2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

CLIENT:

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

68 WILSON CREEK ROAD
NEWARK VALLEY, NEW YORK 13811

SED PROJECT NUMBER:
HIGH SCHOOL 60-04-02-04-0-007-023

ARCHITECT / ENGINEER:

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KEYSTONE ASSOCIATES PROJECT NUMBER: 1823.24221.1.3
SED SUBMISSION DATE: 12/12/2025
SED APPROVAL DATE: 01/23/2026

LIST OF DRAWINGS

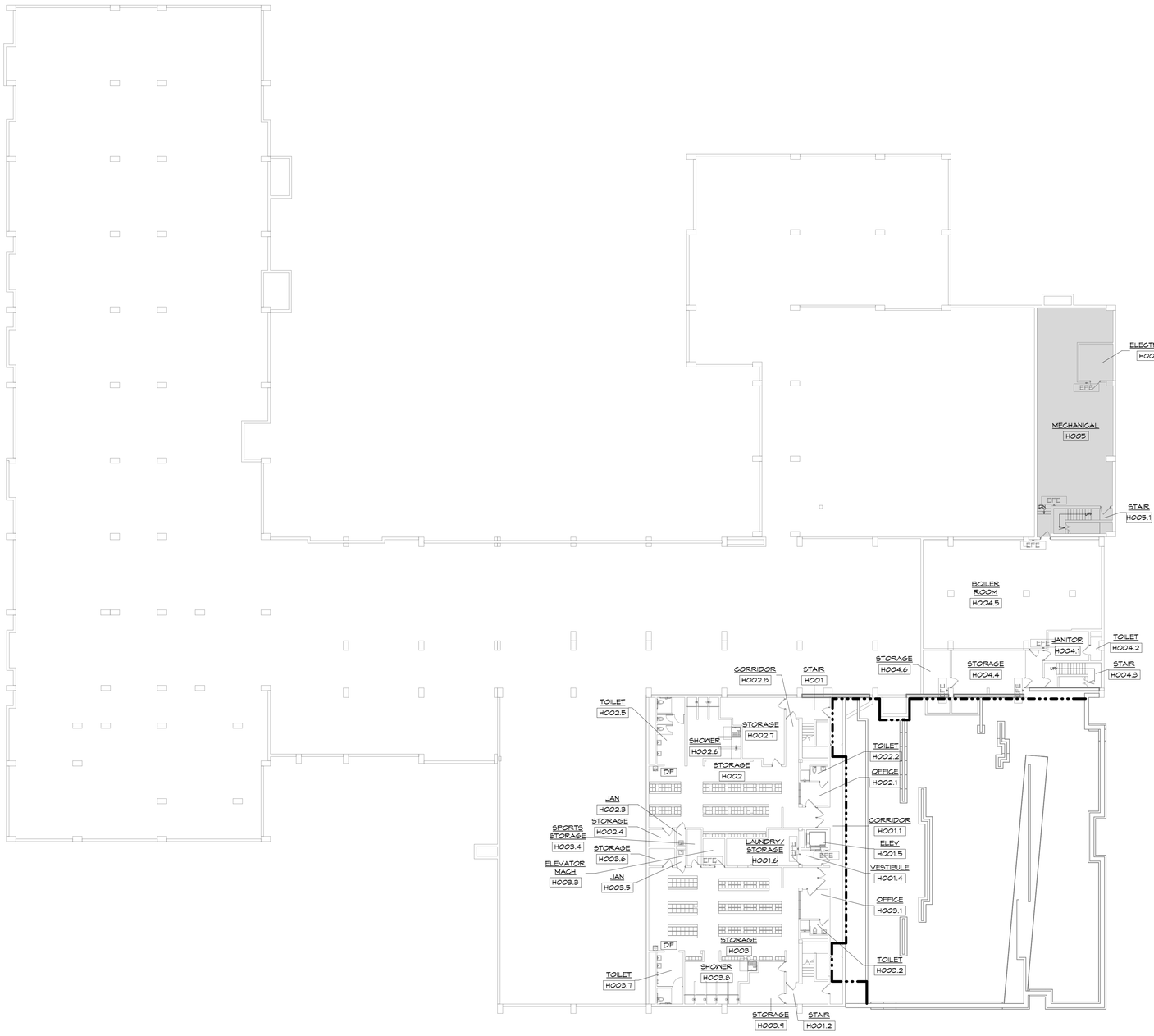
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SED101	FIRST FLOOR CODE PLAN
SED102	SECOND FLOOR CODE PLAN
S101	STRUCTURAL ROOF FRAMING, DETAILS & NOTES
A100	FIRST FLOOR DEMOLITION PLAN
A101	FIRST FLOOR DEMOLITION PLAN
A102	FIRST FLOOR DEMOLITION PLAN
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M603	MECHANICAL DETAILS
M604	MECHANICAL DETAILS
M605	MECHANICAL DETAILS
M606	MECHANICAL DETAILS
M607	MECHANICAL DETAILS
M609	MECHANICAL CONTROLS
M701	MECHANICAL CONTROLS
M702	MECHANICAL CONTROLS
M703	MECHANICAL CONTROLS
M704	MECHANICAL CONTROLS
M705	MECHANICAL CONTROLS
M706	MECHANICAL CONTROLS
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E403	FIRST FLOOR POWER & SYSTEMS PLAN – AREA 2
E404	FIRST FLOOR POWER & SYSTEMS PLAN – AREA 3
E405	SECOND FLOOR POWER & SYSTEMS PLAN – AREA 1
E406	SECOND FLOOR POWER & SYSTEMS PLAN – AREA 2
E407	SECOND FLOOR POWER & SYSTEMS PLAN – AREA 3
E408	ROOF POWER & SYSTEMS PLAN – AREA 1
E409	ROOF POWER & SYSTEMS PLAN – AREA 2
E410	ROOF POWER & SYSTEMS PLAN – AREA 3

LOCATION MAP



SET NO.

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING



1 SED100

SED BASEMENT FLOOR CODE PLAN

1/16" = 1'-0"

CODE INFORMATION

OCCUPANCY CLASSIFICATION: E

CONSTRUCTION CLASSIFICATION

YEAR BUILT	1869
TYPE OF CONSTRUCTION	TYPE IIB
NUMBER OF STORIES	2

EXISTING BUILDING AREA

BASEMENT	11,310 SF
FIRST FLOOR	102,005 SF
SECOND FLOOR	59,910 SF
TOTAL	172,225 SF

EXIT DOORS AND TRAVEL DISTANCE

GENERAL REQUIREMENTS

1. MAXIMUM TRAVEL DISTANCE PERMITTED = 200'-0"
2. CAPACITY OF DOORS = 0.2" PER OCCUPANT
3. CAPACITY OF STAIRS = 0.3" PER OCCUPANT
4. MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD:
   - LOAD OF 1-500 REQUIRES A MINIMUM OF 2 EXITS
   - LOAD OF 501-1,000 REQUIRES A MINIMUM OF 3 EXITS
5. MAXIMUM FLOOR AREA PER OCCUPANT:
   - CLASSROOM = 20 SF PER STUDENT
   - SCIENCE = 50 SF PER STUDENT
   - COMPUTER ROOM = 35 SF PER STUDENT
   - ASSEMBLY - CONCENTRATED (STANDING) = 5 SF PER STUDENT
   - ASSEMBLY - UNCONCENTRATED (TABLES & CHAIRS)= 15 SF PER STUDENT
   - STAGE = 15 SF PER STUDENT
   - CAFETERIA = 15 SF PER STUDENT
   - LIBRARY = 50 SF PER STUDENT
   - ART = 45 SF PER STUDENT
   - MUSIC = 25 SF PER STUDENT
   - TECHNOLOGY = 75 SF PER STUDENT
6. EXISTING CORRIDORS PRESUMED TO BE 1-HOUR OR 2-HOUR FIRE RATED AS REQUIRED
7. OCCUPANCY LOAD REMAINS THE SAME AS A RESULT OF THIS WORK.
8. NUMBER OF OCCUPANTS AT STAIR CAPACITIES AT STAIR HS-A AND STAIR HS-I ARE EXISTING NON-COMPLIANT.

DOOR EXITING SCHEDULE

DOOR	NUMBER OF OCCUPANTS	REQUIRED WIDTH PER OCCUPANTS	ACTUAL WIDTH OF DOOR	MAXIMUM NUMBER OF OCCUPANTS	
DOOR HS-01	125	25"	(2) AT 36" = 72"	360	
DOOR HS-02	304	60.8"	(2) AT 36" = 72"	360	
DOOR HS-03	244	48.8"	(3) AT 36" = 108"	540	
DOOR HS-04	20	4"	(1) AT 36" = 36"	180	
DOOR HS-05	349	69.8"	(4) AT 36" = 144"	720	
DOOR HS-06	-	-	(1) AT 36" = 36"	180	
DOOR HS-07	90	18"	(2) AT 36" = 72"	360	
DOOR HS-08	-	-	(1) AT 36" = 36"	180	
DOOR HS-09	89	17.8"	(2) AT 36" = 72"	360	
DOOR HS-10	257	51.4"	(2) AT 36" = 72"	360	
DOOR HS-11	13	2.6"	(2) AT 36" = 72"	360	
DOOR HS-12	123	24.6"	(2) AT 36" = 72"	360	
DOOR HS-13	80	16"	(1) AT 40" = 40"	210	
DOOR HS-14	176	35.2"	(1) AT 36" = 36"	180	
DOOR HS-15	379	75.8"	(2) AT 40" = 80"	400	
DOOR HS-16	N/A	N/A	N/A	N/A	
DOOR HS-17	N/A	N/A	N/A	N/A	
DOOR HS-18	220	44"	(2) AT 36" = 72"	360	
DOOR HS-19	360	72"	(2) AT 36" = 72"	360	
DOOR HS-20	360	72"	(2) AT 36" = 72"	360	
DOOR HS-21	1,006	201.2"	(6) AT 36" = 216"	1,080	
DOOR HS-22	-	-	(1) AT 36" = 36"	180	
DOOR HS-23	74	14.8"	(1) AT 36" = 36"	180	

STAIR EXITING SCHEDULE

STAIR	NUMBER OF OCCUPANTS	REQUIRED WIDTH PER OCCUPANTS	ACTUAL WIDTH OF STAIR	MAXIMUM NUMBER OF OCCUPANTS	
STAIR HS-A	367	110.1"	(1) AT 44" = 44"	146	
STAIR HS-B	127	38.1"	(1) AT 56" = 56"	186	
STAIR HS-C	67	20.1"	(1) AT 44" = 44"	146	
STAIR HS-D	27	8.1"	(1) AT 44" = 44"	146	
STAIR HS-E	50	15"	(1) AT 44" = 44"	146	
STAIR HS-F	89	26.7"	(1) AT 44" = 44"	146	
STAIR HS-G	N/A	N/A	N/A	N/A	
STAIR HS-H	30	9"	(1) AT 44" = 44"	146	
STAIR HS-I	391	117.3"	(1) AT 44" = 44"	146	
STAIR HS-J	38	11.4"	(1) AT 45" = 45"	160	

LEGEND

ROOM NAME
AREA (SQUARE FEET)
NUMBER OF STUDENTS TO EXIT DOOR A/EXIT DOOR A
NUMBER OF STUDENTS TO EXIT DOOR B/EXIT DOOR B
TRAVEL DISTANCE TO EXIT DOOR A/EXIT DOOR A

DF	DRINKING FOUNTAIN
EFE	EXISTING FIRE EXTINGUISHER
EFEC	EXISTING FIRE EXTINGUISHER/CABINET
RW	RESCUE WINDOW
	PATH OF EGRESS WITH MAXIMUM DISTANCE
	1 HR RATED
	2 HR FIREWALL
	ALTERATION LEVEL 2 WORK AREA

NOTE:
SQUARE FOOTAGES SHOWN ARE FOR SED PURPOSES ONLY. CONTRACTOR SHALL NOT USE THESE AMOUNTS FOR MATERIAL QUANTITIES.

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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT PAUL ANTHONY STEFANOWICZ 027-031-1

SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

WARNING: Under 2009 Education Law Section 7209, it is a violation for any person, unless acting under the direction of a licensed Professional Architect, Engineer, Landscape Architect or Land Surveyor, to alter this specification, plan or report. If action is taken by any person, it must be stamped and signed and the original must state the alteration.

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
TIOGA COUNTY, NY
68 WILSON CREEK ROAD

BASEMENT FLOOR CODE PLAN

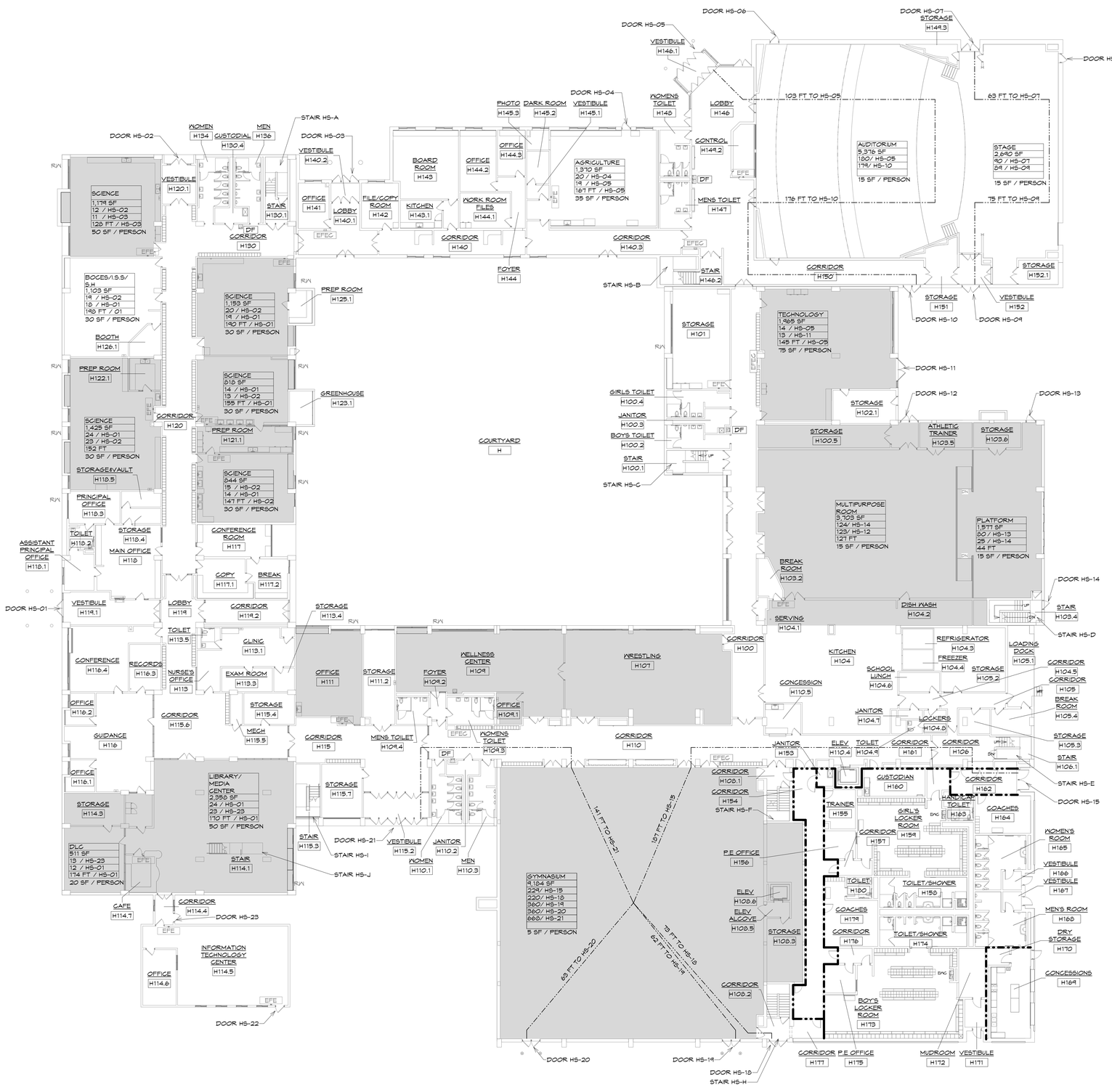
SHEET NO.
SED100

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

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1 SED101 — SED FIRST FLOOR CODE PLAN
1/16" = 1'-0"

CODE INFORMATION

OCCUPANCY CLASSIFICATION: E

CONSTRUCTION CLASSIFICATION

YEAR BUILT	1969
TYPE OF CONSTRUCTION	TYPE IIB
NUMBER OF STORIES	2

EXISTING BUILDING AREA

BASEMENT	11,310 SF
FIRST FLOOR	102,005 SF
SECOND FLOOR	59,910 SF
TOTAL	172,225 SF

EXIT DOORS AND TRAVEL DISTANCE

GENERAL REQUIREMENTS

1. MAXIMUM TRAVEL DISTANCE PERMITTED = 200'-0"
2. CAPACITY OF DOORS = 0.2" PER OCCUPANT
3. CAPACITY OF STAIRS = 0.3" PER OCCUPANT
4. MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD:
   - LOAD OF 1-500 REQUIRES A MINIMUM OF 2 EXITS
   - LOAD OF 501-1,000 REQUIRES A MINIMUM OF 3 EXITS
5. MAXIMUM FLOOR AREA PER OCCUPANT:
   - CLASSROOM = 20 SF PER STUDENT
   - SCIENCE = 30 SF PER STUDENT
   - COMPUTER ROOM = 35 SF PER STUDENT
   - ASSEMBLY - CONCENTRATED (STANDING) = 5 SF PER STUDENT
   - ASSEMBLY - UNCONCENTRATED (TABLES & CHAIRS)= 15 SF PER STUDENT
   - STAGE = 15 SF PER STUDENT
   - CAFETERIA = 15 SF PER STUDENT
   - LIBRARY = 50 SF PER STUDENT
   - ART = 48 SF PER STUDENT
   - MUSIC = 25 SF PER STUDENT
   - TECHNOLOGY = 75 SF PER STUDENT
6. EXISTING CORRIDORS PRESUMED TO BE 1-HOUR OR 2-HOUR FIRE RATED AS REQUIRED
7. OCCUPANCY LOAD REMAINS THE SAME AS A RESULT OF THIS WORK.
8. NUMBER OF OCCUPANTS AT STAIR CAPACITIES AT STAIR HS-A AND STAIR HS-I ARE EXISTING NON-COMPLIANT.

DOOR EXITING SCHEDULE

DOOR	NUMBER OF OCCUPANTS	REQUIRED WIDTH PER OCCUPANTS	ACTUAL WIDTH OF DOOR	MAXIMUM NUMBER OF OCCUPANTS	
DOOR HS-01	125	25"	(2) AT 36" = 72"	360	
DOOR HS-02	304	60.8"	(2) AT 36" = 72"	360	
DOOR HS-03	244	48.8"	(3) AT 36" = 108"	540	
DOOR HS-04	20	4"	(1) AT 36" = 36"	180	
DOOR HS-05	349	69.8"	(4) AT 36" = 144"	720	
DOOR HS-06	-	-	(1) AT 36" = 36"	180	
DOOR HS-07	90	18"	(2) AT 36" = 72"	360	
DOOR HS-08	-	-	(1) AT 36" = 36"	180	
DOOR HS-09	89	17.8"	(2) AT 36" = 72"	360	
DOOR HS-10	257	51.4"	(2) AT 36" = 72"	360	
DOOR HS-11	13	2.6"	(2) AT 36" = 72"	360	
DOOR HS-12	123	24.6"	(2) AT 36" = 72"	360	
DOOR HS-13	80	16"	(1) AT 40" = 40"	210	
DOOR HS-14	176	35.2"	(1) AT 36" = 36"	180	
DOOR HS-15	379	75.8"	(2) AT 40" = 80"	400	
DOOR HS-16	N/A	N/A	N/A	N/A	
DOOR HS-17	N/A	N/A	N/A	N/A	
DOOR HS-18	220	44"	(2) AT 36" = 72"	360	
DOOR HS-19	360	72"	(2) AT 36" = 72"	360	
DOOR HS-20	360	72"	(2) AT 36" = 72"	360	
DOOR HS-21	1,006	201.2"	(6) AT 36" = 216"	1,080	
DOOR HS-22	-	-	(1) AT 36" = 36"	180	
DOOR HS-23	74	14.8"	(1) AT 36" = 36"	180	

STAIR EXITING SCHEDULE

STAIR	NUMBER OF OCCUPANTS	REQUIRED WIDTH PER OCCUPANTS	ACTUAL WIDTH OF STAIR	MAXIMUM NUMBER OF OCCUPANTS
STAIR HS-A	367	110.1"	(1) AT 44" = 44"	146
STAIR HS-B	127	38.1"	(1) AT 56" = 56"	186
STAIR HS-C	67	20.1"	(1) AT 44" = 44"	146
STAIR HS-D	27	8.1"	(1) AT 44" = 44"	146
STAIR HS-E	50	15"	(1) AT 44" = 44"	146
STAIR HS-F	89	26.7"	(1) AT 44" = 44"	146
STAIR HS-G	N/A	N/A	N/A	N/A
STAIR HS-H	30	9"	(1) AT 44" = 44"	146
STAIR HS-I	391	117.3"	(1) AT 44" = 44"	146
STAIR HS-J	38	11.4"	(1) AT 48" = 48"	160

LEGEND

ROOM NAME
AREA (SQUARE FEET)
NUMBER OF STUDENTS TO EXIT DOOR A/EXIT DOOR A
NUMBER OF STUDENTS TO EXIT DOOR B/EXIT DOOR B
TRAVEL DISTANCE TO EXIT DOOR A/EXIT DOOR A

DF — DRINKING FOUNTAIN
EFE — EXISTING FIRE EXTINGUISHER
EFEC — EXISTING FIRE EXTINGUISHER/CABINET
RW — RESCUE WINDOW
PATH OF EGRESS WITH MAXIMUM DISTANCE
1 HR RATED
2 HR FIREWALL
ALTERATION LEVEL 2 WORK AREA

NOTE:
SQUARE FOOTAGES SHOWN ARE FOR SED PURPOSES ONLY. CONTRACTOR SHALL NOT USE THESE AMOUNTS FOR MATERIAL QUANTITIES.

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SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

WARNING: It is a violation of Section 7209, Subdivision 2 of the New York State Education Law for any person, unless acting under the direction of a licensed Architect, Engineer, or Land Surveyor, to alter in any way an item bearing the seal of the Architect, Engineer or Land Surveyor as specified in the law. Section 7209, Subdivision 2 of the New York State Education Law for any person, unless acting under the direction of a licensed Architect, Engineer, or Land Surveyor, to alter in any way an item bearing the seal of the Architect, Engineer or Land Surveyor as specified in the law.

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NO.	DESCRIPTION	DATE
1	SED COMMENTS	01/02/2026
2	PROVIDED AS ADDENDUM	01/26/2026

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL
AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

FIRST FLOOR CODE PLAN

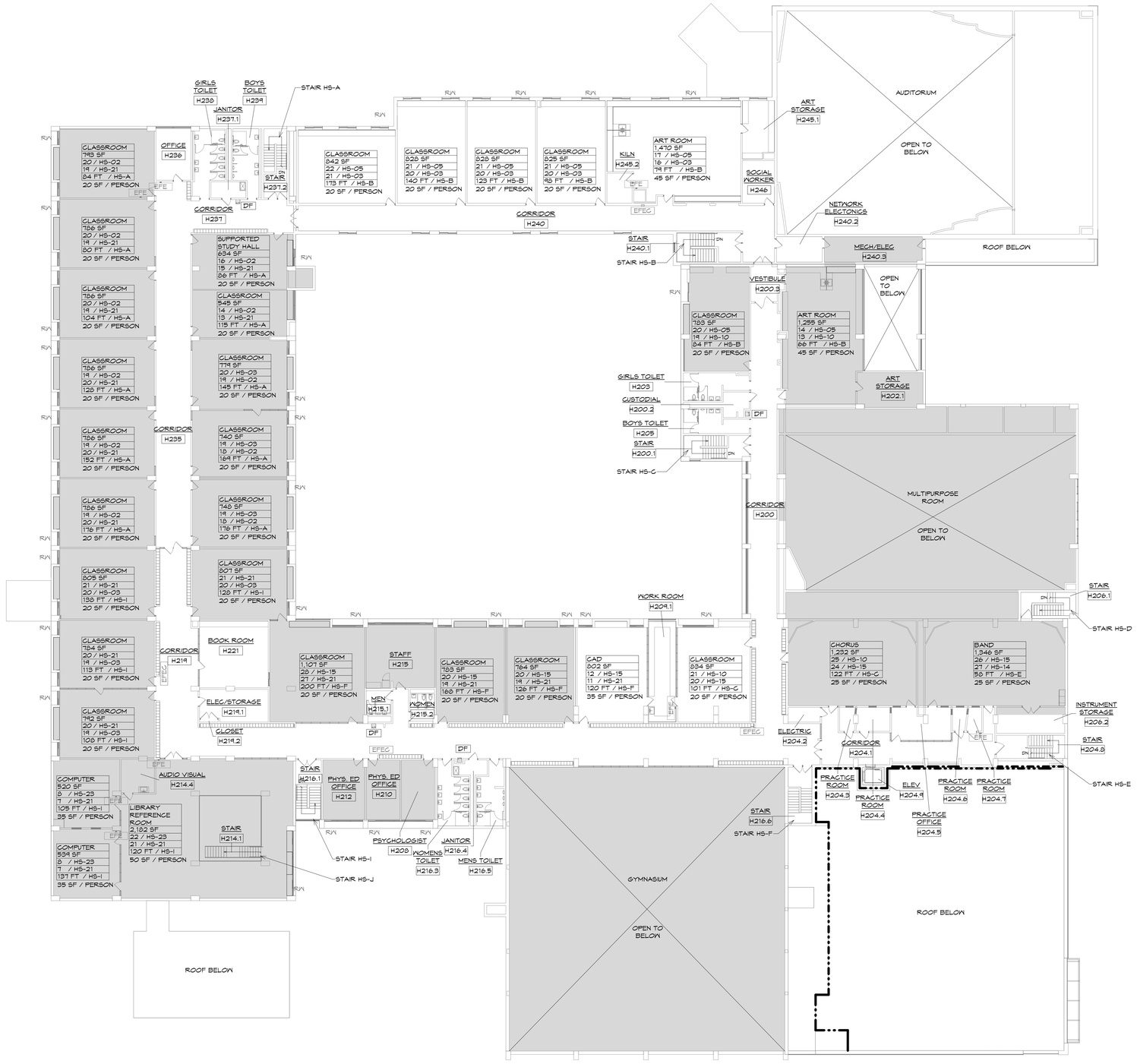
SHEET NO.
SED101

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

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1 SED102 — SED SECOND FLOOR CODE PLAN

1/16" = 1'-0"

CODE INFORMATION

OCCUPANCY CLASSIFICATION: E

CONSTRUCTION CLASSIFICATION

YEAR BUILT	1969
TYPE OF CONSTRUCTION	TYPE IIB
NUMBER OF STORIES	2

EXISTING BUILDING AREA

BASEMENT	11,310 SF
FIRST FLOOR	102,005 SF
SECOND FLOOR	59,910 SF
TOTAL	172,225 SF

EXIT DOORS AND TRAVEL DISTANCE

GENERAL REQUIREMENTS

1. MAXIMUM TRAVEL DISTANCE PERMITTED = 200'-0"
2. CAPACITY OF DOORS = 0.2" PER OCCUPANT
3. CAPACITY OF STAIRS = 0.3" PER OCCUPANT
4. MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD:
   - LOAD OF 1-500 REQUIRES A MINIMUM OF 2 EXITS
   - LOAD OF 501-1,000 REQUIRES A MINIMUM OF 3 EXITS
5. MAXIMUM FLOOR AREA PER OCCUPANT:
   - CLASSROOM = 20 SF PER STUDENT
   - SCIENCE = 50 SF PER STUDENT
   - COMPUTER ROOM = 35 SF PER STUDENT
   - ASSEMBLY - CONCENTRATED (STANDING) = 5 SF PER STUDENT
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   - STAGE = 15 SF PER STUDENT
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DOOR EXITING SCHEDULE

DOOR	NUMBER OF OCCUPANTS	REQUIRED WIDTH PER OCCUPANTS	ACTUAL WIDTH OF DOOR	MAXIMUM NUMBER OF OCCUPANTS	
DOOR HS-01	125	25"	(2) AT 36" = 72"	360	
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DOOR HS-23	74	14.8"	(1) AT 36" = 36"	180	

STAIR EXITING SCHEDULE

STAIR	NUMBER OF OCCUPANTS	REQUIRED WIDTH PER OCCUPANTS	ACTUAL WIDTH OF STAIR	MAXIMUM NUMBER OF OCCUPANTS
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STAIR HS-C	67	20.1"	(1) AT 44" = 44"	146
STAIR HS-D	27	8.1"	(1) AT 44" = 44"	146
STAIR HS-E	50	15"	(1) AT 44" = 44"	146
STAIR HS-F	89	26.7"	(1) AT 44" = 44"	146
STAIR HS-G	N/A	N/A	N/A	N/A
STAIR HS-H	30	9"	(1) AT 44" = 44"	146
STAIR HS-I	391	117.3"	(1) AT 44" = 44"	146
STAIR HS-J	38	11.4"	(1) AT 48" = 48"	160

LEGEND

ROOM NAME
AREA (SQUARE FEET)
NUMBER OF STUDENTS TO EXIT DOOR A/EXIT DOOR A
NUMBER OF STUDENTS TO EXIT DOOR B/EXIT DOOR B
TRAVEL DISTANCE TO EXIT DOOR A/EXIT DOOR A

NOTE:
SQUARE FOOTAGES SHOWN ARE FOR SED PURPOSES ONLY. CONTRACTOR SHALL NOT USE THESE AMOUNTS FOR MATERIAL QUANTITIES.

DF — DRINKING FOUNTAIN
EFE — EXISTING FIRE EXTINGUISHER
EFEC — EXISTING FIRE EXTINGUISHER/CABINET
RW — RESCUE WINDOW
PATH OF EGRESS WITH MAXIMUM DISTANCE
1 HR RATED
2 HR FIREWALL
ALTERATION LEVEL 2 WORK AREA

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Binghamton, New York 13901
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Fax: 607.722.2515
Email: info@keyscomp.com
www.keyscomp.com

KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT PAUL MICHAEL REDMOND 027 STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

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NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — TIOGA COUNTY, NY

SECOND FLOOR CODE PLAN

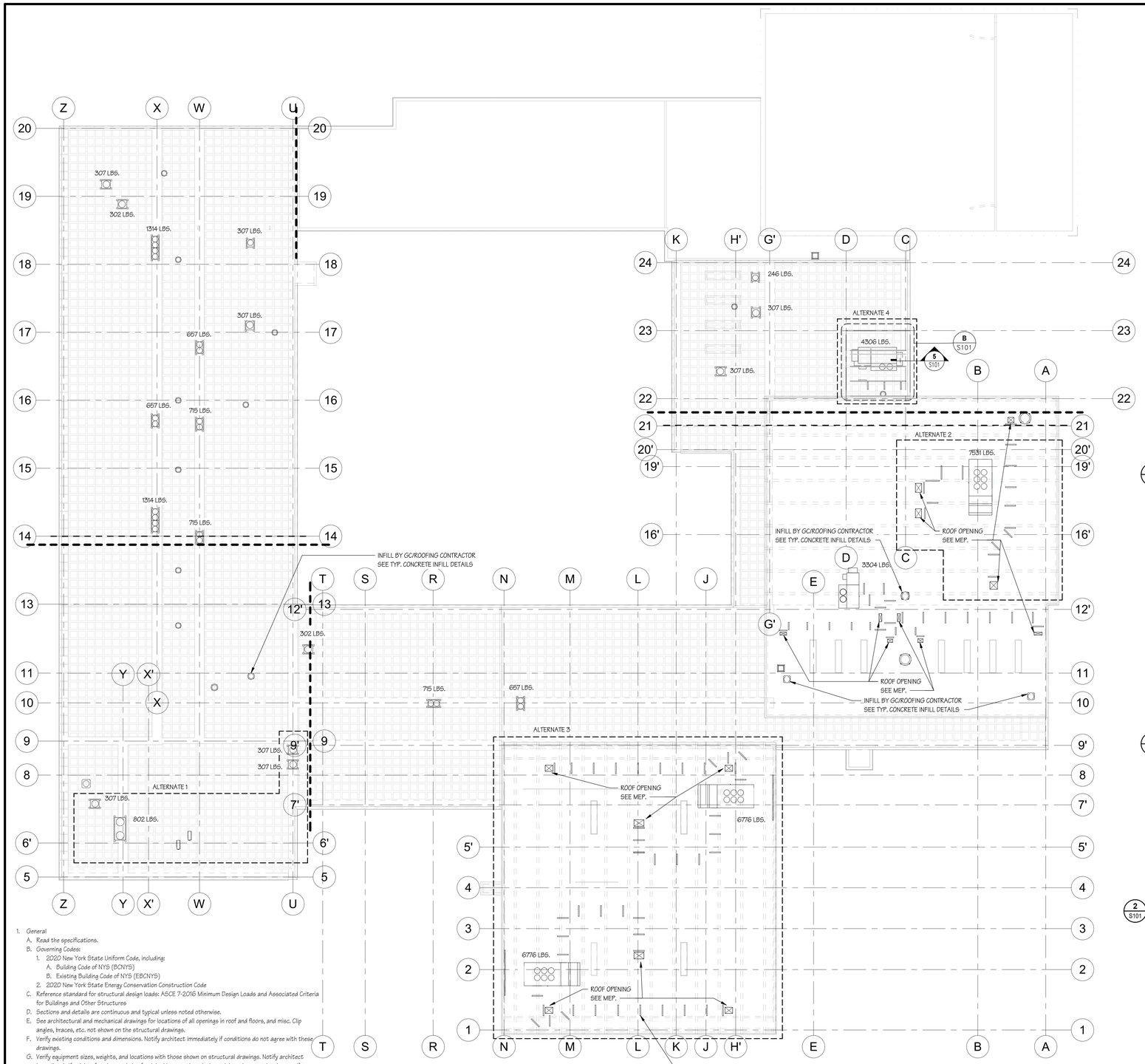
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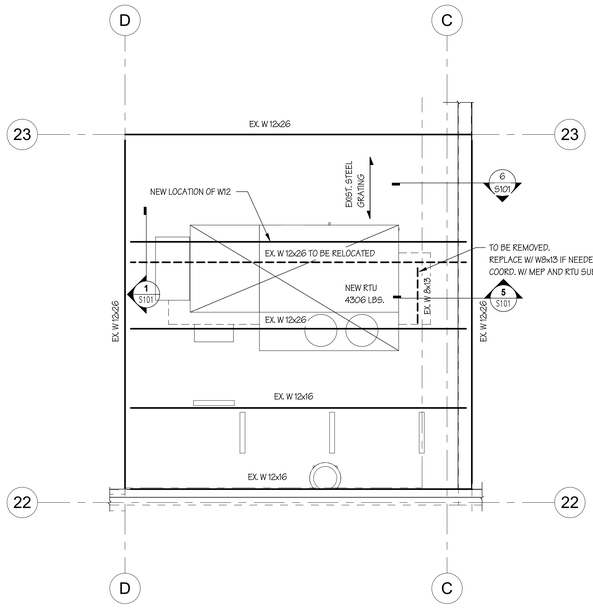
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DATE: 12/12/2025

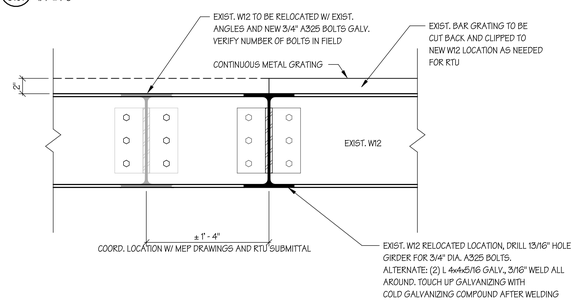
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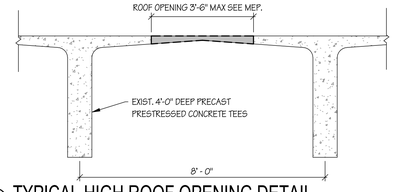




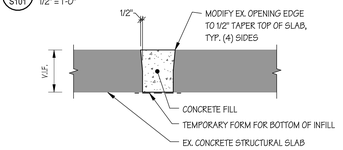
B S101 ROOF DUNNAGE
1/4" = 1'-0"



1 S101 SECTION - DUNNAGE STEEL MODIFICATION
1 1/2" = 1'-0"

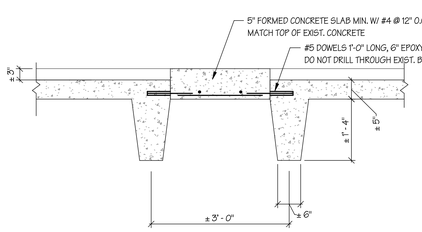


2 S101 TYPICAL HIGH ROOF OPENING DETAIL
1/2" = 1'-0"

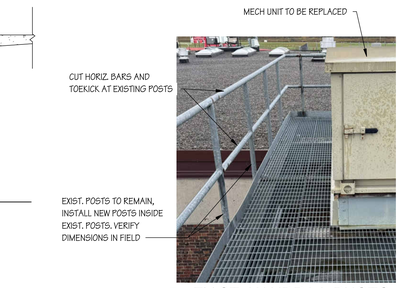


NOTE: DETAIL APPLIES TO ROUND OPENINGS UP 12" DIA. AND RECTANGULAR OPENINGS WITH NO DIMENSION GREATER THAN 12".

