONITOR FAN STATUS FOR ALARMING PURPOSES.



3 EXHAUST FAN FLOW DIAGRAM & SEQUENCE OF OPERATIONS
SCALE: NONE

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE.

No.	Date	Revisions
1	03-04-25	BIDDING DOCUMENTS

Drawn by VF/AW
Checked by EF
Project No. 43040
Scale AS NOTED
Date 03-04-25

Mechanical & Electrical Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901 PROJ. NO. : MNY-23000088.00

Structural Engineer: GREENMAN PEDERSEN, INC 2 EXECUTIVE BOULEVARD SUITE 202 SUFFERN, NY 10901

UNIVENT REPLACEMENT AT STONY POINT, THIELLS, WEST HAVESTRAW ELEMENTARY SCHOOL

SED# 50-02-01-06-0-014-012
SED# 50-02-01-06-0-025-018
SED# 50-02-01-06-0-024-015

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Drawing Title
FLOW DIAGRAM AND SEQUENCE OF OPERATIONS

Drawing No.
TES-M-301