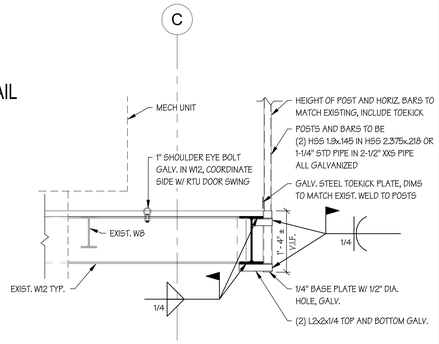
3 S101 TYPICAL SMALL SLAB OPENING INFILL DETAIL
3/4" = 1'-0"



4 S101 TYPICAL CONCRETE INFILL DETAIL
3/4" = 1'-0"



6 S101 EXIST. HANDRAIL PHOTO



NOTE: PAINT ALL CUTS, DRILL HOLES, AND WELDS WITH COLD GALVANIZING COMPOUND

5 S101 REMOVABLE HANDRAIL SECTION
3/4" = 1'-0"

1. General
   - A. Read the specifications.
   - B. Governing Codes:
     1. 2020 New York State Uniform Code, including:
        - A. Building Code of NYS (BCNYS)
        - B. Existing Building Code of NYS (EBCNYS)
     2. 2020 New York State Energy Conservation Construction Code
   - C. Reference standard for structural design loads: ASCE 7-2016 Minimum Design Loads and Associated Criteria for Buildings and Other Structures
   - D. Sections and details are continuous and typical unless noted otherwise.
   - E. See architectural and mechanical drawings for locations of all openings in roof and floors, and misc. Clip angles, braces, etc. not shown on the structural drawings.
   - F. Verify existing conditions and dimensions. Notify architect immediately if conditions do not agree with these drawings.
   - G. Verify equipment sizes, weights, and locations with those shown on structural drawings. Notify architect immediately if weight of equipment being furnished is more than design weights shown on drawings, or if configuration is different than shown.
   - H. Do not determine dimensions by scaling the drawings.
   - I. Provide temporary bracing as required.
2. Roof Live Loads: 20 psf (does not govern)
3. Risk Category (BCNYS Table 1604.5): IV
4. Roof Snow Load Data:

A.	Ground snow load	P_g	40 psf
B.	Flat-roof snow load	P_f	30 psf
C.	Sloped-roof snow load	P_s	30 psf
D.	Snow terrain category		C
E.	Snow exposure factor	C_e	0.9
F.	Snow load importance factor	I_s	1.2
G.	Roof slope factor	C_s	1.0
H.	Thermal factor	C_t	1.0
I.	Snow drift loading, sliding snow, and unbalanced snow load- per ASCE 7		

5. Seismic Information: The stress increase (or capacity decrease) in the existing seismic force resisting system resulting from new work does not exceed the limits allowed under EBCNYS.
6. Wind Design Data:

A.	Ultimate design wind speed	V_{ult}	123 mph
B.	Wind exposure category		C
C.	Directionality factor	K_d	0.85
D.	Gust effect factor	G	0.85
E.	Enclosure classification		Enclosed

7. Cast-in-Place Concrete: See Specs
8. Structural Steel
   - A. Standards
     1. AISC 360, Specification for Structural Steel Buildings.
     2. Bolted Connections – RCSC specification for structural joints using high- strength bolts
     3. Welded Connections – American Welding Society (AWS) D1.1
   - B. Material
     1. Wide Flange Sections, Tees - ASTM A992 Grade 50, F_y=50 ksi
     2. All other sections, plates and rods - ASTM A36, F_y=36 ksi
   - C. Galvanizing
     1. Where indicated, apply zinc coating by the hot-dip process to structural steel according to ASTMA123.
   - D. Connections
     1. General- Use welded shop connections, bolted field connections where possible.
     2. Welded Connections:
        - A. Use E70xx electrodes.
        - B. Welders shall be AWS-certified for weld types and positions required.
     3. Bolted Connections:
        - A. Use min. 3/4" dia. ASTM F3125 Grade A325 bolts, ASTM A563 heavy-hex nuts and ASTM F436 washers, unless noted or detailed otherwise.
        - B. All bolted connections are bearing connections, tightened to the snug-tight condition as defined by AISC, unless noted or detailed otherwise.
        - C. Holes for shop and field connections shall be drilled or punched. No burnt holes will be allowed.

A S101 ROOF FRAMING PLAN
1/16" = 1'-0"

ROOF FRAMING NOTES:
1. TOP OF STEEL ELEVATION IS +0'-0" FROM EXIST. TOP OF STEEL DATUM, UNLESS NOTED (+) OR (-) THEREFROM.
2. ROOF DECK TO BE 5" CONCRETE DECK. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ROOF OPENINGS AND ROOF-TOP EQUIPMENT. PROVIDE A TYPICAL ROOF OPENING FRAME AROUND ALL OPENINGS GREATER THAN 8" IN ANY DIRECTION OR UNDER ANY EQUIPMENT WITH AN OPERATING WEIGHT GREATER THAN 75 LBS. VERIFY EQUIPMENT WEIGHTS ARE NOT MORE THAN SHOWN ON PLAN.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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Email: info@keyscomp.com
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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

Klepper, Hahn & Hyatt, NYSED Professional Engineering Services Certificate No. 001270 EXPIRATION: 12/31/2026

STATE OF NEW YORK
JAMES A. D'ALONZO
LIC. NO. 064375
PROFESSIONAL ENGINEER
EXPIRATION DATE: 11/30/2028

Klepper, Hahn & Hyatt
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SED PROJECT NUMBERS:
60-04-02-04-0-007-023
HIGH SCHOOL

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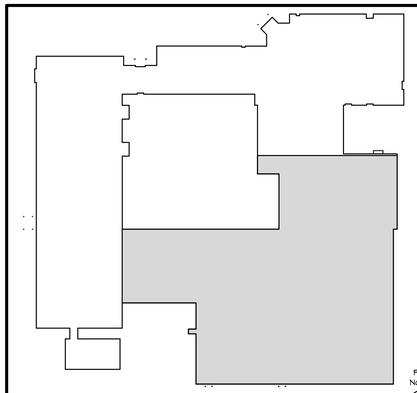
NO.	DESCRIPTION	DATE
1	ADDENDUM #1	12/12/25

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — TIOGA COUNTY, NY

STRUCTURAL ROOF FRAMING, DETAILS & NOTES

SHEET NO.
S101
PROJECT NO.
1823.24221.1.3
DATE:
12/12/2025
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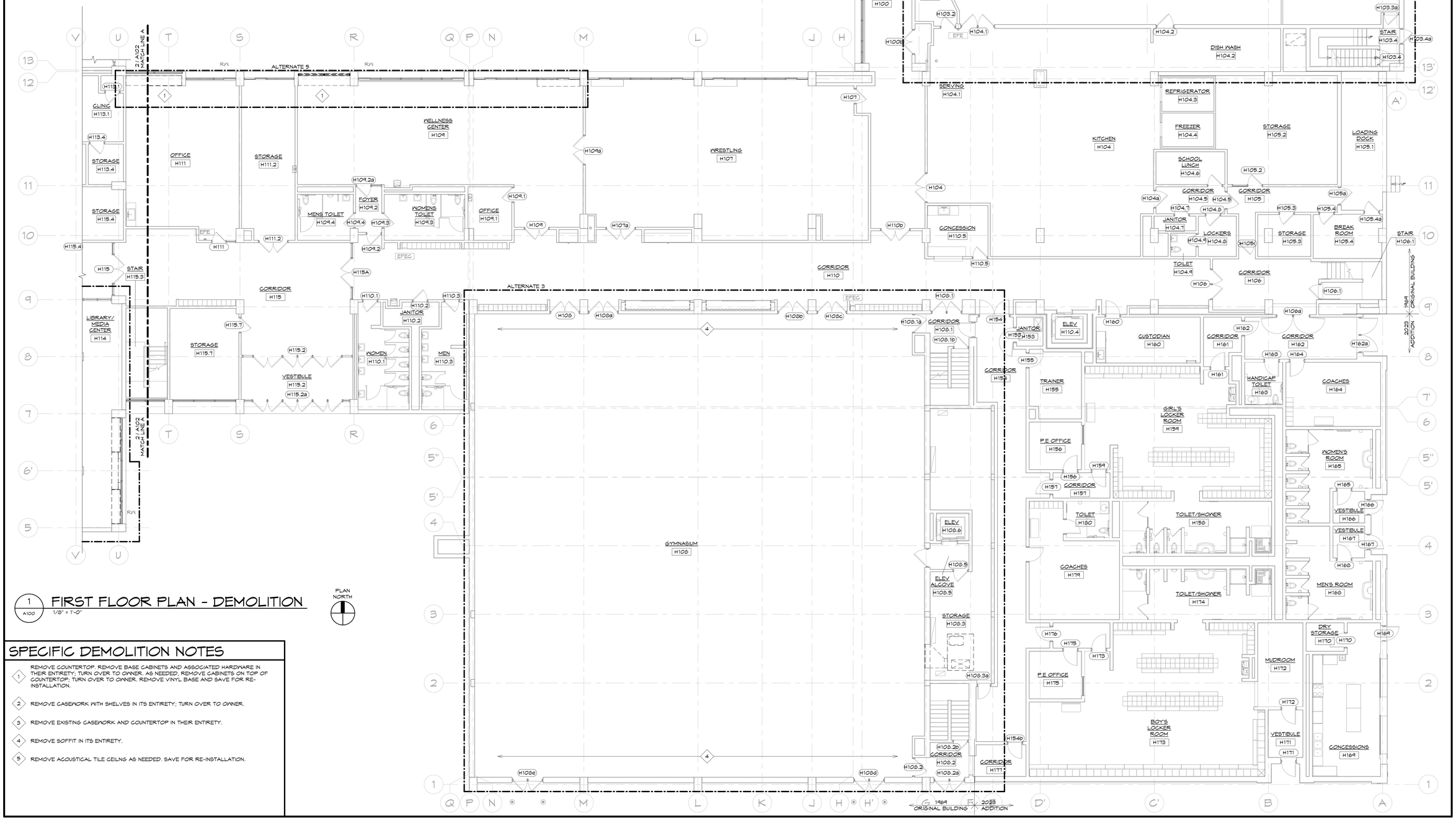


PLAN NORTH

FIRST FLOOR KEY PLAN

GENERAL DEMOLITION NOTES

1. VISIT SITE WITH ALL SUB-CONTRACTORS TO VERIFY EXISTING CONDITIONS, DIMENSIONS AND QUANTITIES BEFORE STARTING WORK. COORDINATE WITH DEMOLITION AND RENOVATION DRAWINGS FOR SCOPE OF WORK.
2. COORDINATE ALL DEMOLITION OF UTILITIES WITH UTILITY COMPANIES PRIOR TO STARTING WORK.
3. SURVEY EXISTING CONDITIONS INDICATED TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
4. PROTECT EXISTING ITEMS TO REMAIN DURING DEMOLITION WORK.
5. SALVAGE AND PROTECT INTERIOR TRIM AND MOLDING AND STORE SALVAGED MATERIAL AT A SAFE LOCATION. CLEAN, REPAIR, STAIN/PAINT AND REINSTALL AS NECESSARY.
6. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH PUBLIC ROADS, WALKS AND NEIGHBORING PROPERTIES.
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13. REFER TO ADDITIONAL INFORMATION ON PLANS, ELEVATIONS AND WALL SECTIONS.



1 / A100 — FIRST FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

PLAN NORTH

SPECIFIC DEMOLITION NOTES

1. REMOVE COUNTERTOP. REMOVE BASE CABINETS AND ASSOCIATED HARDWARE IN THEIR ENTIRETY; TURN OVER TO OWNER, AS NEEDED. REMOVE CABINETS ON TOP OF COUNTERTOP; TURN OVER TO OWNER. REMOVE VINYL BASE AND SAVE FOR RE-INSTALLATION.
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3. REMOVE EXISTING CASEWORK AND COUNTERTOP IN THEIR ENTIRETY.
4. REMOVE SOFFIT IN ITS ENTIRETY.
5. REMOVE ACOUSTICAL TILE CEILNG AS NEEDED. SAVE FOR RE-INSTALLATION.

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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

RECORDED ARCHITECT — STATE OF NEW YORK — JOSEPH E. REED — 026 — REGISTERED PROFESSIONAL ENGINEER

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NO.	REVISIONS AND DESCRIPTIONS	DATE

SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — **TIOGA COUNTY, NY**

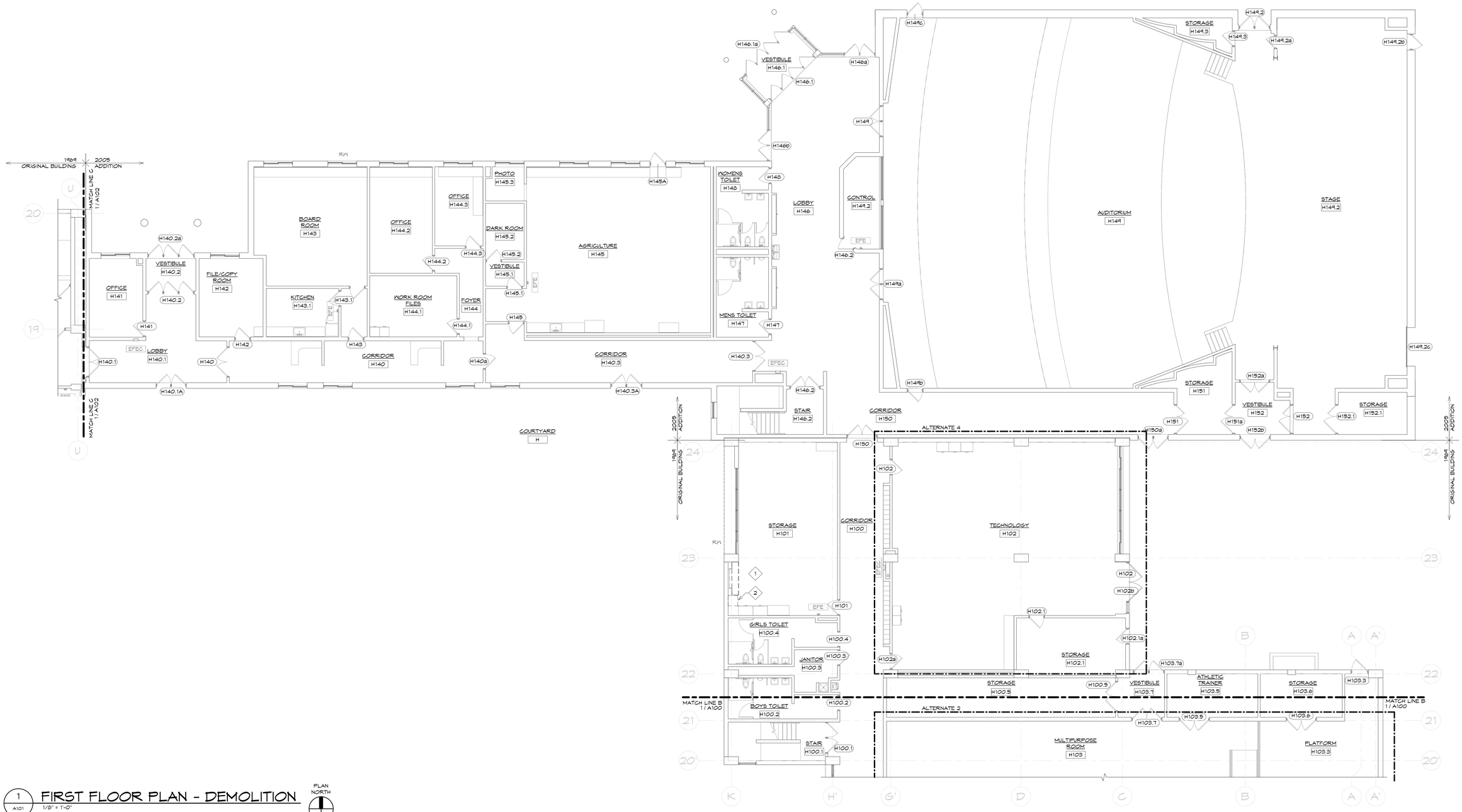
FIRST FLOOR DEMOLITION PLAN

SHEET NO. **A100**

PROJECT NO. 1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt



1 / A101 FIRST FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

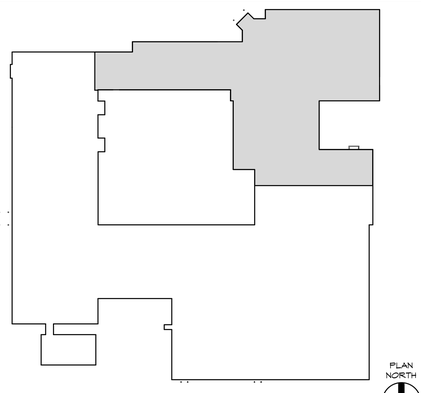
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PLAN NORTH

FIRST FLOOR KEY PLAN

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KEYSTONE ASSOCIATES
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REGISTERED ARCHITECT PAUL J. SHEEHAN 027 NEW YORK STATE

SED PROJECT NUMBERS:
HIGH SCHOOL 60-04-02-04-0-007-023

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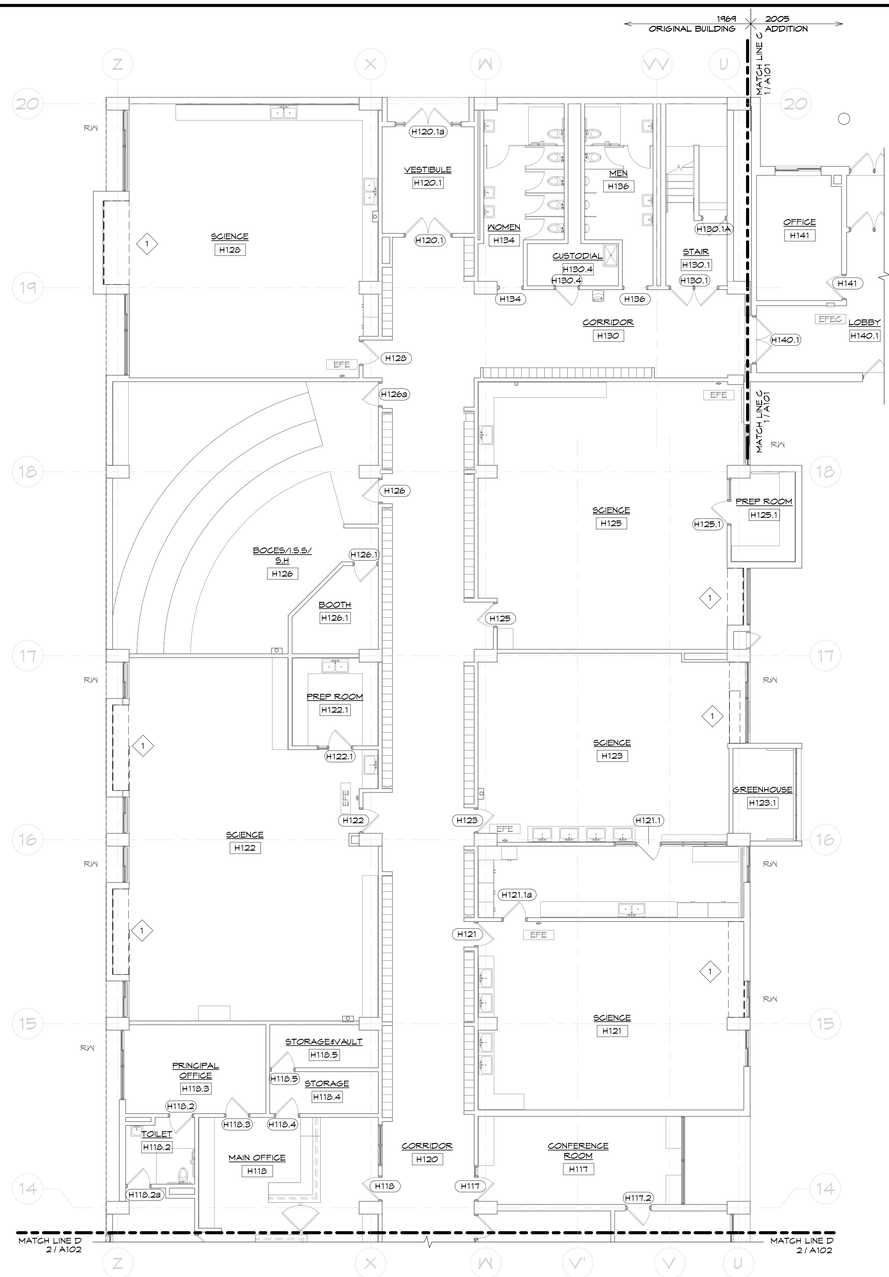
NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

FIRST FLOOR DEMOLITION PLAN

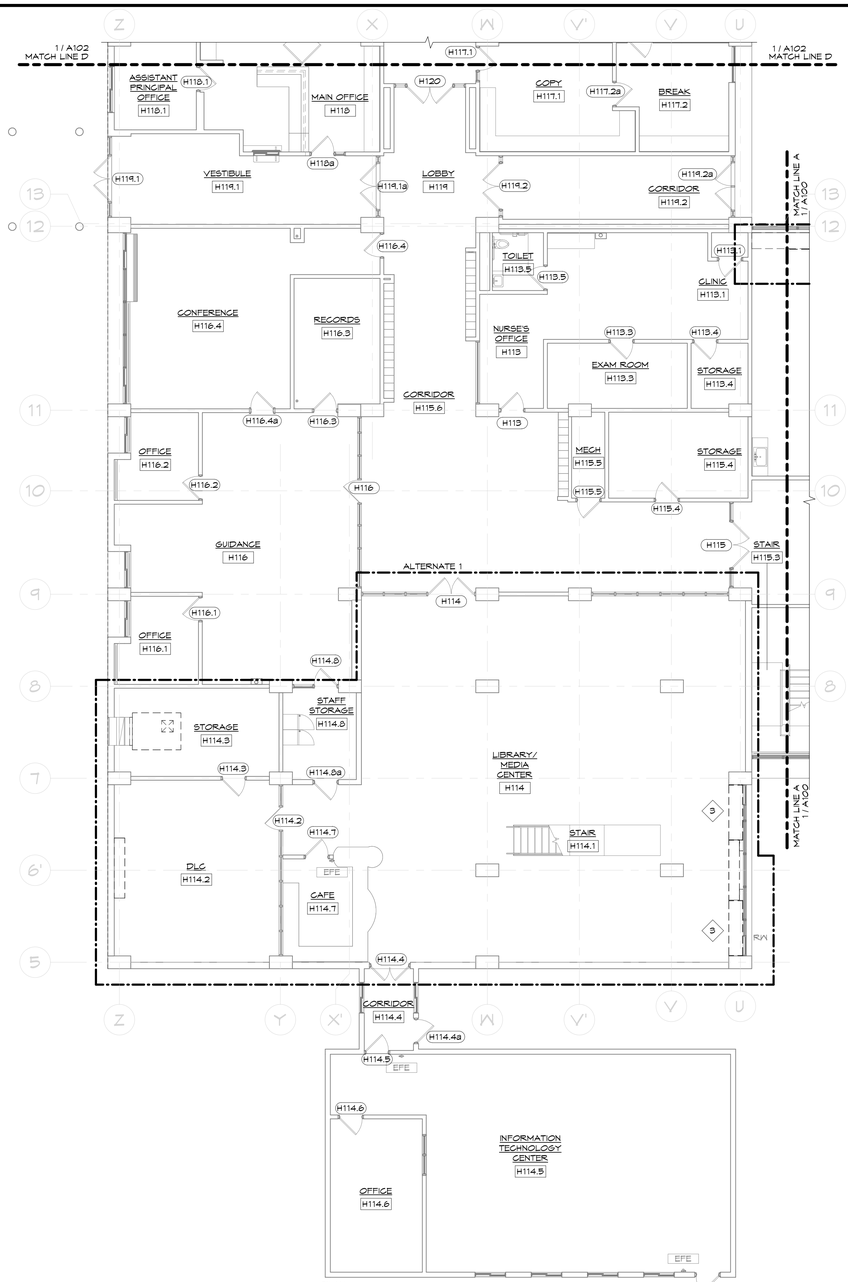
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DATE: 12/12/2025
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1 A102 FIRST FLOOR PLAN - DEMOLITION

1/8" = 1'-0"



2 A102 FIRST FLOOR PLAN - DEMOLITION

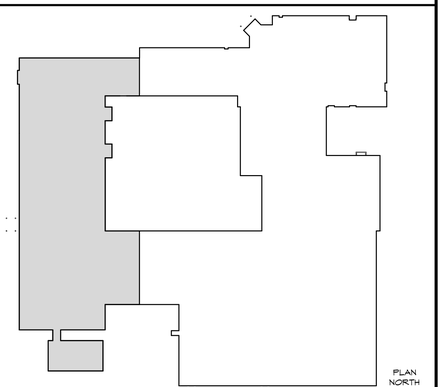
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13. REFER TO ADDITIONAL INFORMATION ON PLANS, ELEVATIONS AND WALL SECTIONS.

SPECIFIC DEMOLITION NOTES

1. REMOVE COUNTERTOP. REMOVE BASE CABINETS AND ASSOCIATED HARDWARE IN THEIR ENTIRETY; TURN OVER TO OWNER. AS NEEDED, REMOVE CABINETS ON TOP OF COUNTERTOP; TURN OVER TO OWNER. REMOVE VINYL BASE AND SAVE FOR RE-INSTALLATION.
2. REMOVE CASEWORK WITH SHELVES IN ITS ENTIRETY; TURN OVER TO OWNER.
3. REMOVE EXISTING CASEWORK AND COUNTERTOP IN THEIR ENTIRETY.
4. REMOVE SOFFIT IN ITS ENTIRETY.
5. REMOVE ACOUSTICAL TILE CEILNG AS NEEDED. SAVE FOR RE-INSTALLATION.



FIRST FLOOR KEY PLAN

58 Exchange Street
Binghamton, New York 13901
Phone: 607.722.1100
Fax: 607.722.2515
Email: info@keysconp.com
www.keysconp.com

KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT PAUL SCHNEIDER

SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

FIRST FLOOR DEMOLITION PLAN

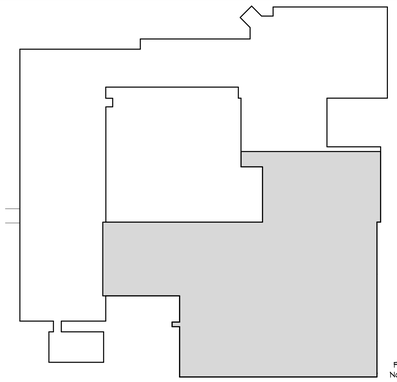
SHEET NO. A102

PROJECT NO. 1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

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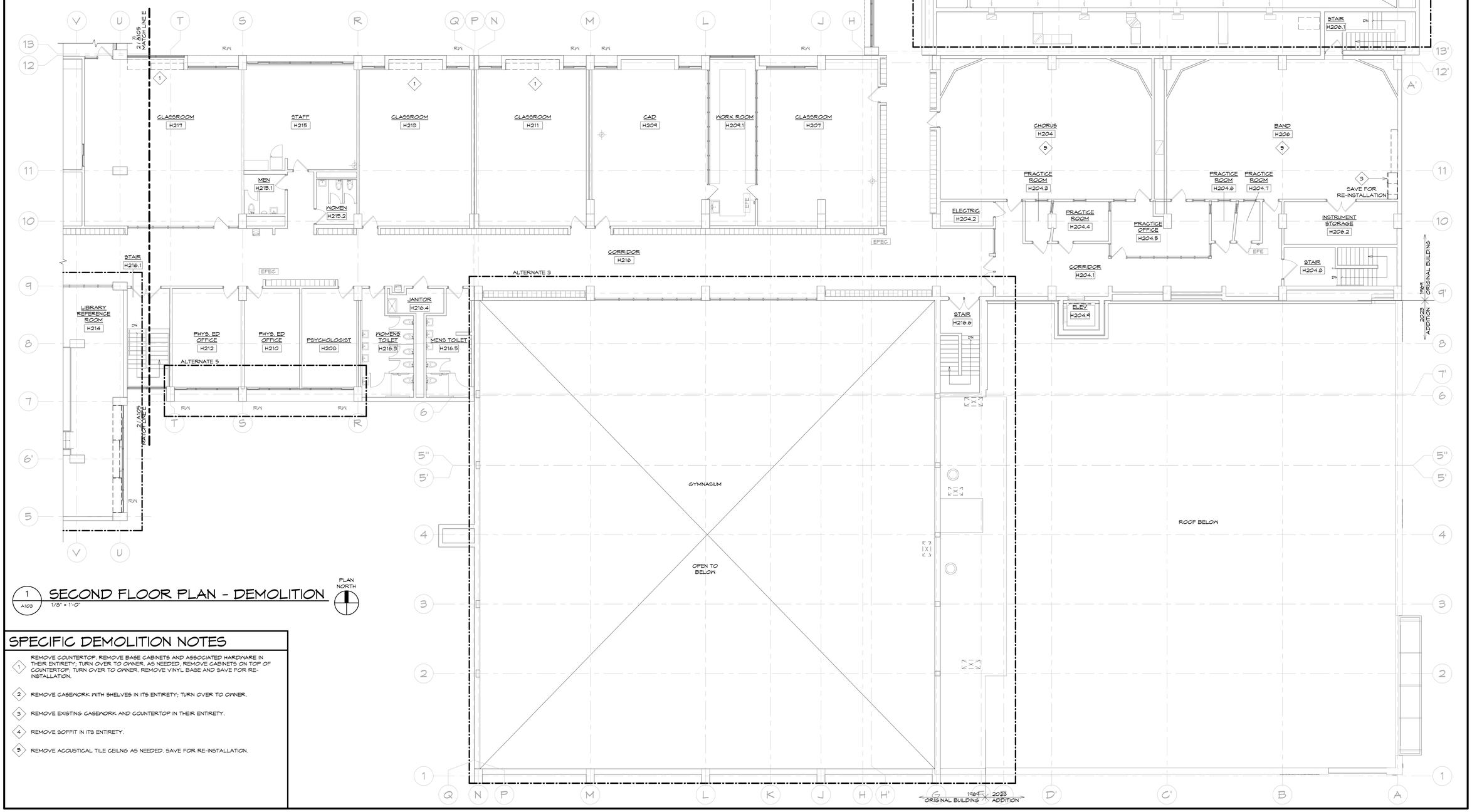


PLAN NORTH

SECOND FLOOR KEY PLAN

GENERAL DEMOLITION NOTES

1. VISIT SITE WITH ALL SUB-CONTRACTORS TO VERIFY EXISTING CONDITIONS, DIMENSIONS AND QUANTITIES BEFORE STARTING WORK. COORDINATE WITH DEMOLITION AND RENOVATION DRAWINGS FOR SCOPE OF WORK.
2. COORDINATE ALL DEMOLITION OF UTILITIES WITH UTILITY COMPANIES PRIOR TO STARTING WORK.
3. SURVEY EXISTING CONDITIONS INDICATED TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
4. PROTECT EXISTING ITEMS TO REMAIN DURING DEMOLITION WORK.
5. SALVAGE AND PROTECT INTERIOR TRIM AND MOLDING AND STORE SALVAGED MATERIAL AT A SAFE LOCATION. CLEAN, REPAIR, STAIN/PAINT AND REINSTALL AS NECESSARY.
6. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH PUBLIC ROADS, WALKS AND NEIGHBORING PROPERTIES.
7. ITEMS SHOWN DASHED ON THE DRAWINGS SHALL BE REMOVED.
8. EXISTING CONDITIONS SHOWN ON THE DRAWINGS ARE BASED ON OBSERVED CONDITIONS. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE DEMOLITION AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.
9. USE REPAIR MATERIALS IDENTICAL TO EXISTING MATERIALS. WHERE IDENTICAL MATERIALS ARE UNAVAILABLE OR CANNOT BE USED, USE AN EQUAL MATERIAL THAT VISUALLY MATCHES EXISTING ADJACENT CONSTRUCTION TO THE FULLEST EXTENT POSSIBLE.
10. CONTRACTORS ARE REQUIRED TO REVIEW ALL ARCHITECTURAL, STRUCTURAL, AND MEP DRAWINGS AND SPECIFICATIONS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. A SET OF DRAWINGS AS LISTED ON THE COVER SHEET AND A SET OF SPECIFICATIONS AS LISTED IN THE TABLE OF CONTENTS COMPRISES THE ENTIRE CONTRACT DOCUMENTS PACKAGE. OWNER DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING WORK THAT HAS NOT SHOWN IN THE TRADE SPECIFIC PORTION OF THE DOCUMENTS BUT CONTAINED IN OTHER PARTS OF THE DRAWINGS OR SPECIFICATIONS.
11. CONTRACTORS SHALL BECOME FAMILIAR WITH ALL CONSTRUCTION ACTIVITIES REQUIRED TO BE PERFORMED IN OTHER AREAS AND ON OTHER FLOORS.
12. ALL MATERIALS TO REMAIN SHALL BE PATCHED, REPAIRED OR REPLACED WITH LIKE MATERIALS AND IN SIMILAR CONSTRUCTION MANNER.
13. REFER TO ADDITIONAL INFORMATION ON PLANS, ELEVATIONS AND WALL SECTIONS.



1 / A103 SECOND FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

PLAN NORTH

SPECIFIC DEMOLITION NOTES

1. REMOVE COUNTERTOP, REMOVE BASE CABINETS AND ASSOCIATED HARDWARE IN THEIR ENTIRETY; TURN OVER TO OWNER, AS NEEDED, REMOVE CABINETS ON TOP OF COUNTERTOP; TURN OVER TO OWNER. REMOVE VINYL BASE AND SAVE FOR RE-INSTALLATION.
2. REMOVE CASEWORK WITH SHELVES IN ITS ENTIRETY; TURN OVER TO OWNER.
3. REMOVE EXISTING CASEWORK AND COUNTERTOP IN THEIR ENTIRETY.
4. REMOVE SOFFIT IN ITS ENTIRETY.
5. REMOVE ACOUSTICAL TILE CEILNG AS NEEDED. SAVE FOR RE-INSTALLATION.

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ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT PAUL A. MARSHALL 027 STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD TIOGA COUNTY, NY

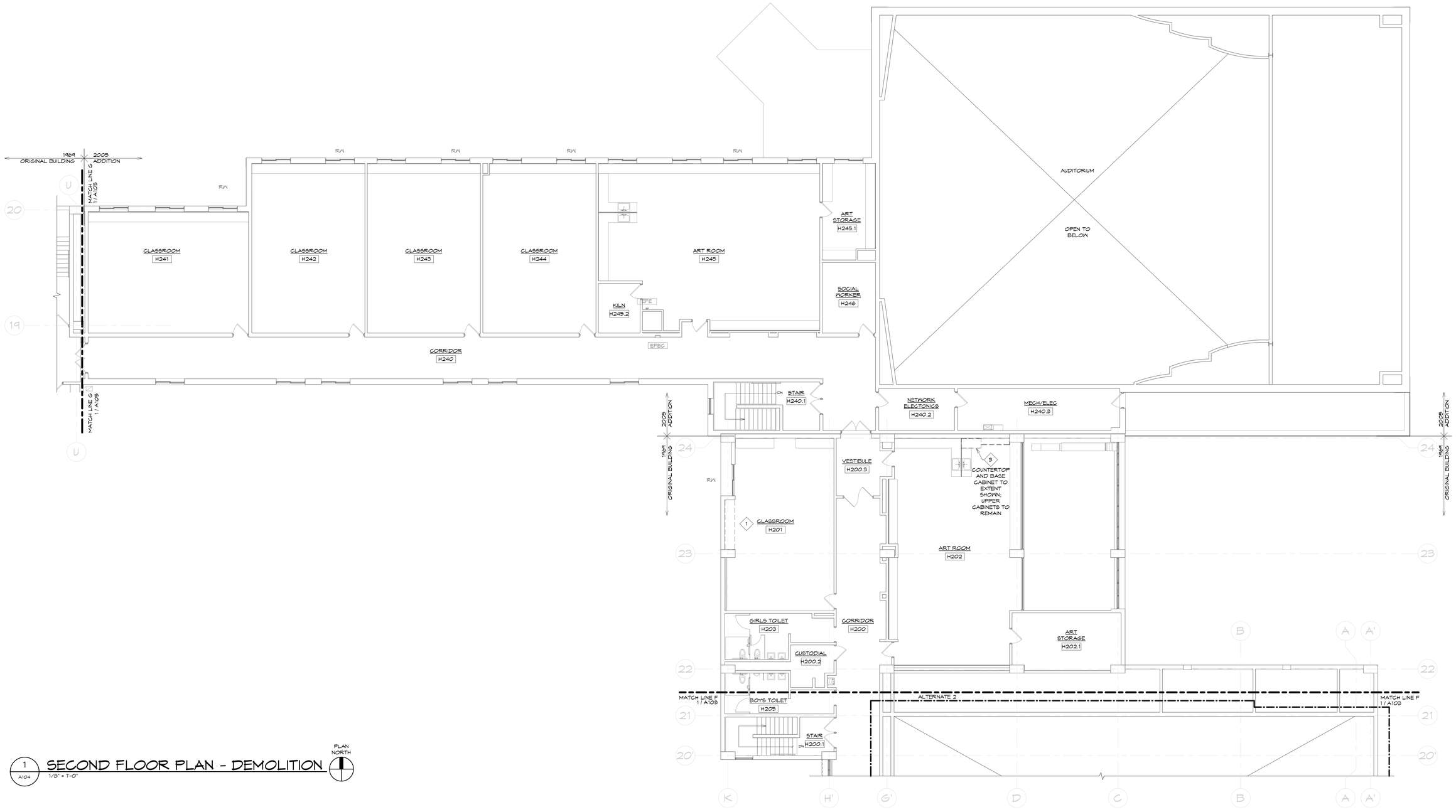
SECOND FLOOR DEMOLITION PLAN

SHEET NO. A103

PROJECT NO. 1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt



1 / A104 SECOND FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

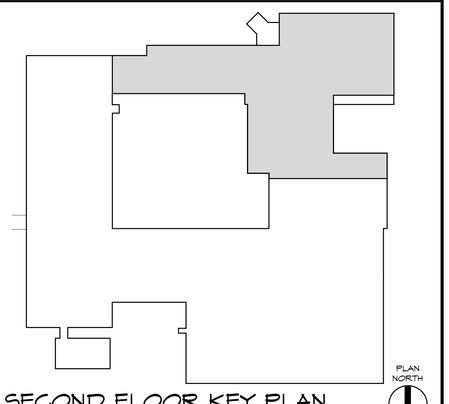
PLAN NORTH

GENERAL DEMOLITION NOTES

1. VISIT SITE WITH ALL SUB-CONTRACTORS TO VERIFY EXISTING CONDITIONS, DIMENSIONS AND QUANTITIES BEFORE STARTING WORK. COORDINATE WITH DEMOLITION AND RENOVATION DRAWINGS FOR SCOPE OF WORK.
2. COORDINATE ALL DEMOLITION OF UTILITIES WITH UTILITY COMPANIES PRIOR TO STARTING WORK.
3. SURVEY EXISTING CONDITIONS INDICATED TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
4. PROTECT EXISTING ITEMS TO REMAIN DURING DEMOLITION WORK.
5. SALVAGE AND PROTECT INTERIOR TRIM AND MOLDING AND STORE SALVAGED MATERIAL AT A SAFE LOCATION. CLEAN, REPAIR, STAIN/PAINT AND REINSTALL AS NECESSARY.
6. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH PUBLIC ROADS, WALKS AND NEIGHBORING PROPERTIES.
7. ITEMS SHOWN DASHED ON THE DRAWINGS SHALL BE REMOVED.
8. EXISTING CONDITIONS SHOWN ON THE DRAWINGS ARE BASED ON OBSERVED CONDITIONS. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE DEMOLITION AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.
9. USE REPAIR MATERIALS IDENTICAL TO EXISTING MATERIALS. WHERE IDENTICAL MATERIALS ARE UNAVAILABLE OR CANNOT BE USED, USE AN EQUAL MATERIAL THAT VISUALLY MATCHES EXISTING ADJACENT CONSTRUCTION TO THE FULLEST EXTENT POSSIBLE.
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SPECIFIC DEMOLITION NOTES

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5. REMOVE ACOUSTICAL TILE CEILNG AS NEEDED. SAVE FOR RE-INSTALLATION.



SECOND FLOOR KEY PLAN

PLAN NORTH

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ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT PAUL A. REEDY JR. 027 STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-6-007-023

HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

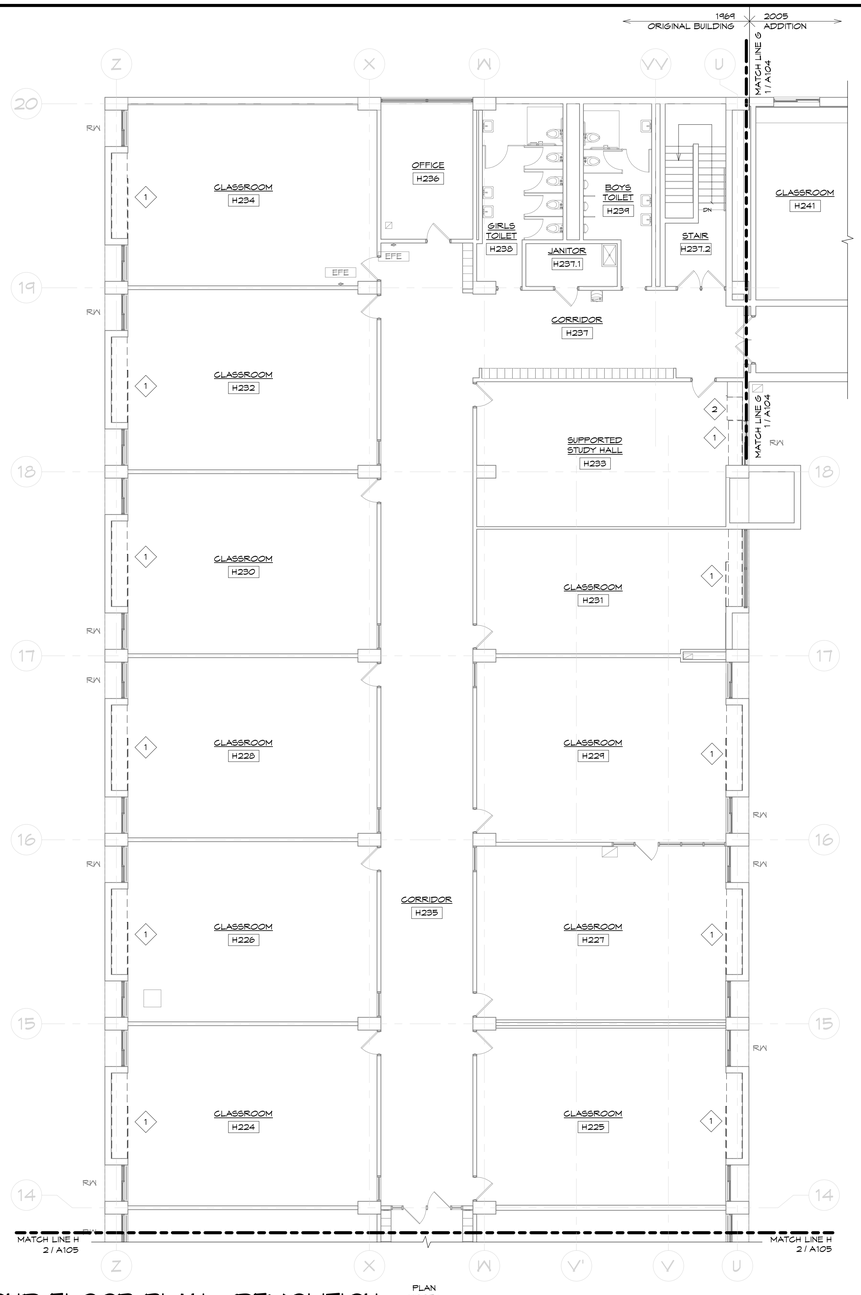
SECOND FLOOR DEMOLITION PLAN

SHEET NO. A104

PROJECT NO. 1823.24221.1.3

DATE: 12/12/2025

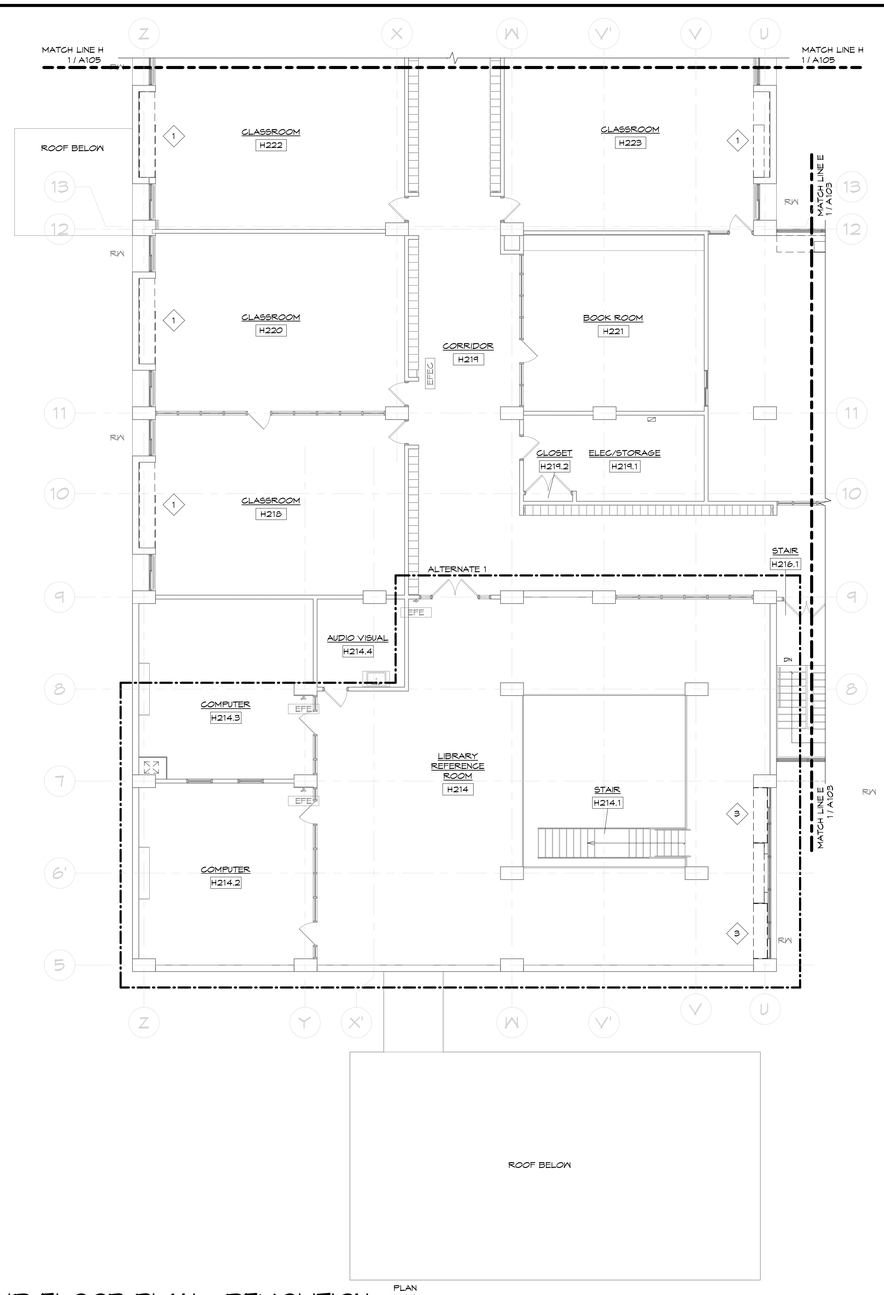
CAD FILE NO.: High School_RVT24.rvt



1 A105 **SECOND FLOOR PLAN - DEMOLITION**

1/8" = 1'-0"

PLAN NORTH



2 A105 **SECOND FLOOR PLAN - DEMOLITION**

1/8" = 1'-0"

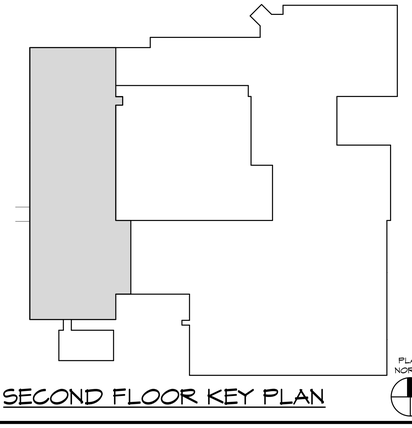
PLAN NORTH

GENERAL DEMOLITION NOTES

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SPECIFIC DEMOLITION NOTES

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4. REMOVE SOFFIT IN ITS ENTIRETY.
5. REMOVE ACOUSTICAL TILE CEILNG AS NEEDED. SAVE FOR RE-INSTALLATION.



SECOND FLOOR KEY PLAN

PLAN NORTH

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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT

SED PROJECT NUMBERS:

60-04-02-04-0-007-023

HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — **TIOGA COUNTY, NY**

SECOND FLOOR DEMOLITION PLAN

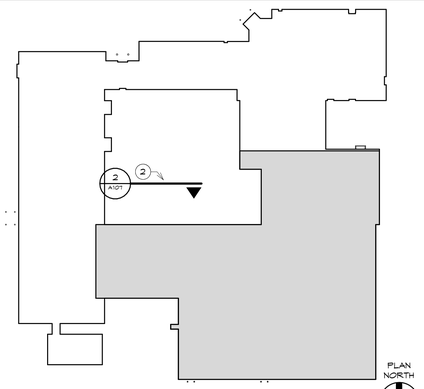
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A105

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

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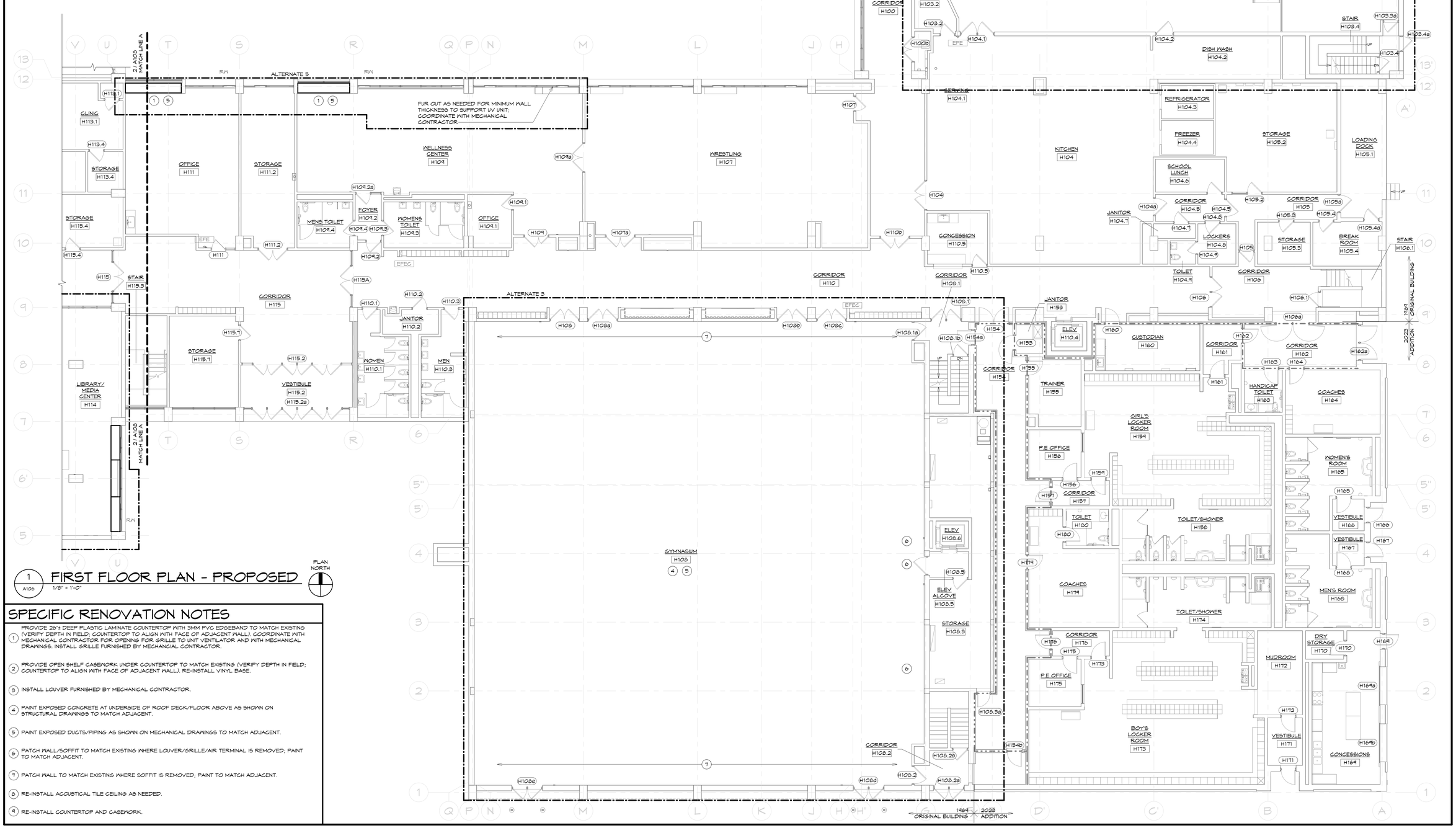
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FIRST FLOOR KEY PLAN

GENERAL RENOVATION NOTES

1. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS SHOWN AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSION BETWEEN THE FIELD CONDITION AND THE DRAWINGS OR SPECIFICATIONS. THE CONTRACTOR IS TO NOTIFY THE ARCHITECT AND REQUEST CLARIFICATION OR DIRECTION PRIOR TO THE START OF WORK AND IN SUFFICIENT TIME FOR THE ARCHITECT TO RENDER A DECISION WITHOUT DELAYING THE PROGRESS OF THE PROJECT.
2. GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DUST PARTITIONS AND/OR AIR CURTAINS TO MINIMIZE TRANSMISSION OF DUST AND DEBRIS TO FINISHED AREAS OR EXISTING OCCUPIED AREAS.
3. CLASSROOM EQUIPMENT IN TECHNOLOGY ROOM H102 TO BE MOVED BY DISTRICT.
4. ALL MASONRY INFILLS TO BE TOOTHED-IN TO ADJACENT MASONRY.



1 / A106 — FIRST FLOOR PLAN - PROPOSED
1/8" = 1'-0"

SPECIFIC RENOVATION NOTES

1. PROVIDE 26"± DEEP PLASTIC LAMINATE COUNTERTOP WITH 3MM PVC EDGEBAND TO MATCH EXISTING (VERIFY DEPTH IN FIELD); COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). COORDINATE WITH MECHANICAL CONTRACTOR FOR OPENING FOR GRILLE TO UNIT VENTILATOR AND WITH MECHANICAL DRAWINGS. INSTALL GRILLE FURNISHED BY MECHANICAL CONTRACTOR.
2. PROVIDE OPEN SHELF CASEWORK UNDER COUNTERTOP TO MATCH EXISTING (VERIFY DEPTH IN FIELD; COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). RE-INSTALL VINYL BASE.
3. INSTALL LOUVER FURNISHED BY MECHANICAL CONTRACTOR.
4. PAINT EXPOSED CONCRETE AT UNDERSIDE OF ROOF DECK/FLOOR ABOVE AS SHOWN ON STRUCTURAL DRAWINGS TO MATCH ADJACENT.
5. PAINT EXPOSED DUCTS/PIPING AS SHOWN ON MECHANICAL DRAWINGS TO MATCH ADJACENT.
6. PATCH WALL/SOFFIT TO MATCH EXISTING WHERE LOUVER/GRILLE/AIR TERMINAL IS REMOVED; PAINT TO MATCH ADJACENT.
7. PATCH WALL TO MATCH EXISTING WHERE SOFFIT IS REMOVED; PAINT TO MATCH ADJACENT.
8. RE-INSTALL ACOUSTICAL TILE CEILING AS NEEDED.
9. RE-INSTALL COUNTERTOP AND CASEWORK.

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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

RECORD ARCHITECT — PAUL SHANE REED NYS LICENSED ARCHITECT 029 — FOR PERMIT REVIEW

PROJECT NUMBERS:
60-04-02-04-0-007-023

SED PROJECT NUMBERS:
HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — **TIOGA COUNTY, NY**

FIRST FLOOR PROPOSED PLAN

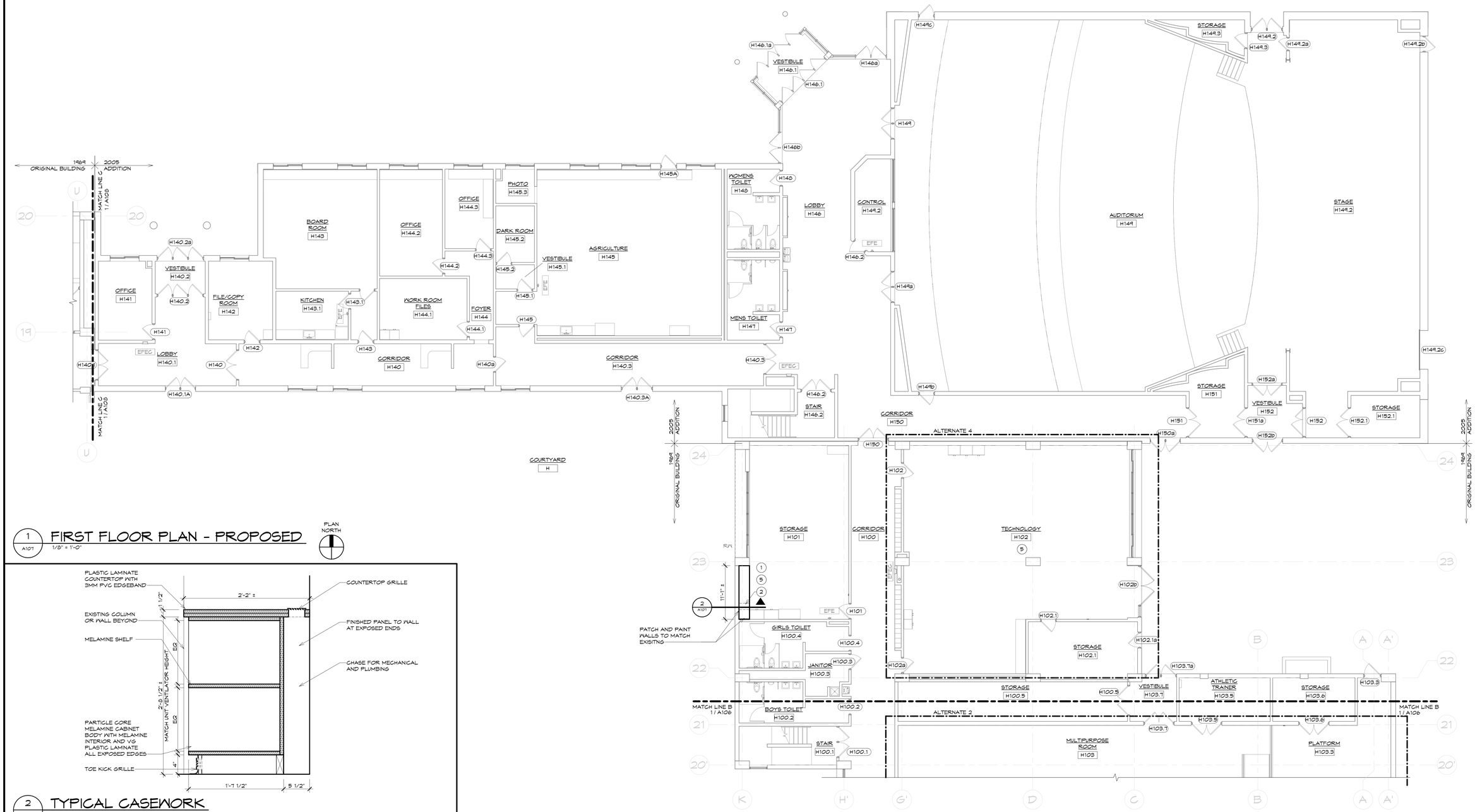
SHEET NO.
A106

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

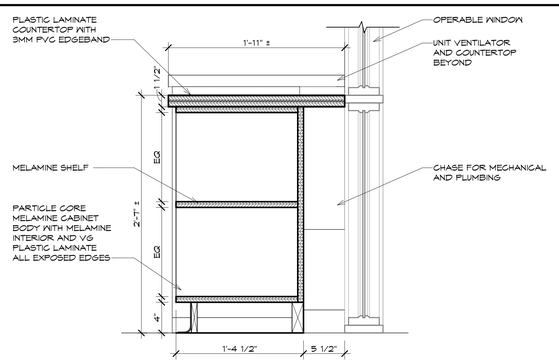
CAD FILE NO.: High School_RVT24.rvt

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1 / A107 — **FIRST FLOOR PLAN - PROPOSED**
1/8" = 1'-0"

2 / A107 — **TYPICAL CASEWORK**
1 1/2" = 1'-0"



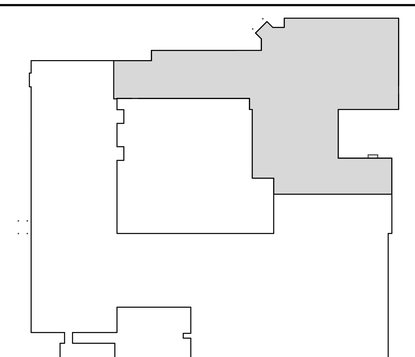
3 / A107 — **CASEWORK AT OPERABLE WINDOW**
1 1/2" = 1'-0"

GENERAL RENOVATION NOTES

1. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS SHOWN AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSION BETWEEN THE FIELD CONDITION AND THE DRAWINGS OR SPECIFICATIONS. THE CONTRACTOR IS TO NOTIFY THE ARCHITECT AND REQUEST CLARIFICATION OR DIRECTION PRIOR TO THE START OF WORK AND IN SUFFICIENT TIME FOR THE ARCHITECT TO RENDER A DECISION WITHOUT DELAYING THE PROGRESS OF THE PROJECT.
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2. PROVIDE OPEN SHELF CASEWORK UNDER COUNTERTOP TO MATCH EXISTING (VERIFY DEPTH IN FIELD; COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). RE-INSTALL VINYL BASE.
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5. PAINT EXPOSED DUCTS/PIPING AS SHOWN ON MECHANICAL DRAWINGS TO MATCH ADJACENT.
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7. PATCH WALL TO MATCH EXISTING WHERE SOFFIT IS REMOVED; PAINT TO MATCH ADJACENT.
8. RE-INSTALL ACOUSTICAL TILE CEILING AS NEEDED.
9. RE-INSTALL COUNTERTOP AND CASEWORK.



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RECORD ARCHITECT — STATE OF NEW YORK — JAMES R. KEEVERS — 027 — LICENSED PROFESSIONAL ENGINEER

SED PROJECT NUMBERS: 60-04-02-04-6-007-023
HIGH SCHOOL

WARNING: Under Section 7209, Subdivision 2, of the New York State Education Law, it is a violation for any person, unless acting under the direction of a licensed Professional Architect, Engineer or Land Surveyor, to alter in any way any item bearing the seal of a Professional Engineer or Land Surveyor. Not valid unless seal is signed.

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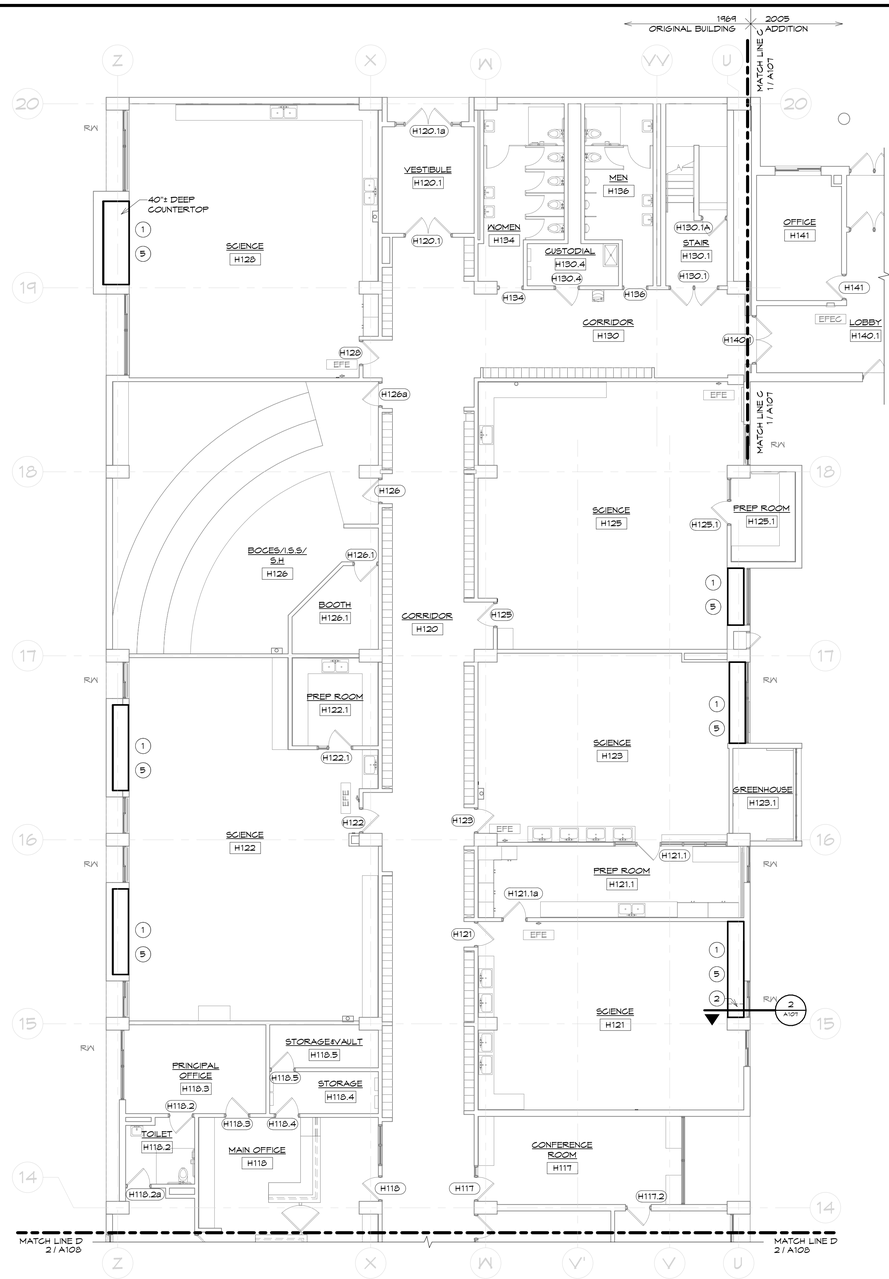
NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — TIOGA COUNTY, NY

FIRST FLOOR PROPOSED PLAN

SHEET NO. A107
PROJECT NO. 1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

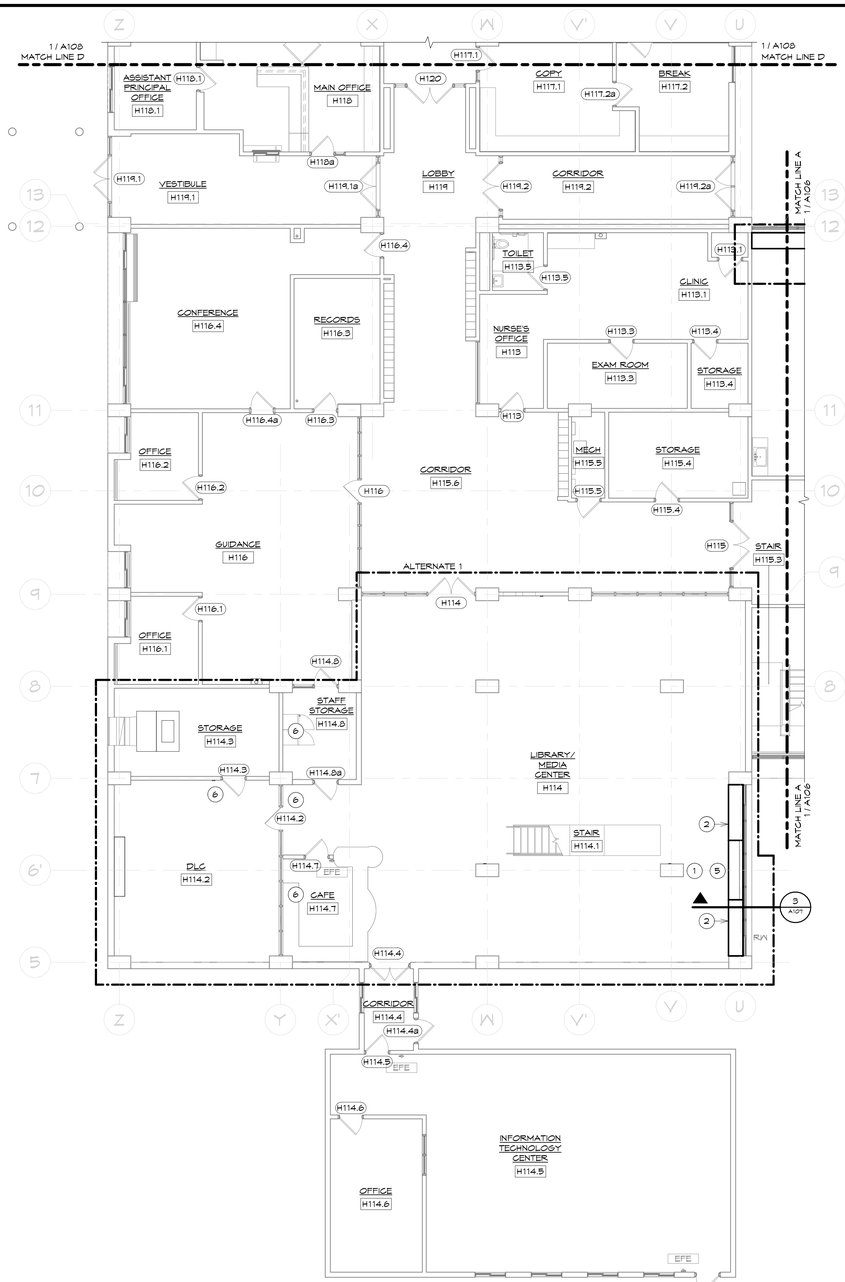
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1 / A108 — FIRST FLOOR PLAN - PROPOSED

1/8" = 1'-0"

PLAN NORTH



2 / A108 — FIRST FLOOR PLAN - PROPOSED

1/8" = 1'-0"

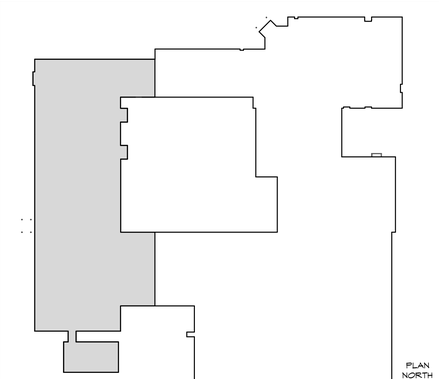
PLAN NORTH

GENERAL RENOVATION NOTES

1. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS SHOWN AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSION BETWEEN THE FIELD CONDITION AND THE DRAWINGS OR SPECIFICATIONS. THE CONTRACTOR IS TO NOTIFY THE ARCHITECT AND REQUEST CLARIFICATION OR DIRECTION PRIOR TO THE START OF WORK AND IN SUFFICIENT TIME FOR THE ARCHITECT TO RENDER A DECISION WITHOUT DELAYING THE PROGRESS OF THE PROJECT.
2. GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DUST PARTITIONS AND/OR AIR CURTAINS TO MINIMIZE TRANSMISSION OF DUST AND DEBRIS TO FINISHED AREAS OR EXISTING OCCUPIED AREAS.
3. CLASSROOM EQUIPMENT IN TECHNOLOGY ROOM H102 TO BE MOVED BY DISTRICT.
4. ALL MASONRY INFILLS TO BE TOOTHED-IN TO ADJACENT MASONRY.

SPECIFIC RENOVATION NOTES

1. PROVIDE 26" DEEP PLASTIC LAMINATE COUNTERTOP WITH 3MM PVC EDGEBAND TO MATCH EXISTING (VERIFY DEPTH IN FIELD). COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). COORDINATE WITH MECHANICAL CONTRACTOR FOR OPENING FOR GRILLE TO UNIT VENTILATOR AND WITH MECHANICAL DRAWINGS. INSTALL GRILLE FURNISHED BY MECHANICAL CONTRACTOR.
2. PROVIDE OPEN SHELF CASEWORK UNDER COUNTERTOP TO MATCH EXISTING (VERIFY DEPTH IN FIELD; COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). RE-INSTALL VINYL BASE.
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6. PATCH WALL/SOFFIT TO MATCH EXISTING WHERE LOUVER/GRILLE/AIR TERMINAL IS REMOVED; PAINT TO MATCH ADJACENT.
7. PATCH WALL TO MATCH EXISTING WHERE SOFFIT IS REMOVED; PAINT TO MATCH ADJACENT.
8. RE-INSTALL ACOUSTICAL TILE CEILING AS NEEDED.
9. RE-INSTALL COUNTERTOP AND CASEWORK.



FIRST FLOOR KEY PLAN

PLAN NORTH

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www.keysconp.com

KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT — PAUL J. BEERS — 026 — STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-0-007-023
HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — TIOGA COUNTY, NY

FIRST FLOOR PROPOSED PLAN

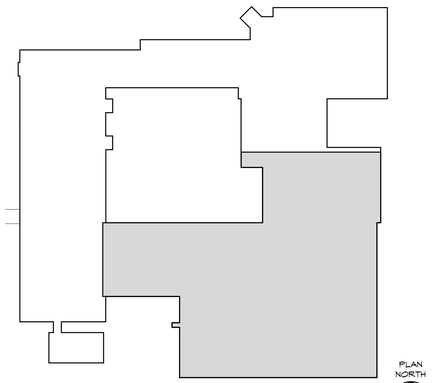
SHEET NO. A108

PROJECT NO. 1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

1/26/2026 9:26:19 AM

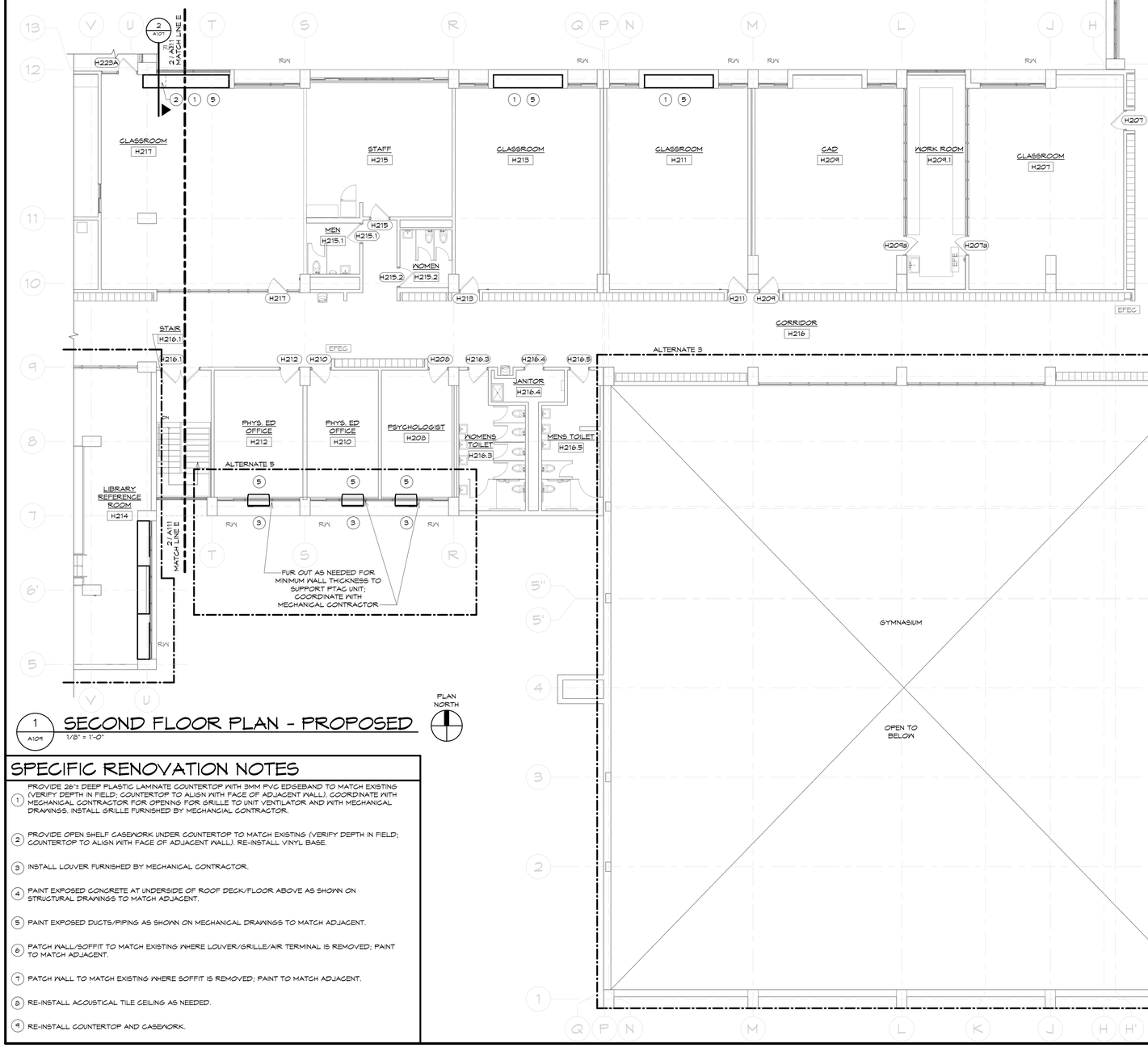


SECOND FLOOR KEY PLAN

PLAN NORTH

GENERAL RENOVATION NOTES

1. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS SHOWN AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR OMISSION BETWEEN THE FIELD CONDITION AND THE DRAWINGS OR SPECIFICATIONS. THE CONTRACTOR IS TO NOTIFY THE ARCHITECT AND REQUEST CLARIFICATION OR DIRECTION PRIOR TO THE START OF WORK AND IN SUFFICIENT TIME FOR THE ARCHITECT TO RENDER A DECISION WITHOUT DELAYING THE PROGRESS OF THE PROJECT.
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3. CLASSROOM EQUIPMENT IN TECHNOLOGY ROOM H102 TO BE MOVED BY DISTRICT.
4. ALL MASONRY INFILLS TO BE TOOTHED-IN TO ADJACENT MASONRY.



1 / A109 — SECOND FLOOR PLAN - PROPOSED

1/8" = 1'-0"

PLAN NORTH

SPECIFIC RENOVATION NOTES

1. PROVIDE 26"± DEEP PLASTIC LAMINATE COUNTERTOP WITH 3MM PVC EDGEBAND TO MATCH EXISTING (VERIFY DEPTH IN FIELD; COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). COORDINATE WITH MECHANICAL CONTRACTOR FOR OPENING FOR GRILLE TO UNIT VENTILATOR AND WITH MECHANICAL DRAWINGS. INSTALL GRILLE FURNISHED BY MECHANICAL CONTRACTOR.
2. PROVIDE OPEN SHELF CASEWORK UNDER COUNTERTOP TO MATCH EXISTING (VERIFY DEPTH IN FIELD; COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). RE-INSTALL VINYL BASE.
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8. RE-INSTALL ACOUSTICAL TILE CEILING AS NEEDED.
9. RE-INSTALL COUNTERTOP AND CASEWORK.

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KEYSTONE ASSOCIATES
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REGISTERED ARCHITECT — PAUL J. REED — NEW YORK — 035 — STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

WARNING: Section 7209, Subdivision 2 of the New York State Education Law states: "A person who is not a licensed Professional Architect, Engineer, or Land Surveyor shall not affix to any specifications, plans or reports to which he is not employed, his seal or stamp. If another has been affixed."

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NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — TIOGA COUNTY, NY

SECOND FLOOR PROPOSED PLAN

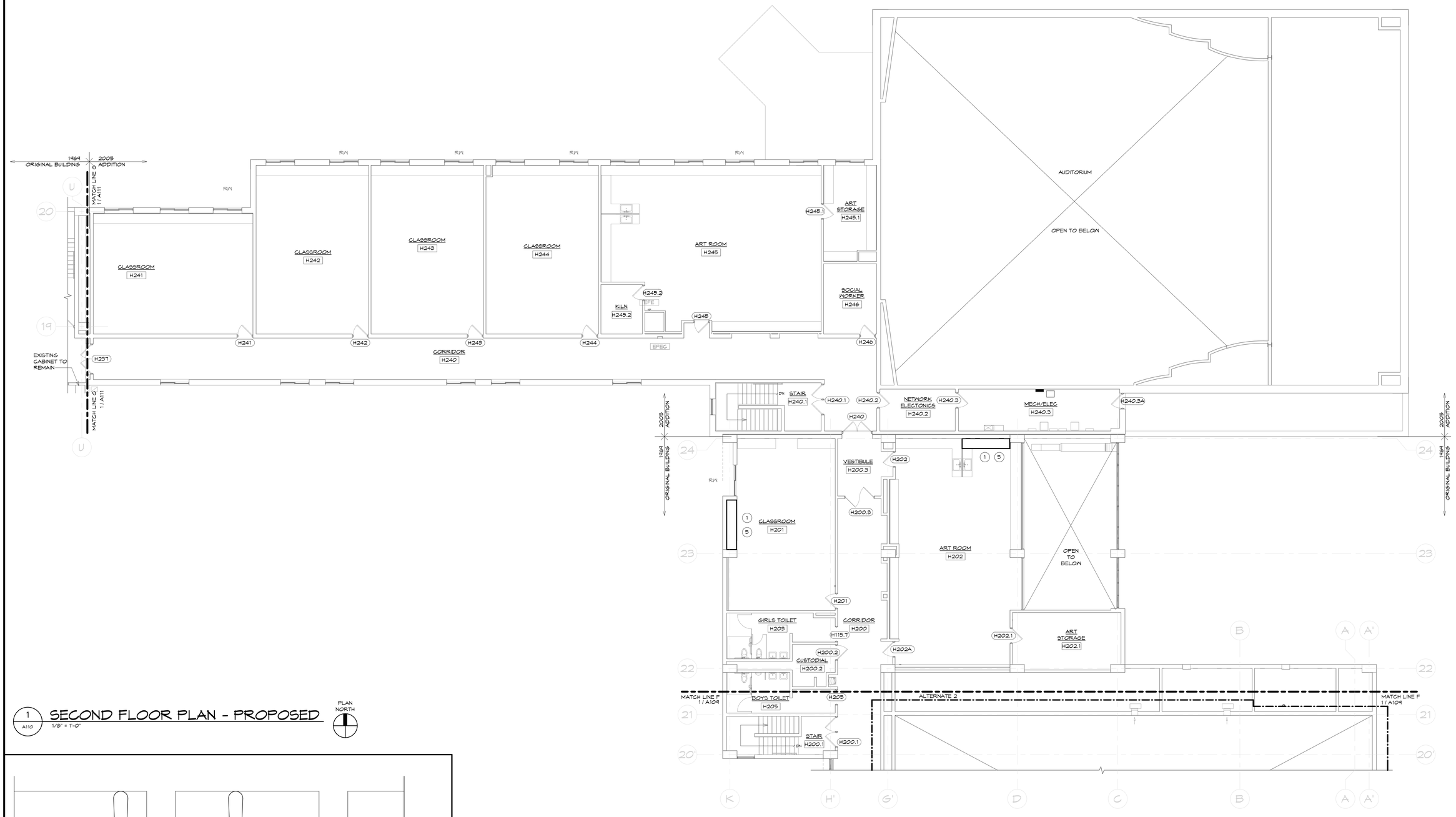
SHEET NO. **A109**

PROJECT NO. 1823.24221.1.3

DATE: 12/12/2025

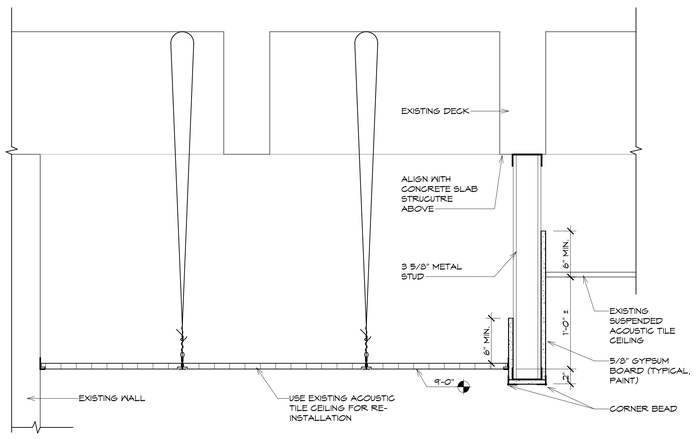
CAD FILE NO.: High School_RV124.rvt

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1 SECOND FLOOR PLAN - PROPOSED
A110 — 1/8" = 1'-0"

PLAN NORTH



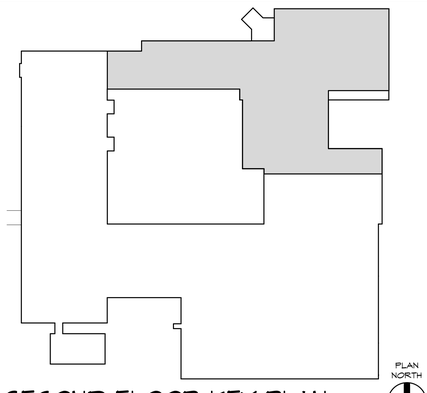
2 TYPICAL SOFFIT DETAIL
A110 — 1 1/2" = 1'-0"

GENERAL RENOVATION NOTES

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3. CLASSROOM EQUIPMENT IN TECHNOLOGY ROOM H102 TO BE MOVED BY DISTRICT.
4. ALL MASONRY INFILLS TO BE TOOTHED-IN TO ADJACENT MASONRY.

SPECIFIC RENOVATION NOTES

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SECOND FLOOR KEY PLAN

PLAN NORTH

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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

RECISTERED ARCHITECT PAUL LAWRENCE REED JR. 031 STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-6-007-023

HIGH SCHOOL

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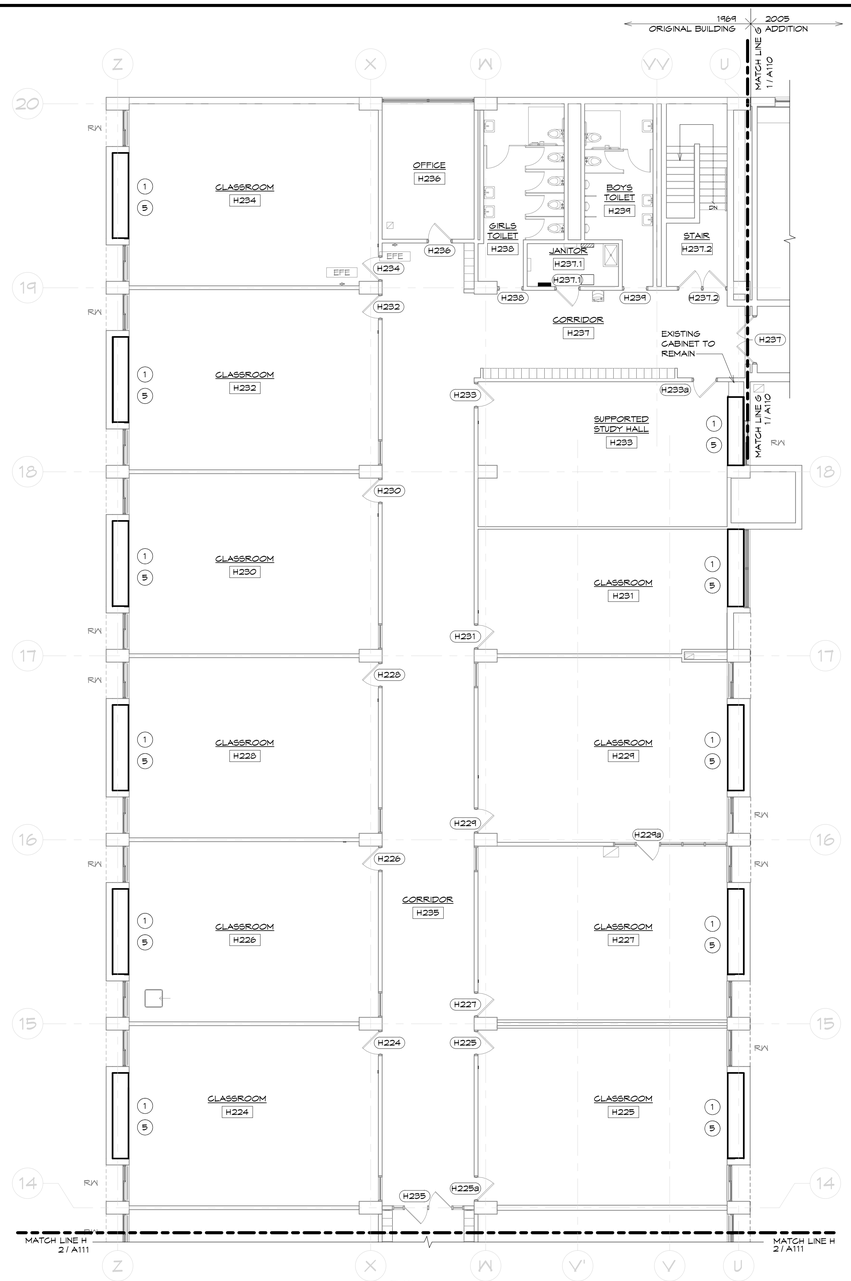
NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

SECOND FLOOR PROPOSED PLAN

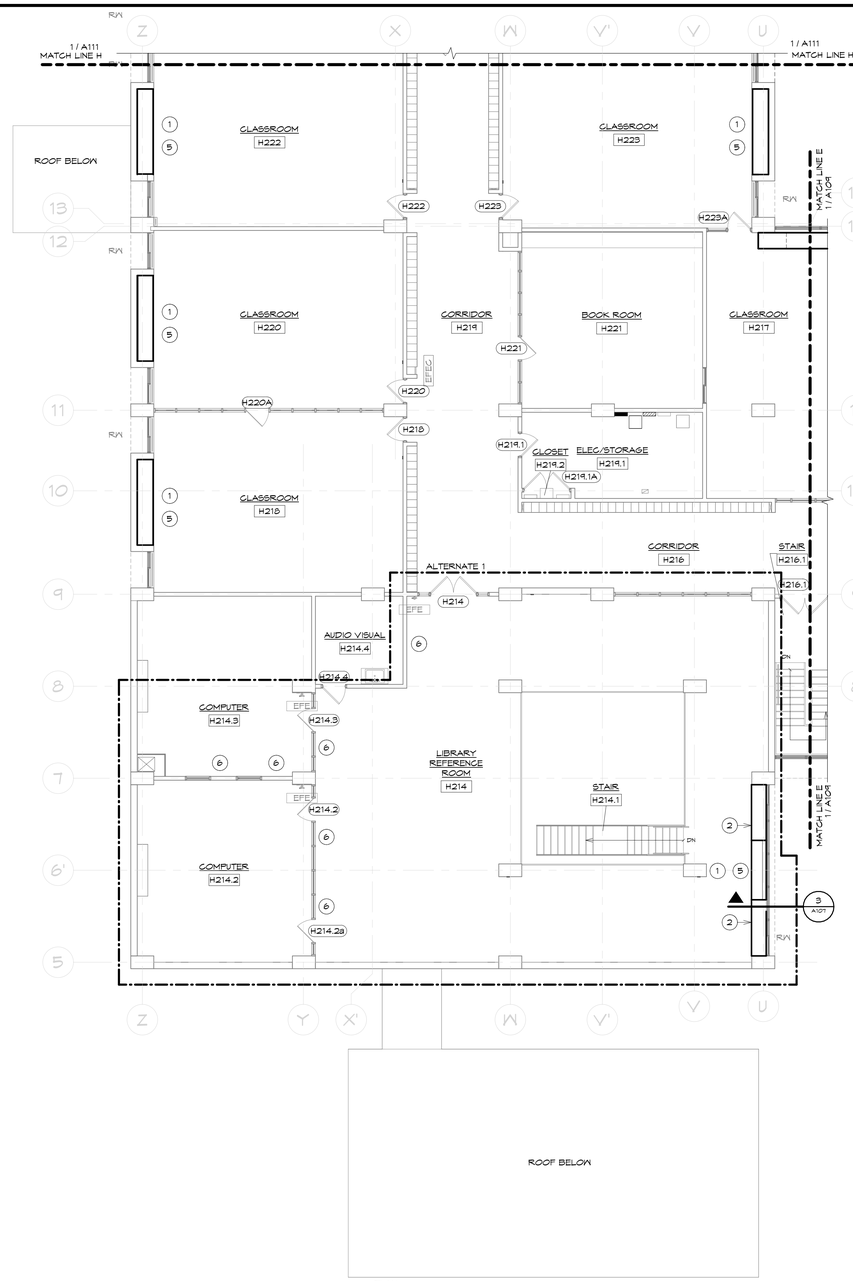
SHEET NO. **A110**
PROJECT NO. 1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:15:19 AM



1 A111 SECOND FLOOR PLAN - PROPOSED
1/8" = 1'-0"

PLAN NORTH



2 A111 SECOND FLOOR PLAN - PROPOSED
1/8" = 1'-0"

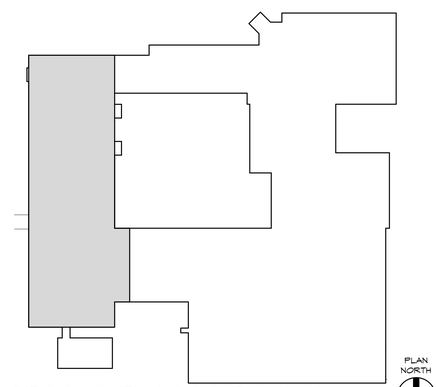
PLAN NORTH

GENERAL RENOVATION NOTES

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3. CLASSROOM EQUIPMENT IN TECHNOLOGY ROOM H102 TO BE MOVED BY DISTRICT.
4. ALL MASONRY INFILLS TO BE TOOTHED-IN TO ADJACENT MASONRY.

SPECIFIC RENOVATION NOTES

1. PROVIDE 26"± DEEP PLASTIC LAMINATE COUNTERTOP WITH 3MM PVC EDGEBAND TO MATCH EXISTING (VERIFY DEPTH IN FIELD; COUNTERTOP TO ALIGN WITH FACE OF ADJACENT WALL). COORDINATE WITH MECHANICAL CONTRACTOR FOR OPENING FOR GRILLE TO UNIT VENTILATOR AND WITH MECHANICAL DRAWINGS. INSTALL GRILLE FURNISHED BY MECHANICAL CONTRACTOR.
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SECOND FLOOR KEY PLAN

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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

REGISTERED ARCHITECT STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-0-007-023
HIGH SCHOOL

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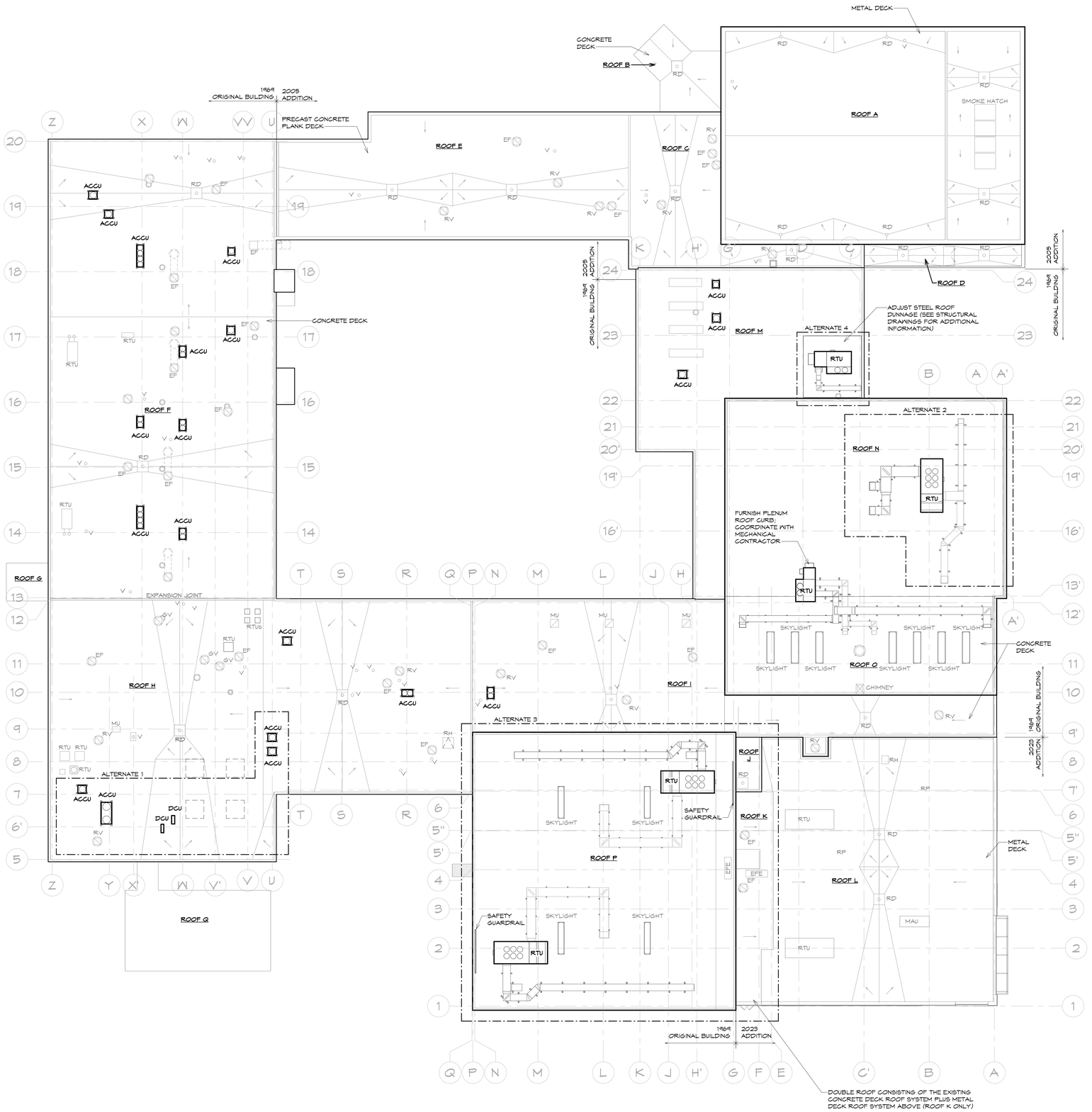
NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

SECOND FLOOR PROPOSED PLAN

SHEET NO. A111
PROJECT NO. 1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

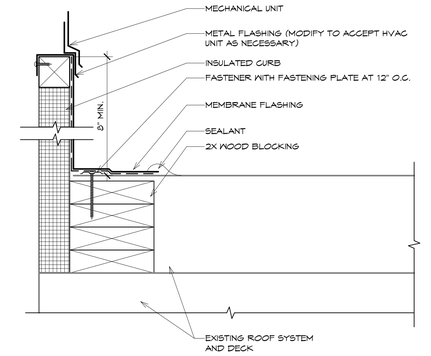
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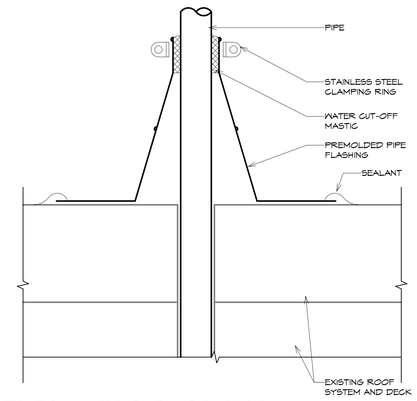
1 A700 — ROOF PLAN - PROPOSED
1/16" = 1'-0"

PLAN NORTH

COORDINATE WITH MECHANICAL CONTRACTOR FOR ROOF PENETRATIONS



2 A700 — TYPICAL CURB FLASHING
3" = 1'-0"



3 A700 — TYPICAL VENT FLASHING
3" = 1'-0"

GENERAL ROOFING NOTES

1. WORK INDICATED ON DRAWINGS IS SHOWN DIAGRAMMATICALLY. VERIFY-IN-FIELD (V.I.F.) DIMENSIONS, QUANTITIES, LOCATIONS OF WORK, CONDITIONS, ETC., AND BE RESPONSIBLE FOR SAME. DO NOT SCALE DRAWINGS.
2. LOCATIONS OF DETAILS OF FLASHINGS AT ROOF DRAINS, PLUMBING VENTS, CURBS, AND AT PIPES ARE NOT INDICATED ON ROOF PLANS IN ORDER TO AVOID CROWDING OF DETAIL SYMBOLS ON ROOF PLANS. THESE DETAILS ARE TYPICAL AND ARE SHOWN ON THE DRAWINGS.
3. PROVIDE A SAFE, SECURELY ATTACHED, AND BOLDLY IDENTIFIED TEMPORARY 3/4" PLYWOOD COVERS OVER ALL OPENINGS OR VOIDS IN ROOF DECKS AFTER MECHANICAL UNITS ARE REMOVED BY MECHANICAL CONTRACTOR. WHERE SIZE OF OPENING EXCEEDS 24"X24", PROVIDE 2"X6" WOOD FRAMING 16" O.C. WITH PLYWOOD COVERS. MAKE ALL OPENINGS WEATHERTIGHT.
4. COMPLY WITH OSHA REQUIREMENTS FOR EMPLOYEES WORKING ON THE ROOF.
5. VARIOUS LOCATIONS OF DUCT REMOVAL TO BE INFILLED AND PATCHED BY GENERAL CONTRACTOR CALLED OUT ON MECHANICAL DRAWINGS.
6. GENERAL CONTRACTOR TO INSTALL PLENUMS, CURBS, AND PIPE PORTALS AS NEEDED ON ALL RTU AND ACCU AS SHOWN ON MECHANICAL DRAWINGS.

ROOFING LEGEND

○V	EXISTING PIPE VENT
RV	EXISTING ROOF VENT
GV	EXISTING GRAVITY/RELIEF VENT
EF	EXISTING EXHAUST FAN
○ RP	EXISTING RADON PIPE/EXHAUST
RD	EXISTING ROOF DRAIN
MU	EXISTING MECHANICAL UNIT
RH	EXISTING ROOF HATCH
RTU	EXISTING ROOF TOP UNIT
MAU	EXISTING MAKE-UP AIR UNIT
SKYLIGHT	EXISTING SKYLIGHT
→	EXISTING CRICKET SLOPE DIRECTION
RTU	ROOF TOP UNIT
ACCU	CONDENSING UNIT (CONNECTED TO AIR HANDLING UNIT OR UNIT VENTILATOR)
DCU	CONDENSING UNIT (CONNECTED TO SPLIT SYSTEM)
ROOF X	ROOF NAME

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KEYSTONE ASSOCIATES
ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

RECISTERED ARCHITECT — PAUL J. SHEEHAN — 031 — STATE OF NEW YORK

SED PROJECT NUMBERS: 60-04-02-04-0-007-023

HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — TIOGA COUNTY, NY

PROPOSED ROOF PLAN AND DETAILS

SHEET NO. A700
PROJECT NO. 1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RV24.rvt

1/26/2026 9:26:26 AM

GENERAL NOTES - REMOVALS

A. ALL WORK IS SHOWN DIAGRAMMATIC, AND ACTUAL SITE CONDITIONS MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK.

B. REMOVE ALL EQUIPMENT, PIPING, AND DUCTWORK SHOWN DASHED.

C. THIS CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THIS WORK UNLESS OTHERWISE NOTED. ALL PATCHING AND PAINTING MUST EXACTLY MATCH EXISTING CONDITIONS.

D. EVERY EFFORT HAS BEEN MADE TO INDICATE ALL EQUIPMENT THAT IS BEING REMOVED THROUGH EXISTING DRAWINGS AND FIELD OBSERVATIONS, HOWEVER THE CONTRACTOR IS TO VISIT THE SITE PRIOR TO BIDDING AND VERIFY ALL REMOVALS, SOME DIFFERENCES MAY OCCUR.

E. THIS CONTRACTOR SHALL FIELD VERIFY ALL EXISTING EQUIPMENT AND PIPING LOCATIONS, PIPE SIZES, AND COORDINATE WITH ALL OTHER TRADES.

F. RE-USE EXISTING FLOOR/WALL/ROOF PENETRATIONS WHERE POSSIBLE. PROVIDE NEW PENETRATIONS AS REQUIRED. ALL OPEN PENETRATIONS THROUGH FLOOR AND OR WALLS SHALL BE SEALED OR PATCHED.

G. THIS CONTRACTOR SHALL REMOVE ALL PIPING, VALVES, SPECIALTIES AND CONTROLS ASSOCIATED WITH EACH PIECE OF EQUIPMENT TO BE REMOVED.

H. IF EXISTING HV UNIT, UNIT VENTILATOR, OR ANY OTHER MECHANICAL SYSTEM IS TO BE REMOVED, MC WILL REMOVE ALL ACCESSORIES, HANGERS, SUPPORTS AND EXISTING ROOM SENSORS/THERMOSTATS AND TERMINATE ALL EXISTING WIRES NOT USED IN JUNCTION BOX. ANY HOLES/OPENINGS OF OLD ROOM SENSORS SHALL BE COVERED WITH BLANK STAINLESS STEEL PLATES.

I. THIS CONTRACTOR SHALL REMOVE AND RE-INSTALL ALL CEILINGS AS REQUIRED TO COMPLETE HIS WORK. ANY DAMAGE TO THE EXISTING CEILING AS A RESULT OF THIS WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.

J. ALL EQUIPMENT REMOVED IS PROPERTY OF THE OWNER. IF THE OWNER DEEMS EQUIPMENT "UNSALVAGEABLE" THE CONTRACTOR IS TO DISPOSE OF IT IN A PROPER MANNER.

K. ALL EQUIPMENT TO BE REMOVED SHALL HAVE ALL ACCESSORIES AND SUPPORTS REMOVED WITH IT, WHETHER INDICATED OR NOT. IN ADDITION, UNLESS OTHERWISE NOTED, ANY REFRIGERANT CONTAINING EQUIPMENT THAT IS SHOWN FOR REMOVAL SHALL HAVE ALL REFRIGERANT EVACUATED FROM THE SYSTEM AND PROPERLY DISPOSED OF AND ALL REFRIGERANT PIPING REMOVED FROM THE SITE. REFRIGERANT RECOVERY SHALL BE PERFORMED BY A TECHNICIAN CERTIFIED IN THE MAINTENANCE, SERVICE, REPAIR, AND DISPOSAL OF REFRIGERANT CONTAINING EQUIPMENT PER THE EPA.

L. ANY EQUIPMENT, PIPING, OR DUCTWORK THAT HAS BEEN REMOVED IN THE PROJECT AND HAS LEFT AN OPENING, ANCHOR POINT, OR OTHER IMPERFECTION IN A FLOOR, WALL, OR ROOF SHALL HAVE THE OPENINGS AND VOIDS INFILLED TO MATCH EXISTING CONDITIONS.

GENERAL INSTALLATION NOTES

A. ALL WORK IS SHOWN DIAGRAMMATIC. FIELD VERIFY ALL EXISTING SITE CONDITIONS, PIPING, DUCTWORK, UNIT LOCATIONS ETC. PRIOR TO THE COMMENCEMENT OF WORK.

B. THIS CONTRACTOR TO VISIT JOB SITE BEFORE BID DATE TO VERIFY ALL EXISTING CONDITIONS INDICATED. IT IS THE RESPONSIBILITY OF THE MC TO VERIFY ALL EXISTING QUANTITIES FOR REPLACEMENT/RECONDITIONING ETC. COORDINATE ALL DUCTWORK, PIPING AND EQUIPMENT LOCATIONS WITH ALL OTHER TRADES.

C. INSTALL NEW SUPPLY DIFFUSERS, REGISTERS, AND EXHAUST GRILLES INTO NEW CEILING GRID AVOIDING LIGHTS, AT APPROXIMATE LOCATIONS SHOWN.

D. ALL RECTANGULAR DUCTWORK BRANCH CONNECTIONS TO HAVE A 45 DEGREE CINCH COLLAR WITH AN INTEGRAL VOLUME DAMPER. ALL ROUND DUCTWORK BRANCH CONNECTIONS TO HAVE A HIGH EFFICIENCY FITTING WITH AN INTEGRAL VOLUME DAMPER.

E. PROVIDE TURNING VANES IN ALL SUPPLY DUCTS COMING OUT OF ROOF-TOP UNITS AND ALL 90 DEG ELBOWS, WHETHER SHOWN OR NOT.

F. PROVIDE ACCESS DOORS FOR ALL FIRE DAMPERS AND DUCT COILS UNLESS OTHERWISE NOTED.

G. PROVIDE A MINIMUM SIZE ACCESS DOOR OF 24"x24" ON ALL FIRE AND FIRE/SMOKE DAMPERS UNLESS NOT PERMITTED BY DUCT SIZE.

H. RE-USE EXISTING FLOOR/SLAB/ROOF PIPING PENETRATIONS WHEREVER POSSIBLE. MC RESPONSIBLE FOR ENLARGING OR MODIFYING EXISTING PENETRATIONS AS REQUIRED TO ACCOMMODATE NEW PIPING.

I. ALL NEW PENETRATIONS FOR PIPING, DUCTWORK OR TO COMPLETE HIS WORK ARE BY THE MC. ALL OPENINGS THAT ARE BY THE GC ARE NOTED ON THESE DRAWINGS OR THE GC DRAWINGS.

J. PROVIDE ADDITIONAL STRUCTURAL STEEL AND HANGERS AS REQUIRED TO INSTALL AND SUPPORT HVAC EQUIPMENT.

K. IN GENERAL, ALL DUCTWORK IS TO BE TIGHT TO JOISTS AND MC IS TO COORDINATE DUCTWORK ELEVATIONS WITH ALL OTHER TRADES.

L. THIS CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING AND PAINTING REQUIRED TO COMPLETE THIS WORK UNLESS OTHERWISE NOTED. ALL PATCHING AND PAINTING MUST EXACTLY MATCH EXISTING CONDITIONS.

M. ALL AREAS WHERE PIPING IS REMOVED AND NOT REPLACED, THIS CONTRACTOR SHALL PATCH THE AREAS TO MATCH EXISTING CONDITIONS.

N. REFER TO PIPING SCHEMATICS FOR DETAILED PIPING INFORMATION FOR BOTH THE HEATING AND DOMESTIC HOT WATER SYSTEMS.

O. NO VALVES SHALL BE PLACED ABOVE/BEHIND DUCTWORK OR IN AN INACCESSIBLE LOCATION.

P. ALL WORK IS SHOWN DIAGRAMMATIC, IF OFFSETS OR TRANSITIONS IN DUCTWORK ARE REQUIRED FOR SITE CONDITIONS, TO MAINTAIN ARCHITECTS CEILING HEIGHTS AND/OR COORDINATION WITH OTHER TRADES IT IS THE RESPONSIBILITY OF THE MC. ADDITIONALLY, IF A TRANSITION FROM ANY TYPE OF AIR HANDLING UNIT TO THE DUCTWORK SIZE INDICATED IS REQUIRED, IT IS THE RESPONSIBILITY OF THE MC, WETHER THE TRANSITION IS SHOWN OR NOT.

Q. REFER TO STRUCTURAL DRAWINGS FOR FINAL LOCATIONS OF UNITS AND PENETRATIONS THROUGH DECKS. STRUCTURAL DRAWINGS ARE TO TAKE PRECEDENCE OVER DUCTWORK DRAWINGS FOR LOCATIONS. ANY OFFSETS OR TRANSITIONS IN DUCTWORK REQUIRED FOR COORDINATION WITH STEEL IS THE RESPONSIBILITY OF THE MC.

R. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL AIR VENTS OR DRAINS ON THE PIPING SYSTEMS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY AIR VENTS AT HIGH POINTS WHICH COULD ACCUMULATE AIR WHICH WOULD PREVENT THE PROPER OPERATION OF THE HWS&R AND CHWS&R PIPING. DRAINS SHALL BE PROVIDED AT LOW POINTS IN THE SYSTEM TO FACILITATE THE DRAINING OF HWS&R AND CHWS&R PIPING.

S. ALL WORK IS SHOWN DIAGRAMMATIC, IF ELBOWS OR CHANGES IN PIPING ELEVATION ARE REQUIRED FOR SITE CONDITIONS, TO MAINTAIN ARCHITECTS CEILING HEIGHTS AND/OR COORDINATION WITH OTHER TRADES IT IS THE RESPONSIBILITY OF THE MC.

T. UNLESS NOTED ON THE EC OR TC DRAWINGS, THIS CONTRACTOR IS FULLY RESPONSIBLE TO PROVIDE ALL WIRING OR ANY FINAL CONNECTIONS FOR ANY MECHANICAL EQUIPMENT TO MAKE THAT UNIT FULLY OPERATIONAL.

U. INSTALLATION OF ROOF TOP DUCTWORK SHALL BE ACCORDING TO SPECIFICATION SECTION 233330, ITEM 2.15. DUCT LINER INSTALLATION SHALL BE ACCORDING TO SPECIFICATION SECTION 233330 ITEM 2.11. ALSO REFER TO SECTION 230005, ITEM 1.17 FOR STORAGE OF MATERIALS.

GENERAL NOTES - TEMPERATURE CONTROLS

A. PER NFPA 731 SECTION 4.6.3.1 - NO WIRING SHALL BE ABANDONED ABOVE A CEILING. REMOVE ALL WIRING WITH ALL EQUIPMENT BEING REMOVED.

B. WIRE ALL LOW VOLTAGE, LINE VOLTAGE CONTROL, AND COMMUNICATIONS CABLING FOR A COMPLETE FULLY OPERATIONAL SYSTEM. COORDINATE WITH HEATING CONTRACTOR & ELECTRIC CONTRACTOR WHERE REQUIRED FOR ALL INTERFACES.

C. CONTROL PANELS ARE NOT SHOWN ON THE DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PROPER QUANTITIES OF PANELS TO MEET I/O SCHEDULE & DIAGRAM I/O. RISER DIAGRAMS ARE FOR INFORMATION ONLY & MAY NOT INDICATE ALL PANELS. ADDITIONALLY, SOME JOBS MAY HAVE LINE VOLTAGE POWER PROVIDED BY THE EC IN POSSIBLE PANEL LOCATIONS. THE TC SHALL REVIEW THESE PRIOR TO BID AND SHALL PROVIDE ANY ADDITIONAL LOCATIONS FOR POWER UNDER HIS CONTRACT AND WITHIN THE TC BID.

D. LOCATE ALL BUILDING CONTROLLERS ON THE SUBMITTAL SO THAT C.C. CAN FURNISH A DATA DROP IN THAT SPACE. T.C. TO COORDINATE WITH E.C. & C.C.

E. IN ROOMS THAT HAVE A HARD CEILING TC SHALL PROVIDE RACEWAY FOR HIS WIRING. THERE SHALL BE NO EXPOSED CONTROL WIRING IN A OCCUPIED SPACE.

F. TEMPERATURE CONTROL VALVES: SIZE VALVES PER CHART IN SPECIFICATION SECTION WITH MAXIMUM DELTA P OF 3PSI.

G. WHERE ANY THERMOSTAT THAT IS REMOVED, THE WALL SHALL BE PATCHED AND PAINTED TO MATCH THE EXISTING.

H. CONTRACTOR TO COORDINATE THERMOSTAT LOCATIONS WITH APPROVED FURNITURE LAYOUT.

GENERAL

	REMOVE / CONNECT TO
#	REMOVAL NOTE TAG
#	INSTALLATION NOTE TAG
	PIPING BREAK
	EDGE BREAK LINE
	OFFSET FOR CLARITY
0'-0"	DUCT WORK ELEVATION

DUCTWORK AND FITTINGS

	DUCTWORK W / INTERNAL LINER
	DUCTWORK UNLINED
	TURNING VANES
DN UP	RECTANGULAR SUPPLY ELBOW
DN UP	RECTANGULAR RETURN/EXHAUST ELBOW
RND SQ	SQUARE TO ROUND TRANSITION
	HIGH EFFICIENCY TAKE-OFF W / INTEGRAL DAMPER
	VOLUME DAMPER
A.D.	FIRE DAMPER W / ACCESS DOOR
A.D.	FIRE/SMOKE DAMPER W / ACCESS DOOR
A.D. A.D.	DUCT ACCESS DOOR
	FLEXIBLE DUCTWORK (6' MAX)
	FLEXIBLE COLLAR
(LENGTH)x (HEIGHT)	RECTANGULAR DUCT DESIGNATION
(DIAMETER)'Ø	ROUND DUCT DESIGNATION
(MAJOR AXIS)/ (MINOR AXIS)	FLAT OVAL DUCT DESIGNATION
	ROOF MOUNTED EXHAUST FAN
	4 - WAY SUPPLY DIFFUSER
	2 - WAY SUPPLY DIFFUSER
	RETURN / EXHAUST AIR GRILLE
	BACKDRAFT DAMPER (BD-1,2)
S D	SMOKE DETECTOR FURNISHED AND WIRED BY EC, INSTALLED BY MC

FITTINGS & ACCESSORIES

	PIPE ELBOW DOWN
	PIPE ELBOW UP
	PIPE TEE DOWN
	PIPE UNION
	PIPE REDUCER
	CAP - SCREWED
	PIPE FLANGE
	PIPE STRAINER W / BLOW DOWN
	PIPE ANCHOR
	MANUAL AIR VENT
	PRESSURE GUAGE W / SNUBBER
	TEMPERATURE GUAGE
	PIPE ISOLATION JOINT
	RELIEF VALVE (RV)

PIPING

	PIPING BEING REMOVED
EXR	EXISTING PIPING TO REMAIN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
PGHWS	PROPYLENE GLYCOL HOT WATER SUPPLY
PGHWR	PROPYLENE GLYCOL HOT WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
PGCHWS	PROPYLENE GLYCOL CHILLED WATER SUPPLY
PGCHWR	PROPYLENE GLYCOL CHILLED WATER RETURN
GWS	GROUND LOOP WATER SUPPLY (EXTERIOR PIPING)
GWR	GROUND LOOP WATER RETURN (EXTERIOR PIPING)
HPWS	HEAT PUMP WATER SUPPLY (INTERIOR PIPING)
HPWR	HEAT PUMP WATER RETURN (INTERIOR PIPING)
DTWS	DUAL TEMPERATURE WATER SUPPLY
DTWR	DUAL TEMPERATURE WATER RETURN
G	NATURAL GAS
LPG	LIQUIFIED PETROLEUM GAS
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
LPS	LOW PRESSURE STEAM
COND	CONDENSATE RETURN
A	COMPRESSED AIR
	DOMESTIC COLD WATER
CD	CONDENSATE DRAIN (GRAVITY)
PR	CONDENSATE DRAIN (PUMPED)
RS SL	REFRIGERANT SUCTION LINE
RL LL	REFRIGERANT LIQUID LINE
HGB	HOT GAS BYPASS REFRIGERANT LINE

VALVES

	BALL VALVE(BV)
	BUTTERFLY OR WAFER VALVE(WV)
	GATE VALVE(GV)
	GLOBE VALVE(GLV)
	CHECK VALVE(CKV)
	CONTROL VALVE (2-WAY)
	CONTROL VALVE (3-WAY)
	BALANCING VALVE(CBV)
	TRIPLE DUTY VALVE (TDV)
	FLOW CONTROL VALVE(FCV)
D.V.	DRAIN VALVE ASSEMBLY(SS)

PIPE SIZING

0-2 GPM	3/4" COPPER
3-5 GPM	1" COPPER
6-8 GPM	1-1/4" COPPER
9-14 GPM	1-1/2" COPPER
15-30 GPM	2" COPPER
31-50 GPM	2-1/2" STEEL
51-90 GPM	3" STEEL
91-200 GPM	4" STEEL
201-500 GPM	6" STEEL

TEMP CONTROL SYMBOLS

E	LINE VOLTAGE BY T.C.
e	LOW VOLTAGE WIRING BY T.C.
+	WIRING BY DIV #26(IEC)
	CONDUCTORS
	CURRENT FLOW SWITCH (STATUS)CFS-1
	CONTROL RELAY CR-1
CO	CARBON DIOXIDE SENSOR CDS-1, CDS-2
	DUCT SENSOR, SPS-1
	DAMPER - OPPOSED BLADE D-1
	DAMPER - PARALLEL BLADE D-2
ME	DAMPER ACTUATOR ME-1,-2,3
DP	DIFFERENTIAL PRESSURE SWITCH - DPT-1,1A
ES-1	END SWITCH ES-1
FS	FLOW SWITCH FS-1
	HORN
	HUMIDITY SENSOR DUCT MOUNTED HSR
LC-1	LOW TEMERATURE CUT OUT MANUAL RESET LC-1
	MOTOR STARTER
M	MOTION SENSOR MS-1, MDS-1, MDS-2
M	MOTOR
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	PROGRAM CLOCK
P	PILOT LIGHT
START	START PUSH BUTTON
STOP	STOP PUSH BUTTON
	STATIC PRESSURE FILTER ALARM - DPS-1
	STATIC PRESSURE NETWORK SENSOR SPNL-1
	STATIC PRESSURE SENSOR SPS-1
	SWITCH
	TWO WAY VALVE CVF, CVT
	THREE WAY VALVE CVM, CVT, CVZM
	TEMPERATURE SENSOR ITS, ITS-1
	TEMPERATURE SENSOR AVERAGING TSDA
	TEMPERATURE SENSOR TSD
	TEMPERATURE CONTROL POINT
	TEMPERATURE CONTROL PANEL TCP
	TRANSFORMER - XT-1
T	THERMOSTAT W / GUARD TS8, TSR
H	HUMIDITY SENSOR W / GUARD HS
T/H	TEMPERATURE AND HUMIDITY SENSOR - TS/HS
	VARIABLE AIR VOLUME MODULAR ASSEMBLY VMA
VFD	VARIABLE FREQUENCY DRIVE
ECM	ECM (ELECTRICALLY COMMUTATED MOTOR)

ABBREVIATIONS

A	AIR OR COMPRESSED AIR
AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP AUTOMATIC
ATC	TEMPERATURE CONTROL
ATM	ATMOSPHERE
ACCU	AIR COOLED CONDENSING UNIT
ADJ	ADJUSTABLE
BD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BMS	BUILDING MANAGEMENT SYSTEM
BC	BOOKCASE
CH	CABINET HEATER
CFM	CUBIC FEET PER MINUTE
CT	COOLING TOWER
CH	CABINET UNIT HEATER
CD	CONTROL DAMPER
DB	DRY BULB
DEG	DEGREE
DDC	DIRECT DIGITAL CONTROL
DP	DIFFERENTIAL PRESSURE
DAC	DUCTLESS SPLIT A/C UNIT
DCU	DUCTLESS SPLIT CONDENSING UNIT
DHU	DEHUMIDIFYING UNIT
DS	DUCT SILENCER
EA	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EMS	ENERGY MANAGEMENT SYSTEM
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXR	EXISTING TO REMAIN
ERL	EXISTING TO BE RELOCATED
ERU	ENERGY RECOVERY UNIT
EG	EXHAUST GRILLE
F	FAHRENHEIT
FA	FIRE AREA
FCU	FAN COIL UNIT
FRD-B/A	FIRE DAMPER
FRD-S	FIRE/SMOKE DAMPER
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOW SWITCH
FTR	FIN TUBE RADIATION
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
HV	HEATING & VENTILATING UNIT
HD	HEAD
HP	HORSEPOWER
HRU	HEAT RECOVERY UNIT
HTG	HEATING
HP	HEAT PUMP UNIT
HZ	HERTZ (CYCLES PER SECOND)
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MAT	MIXED AIR TEMPERATURE
MBH	1000 BTU/HR
MC	MECHANICAL CONTRACTOR
MUA	MAKE UP AIR
MCA	MINIMUM CIRCUIT AMPACITY
MOP/ MOCP	MAXIMUM OVERCURRENT PROTECTION
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NOM	NOMINAL
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
ODP	OPEN DRIP PROOF
OV	OPEN VELOCITY
OAT	OUTSIDE AIR TEMPERATURE
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQ IN
RESR	ROOF EQUIPMENT SUPPORT RAIL
RG	RETURN GRILLE
RH	ROOF HOOD
RTU	ROOFTOP UNIT
RA	RETURN AIR
RET	RETURN
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
SAT	SUPPLY AIR TEMPERATURE
SF	SUPPLY FAN
SCV	SELF CONTAINED VALVE
SA	SUPPLY AIR
SP	STATIC PRESSURE
SG	SUPPLY GRILL
T	TEMPERATURE OR THERMOSTAT
TEMP	TEMPERATURE
TON	12,000 BTUH (COOLING CAPACITY)
TSB	TEMPERATURE SENSOR BUTTON TYPE
TSR	TEMPERATURE SENSOR W/DISPLAY
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
TC	TEMPERATURE CONTROL CONTRACTOR
UV	UNIT VENT
UH	UNIT HEATER
UC	UTILITY COMPARTMENT
V	VOLTS
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VFC	VARIABLE REFRIGERANT FAN COIL
WB	WET BULB TEMPERATURE
WG	WATER GAGE
WPD	WATER PRESSURE DROP

GENERAL NOTES - CONTROLS & EQUIPMENT

THE EXISTING BUILDING AUTOMATION SYSTEM AT NEWARK VALLEY CSD IS A SCHNEIDER ELECTRIC DDC SYSTEM, INSTALLED AND SERVICED BY STARKTECH / DAY AUTOMATION.

A. THE TEMPERATURE CONTROL CONTRACTORS LABOR SHALL BE BID UNDER THE MECHANICAL CONTRACTOR AND THE TEMPERATURE CONTROL CONTRACTOR WILL BE A SUB TO THE MC. THE TEMPERATURE CONTROL CONTRACTORS SCOPE SHALL INCLUDE CONTROLS INSTALLATION AND WIRING, PROVIDING OPERATING MANUALS, START UP SERVICES, CONTROL ENGINEERING AND TRAINING AND WARRANTY FOR FACTORY RELATED ISSUES ON EQUIPMENT AND CONTROLS.

B. THE PARTS SHALL BE ON STATE CONTRACT AND THE TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE A LIST OF EQUIPMENT THAT THE MC SHALL NEED TO INSTALL PRIOR TO BID. ALL NEW DDC CONTROLS SHALL BE PROVIDED BY STARKTECH / DAY AUTOMATION AND CONNECTED TO THE EXISTING SYSTEM. TEMPERATURE CONTROL EQUIPMENT IDENTIFIED AS PER SCHEDULE AND DDC CONTROLS WILL BE PRE-PURCHASED AND SUPPLIED FOR THIS PROJECT VIA STARKTECH / DAY AUTOMATIONS NYS OGS CONTRACT.

1. EQUIPMENT WILL BE SHIPPED FROM THE FACTORY TO THE TEMPERATURE CONTROLS CONTRACTOR. THE EQUIPMENT WILL BE UNLOADED, INSPECTED AND STORED BY THE TC. ANY VALVES OR DAMPERS WILL BE GIVEN TO AND INSTALLED BY THE MECHANICAL CONTRACTOR.
2. THE STATE CONTRACT PURCHASED TC EQUIPMENT AND TC CONTROLS SHALL INCLUDE TEMPERATURE CONTROLLERS AND DEVICES.
3. SEE SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
4. ALL OTHER WARRANTY SERVICES ARE BY THE HVAC CONTRACTOR.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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PROJECT NUMBERS:
60-04-02-04-0-007-023
HIGH SCHOOL

DRAWING
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
TIOGA COUNTY, NY
68 WILSON CREK ROAD

SYMBOLS, LEGENDS, ABBREVIATIONS AND GENERAL NOTES

SHEET NO.
M001
PROJECT NO.
1823.24221.1.3
DATE
12/12/2025
CAD FILE NO. FILE NAME

ROOF TOP UNIT SCHEDULE - HOT WATER HEATING WITH DX COOLING

TAG	SERVICE	LOCATION	SUPPLY AIRFLOW (CFM)	RETURN CFM	MN. O.A. (CFM)	EXHAUST CFM	RECIRCULATED AIR @ MIN. O.A. (CFM)	SUPPLY FAN			RETURN FAN			HOT WATER HEATING							COOLING							REHEAT COIL		FILTER PERFORMANCE		ELECTRICAL DATA				MAXIMUM WEIGHT (LBS.)	MAXIMUM DIMENSIONS LxWxH (IN.)	MANUFACTURER & MODEL NO.	NOTES
								E.S.P. (IN. W.G.)	RPM	HP (QTY)	E.S.P. (IN. W.G.)	RPM	HP (QTY)	TOTAL MBH	E.A.T. (°F)	L.A.T. (°F)	E.W.T. (°F)	L.W.T. (°F)	GPM	HEAD (FT)	FLUID	TOTAL MBH	SENSIBLE MBH	E.A.T. (DB/WB) (°F)	L.A.T. (DB/WB) (°F)	EER	COIL TYPE	REFRIGERANT	CAPACITY (MBH)	L.A.T. (°F)	MERV RATING	MEAN P.D. (IN. W.G.)	VOLTS	PHASE	MCA	MOCP				
RTU-1	GYMNASIUM - H108	ROOF	9,750	9,750	3,750	3,750	6,000	1.5	1750	(2) 5.0	0.5	1165	(2) 2.0	604.7	36.0	93.3	170.0	130.0	32.5	3.0	40% GLYCOL	357.8	288.0	82.7 / 66.4	53.9 / 53.9	9.8	ALUMINUM	R-454B	247.8	78.2	8	0.141	460	3	85.5	110.0	6286	237 x 98 x 101	VALENT - VX-312-30I-2-J2	1, 2, 3, 4, 5, 6, 8, 10, 11, 13
RTU-2	GYMNASIUM - H108	ROOF	9,750	9,750	3,750	3,750	6,000	1.5	1750	(2) 5.0	0.5	1165	(2) 2.0	604.7	36.0	93.3	170.0	130.0	32.5	3.0	40% GLYCOL	357.8	288.0	82.7 / 66.4	53.9 / 53.9	9.8	ALUMINUM	R-454B	247.8	78.2	8	0.141	460	3	85.5	110.0	6286	237 x 98 x 101	VALENT - VX-312-30I-2-J2	1, 2, 3, 4, 5, 6, 8, 10, 11, 13
RTU-3	MULTIPURPOSE ROOM / PLATFORM - H103 / H103.3	ROOF	12,000	12,000	4,650	3,750	7,350	1.5	1750	(2) 5.0	0.5	1165	(2) 2.0	689.6	36.0	89.1	170.0	130.0	37.1	3.9	40% GLYCOL	482.1	371.3	82.7 / 66.4	52.6 / 52.6	10.0	ALUMINUM	R-454B	327.7	78.6	8	0.213	460	3	104.9	125.0	7039	237 x 98 x 101	VALENT - VX-312-40I-2-J2	1, 2, 3, 4, 5, 6, 8, 10, 11, 13
RTU-4	TECHNOLOGY - H102	ROOF	4,000	4,000	3,000	3,000	1,000	1.5	1165	(1) 3.0	0.5	1150	(1) 1.0	364.1	10.0	94.1	170.0	130.0	19.6	4.9	40% GLYCOL	198.9	148.7	90.0 / 69.8	53.2 / 53.2	11.5	ALUMINUM	R-454B	151.1	89.8	8	0.06	460	3	44.5	60.0	3741	190 x 98 x 76	VALENT - VX-212-15I-2-G2	1, 2, 3, 4, 5, 6, 8, 10, 12, 13
RTU-5	CHORUS / BAND / INSTRUMENT STORAGE - H204 / H206 / H206.2	ROOF	4,200	4,200	1,400	1,400	2,800	1.0	1750	(1) 5.0	0.5	1165	(1) 2.0	72.6	48.7	65.4	170.0	130.0	9.7	0.5	40% GLYCOL	149.0	103.2	79.5 / 67.2	55.6 / 55.6	10.4	ALUMINUM	R-454B	97.6	77.6	13	0.403	460	3	37.4	50.0	3304	150 X 87 X 66	VALENT - VX-112-12.5A-2-G2	1, 2, 3, 4, 5, 6, 8, 9, 10, 13

NOTES:
1. FURNISH UNIT WITH SUPPLY AND RETURN/EXHAUST FAN MOTORS, WITH ALL ACCESSORIES REQUIRED FOR SPEED MODULATION.
2. FURNISH UNIT WITH INTEGRAL CONDENSING UNIT.
3. FURNISH UNIT WITH MODULATING HOT GAS REHEAT.
4. FURNISH UNIT WITH SINGLE POINT POWER CONNECTION WITH FACTORY MOUNTED AND WIRED DISCONNECT.
5. PROVIDE UNIT WITH FACTORY MOUNTED AND WIRED 115, 20AMP GFI RECEPTACLE - RECEPTACLE TO BE POWERED WHEN UNIT DISCONNECT IS IN OFF POSITION.
6. FURNISH UNIT WITH REFRIGERATION CONTROLS - ALL OTHER CONTROLS BY TC.
7. FURNISH UNIT WITH FILTER RACK CAPABLE OF ACCEPTING MERV-14 FILTERS - UNIT TO INCLUDE 0.5" ALLOWANCE IN STATIC FOR MID-LIFE FILTERS.
8. FURNISH UNIT WITH ONE INVERTER SCROLL AND ONE FIXED SCROLL COMPRESSOR WITH MODULATION CONTROL.
9. PROVIDE UNIT WITH 32" TALL, INSULATED PLENUM ROOF CURB WITH HORIZONTAL SUPPLY AND RETURN CONNECTION.
10. PROVIDE UNIT WITH MANUFACTURER'S AIRFLOW MEASURING STATION.
11. PROVIDE UNIT WITH INSULATED ROOF CURB, 18"TALL.
12. PROVIDE UNIT WITH INSULATED METAL ROOF CURB WITH SOLID BOTTOM FOR INSTALLATION ON RAISED PLATFORM. MC TO FIELD CUT OPENINGS IN CURB.
13. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

AIR HANDLING UNIT SCHEDULE (HOT WATER/DX COOLING)

TAG	SERVICE	LOCATION	SUPPLY AIRFLOW (CFM)	MIN. O.A. (CFM)	RECIRCULATED AIR @ MIN. O.A. (CFM)	SUPPLY FAN				HEATING COIL DATA									COOLING					ELECTRICAL DATA				MAXIMUM WEIGHT (LBS.)	MAXIMUM DIMENSIONS LxWxH (IN.)	MANUFACTURER & MODEL NO.	NOTES
						T.S.P. (IN. W.G.)	E.S.P. (IN. W.G.)	RPM	HP	TOTAL MBH	E.A.T. (°F)	L.A.T. (°F)	E.W.T. (°F)	L.W.T. (°F)	GPM	FLUID	FACE VELOCITY (FPM)	WPD (FT. HD)	TOTAL MBH	SENSIBLE MBH	E.A.T. (DB/WB) (°F)	L.A.T. (DB/WB) (°F)	REFRIGERANT	VOLTS	PHASE	MCA	MOCP				
AHU-1	LIBRARY / MEDIA CENTER - H114	STORAGE - H114.3	3300	1100	2200	2.6	1.0	2724	2.39	188.3	43.0	95.6	180.0	140.0	12.6	WATER	432	3.0	110.0	82.8	76.6 / 64.3	53.7 / 53.1	R-454B	460	3	8.72	15.0	1060	65 X 51 X 69	TRANE - UCCAR08	1, 2, 3, 4, 5, 6, 7, 8

NOTES:
1. FURNISH UNIT WITH SINGLE POINT ELECTRICAL CONNECTION WITH INTEGRAL DISCONNECT.
2. FURNISH UNIT WITH ECM MOTOR CAPABLE OF SPEED MODULATION.
3. PROVIDE UNIT WITH MERV-13 FILTERS.
4. FURNISH MANUFACTURERS 6" BASE RAIL.
5. PROVIDE MIXING BOX WITH OUTSIDE AND AND RETURN AIR DAMPERS.
6. PROVIDE CONDENSATE PUMP.
7. PROVIDE UNIT CONFIGURED FOR MULTIPLE SHIPPING SECTIONS TO ALLOW FOR RIGGING THRU A STANDARD DOOR - MANUFACTURER TO PROVIDE HARDWARE AND SEALS TO ASSEMBLE SECTIONS ONSITE.
8. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

SPLIT SYSTEM SCHEDULE

TAG	SERVICE	MODEL NO.	TYPE	FAN SPEED	SUPPLY (CFM)	MIN. O.A. (CFM)	COOLING CAPACITY (MBH)		EER	SEER	COOLING AMBIENT MIN. TEMP (°F DB)	HEATING CAPACITY (MBH)	HEATING AMBIENT MIN. TEMP (°F DB)	REF. LINE SIZES (IN.)		NOTES	TAG	MODEL NO.	REFRIGERANT	ELECTRICAL DATA					MANUFACTURER	NOTES
							TOTAL	SENS.						LIQUID	SUCTION					VOLT	PHASE	HZ.	MCA	MOCP	
DAC-1.1	LIBRARY / MEDIA CENTER - H114	MSZ-GX12NL	WALL MOUNT	AUTO	448	-	12.0	-	13.5	19.3	95	14.4	47	1 / 4	3 / 8	1,2,3,8	DCU-1	MXZ-2D20NLHZ	R454B	208	1	60	21.7	38	MITSUBISHI	4,5,6,7,10
DAC-1.2	LIBRARY / MEDIA CENTER - H114	MSZ-GX12NL	WALL MOUNT	AUTO	448	-	12.0	-	13.5	19.3	95	14.4	47	1 / 4	3 / 8											
DAC-2.1	LIBRARY / REFERENCE ROOM - H214	MSZ-GX12NL	WALL MOUNT	AUTO	448	-	12.0	-	13.5	19.3	95	14.4	47	1 / 4	3 / 8	1,2,3,8										
DAC-2.2	LIBRARY / REFERENCE ROOM - H214	MSZ-GX12NL	WALL MOUNT	AUTO	448	-	12.0	-	13.5	19.3	95	14.4	47	1 / 4	3 / 8											

NOTES:
1. PROVIDE WIRED REMOTE CONTROLLER.
2. PROVIDE CONDENSATE PUMP, SAME VOLTAGE AS UNIT. EC TO WIRE.
3. FURNISH WITH LOW AMBIENT CONTROLS.
4. EC TO PROVIDE DISCONNECT.
5. MC TO PROVIDE WIRING BETWEEN THE CONDENSING UNIT AND INTERNAL UNIT.
6. PROVIDE CONDENSING UNIT WITH MANUFACTURER'S RECOMMENDED 18" TALL METAL STAND.
7. INDOOR UNIT MAX HEIGHT SHALL BE 10".
8. PROVIDE UNIT WITH ALL ACCESSORIES NECESSARY FOR FULL HEATING CAPACITY DOWN TO -13°F AMBIENT AIR TEMPERATURE.
9. PROVIDE UNIT WITH BACNET INTEGRATION.
10. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

FAN SCHEDULE

TAG	SERVICE	TYPE	AIRFLOW (CFM)	E.S.P. (IN. W.G.)	MOTOR SPEED (RPM)		TIP SPEED (FPM)	SONES	DRIVE TYPE	MOTOR TYPE	FAN MOTOR DATA				CONTROL		MANUFACTURER & MODEL NO.	NOTES
					OPERATING	MAX					HP	VOLTS	PHASE	HZ	TYPE	FURNISHED BY		
EF-1	STORAGE / ELEC. / STORAGE - H115.4 / H219.1	DOWNBLAST	500	0.5	1451	1725	4,132	8.2	DIRECT	ECM	1 / 6	115	1	60	POTENTIOMETER	MANUFACTURER	GREENHECK - G-095-VG	1, 2, 3

NOTES:
1. FURNISH FAN WITH MANUFACTURER'S FACTORY MOUNTED AND WIRED DISCONNECT, RATED FOR DISCONNECT LOCATION.
2. FURNISH UNIT WITH MANUFACTURER'S SCHEDULED CONTROL DEVICE, FACTORY MOUNTED AND WIRED.
3. FURNISH UNIT WITH 24" TALL ROOF CURB.

CONDENSING UNIT SCHEDULE

TAG	SERVICE	NOMINAL CAPACITY (MBH)	AMBIENT AIR TEMP. (°F)	REFRIGERANT	STAGES	ELECTRICAL DATA				MAXIMUM WEIGHT (LBS.)	MAXIMUM DIMENSIONS LxWxH (IN.)	MANUFACTURER & MODEL NO.	NOTES
						VOLTS	PHASE	MCA	MOP				
ACCU-20	AHU-1	120.0	95.0	R-454B	2	460	3	22.0	25	435	52 X 40 X 50	TRANE - TTA120K4CAA	1, 2, 3

NOTES:
1. EC TO PROVIDE DISCONNECT.
2. PROVIDE HAIL GUARDS ON CONDENSER COILS.
3. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

PACKAGED TERMINAL AIR CONDITIONING UNITS (PTAC) SCHEDULE

TAG	SERVICE	SUPPLY CFM	OUTDOOR AIR CFM	CHASSIS TYPE	ELEC DATA			HEATING DATA			COOLING DATA				MANUFACTURER & MODEL NO.	NOTES
					VOLT	PHASE	MCA	CAPACITY (MBH)	WATER FLOW (GPM)	EWT/LWT	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	REFRIGERANT	EER		
PTAC-1	PSYCHOLOGIST - H208	330	30	J MODEL	208	1	7.4	15.6	1.0	180.0 / 150.0	11.9	11.7	R-32	11.4	AMANA - PTC123J00HXXX	1,2,3,4,5,6,7,8,9,,10,11
PTAC-2	PHYS. ED OFFICE - H210	330	30	J MODEL	208	1	7.4	15.6	1.0	180.0 / 150.0	11.9	11.7	R-32	11.4	AMANA - PTC123J00HXXX	1,2,3,4,5,6,7,8,9,,10,11
PTAC-3	PHYS. ED OFFICE - H212	400	35	J MODEL	208	1	8.5	17.3	1.1	180.0 / 150.0	14.8	14.9	R-32	10.4	AMANA - PTC153J00HXXX	1,2,3,4,5,6,7,8,9,,10,11

NOTE:
1. PROVIDE MANUFACTURERS DISCONNECT.
2. PROVIDE MANUFACTURER'S NIGHT SETBACK CONTROL.
3. PROVIDE MANUFACTURER'S STANDARD WALL SLEEVE WITH HEAVY DUTY ARCHITECTURAL LOUVER. ARCHITECT TO SELECT COLOR.
4. PROVIDE SMARTFAN NIMBUS BOARD BY CONTROL RESOURCES INCORPORATED FOR REDUCED FAN OPERATION.
5. ARCHITECT TO SELECT COLOR.
6. PROVIDE MOTORIZED AIR DAMPER.
7. OPERATION OF HW CONTROL VALVE BY PTAC CONTROLLER. TC TO PROVIDE CONTROL VALVE.
8. PROVIDE MANUFACTURER'S CONDENSATE DRAIN KIT WITH DRAIN AN CONNECTION. MC TO FURNISH IN-LINE CONDENSATE PUMP, SAME VOLTAGE AS UNIT - MINILIME OR EQUAL.
9. PROVIDE UNIT WITH NEMA 6-30R CORD AND PLUG.
10. PROVIDE MANUFACTURER'S WIRED THERMOSTAT.
11. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

DIFFUSER, REGISTERS, AND GRILLES

TAG	MAX CFM	BLOW PATTERN	FACE SIZE	NECK SIZE	VELOCITY (FPM.)	THROW @ 100FPM (FT.)	PD	SOUND LEVEL	MATERIAL	MANUFACTURER & MODEL NO.	NOTES
SD-1	315	4-WAY	24X24	10"Ø	600	5	0.023	--	STEEL	NAILOR UNI	1
SD-2	750	4-WAY	24X24	21X21	300	14	0.035	--	STEEL	NAILOR 6500IV	1
SG-1	975	2-WAY	34x14	32x12	400	22	0.026	--	STEEL	NAILOR 61DH-O	1,2
SG-2	500	2-WAY	26x14	24x12	300	20	0.015	--	STEEL	NAILOR 61DH-O	1,2
SG-3	600	2-WAY	30x10	28x8	500	16	0.072	18	STEEL	NAILOR 61DH-O	1,2
SG-4	700	2-WAY	32x10	30x8	500	16	0.072	18	STEEL	NAILOR 61DH	1,2
SG-5	250	2-WAY	20x10	18x8	300	5	0.026	--	STEEL	NAILOR 61DH	1,2
SG-6	500	2-WAY	38x12	36x10	300	14	0.017	--	STEEL	NAILOR 61DH-O	1,2
SG-7	335	2-WAY	22X8	20x6	500	14	0.041	15	STEEL	NAILOR 61DH-O	1,2
SG-8	230 / LIN. FT.	1-WAY	59x13	58x12	- -	10	0.025	15	ALUMINUM	NAILOR 49-241	1, 3, 4, 5
SG-9	230 / LIN. FT.	1-WAY	71x13	70x12	- -	10	0.025	15	ALUMINUM	NAILOR 49-241	1, 3, 4, 5
SG-10	230 / LIN. FT.	1-WAY	83x13	82x12	- -	10	0.025	15	ALUMINUM	NAILOR 49-241	1, 3, 4, 5
RG-1	2440	--	30X30	28X28	500	--	0.016	--	STEEL	NAILOR 61EC	1
RG-2	1150	--	24X24	22X22	400	--	0.010	--	STEEL	NAILOR 61EC	1
EG-1	225	--	12X12	10X10	400	--	0.010	--	STEEL	NAILOR 61EC	1
TG-1	--	--	12X12	10X10	400	--	0.010	--	STEEL	NAILOR 61EC	1

NOTES:
1. ARCHITECT TO SELECT COLOR.
2. PROVIDE UNIT WITH OPPOSED BLADE DAMPER.
3. PROVIDE GRILLE WITH "PENCIL PROOF" 1/4" BARS AND 1/2" SPACING
4. PROVIDE GRILLE WITH 1/2" WIDE FRAME WITH COUNTERSUNK SCREW HOLES.
5. GRILLE TO BE INSTALLED IN GC PROVIDED COUNTER TOP OVER UNIT VENTILATOR SUPPLY - COORDINATE EXACT SIZE WITH UNIT VENTILATOR DISCHARGE PRIOR TO ORDERING. MC TO FURNISH GRILLE, GC TO INSTALL IN COUNTER.

UNIT HEATER SCHEDULE

TAG	HEATING DATA						ELECTRICAL DATA			MANUFACTURER & MODEL NO.	NOTES
	CFM	MBH	E.W.T. (°F)	L.W.T. (°F)	GPM	W.P.D. (FT)	HP	VOLT	PHASE		
UH-1	380	15.6	180.0	160.0	1.8	0.014	16W	115	1	STERLING HS-24B	1,2,3

NOTE:
1. EC TO PROVIDE DISCONNECT.
2. PROVIDE MANUFACTURERS LINE VOLTAGE, HEAVY DUTY THERMOSTAT.
3. FURNISH UNIT WITH MANUFACTURER'S AQUASTAT - MC TO MOUNT ON PIPE, EC TO WIRE.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS: 60-04-02-94-0-007-023

HIGH SCHOOL

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1	SED Addendum #1	01/21/2026

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

MECHANICAL SCHEDULES

SHEET NO: **M002**

PROJECT NO: 1823.24221.1.3

DATE: 12/12/2025

UNIT VENTILATOR SCHEDULE (VRF COOLING)

EQUIPMENT FURNISHED BY A SINGLE MANUFACTURER/VENDOR

TAG	LOCATION	TYPE	AIRSIDE PERFORMANCE			HEATING PERFORMANCE								COOLING PERFORMANCE						ELECTRICAL DATA			UNIT DEPTH	MANUFACTURER & MODEL NO.	NOTES
			FAN SPEED SETTING	NOMINAL SUPPLY (CFM)	MIN. O.A. (CFM)	CAPACITY (MBH)	EAT (°F)	LAT (F)	EWT/LWT (°F)	FLOW RATE (GPM)	MAX W.P.D. (FT.)	FLUID	ROWS	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT (DB/WB) (°F)	LAT (DB/WB) (°F)	REFRIGERANT	CONDENSING UNIT	HP	VOLT	PHASE			
UV-4	WELLNESS CENTER - H109	FLOOR	HIGH	1250	450	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-3	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-5	WELLNESS CENTER - H109	FLOOR	HIGH	1250	450	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-3	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-6	OFFICE - H111	FLOOR	HIGH	1250	180	67.1	55.0	112.1	170.0 / 121.1	2.7	3.0	WATER	2	48.4	29.5	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-3	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-9	SCIENCE - H121	FLOOR	HIGH	1250	450	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-6	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-10	SCIENCE - H122	FLOOR	HIGH	1250	450	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-7	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-11	SCIENCE - H122	FLOOR	HIGH	1250	450	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-7	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-12	SCIENCE - H123	FLOOR	HIGH	1250	450	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-6	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-17	CLASSROOM - H211	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-11	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-18	CLASSROOM - H213	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-11	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-21	CLASSROOM - H218	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-13	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-22	CLASSROOM - H220	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-13	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-23	CLASSROOM - H222	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-13	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-24	CLASSROOM - H223	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-14	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-25	CLASSROOM - H224	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-13	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-26	CLASSROOM - H225	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-14	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-27	CLASSROOM - H226	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-15	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-28	CLASSROOM - H227	FLOOR	HIGH	1250	400	74.1	43.0	106.1	170.0 / 115.8	2.7	3.0	WATER	2	48.4	29.5	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-14	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-29	CLASSROOM - H228	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-15	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-30	CLASSROOM - H229	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-16	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-31	CLASSROOM - H230	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-15	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-32	CLASSROOM - H231	FLOOR	HIGH	1000	300	68.8	49.0	116.8	170.0 / 119.6	2.7	3.0	WATER	2	40.5	25.1	80.0 / 67.0	55.4 / 52.6	R-32	ACCU-16	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1000	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
UV-33	CLASSROOM - H232	FLOOR	HIGH	1250	435	75.1	41.0	105.0	170.0 / 115.0	2.7	3.0	WATER	2	48.4	29.6	80.0 / 67.0	55.1 / 52.1	R-32	ACCU-15	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

NOTES:
1. PROVIDE UNIT WITH MANUFACTURER'S DISCONNECT.
2. PROVIDE UNIT WITH MANUFACTURER'S THREE SPEED SWITCH.
3. PROVIDE UNITS WITH ECM MOTOR.
4. PROVIDE UNITS WITH A2L REFRIGERANT LEAK DETECTION SENSOR.
5. PROVIDE UNIT WITH ADAPTOR BACK AS SCHEDULED.
6. PROVIDE UNIT WITH MERV-11 FILTERS.
7. PROVIDE UNIT WITH 18" WIDE UTILITY COMPARTMENT AND TWO(2) FILLER PIECES FOR FIELD TRIMMING TO FIT.
8. UNIT VENTILATOR COOLING COIL, EXPANSION VALVE KIT, AND AIR COOLED CONDENSING UNIT TO BE FURNISHED BY SINGLE MANUFACTURER.
9. PROVIDE UNIT WITH MANUFACTURER'S EXPANSION VALVE KIT AND COOLING CONTROLS FOR USE WITH VRF CONDENSING UNIT(S), FACTORY MOUNTED AND WIRED.
10. CONTRACTOR TO FURNISH TRANSFORMER FOR 208V/1PH CONTROLS - EC TO INSTALL.
11. PROVIDE UNIT WITH STAINLESS STEEL DRAIN PAN.
12. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

VRF HEAT PUMP CONDENSING UNIT SCHEDULE

TAG	SERVICE	NOMINAL CAPACITY (MBH)	AMBIENT AIR TEMP. (°F)	DESIGN COOLING CAPACITY (MBH)	REFRIGERANT	COMPRESSORS		MINIMUM EFFICIENCY (IEER)	ELECTRICAL DATA					MAXIMUM WEIGHT (LBS.)	MAXIMUM DIMENSIONS LxWxH (IN.)	MANUFACTURER & MODEL NO.	NOTES
						STAGING	CAPACITY CONTROL RANGE (%)		VOLTS	PHASE	MCA	MOCP	MANUFACTURER'S RECOMMENDED FUSE SIZE (RFS)				
ACCU-3	UV-4 / UV-5 / UV-6	144.0	91.0	135.8	R-32	INVERTER	11 - 100	22.9	460	3	31	50	35	745	48 X 30 X 71	TRANE / MITSUBISHI - TUHYE1444AMM0AN	1, 2, 3, 4, 5
ACCU-6	UV-9 / UV-12	96.0	91.0	88.6	R-32	INVERTER	13 - 100	25.9	460	3	20	35	25	630	37 X 30 X 71	TRANE / MITSUBISHI - TUHYE0964AMM0AN	1, 2, 3, 4, 5
ACCU-7	UV-10 / UV-11	96.0	91.0	88.6	R-32	INVERTER	13 - 100	25.9	460	3	20	35	25	630	37 X 30 X 71	TRANE / MITSUBISHI - TUHYE0964AMM0AN	1, 2, 3, 4, 5
ACCU-11	UV-17 / UV-18	96.0	91.0	88.6	R-32	INVERTER	13 - 100	25.9	460	3	20	35	25	630	37 X 30 X 71	TRANE / MITSUBISHI - TUHYE0964AMM0AN	1, 2, 3, 4, 5
ACCU-13	UV-21 / UV-22 / UV-23 / UV-25	192.0	91.0	177.5	R-32	INVERTER	11 - 100	21.7	460	3	31	50	35	745	48 X 30 X 71	TRANE / MITSUBISHI - TUHYE1924AMM0AN	1, 2, 3, 4, 5
ACCU-14	UV-24 / UV-26 / UV-28	144.0	91.0	135.8	R-32	INVERTER	11 - 100	22.9	460	3	31	50	35	745	48 X 30 X 71	TRANE / MITSUBISHI - TUHYE1444AMM0AN	1, 2, 3, 4, 5
ACCU-15	UV-27 / UV-29 / UV-31 / UV-33	192.0	91.0	177.5	R-32	INVERTER	11 - 100	21.7	460	3	31	50	35	745	48 X 30 X 71	TRANE / MITSUBISHI - TUHYE1924AMM0AN	1, 2, 3, 4, 5
ACCU-16	UV-30 / UV-32	96.0	91.0	88.6	R-32	INVERTER	13 - 100	25.9	460	3	20	35	25	630	37 X 30 X 71	TRANE / MITSUBISHI - TUHYE0964AMM0AN	1, 2, 3, 4, 5

NOTES:
1. EC TO PROVIDE DISCONNECT.
2. UNIT VENTILATOR COOLING COIL, EXPANSION VALVE KIT, AND AIR COOLED CONDENSING UNIT TO BE FURNISHED BY SINGLE MANUFACTURER.
3. PROVIDE HAIL GUARDS ON CONDENSER COILS.
4. FURNISH UNIT WITH MANUFACTURER'S SHUTOFF VALVE KIT - INSTALL IN REFRIGERANT PIPING AND WIRE PER MANUFACTURER'S REQUIREMENTS.
5. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

UNIT VENTILATOR SCHEDULE (DX COOLING)

EQUIPMENT FURNISHED BY A SINGLE MANUFACTURER/VENDOR

TAG	LOCATION	TYPE	AIRSIDE PERFORMANCE			HEATING PERFORMANCE								COOLING PERFORMANCE						ELECTRICAL DATA			UNIT DEPTH	MANUFACTURER & MODEL NO.	NOTES
			FAN SPEED SETTING	SUPPLY (CFM)	MIN. O.A. (CFM)	CAPACITY (MBH)	EAT (°F)	LAT (F)	EWT/LWT (°F)	FLOW RATE (GPM)	W.P.D. (FT.)	FLUID	ROWS	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	E.A.T. (DB/WB) (°F)	L.A.T. (DB/WB) (°F)	REFRIGERANT	CONDENSING UNIT	HP	VOLT	PHASE			
UV-1	STORAGE - H101	FLOOR	HIGH	1250	435	70.3	41.0	109.2	170.0 / 118.7	2.7	3.0	WATER	2	42.8	26.2	80.0 / 67.0	54.8 / 51.9	R-454B	ACCU-1	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-2	SUPPORTED STUDY HALL - H233	FLOOR	HIGH	1000	350	66.3	41.1	120.9	170.0 / 121.5	2.7	3.0	WATER	2	35.6	21.5	80.0 / 67.0	54.4 / 51.4	R-454B	ACCU-17	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1000	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-3	CLASSROOM - H234	FLOOR	HIGH	1250	435	70.3	41.0	109.2	170.0 / 118.7	2.7	3.0	WATER	2	42.8	26.2	80.0 / 67.0	54.8 / 51.9	R-454B	ACCU-18	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-7	LIBRARY / MEDIA CENTER - H114	FLOOR	HIGH	1250	450	70.3	41.0	109.2	170.0 / 118.7	2.7	3.0	WATER	2	42.8	26.2	80.0 / 67.0	54.8 / 51.9	R-454B	ACCU-4	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-8	-- NOT USED --																								
UV-13	SCIENCE - H125	FLOOR	HIGH	1250	650	77.4	28.0	103.0	170.0 / 113.4	2.7	3.0	WATER	2	46.4	27.8	82.3 / 68.4	55.6 / 52.4	R-454B	ACCU-2	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-14	SCIENCE - H128	FLOOR	HIGH	1500	650	94.0	34.0	98.9	170.0 / 101.2	3.0	3.0	WATER	2	53.3	34.4	81.0 / 67.4	57.5 / 54.5	R-454B	ACCU-8	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1500	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-15	CLASSROOM - H201	FLOOR	HIGH	1250	435	70.3	41.0	109.2	170.0 / 118.7	2.7	3.0	WATER	2	42.8	26.2	80.0 / 67.0	54.8 / 51.9	R-454B	ACCU-9	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-16	ART ROOM - H202	FLOOR	HIGH	1250	830	94.7	18.0	109.9	170.0 / 123.1	4.0	3.0	WATER	2	49.5	28.8	84.2 / 69.7	56.5 / 52.9	R-454B	ACCU-10	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-19	CLASSROOM - H217	FLOOR	HIGH	1500	600	92.0	34.0	97.6	170.0 / 102.7	3.0	3.0	WATER	2	53.3	34.4	81.0 / 67.4	57.5 / 54.5	R-454B	ACCU-12	0.24	115	1	16-5/8" DEPTH UNIT	TRANE - VUVE1500	1, 2, 3, 4, 5, 6, 7, 8, 9
UV-20	LIBRARY REFERENCE ROOM - H214	FLOOR	HIGH	1250	450	70.3	41.0	109.2	170.0 / 118.7	2.7	3.0	WATER	2	42.8	26.2	80.0 / 67.0	54.8 / 51.9	R-454B	ACCU-19	0.24	115	1	21-1/4" DEEP (FULL HEIGHT FALSEBACK)	TRANE - VUVE1250	1, 2, 3, 4, 5, 6, 7, 8, 9

NOTES:
1. PROVIDE UNIT WITH MANUFACTURER'S DISCONNECT.
2. PROVIDE UNIT WITH MANUFACTURER'S THREE SPEED SWITCH.
3. PROVIDE UNITS WITH ECM MOTOR.
4. PROVIDE UNITS WITH A2L REFRIGERANT LEAK DETECTION SENSOR.
5. PROVIDE UNIT WITH ADAPTOR BACK AS SCHEDULED.
6. PROVIDE UNIT WITH MERV-11 FILTERS.
7. UNIT VENTILATOR COOLING COIL, EXPANSION VALVE KIT, AND AIR COOLED CONDENSING UNIT TO BE FURNISHED BY SINGLE MANUFACTURER.
8. PROVIDE UNIT WITH STAINLESS STEEL DRAIN PAN.
9. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

CONDENSING UNIT SCHEDULE

EQUIPMENT FURNISHED BY A SINGLE MANUFACTURER/VENDOR

TAG	SERVICE	NOMINAL CAPACITY (TONS)	AMBIENT AIR TEMP. (°F)	REFRIGERANT	STAGES	COMPRESSOR TYPE	ELECTRICAL DATA				MAXIMUM WEIGHT (LBS.)	MAXIMUM DIMENSIONS LxWxH (IN.)	MANUFACTURER & MODEL NO.	NOTES
							VOLTS	PHASE	MCA	MOP				
ACCU-1	UV-1	3.5	95.0	R-454B	1	SCROLL	208	3	16.3	25	220	33X30X38	TRANE - 5TTA4042A30000	1, 2, 3, 4
ACCU-2	UV-13	4.0	95.0	R-454B	1	SCROLL	208	3	16.2	25	260	37X34X37	TRANE - 5TTA4048A3000A	1, 2, 3, 4
ACCU-4	UV-7	3.5	95.0	R-454B	1	SCROLL	208	3	16.3	25	220	33X30X38	TRANE - 5TTA4042A30000	1, 2, 3, 4
ACCU-5	-- NOT USED --													
ACCU-8	UV-14	5.0	95.0	R-454B	1	SCROLL	208	3	20.9	35	260	37X34X37	TRANE - 5TTA4060A30000	1, 2, 3, 4
ACCU-9	UV-15	3.5	95.0	R-454B	1	SCROLL	208	3	16.3	25	220	33X30X38	TRANE - 5TTA4042A30000	1, 2, 3, 4
ACCU-10	UV-16	4.0	95.0	R-454B	1	SCROLL	208	3	16.2	25	260	37X34X37	TRANE - 5TTA4048A3000A	1, 2, 3, 4
ACCU-12	UV-19	5.0	95.0	R-454B	1	SCROLL	208	3	20.9	35	260	37X34X37	TRANE - 5TTA4060A30000	1, 2, 3, 4
ACCU-17	UV-2	3.0	95.0	R-454B	1	SCROLL	208	3	16.6	25	160	33X30X37	TRANE - 5TTA4036A30000	1, 2, 3, 4
ACCU-18	UV-3	3.5	95.0	R-454B	1	SCROLL	208	3	16.3	25	220	33X30X38	TRANE - 5TTA4042A30000	1, 2, 3, 4
ACCU-19	UV-20	3.5	95.0	R-454B	1	SCROLL	208	3	16.3	25	220	33X30X38	TRANE - 5TTA4042A30000	1, 2, 3, 4

NOTES:
1. EC TO PROVIDE DISCONNECT.
2. UNIT VENTILATOR COOLING COIL, EXPANSION VALVE KIT, AND AIR COOLED CONDENSING UNIT TO BE FURNISHED BY SINGLE MANUFACTURER.
3. PROVIDE HAIL GUARDS ON CONDENSER COILS.
4. PROVIDE EQUIPMENT WITH MANUFACTURER'S STANDARD WARRANTY WITH 1 YEAR LABOR COVERAGE.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
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SED PROJECT NUMBERS: 60-04-02-04-0-007-023
HIGH SCHOOL

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NO.	DESCRIPTION	DATE
1	SED Addendum #1	01/21/2026

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

MECHANICAL SCHEDULES

SHEET NO.
M003

PROJECT NO.
1823.24221.1.3

DATE
12/12/2025

CAD FILE NO. FILE NAME

PUMP SCHEDULE

TAG	LOCATION	SERVICE	FLOW (GPM)	HEAD (FT.)	FLUID		SPEED RPM	DUTY POINT POWER (HP)	WTW EFFICIENCY	TYPE	ELECTRICAL DATA				CONTROL		MANUFACTURER / MODEL NUMBER	NOTES
					FLUID	TEMPERATURE (°F)					HP	VOLT	PHASE	HZ	TYPE	FURNISHED BY		
P-1A	H108.3 - STORAGE	GYM UNIT(S) PG LOOP	70	60	40% PROPYLENE	140	3105	1.95	54.9	ECM CIRCULATOR	3	460	3	60	DISCONNECT	EC	BELL & GOSSETT ECOCIRC XL 110-180	1
P-1B	H108.3 - STORAGE	GYM UNIT(S) PG LOOP	70	60	40% PROPYLENE	140	3105	1.95	54.9	ECM CIRCULATOR	3	460	3	60	DISCONNECT	EC	BELL & GOSSETT ECOCIRC XL 110-180	1
P-2A	H005 - MECHANICAL	GLYCOL HEATING LOOP	35	60	40% PROPYLENE	140	3024	1.38	38.7	ECM CIRCULATOR	2	460	3	60	DISCONNECT	EC	BELL & GOSSETT ECOCIRC XL 95-160	1, 2
P-2B	H005 - MECHANICAL	GLYCOL HEATING LOOP	35	60	40% PROPYLENE	140	3024	1.38	38.7	ECM CIRCULATOR	2	460	3	60	DISCONNECT	EC	BELL & GOSSETT ECOCIRC XL 95-160	1, 2
P-2C	H005 - MECHANICAL	GLYCOL HEATING LOOP	35	60	40% PROPYLENE	140	3024	1.38	38.7	ECM CIRCULATOR	2	460	3	60	DISCONNECT	EC	BELL & GOSSETT ECOCIRC XL 95-160	1, 2

NOTE:
1. PROVIDE PUMP WITH BUILT-IN SENSORS AND CONTROL CAPABLE OF SPEED MODULATION BASED ON SYSTEM DIFFERENTIAL PRESSURE.
2. TWO PUMPS SHALL RUN IN PARALLEL AT DESIGN POINT.

PLATE AND FRAME HEAT EXCHANGER SCHEDULE

TAG	SERVICE	CAPACITY (MBH)	PLATES (QTY)	MINIMUM SURFACE AREA (SQ.FT.)	COLD SIDE DATA					HOT SIDE DATA					DIMENSIONS L x W x H (IN.)	MAX WEIGHT (LBS)	MANUFACTURER & MODEL NO.	NOTES
					FLOW (GPM)	E.W.T. / L.W.T. (°F)	MAX PRESSURE DROP (FT. HD.)	FLUID	INLET/OUTLET (IN.)	FLOW (GPM)	E.W.T./L.W.T. (°F)	MAX. PRESSURE DROP (FT. HD.)	FLUID	INLET/OUTLET (IN.)				
HE-1	GYM UNIT(S) PG LOOP	1,211.2	66	227.33	70	132.5 / 170.0	5.0	40% PROPYLENE	2.5 / 2.5	61.8	180.0 / 140.0	5.0	WATER	2.5 / 2.5	20 X 18 X 59	887	BELL & GOSSETT - AP31	1
HE-2	GLYCOL HEATING LOOP	1,291.8	54	184.7	70	130.0 / 170.0	7.0	40% PROPYLENE	2.5 / 2.5	65.9	180.0 / 140.0	7.0	WATER	2.5 / 2.5	25 X 18 X 60	845	BELL & GOSSETT - AP31	1

NOTES:
1. PROVIDE HEAT EXCHANGER FRAME WITH 20% SPARE PLATE CAPACITY.

EXPANSION TANK SCHEDULE

TAG	SERVICE	LOCATION	TANK VOLUME (GAL.)	ACCEPTANCE VOLUME (GAL.)	TANK PRECHARGE (PSI)	TANK SIZE		WEIGHT (LBS)		FLUID	MANUFACTURER & MODEL NO.	NOTES
						HEIGHT (IN.)	DIAMETER (IN.)	SHIPPING	FLOODED			
ET-1	GYM UNIT(S) PG LOOP	H108.3 - STORAGE	53	53	18	43	24	210	655	40% PROPYLENE	BELL & GOSSETT B-200	1
ET-2	GLYCOL HEATING LOOP	H005 - MECHANICAL	80	80	18	55	24	225	895	40% PROPYLENE	BELL & GOSSETT B-300	1

NOTES:
1. ADJUST TANK PRE-CHARGE TO SCHEDULED VALUE.

AIR SEPARATOR SCHEDULE

TAG	SYSTEM	FLUID	SIZE	FLOW (GPM)	MAX P.D. (FT)	MANUFACTURER & MODEL NO.
AS-1	GYM UNIT(S) PG LOOP	40% PROPYLENE	3"	70	3.0	BELL & GOSSETT R-3F
AS-2	GLYCOL HEATING LOOP	40% PROPYLENE	3"	70	3.0	BELL & GOSSETT R-3F

GLYCOL FILL TANK SCHEDULE

TAG	SYSTEM	TANK VOLUME (GALLONS)	FLUID	VOLTS	PHASE	MANUFACTURER & MODEL NO.	NOTES
IT-1	GYM UNIT(S) PG LOOP	18	40% PROPYLENE	115	1	WESSELS G-18	1, 2
IT-2	GLYCOL HEATING LOOP	18	40% PROPYLENE	115	1	WESSELS G-18	1, 2

NOTES:
1. PROVIDE UNIT WITH A PRESSURIZATION PUMP WITH CONTROLS, PRV, AND PRESSURE GAUGE.
2. PROVIDE UNIT WITH PLUG-IN CORD.

CERTIFICATE OF AUTHORIZATION
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ESS # 29101

SED PROJECT NUMBERS: 60-04-02-94-0-007-023
HIGH SCHOOL

WARNING:
Section 7209, subdivision 2 of the New York State Education Law provides that it is a violation for any person, unless acting under the direction of a licensed professional engineer, architect, landscape architect or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional engineer, architect, landscape architect or land surveyor is altered, the altering engineer, architect, landscape architect or land surveyor must affix to the item his or her seal or stamp and the notation "altered by" followed by his or her signature and the date of such alteration, and a specific description of the alteration.
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1	SED / Addendum #1	01/21/2026

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

MECHANICAL SCHEDULES

SHEET NO.: **M004**
PROJECT NO.: 1823.24221.1.3
DATE: 12/12/2025

ALTERNATE NOTES: ◇

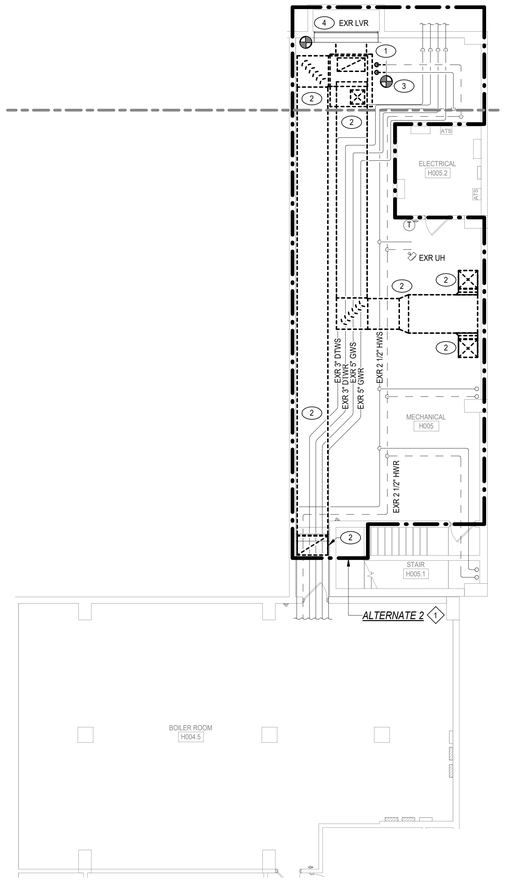
1. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; REMOVAL OF PIPES, HANGERS, CONTROLS, VALVES, LOUVERS, DUCTWORK, AIR HANDLING UNIT, AND ALL ASSOCIATED APPURTENANCES.

GENERAL REMOVAL NOTES:

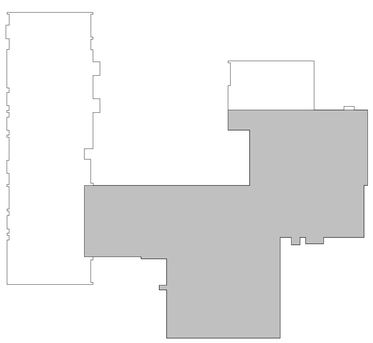
A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

REMOVAL NOTES: ⬭

1. DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT, PIPING, DUCTWORK, CONTROLS, WIRING, AND ALL ASSOCIATED APPURTENANCES.
2. DISCONNECT AND REMOVE EXISTING DUCTWORK, DAMPERS, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
3. DISCONNECT AND REMOVE EXISTING HWS&R CONNECTION TO AHU/ DUCT HEATING COIL. PROVIDE CAPS FOR CUT PIPES.
4. DISCONNECT EXR LOUVER FROM ANY DUCTWORK ASSOCIATED WITH REMOVED AIR HANDLER. PROVIDE SHEETMETAL COVER AND INSULATE PER DETAIL ON M600 SERIES DRAWINGS.



1 M201 BASEMENT MECHANICAL REMOVAL PLAN - PARTIAL AREA 1
1/8" = 1'-0"



BASEMENT KEY PLAN

CERTIFICATE OF AUTHORIZATION
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Fax: (518) 280-2461
www.solutionseptic.com
ES 23101

SED PROJECT NUMBERS:
60-04-02-04-0-007-023

HIGH SCHOOL

WARNING:
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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY
BASEMENT MECHANICAL REMOVAL PLAN - PARTIAL AREA 1

SHEET NO.
M201
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:28 AM

GENERAL REMOVAL NOTES:

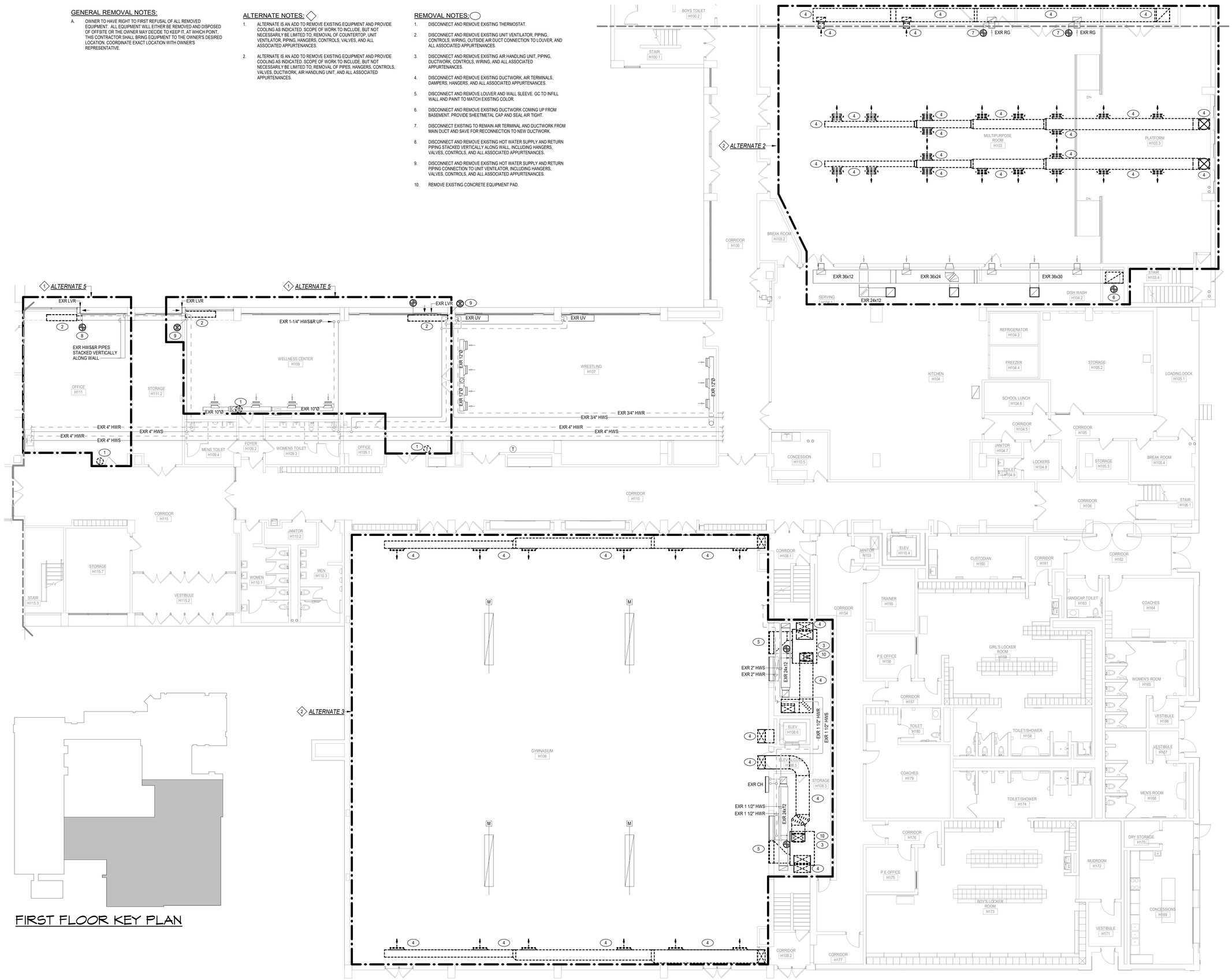
A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

ALTERNATE NOTES: ◇

1. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, REMOVAL OF COUNTERTOP, UNIT VENTILATOR, PIPING, HANGERS, CONTROLS, VALVES, AND ALL ASSOCIATED APPURTENANCES.
2. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, REMOVAL OF PIPES, HANGERS, CONTROLS, VALVES, DUCTWORK, AIR HANDLING UNIT, AND ALL ASSOCIATED APPURTENANCES.

REMOVAL NOTES: ⬭

1. DISCONNECT AND REMOVE EXISTING THERMOSTAT.
2. DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR, PIPING, CONTROLS, WIRING, OUTSIDE AIR DUCT CONNECTION TO LOUVER, AND ALL ASSOCIATED APPURTENANCES.
3. DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT, PIPING, DUCTWORK, CONTROLS, WIRING, AND ALL ASSOCIATED APPURTENANCES.
4. DISCONNECT AND REMOVE EXISTING DUCTWORK, AIR TERMINALS, DAMPERS, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
5. DISCONNECT AND REMOVE LOUVER AND WALL SLEEVE. GC TO INFILL WALL AND PAINT TO MATCH EXISTING COLOR.
6. DISCONNECT AND REMOVE EXISTING DUCTWORK COMING UP FROM BASEMENT. PROVIDE SHEETMETAL CAP AND SEAL AIR TIGHT.
7. DISCONNECT EXISTING TO REMAIN AIR TERMINAL AND DUCTWORK FROM MAIN DUCT AND SAVE FOR RECONNECTION TO NEW DUCTWORK.
8. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING STACKED VERTICALLY ALONG WALL, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
9. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING CONNECTION TO UNIT VENTILATOR, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES..
10. REMOVE EXISTING CONCRETE EQUIPMENT PAD.



FIRST FLOOR KEY PLAN

1 M202 FIRST FLOOR MECHANICAL REMOVAL PLAN - AREA 1
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ESI 23101

SED PROJECT NUMBERS:
66-04-02-04-0-007-023
HIGH SCHOOL

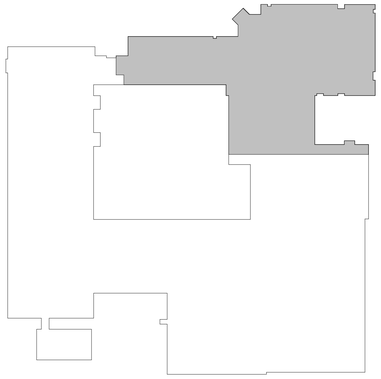
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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — TIOGA COUNTY, NY
FIRST FLOOR MECHANICAL REMOVAL PLAN - AREA 1

SHEET NO.
M202
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:31 AM



FIRST FLOOR KEY PLAN

ALTERNATE NOTES: ◇

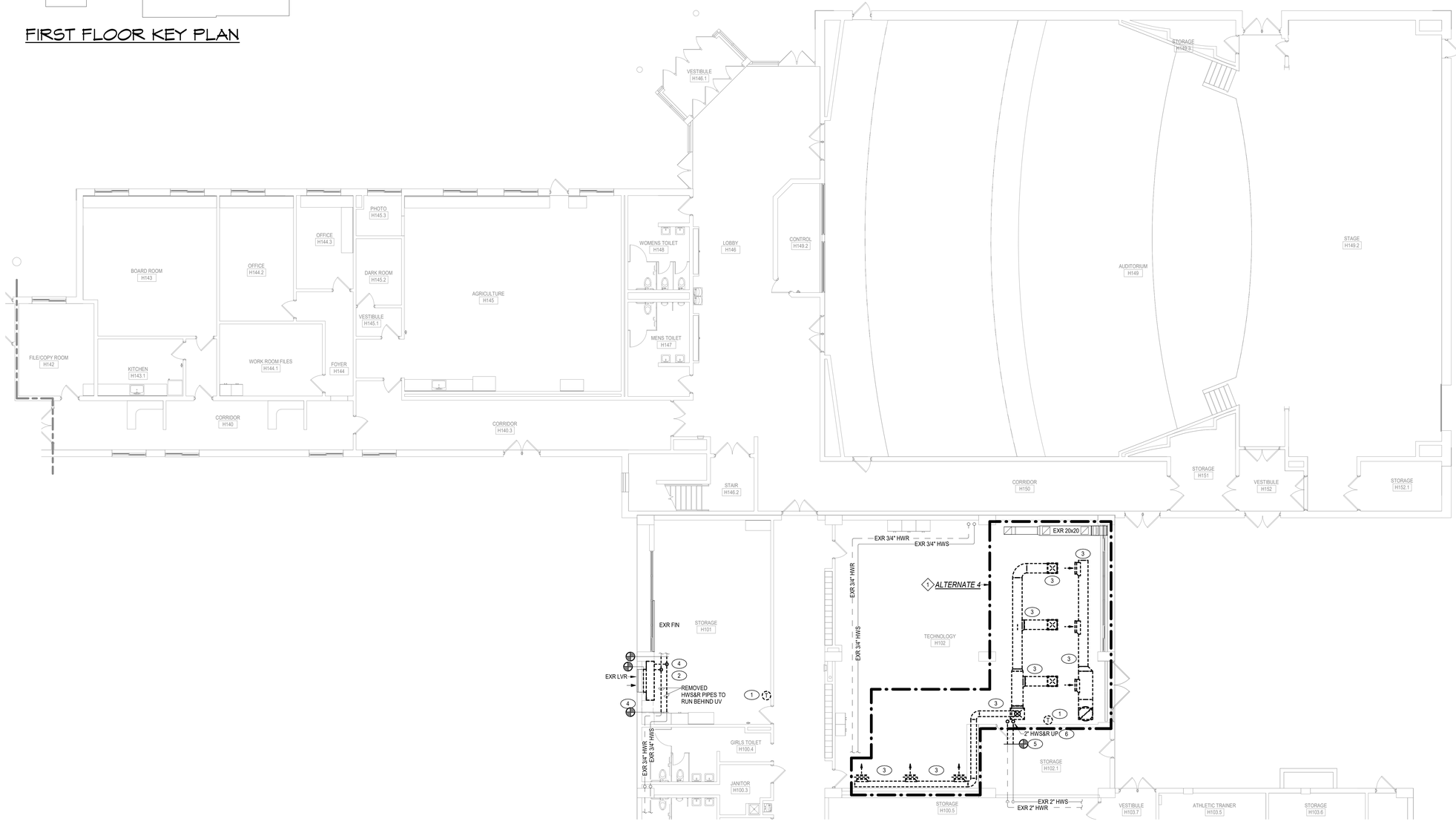
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GENERAL REMOVAL NOTES:

A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

REMOVAL NOTES: ⬭

1. DISCONNECT AND REMOVE EXISTING THERMOSTAT.
2. DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR, PIPING, CONTROLS, WIRING, OUTSIDE AIR DUCT CONNECTION TO LOUVER, AND ALL ASSOCIATED APPURTENANCES.
3. DISCONNECT AND REMOVE EXISTING DUCTWORK, AIR TERMINALS, DAMPERS, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
4. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING STACKED VERTICALLY ALONG WALL, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
5. CAP EXISTING TO REMAIN PIPES BELOW ROOF LINE.
6. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING UP TO ROOFTOP.



1 M203 FIRST FLOOR MECHANICAL REMOVAL PLAN - AREA 2

1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ES: 23191

SED PROJECT NUMBERS:
66-04-02-04-0-007-023

HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY
FIRST FLOOR MECHANICAL REMOVAL PLAN - AREA 2

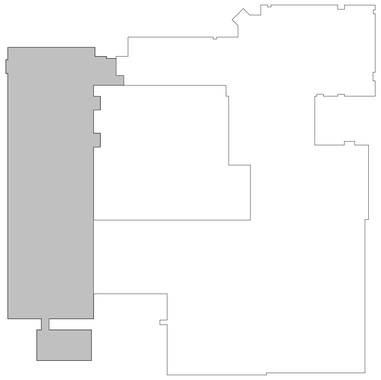
SHEET NO.
M203

PROJECT NO.
1823.24221.1.3

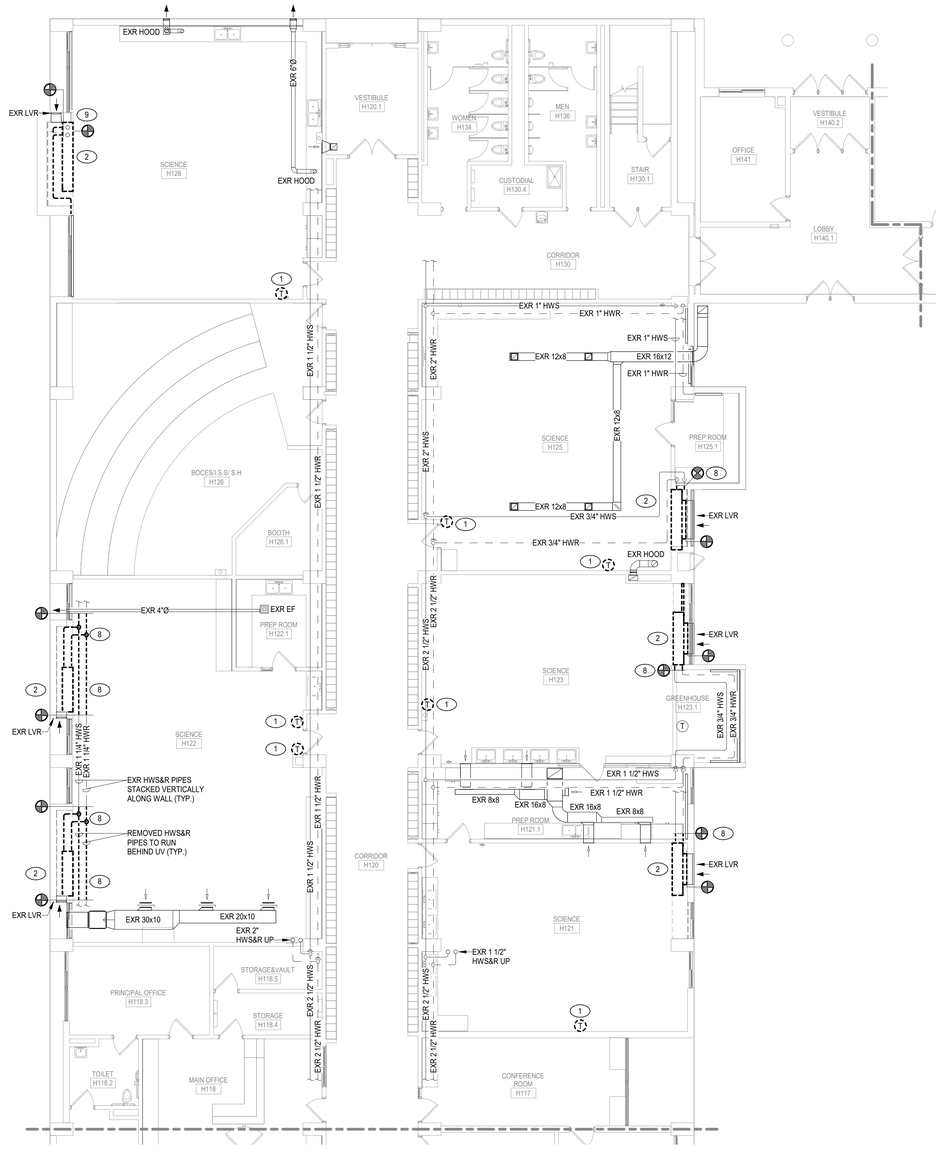
DATE: 12/12/2025

CAD FILE NO.: High School_RVT24-rvt

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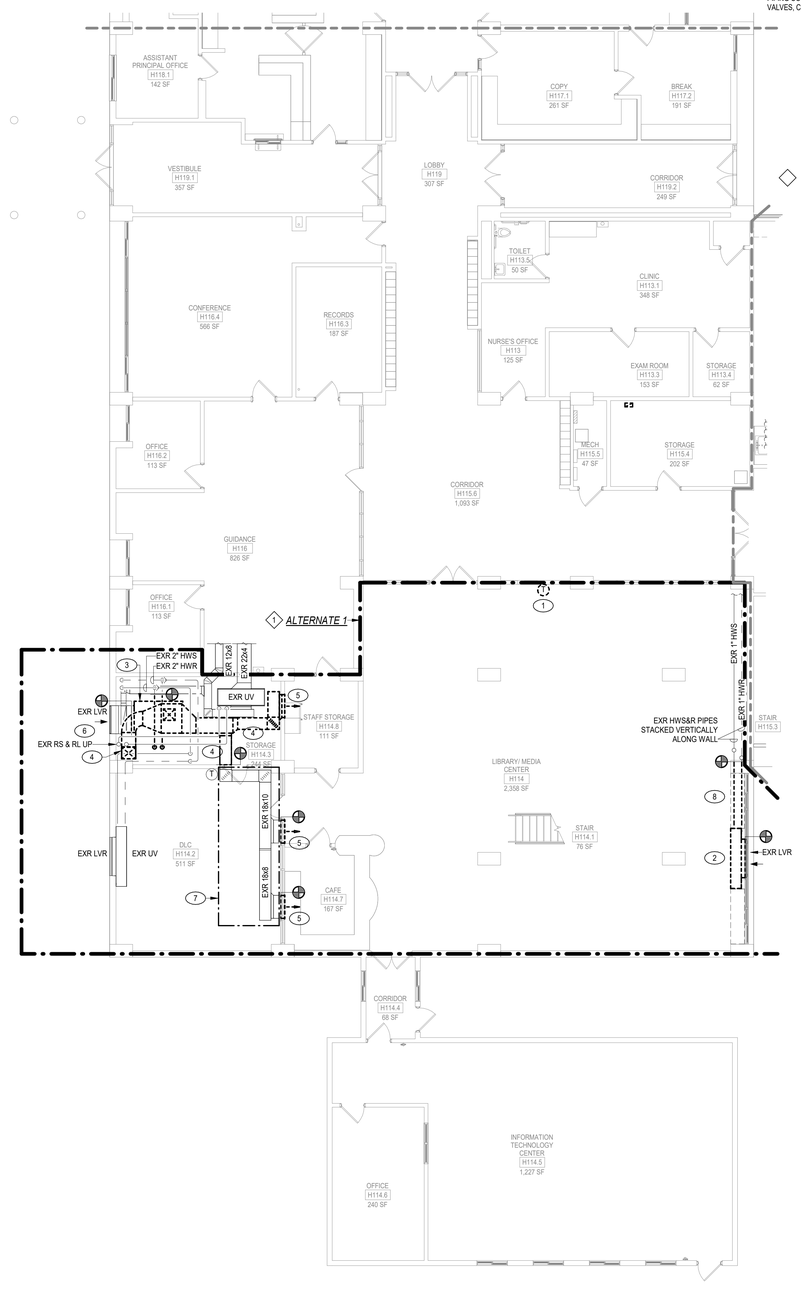


FIRST FLOOR KEY PLAN



1 M204 FIRST FLOOR MECHANICAL REMOVAL PLAN - AREA 3 UPPER

1/8" = 1'-0"



2 M204 FIRST FLOOR MECHANICAL REMOVAL PLAN - AREA 3 LOWER

1/8" = 1'-0"

GENERAL REMOVAL NOTES:

A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

ALTERNATE NOTES: ◇

1. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; REMOVAL OF COUNTERTOP, UNIT VENTILATOR, PIPING, HANGERS, CONTROLS, VALVES, AND ALL ASSOCIATED APPURTENANCES. ADDITIONALLY, SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; REMOVAL OF PIPES, HANGERS, CONTROLS, VALVES, DUCTWORK, AIR HANDLING UNIT, AND ALL ASSOCIATED APPURTENANCES.

REMOVAL NOTES: ⬭

1. DISCONNECT AND REMOVE EXISTING THERMOSTAT.
2. DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR, PIPING, CONTROLS, WIRING, OUTSIDE AIR DUCT CONNECTION TO LOUVER, AND ALL ASSOCIATED APPURTENANCES.
3. DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT, PIPING, DUCTWORK, CONTROLS, WIRING, AND ALL ASSOCIATED APPURTENANCES.
4. DISCONNECT AND REMOVE EXISTING DUCTWORK, DAMPERS, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
5. DISCONNECT AND REMOVE EXISTING AIR TERMINAL. GC TO PATCH WALL AND PAINT TO MATCH EXISTING COLOR. GC TO PATCH WALL AND PAINT TO MATCH EXISTING COLOR.
6. DISCONNECT AND REMOVE EXISTING DUCT CONNECTION FROM AHU TO OUTSIDE AIR LOUVER DUCTWORK.
7. EXISTING DUCTWORK TO BE ABANDONED IN SOFFIT.
8. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING STACKED VERTICALLY ALONG WALL, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
9. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING CONNECTION TO UNIT VENTILATOR, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023
HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
TIOGA COUNTY, NY
68 WILSON CREK ROAD
FIRST FLOOR MECHANICAL REMOVAL PLAN - AREA 3

SHEET NO.
M204
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:33 AM

GENERAL REMOVAL NOTES:

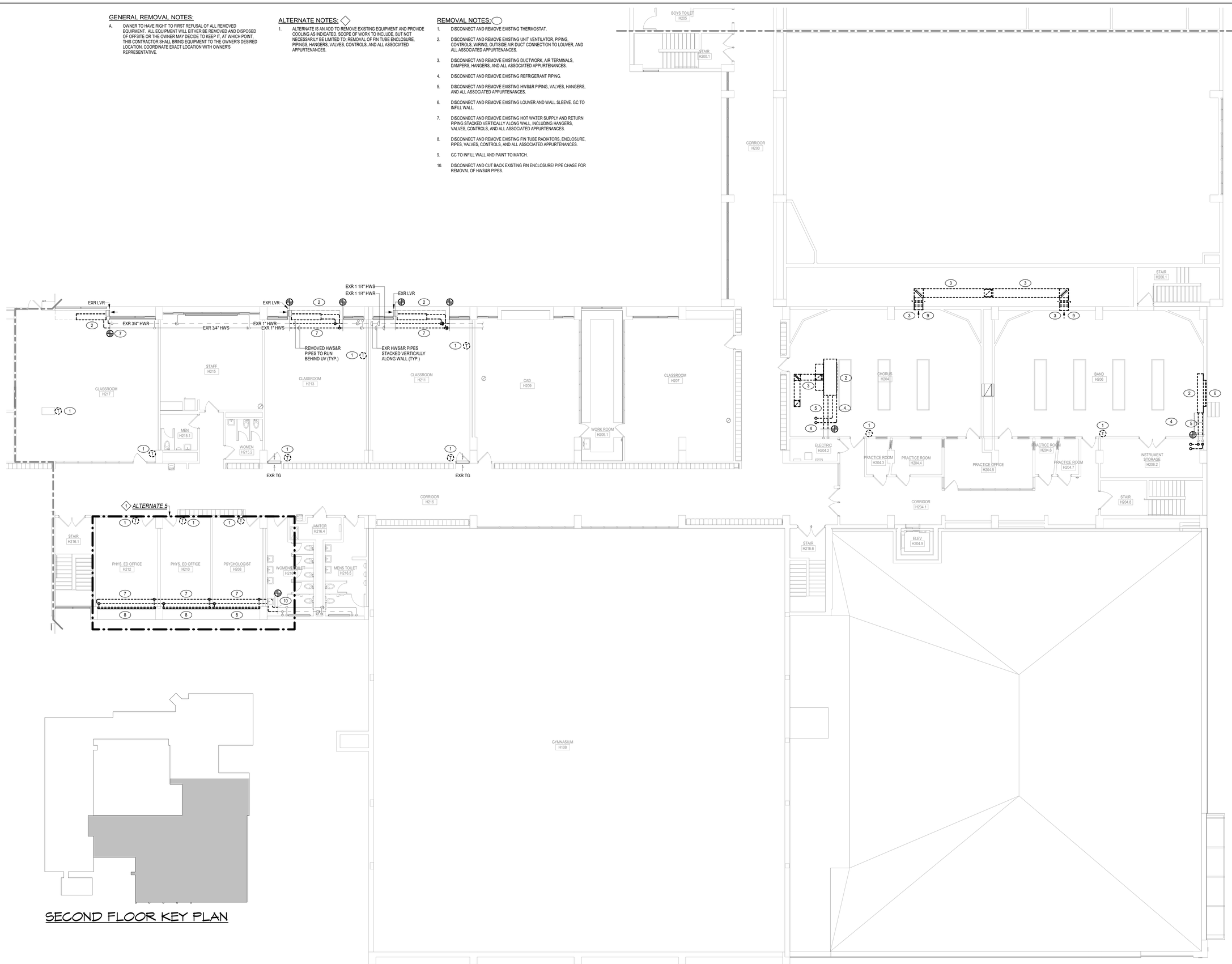
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ALTERNATE NOTES: ◇

1. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; REMOVAL OF FIN TUBE ENCLOSURE, PIPINGS, HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.

REMOVAL NOTES: ⬭

1. DISCONNECT AND REMOVE EXISTING THERMOSTAT.
2. DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR, PIPING, CONTROLS, WIRING, OUTISIDE AIR DUCT CONNECTION TO LOUVER, AND ALL ASSOCIATED APPURTENANCES.
3. DISCONNECT AND REMOVE EXISTING DUCTWORK, AIR TERMINALS, DAMPERS, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
4. DISCONNECT AND REMOVE EXISTING REFRIGERANT PIPING.
5. DISCONNECT AND REMOVE EXISTING HWS&R PIPING, VALVES, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
6. DISCONNECT AND REMOVE EXISTING LOUVER AND WALL SLEEVE. GC TO INFILL WALL.
7. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING STACKED VERTICALLY ALONG WALL, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
8. DISCONNECT AND REMOVE EXISTING FIN TUBE RADIATORS, ENCLOSURE, PIPES, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
9. GC TO INFILL WALL AND PAINT TO MATCH.
10. DISCONNECT AND CUT BACK EXISTING FIN ENCLOSURE/ PIPE CHASE FOR REMOVAL OF HWS&R PIPES.



SECOND FLOOR KEY PLAN

1 M205 — SECOND FLOOR MECHANICAL REMOVAL PLAN - AREA 1
1/8" = 1'-0"

1/26/2026 11:57:35 AM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023
HIGH SCHOOL

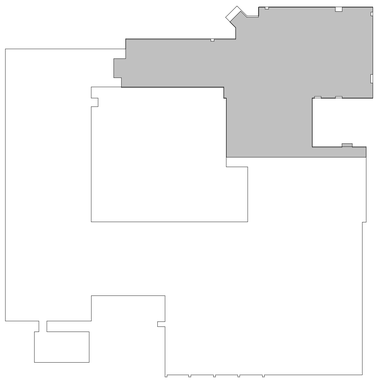
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NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — TIOGA COUNTY, NY
SECOND FLOOR MECHANICAL REMOVAL PLAN - AREA 1

SHEET NO.
M205
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RV124.rvt



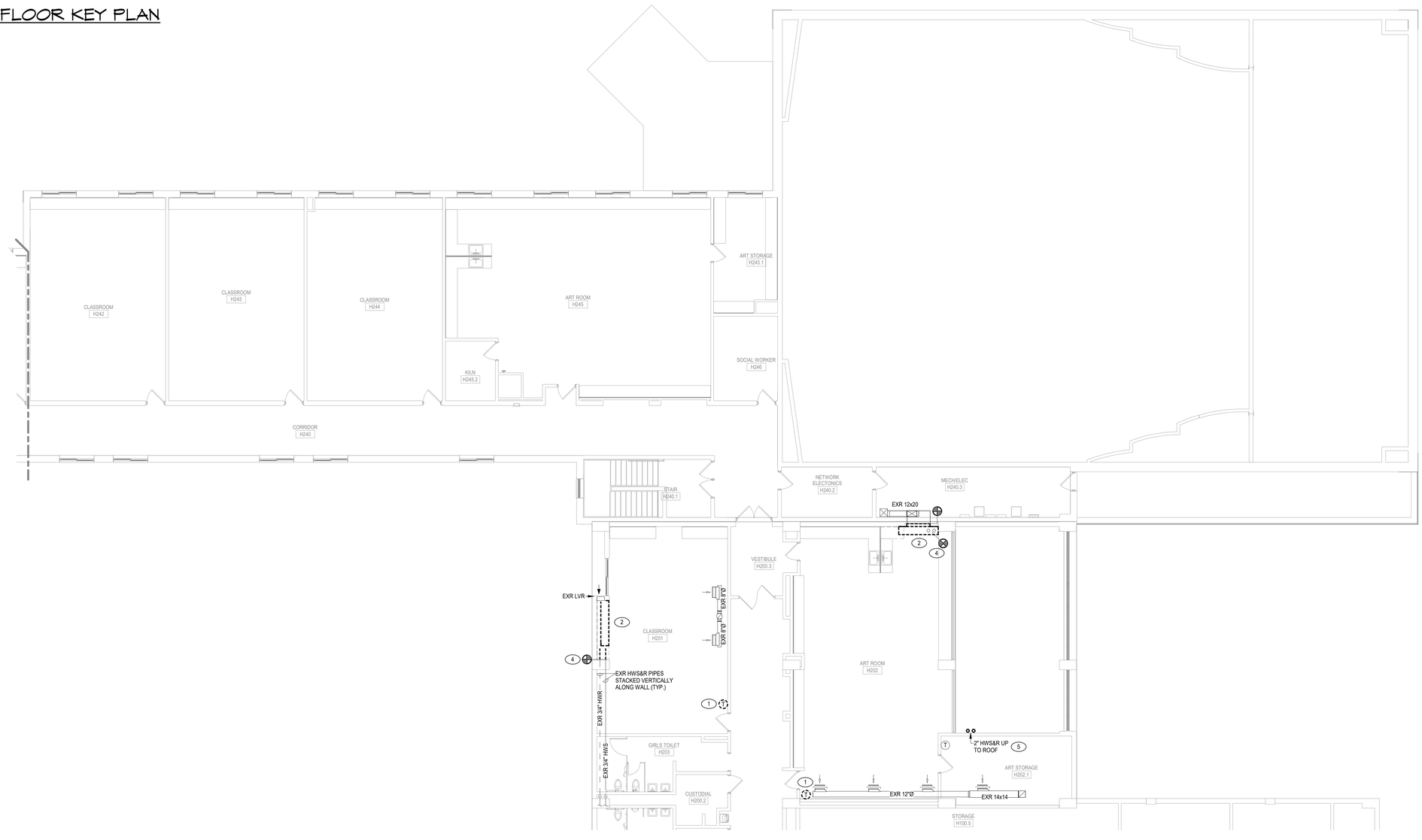
SECOND FLOOR KEY PLAN

GENERAL REMOVAL NOTES:

A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

REMOVAL NOTES:

1. DISCONNECT AND REMOVE EXISTING THERMOSTAT.
2. DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR, PIPING, CONTROLS, WIRING, OUTISIDE AIR DUCT CONNECTION TO LOUVER, AND ALL ASSOCIATED APPURTENANCES.
3. DISCONNECT AND REMOVE EXISTING DUCTWORK, AIR TERMINALS, DAMPERS, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
4. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING STACKED VERTICALLY ALONG WALL, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
5. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING UP TO ROOFTOP.



1 M206 SECOND FLOOR MECHANICAL REMOVAL PLAN - AREA 2

1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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STATE OF NEW YORK
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ESI: 25191

SED PROJECT NUMBERS:
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HIGH SCHOOL

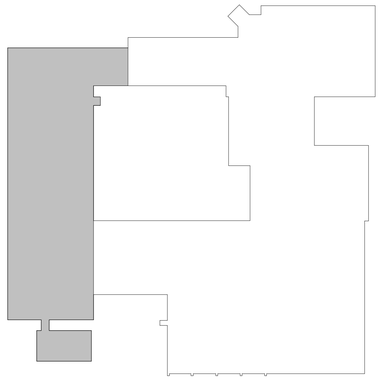
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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
TIOGA COUNTY, NY
68 WILSON CREK ROAD
SECOND FLOOR MECHANICAL REMOVAL PLAN - AREA 2

SHEET NO.
M206
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RV124.rvt

1/26/2026 11:57:35 AM



SECOND FLOOR KEY PLAN

GENERAL REMOVAL NOTES:

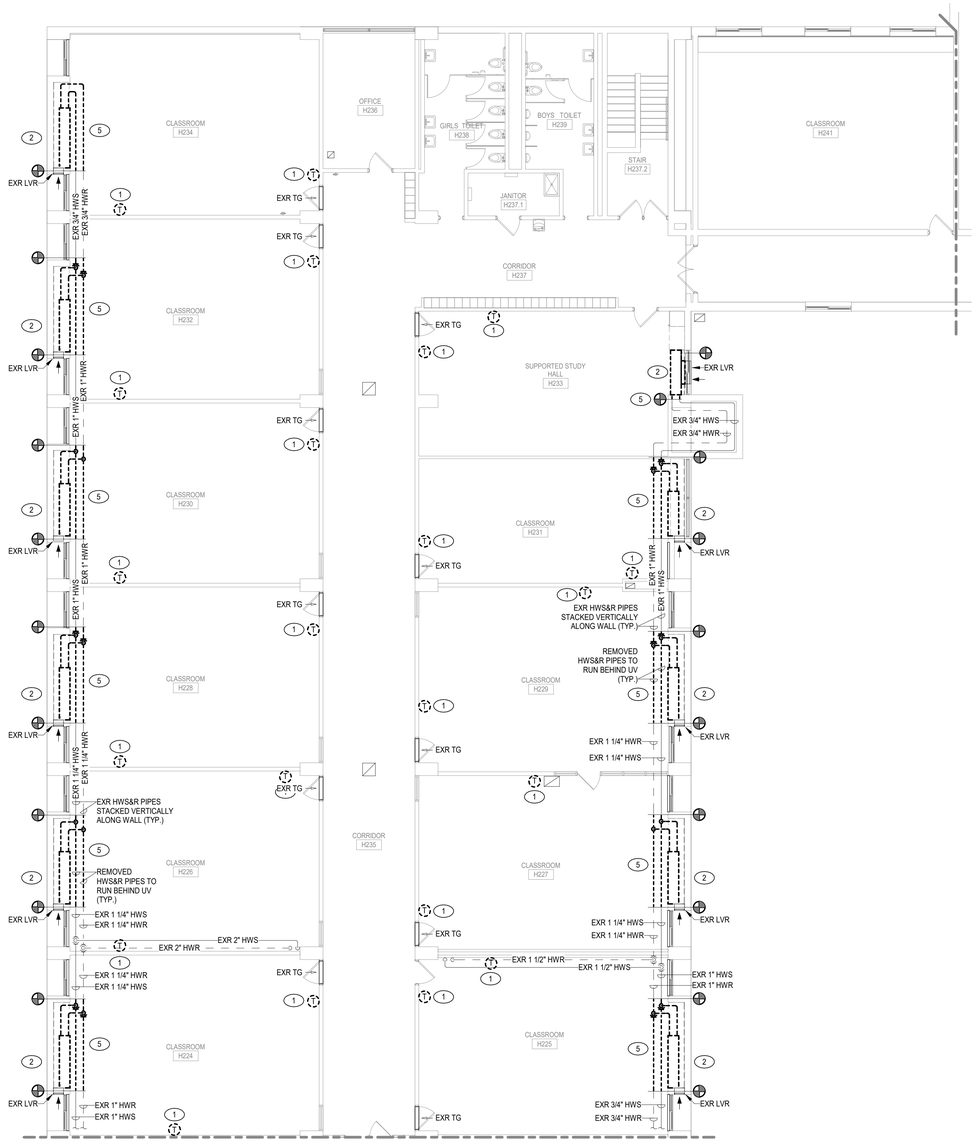
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ALTERNATE NOTES: ◇

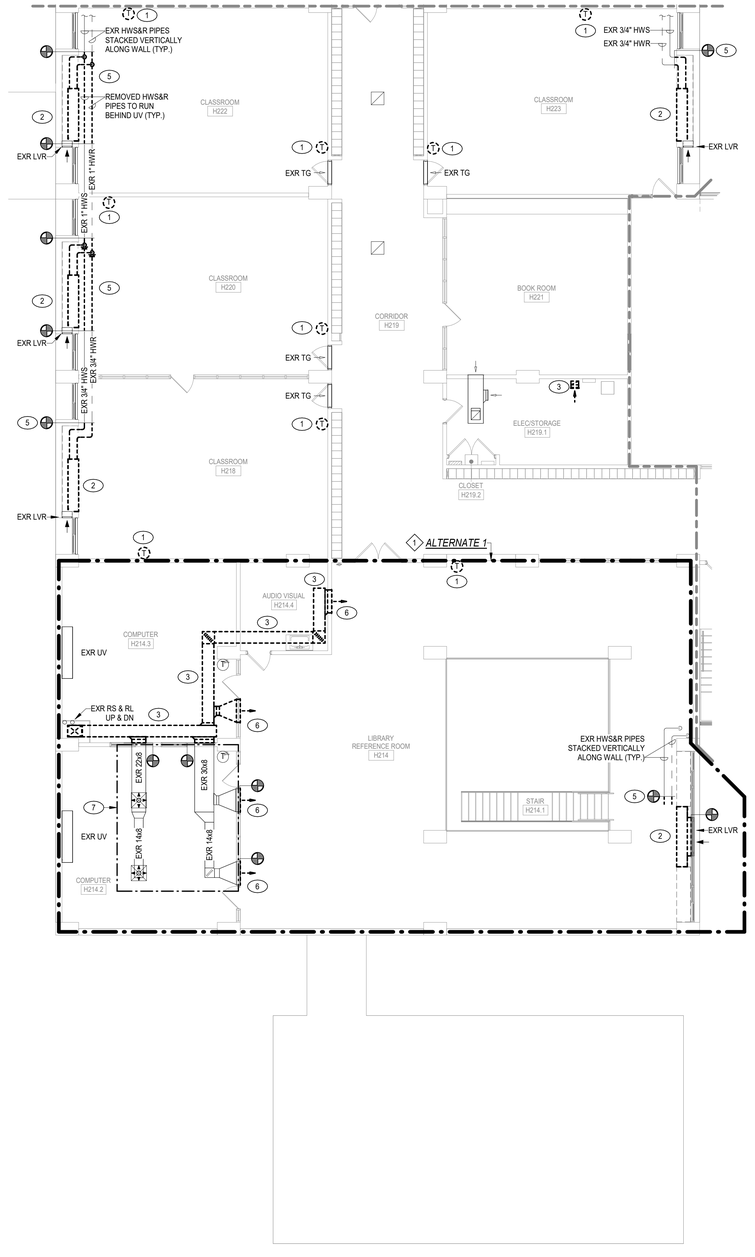
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REMOVAL NOTES: ⬭

1. DISCONNECT AND REMOVE EXISTING THERMOSTAT.
2. DISCONNECT AND REMOVE EXISTING UNIT VENTILATOR, PIPING, CONTROLS, WIRING, OUTISIDE AIR DUCT CONNECTION TO LOUVER, AND ALL ASSOCIATED APPURTENANCES.
3. DISCONNECT AND REMOVE EXISTING DUCTWORK, DAMPERS, HANGERS, AND ALL ASSOCIATED APPURTENANCES.
4. DISCONNECT AND REMOVE EXISTING AIR TERMINAL. GC TO PATCH WALL AND PAINT TO MATCH EXISTING COLOR. GC TO PATCH WALL AND PAINT TO MATCH EXISTING COLOR.
5. DISCONNECT AND REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING STACKED VERTICALLY ALONG WALL, INCLUDING HANGERS, VALVES, CONTROLS, AND ALL ASSOCIATED APPURTENANCES.
6. DISCONNECT AND REMOVE EXISTING AIR TERMINAL. INFILL WALL AND PAINT TO MATCH EXISTING COLOR.
7. EXISTING DUCTWORK TO BE ABANDONED IN CEILING.



1 M207 SECOND FLOOR MECHANICAL REMOVAL PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 M207 SECOND FLOOR MECHANICAL REMOVAL PLAN - AREA 3 LOWER
1/8" = 1'-0"

1/26/2026 11:57:36 AM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ES: 23101

SED PROJECT NUMBERS:
66-04-02-04-0-007-023

HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

TIOGA COUNTY, NY

68 WILSON CREEK ROAD

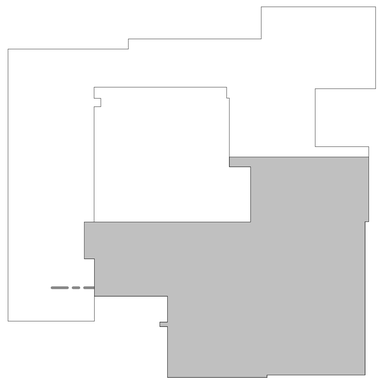
SECOND FLOOR MECHANICAL REMOVAL PLAN - AREA 3

SHEET NO.
M207

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt



ROOF KEY PLAN

ALTERNATE NOTES:

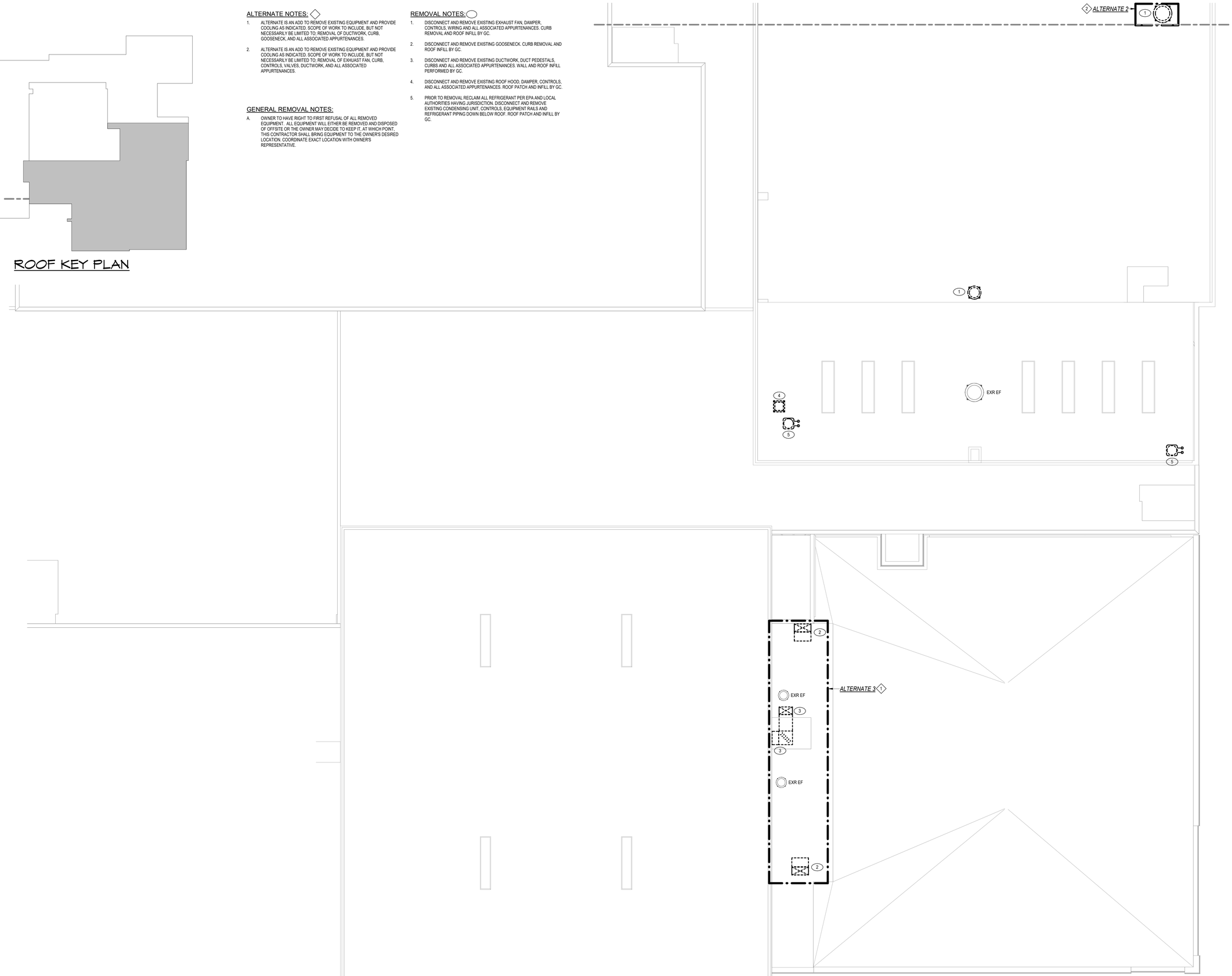
1. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; REMOVAL OF DUCTWORK, CURB, GOOSENECK, AND ALL ASSOCIATED APPURTENANCES.
2. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; REMOVAL OF EXHUAST FAN, CURB, CONTROLS, VALVES, DUCTWORK, AND ALL ASSOCIATED APPURTENANCES.

GENERAL REMOVAL NOTES:

A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

REMOVAL NOTES:

1. DISCONNECT AND REMOVE EXISTING EXHAUST FAN, DAMPER, CONTROLS, WIRING AND ALL ASSOCIATED APPURTENANCES. CURB REMOVAL AND ROOF INFILL BY GC.
2. DISCONNECT AND REMOVE EXISTING GOOSENECK. CURB REMOVAL AND ROOF INFILL BY GC.
3. DISCONNECT AND REMOVE EXISTING DUCTWORK, DUCT PEDESTALS, CURBS AND ALL ASSOCIATED APPURTENANCES. WALL AND ROOF INFILL PERFORMED BY GC.
4. DISCONNECT AND REMOVE EXISTING ROOF HOOD, DAMPER, CONTROLS, AND ALL ASSOCIATED APPURTENANCES. ROOF PATCH AND INFILL BY GC.
5. PRIOR TO REMOVAL RECLAIM ALL REFRIGERANT PER EPA AND LOCAL AUTHORITIES HAVING JURISDICTION. DISCONNECT AND REMOVE EXISTING CONDENSING UNIT, CONTROLS, EQUIPMENT RAILS AND REFRIGERANT PIPING DOWN BELOW ROOF. ROOF PATCH AND INFILL BY GC.



1 M208 ROOF MECHANICAL REMOVAL PLAN - AREA 1
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ES: 23101

SED PROJECT NUMBERS:
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HIGH SCHOOL

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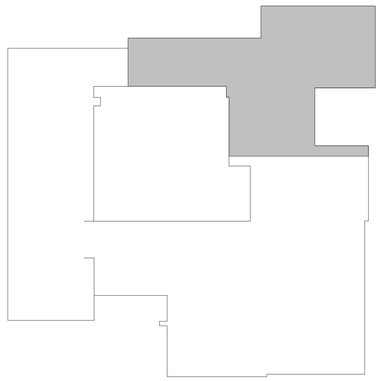
NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

ROOF MECHANICAL REMOVAL PLAN - AREA 1

SHEET NO.
M208
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:36 AM



ROOF KEY PLAN

ALTERNATE NOTES: ◇

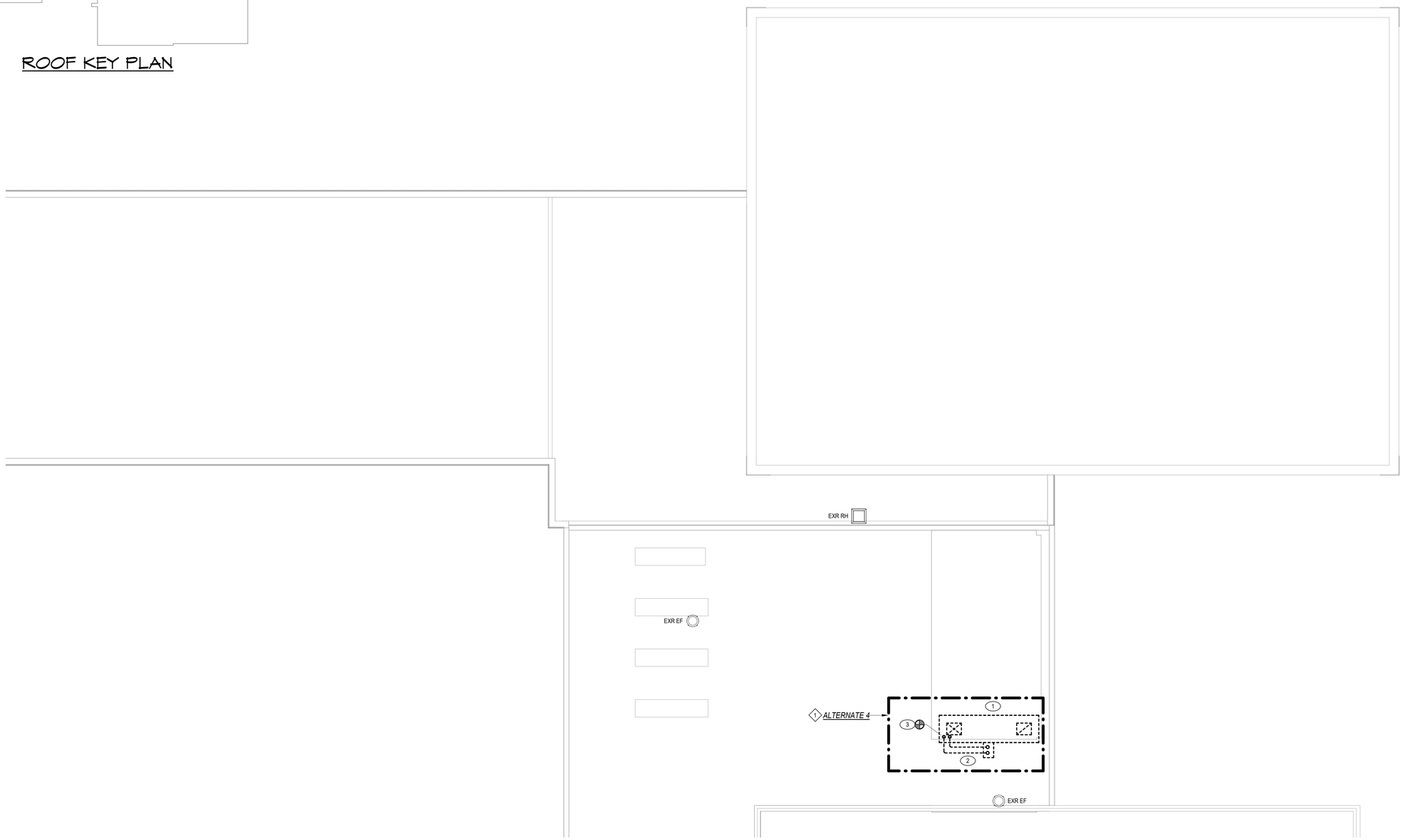
1. ALTERNATE IS AN ADD TO REMOVE EXISTING EQUIPMENT AND PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; REMOVAL OF PIPES, HANGERS, CONTROLS, VALVES, DUCTWORK, AIR HANDLING UNIT, AND ALL ASSOCIATED APPURTENANCES.

GENERAL REMOVAL NOTES:

A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

REMOVAL NOTES: ⬭

1. DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT, PIPING, DUCTWORK, CONTROLS, WIRING, AND ALL ASSOCIATED APPURTENANCES.
2. DISCONNECT AND REMOVE EXISTING HWS&R PIPING TO AIR HANDLING UNIT AND REMOVE PIPES BELOW ROOF LINE.
3. DISCONNECT AND REMOVE EXISTING HWS&R PIPING THRU ROOF - GC/RC TO PATCH ROOF AS REQUIRED.



1 M209 ROOF MECHANICAL REMOVAL PLAN - AREA 2
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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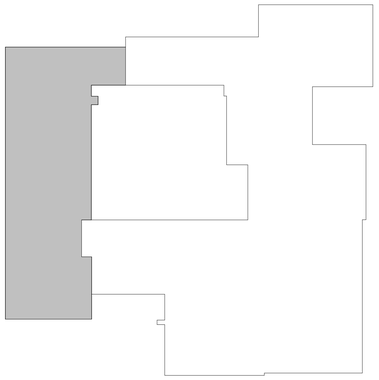
NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — TIOGA COUNTY, NY

ROOF MECHANICAL REMOVAL PLAN - AREA 2

SHEET NO.
M209
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:36 AM



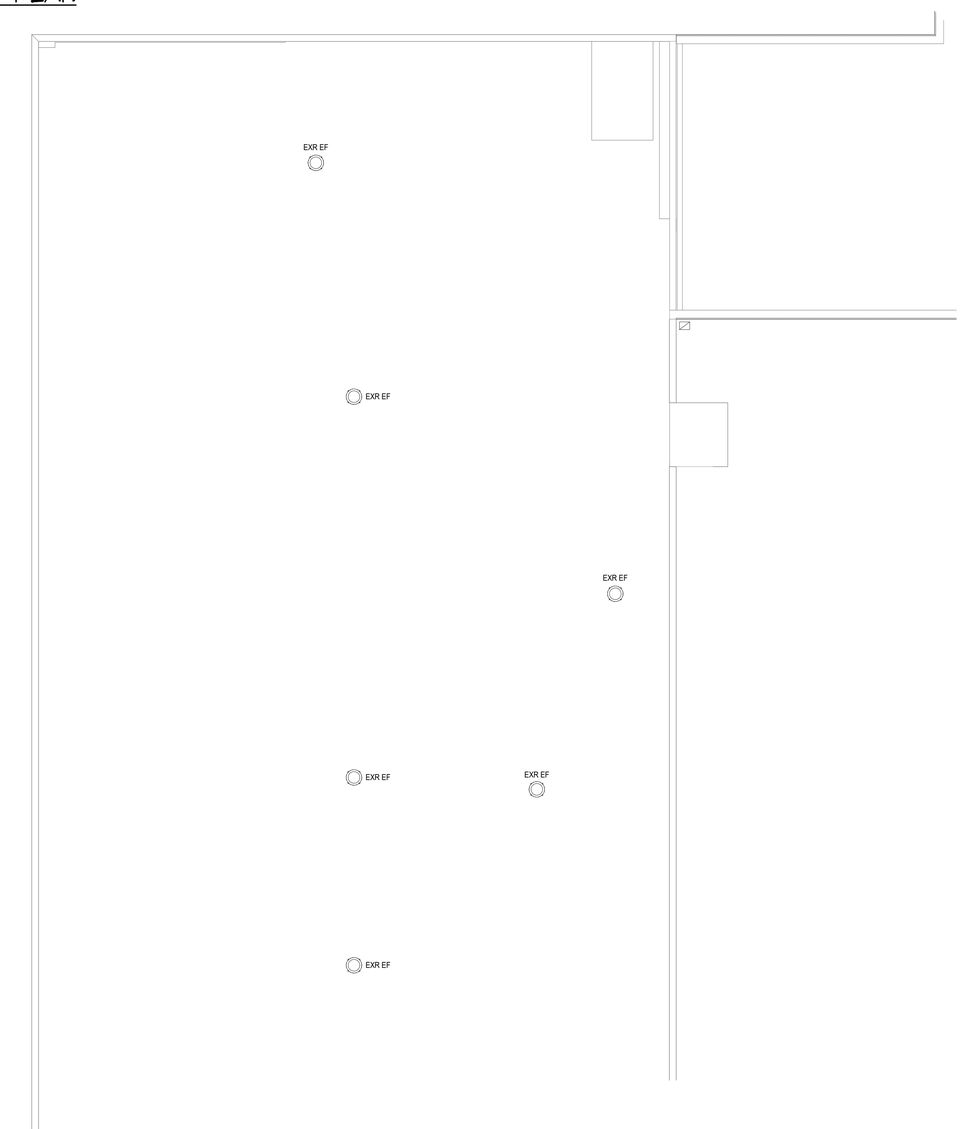
ROOF KEY PLAN

GENERAL REMOVAL NOTES:

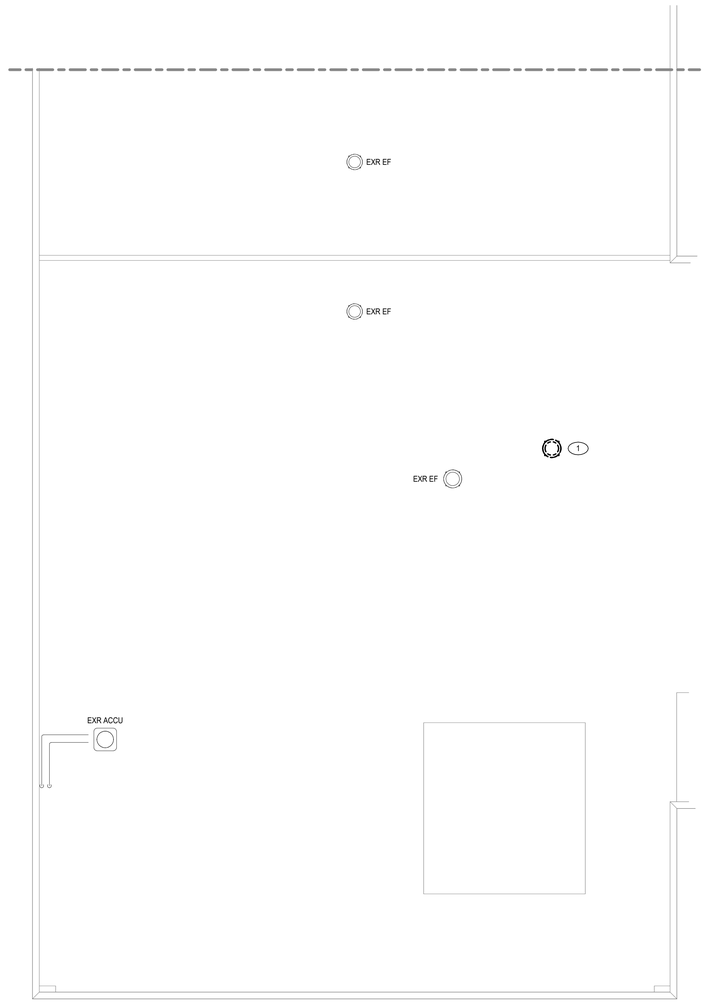
A. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL REMOVED EQUIPMENT. ALL EQUIPMENT WILL EITHER BE REMOVED AND DISPOSED OF OFFSITE OR THE OWNER MAY DECIDE TO KEEP IT, AT WHICH POINT, THIS CONTRACTOR SHALL BRING EQUIPMENT TO THE OWNER'S DESIRED LOCATION. COORDINATE EXACT LOCATION WITH OWNER'S REPRESENTATIVE.

REMOVAL NOTES: (1)

1. DISCONNECT AND REMOVE EXISTING EXHAUST FAN, DAMPER, CONTROLS, WIRING AND ALL ASSOCIATED APPURTENANCES. CURB REMOVAL AND ROOF INFILL BY GC.



1 M210 ROOF MECHANICAL REMOVAL PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 M210 ROOF MECHANICAL REMOVAL PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
66 WILSON CREEK ROAD
TIOGA COUNTY, NY

ROOF MECHANICAL REMOVAL PLAN - AREA 3

SHEET NO.
M210

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RV124.rvt

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ALTERNATE NOTES:

1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, PROVIDING H&V UNIT VENTILATORS, COUNTERTOPS, FILLER PANELS, CONDENSING UNITS, ROOF SUPPORTS, PIPING PORTALS, REFRIGERANT AND CONDENSATE PIPING INCLUDING HANGERS & INSULATION, COOLING COILS, MANUFACTURER'S REQUIRED ACCESSORIES IN UNIT VENTILATORS (CONTROL BOX & EXPANSION VALVE KITS), ADDITIONAL DDC CONTROLS & INTEGRATION FOR CONTROL OF COOLING, ALL NECESSARY APPURTENANCES, AND LABOR FOR A FULLY FUNCTIONAL SYTEM.

2. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, PROVIDING LINED DUCTWORK, AIR TERMINALS, DUCT CONNECTIONS, DAMPERS, PIPES, HANGERS, PVC JACKETING, PUMPS, HEAT EXCHANGERS, EXPANSION TANKS, AIR SEPARATORS, GLYCOL FILL TANKS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.

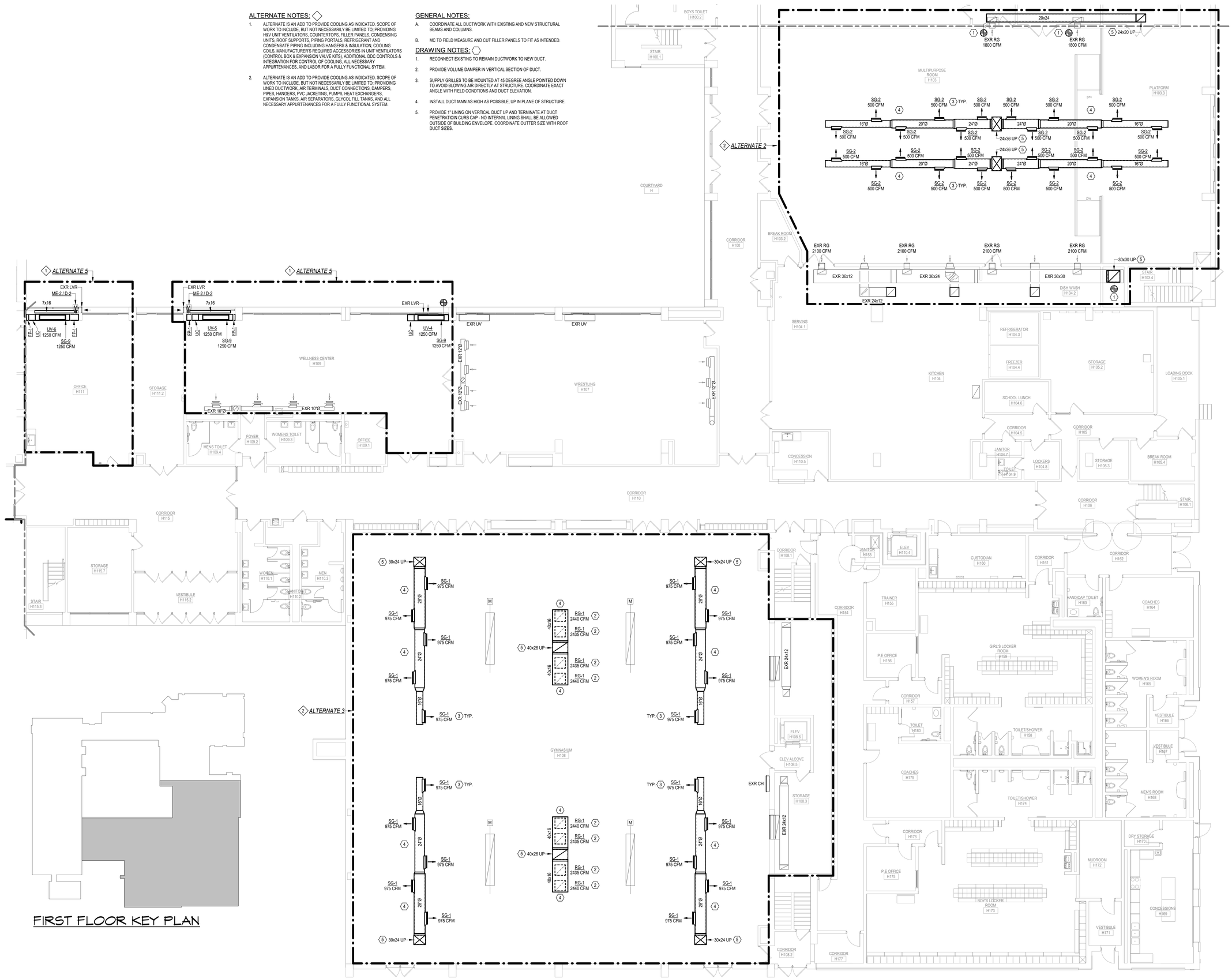
GENERAL NOTES:

A. COORDINATE ALL DUCTWORK WITH EXISTING AND NEW STRUCTURAL BEAMS AND COLUMNS.

B. MC TO FIELD MEASURE AND CUT FILLER PANELS TO FIT AS INTENDED.

DRAWING NOTES:

1. RECONNECT EXISTING TO REMAIN DUCTWORK TO NEW DUCT.
2. PROVIDE VOLUME DAMPER IN VERTICAL SECTION OF DUCT.
3. SUPPLY GRILLES TO BE MOUNTED AT 45 DEGREE ANGLE POINTED DOWN TO AVOID BLOWING AIR DIRECTLY AT STRUCTURE. COORDINATE EXACT ANGLE WITH FIELD CONDTIONS AND DUCT ELEVATION.
4. INSTALL DUCT MAIN AS HIGH AS POSSIBLE, UP IN PLANE OF STRUCTURE.
5. PROVIDE 1" LINING ON VERTICAL DUCT UP AND TERMINATE AT DUCT PENETRATOIN CURB CAP - NO INTERNAL LINING SHALL BE ALLOWED OUTSIDE OF BUILDING ENVELOPE. COORDINATE OUTTER SIZE WITH ROOF DUCT SIZES.



FIRST FLOOR KEY PLAN

1 M301 FIRST FLOOR DUCT PLAN - AREA 1
1/8" = 1'-0"

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SURVEY - 0020652

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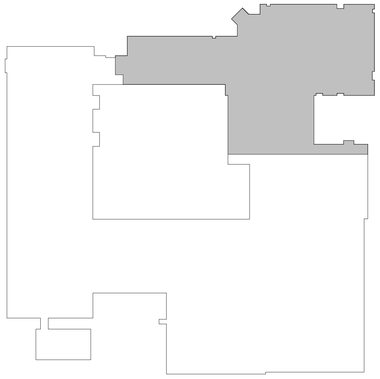
NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREK ROAD — **TIOGA COUNTY, NY**

FIRST FOOR DUCT PLAN - AREA 1

SHEET NO.
M301
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt



FIRST FLOOR KEY PLAN

ALTERNATE NOTES:

1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING LINED DUCTWORK, AIR TERMINALS, DUCT CONNECTIONS, DAMPERS, PIPES, HANGERS, VALVES, PIPE INSULATION, PVC JACKETING, PUMPS, HEAT EXCHANGERS, EXPANSION TANKS, AIR SEPARATORS, GLYCOL FILL TANKS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.

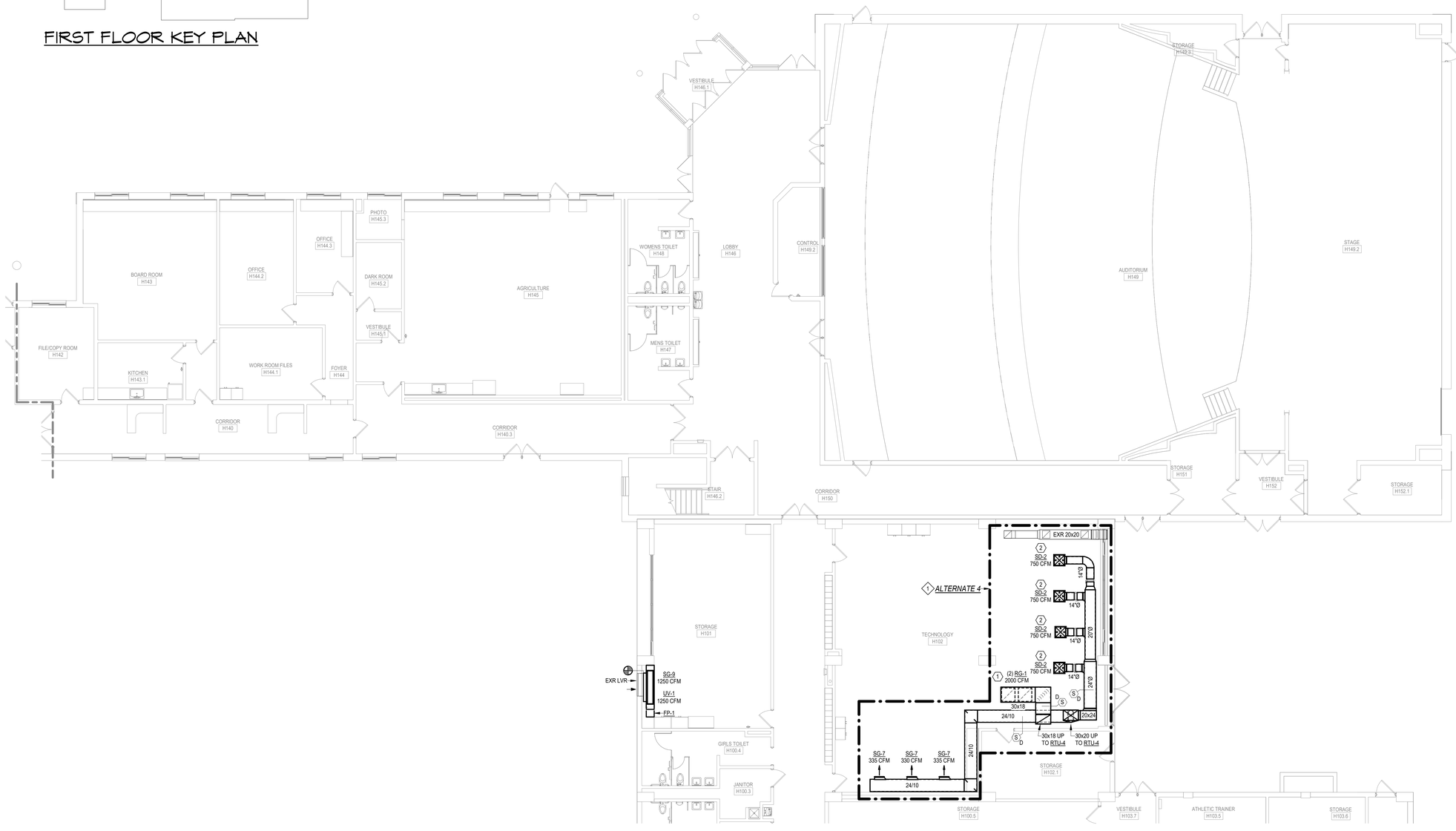
GENERAL NOTES:

A. COORDINATE ALL DUCTWORK WITH EXISTING AND NEW STRUCTURAL BEAMS AND COLUMNS.

B. MC TO FIELD MEASURE AND CUT FILLER PANELS TO FIT AS INTENDED.

DRAWING NOTES:

1. PROVIDE VOLUME DAMPER IN VERTICAL SECTION OF DUCT.
2. COORDINATE EXACT DIFFUSER LOCATION WITH LIGHTS.



1 M302 FIRST FLOOR DUCT PLAN - AREA 2

1/8" = 1'-0"

1/26/2026 11:57:41 AM

CERTIFICATE OF AUTHORIZATION
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SURVEY - 0020652

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SED PROJECT NUMBERS:
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2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

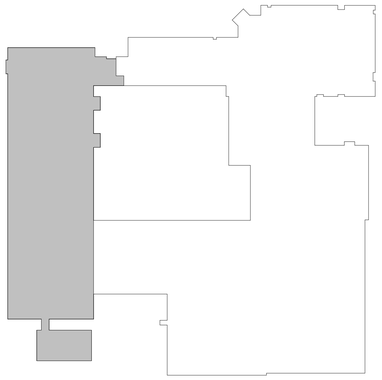
FIRST FLOOR DUCT PLAN - AREA 2

SHEET NO.
M302

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24-rvt



FIRST FLOOR KEY PLAN

ALTERNATE NOTES:

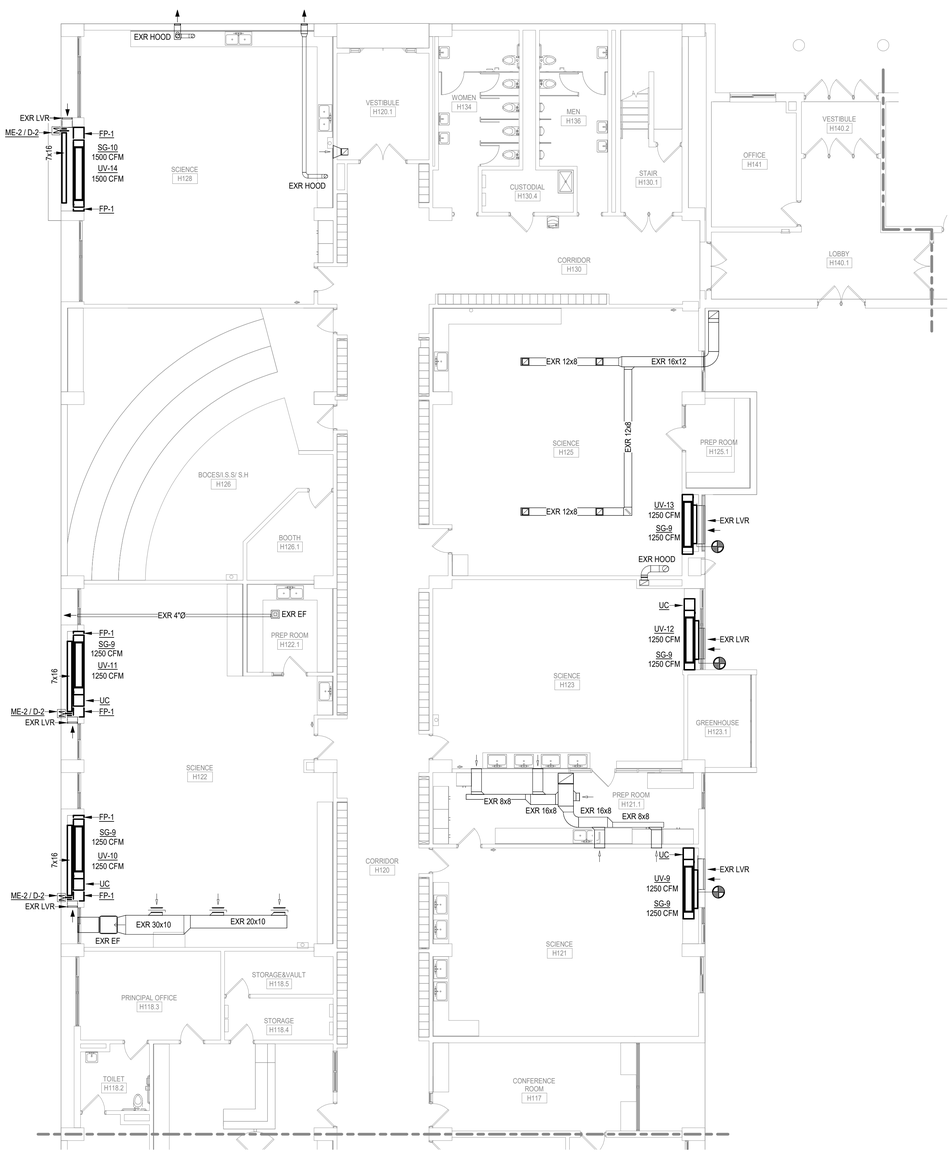
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GENERAL NOTES:

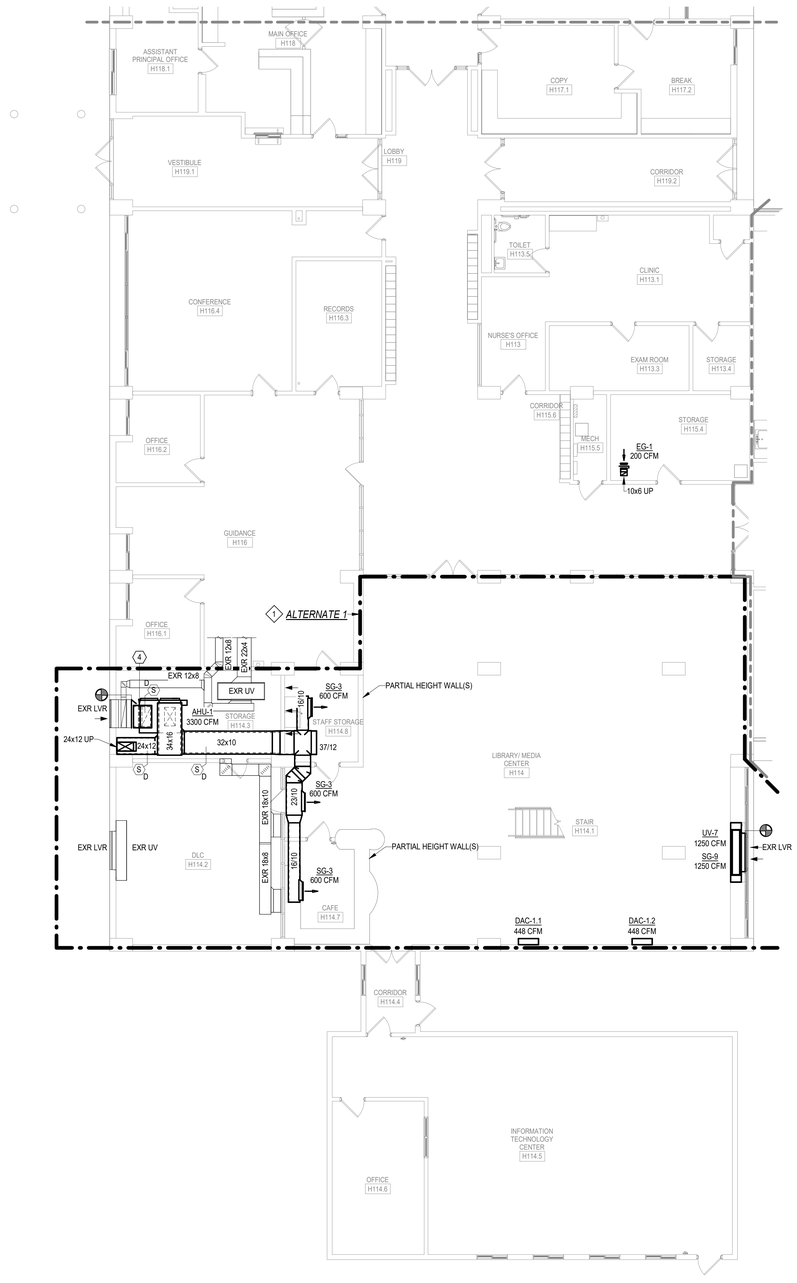
A. MC TO FIELD MEASURE AND CUT FILLER PANELS TO FIT AS INTENDED.

DRAWING NOTES:

1. PROVIDE VOLUME DAMPER IN VERTICAL SECTION OF DUCT.
2. SUPPLY GRILLES TO BE MOUNTED AT 45 DEGREE ANGLE POINTED DOWN.
3. SAFE OFF UNUSED PORTION OF LOUVER PER DETAIL ON M600 SERIES.
4. PROVIDE LINED RETURN DUCT WITH ELBOW OPEN TO ROOM. TERMINATE WITH 45DEG ANGLE CUT WITH WIRE MESH SCREEN OVER OPENING.



1 M303 FIRST FLOOR DUCT PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 M303 FIRST FLOOR DUCT PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
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SURVEY - 0020652

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Clifton Park, NY 12065
Phone: (518) 280-2410
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www.esolutionspllc.com
ES: 23191

SED PROJECT NUMBERS:
60-04-02-04-0-007-023
HIGH SCHOOL

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NO.	DESCRIPTION	DATE
1	SED Addendum #1	01/21/2026

BY: MWM/MA/JS/DM/SS

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

FIRST FLOOR DUCT PLAN - AREA 3

SHEET NO.
M303
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:42 AM

ALTERNATE NOTES:

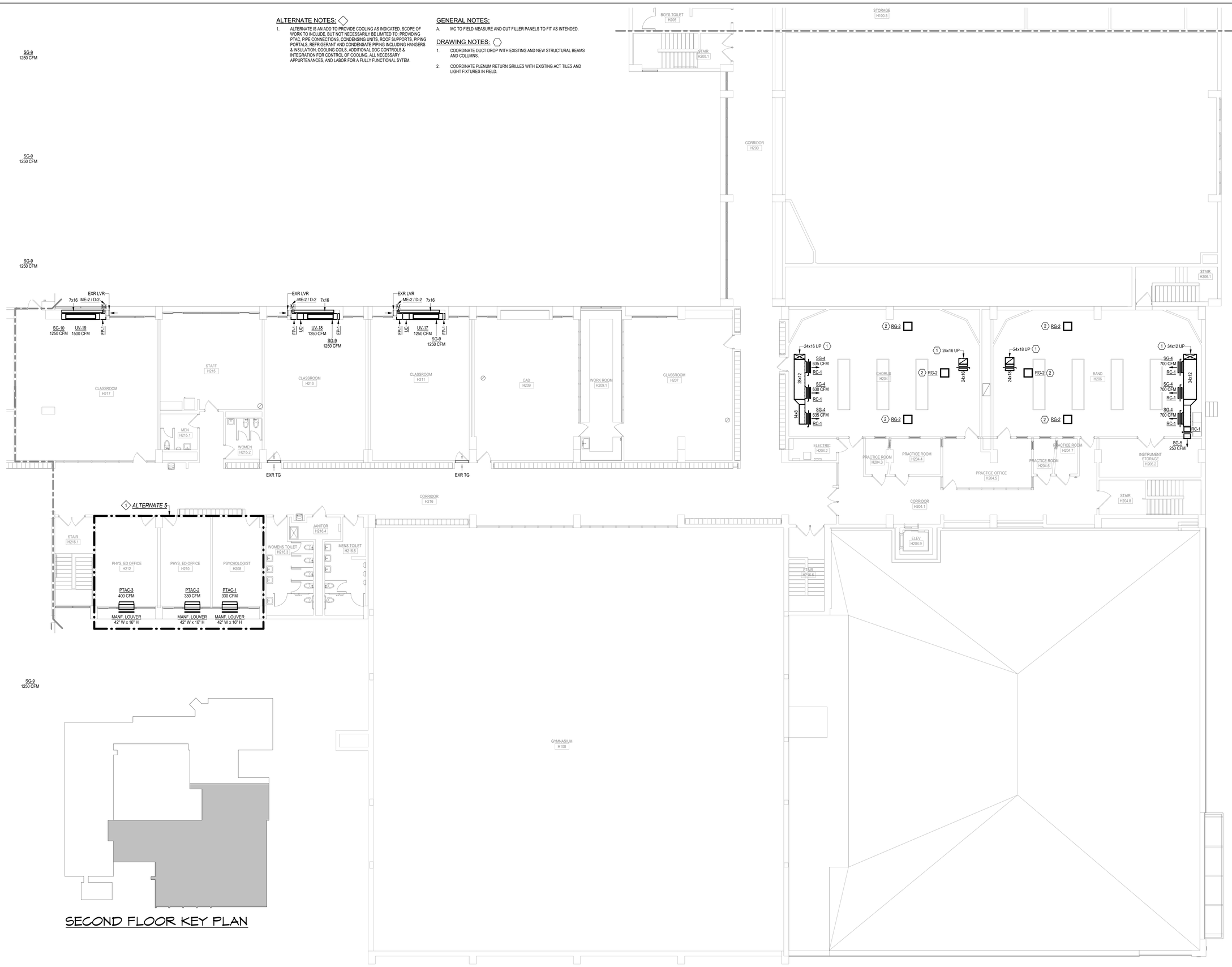
1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING PTAC, PIPE CONNECTIONS, CONDENSING UNITS, ROOF SUPPORTS, PIPING PORTALS, REFRIGERANT AND CONDENSATE PIPING INCLUDING HANGERS & INSULATION, COOLING COILS, ADDITIONAL DDC CONTROLS & INTEGRATION FOR CONTROL OF COOLING, ALL NECESSARY APPURTENANCES, AND LABOR FOR A FULLY FUNCTIONAL SYTEM.

GENERAL NOTES:

A. MC TO FIELD MEASURE AND CUT FILLER PANELS TO FIT AS INTENDED.

DRAWING NOTES:

1. COORDINATE DUCT DROP WITH EXISTING AND NEW STRUCTURAL BEAMS AND COLUMNS.
2. COORDINATE PLENUM RETURN GRILLES WITH EXISTING ACT TILES AND LIGHT FIXTURES IN FIELD.



SECOND FLOOR KEY PLAN

1 M304 — SECOND FLOOR DUCT PLAN - AREA 1
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ES: 25191

SED PROJECT NUMBERS:
60-04-02-04-0-007-023

HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — **TIOGA COUNTY, NY**

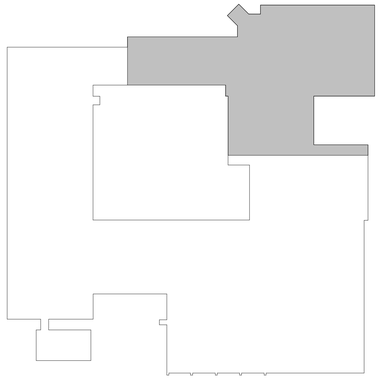
SECOND FLOOR DUCT PLAN - AREA 1

SHEET NO.
M304
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

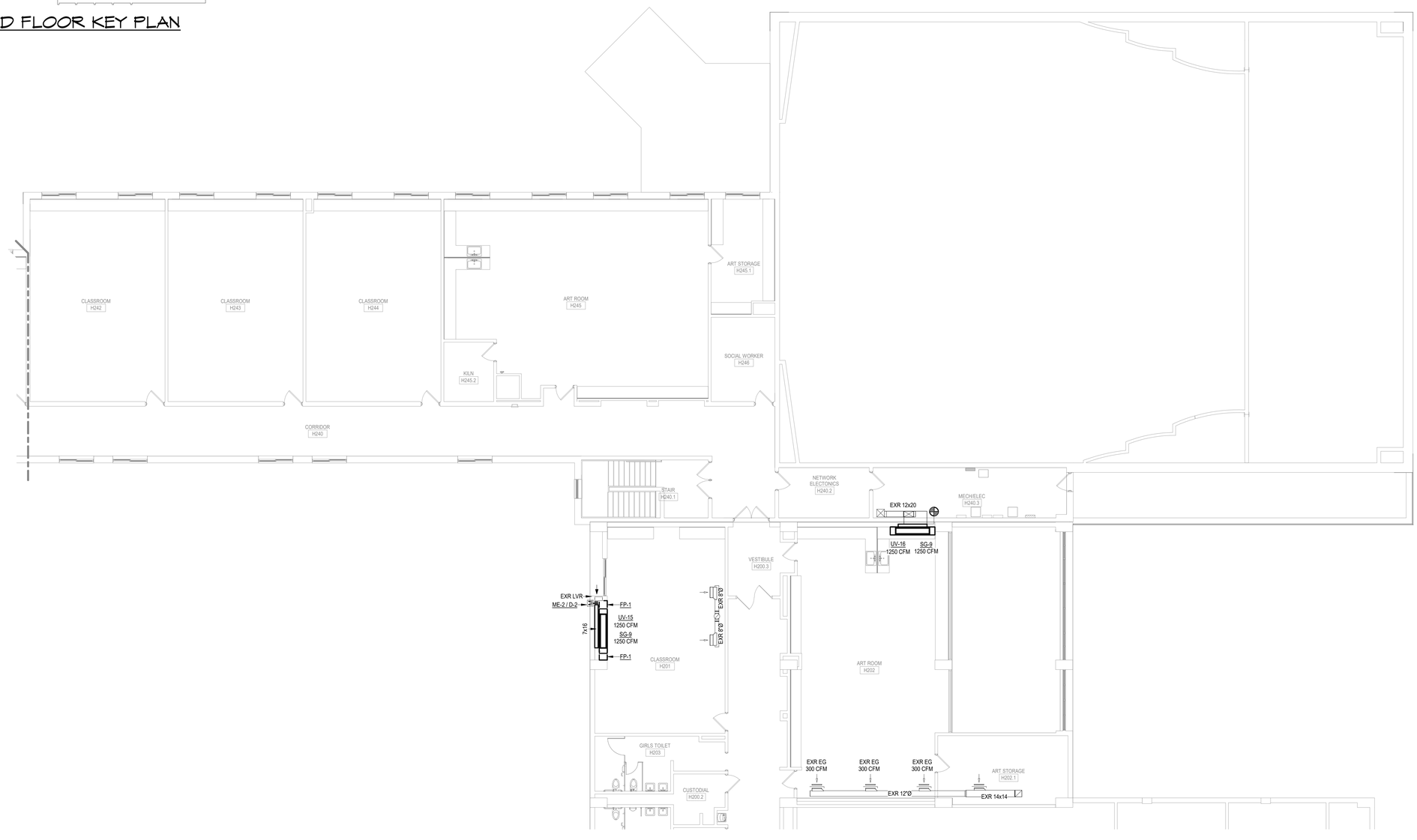
1/26/2026 11:57:43 AM

GENERAL NOTES:

A. MC TO FIELD MEASURE AND CUT FILLER PANELS TO FIT AS INTENDED.



SECOND FLOOR KEY PLAN



1 M305 SECOND FLOOR DUCT PLAN - AREA 2

1/8" = 1'-0"

1/26/2026 11:57:44 AM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023
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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREK ROAD TIOGA COUNTY, NY

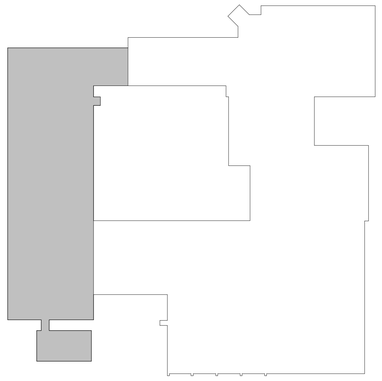
SECOND FLOOR DUCT PLAN - AREA 2

SHEET NO.
M305

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt



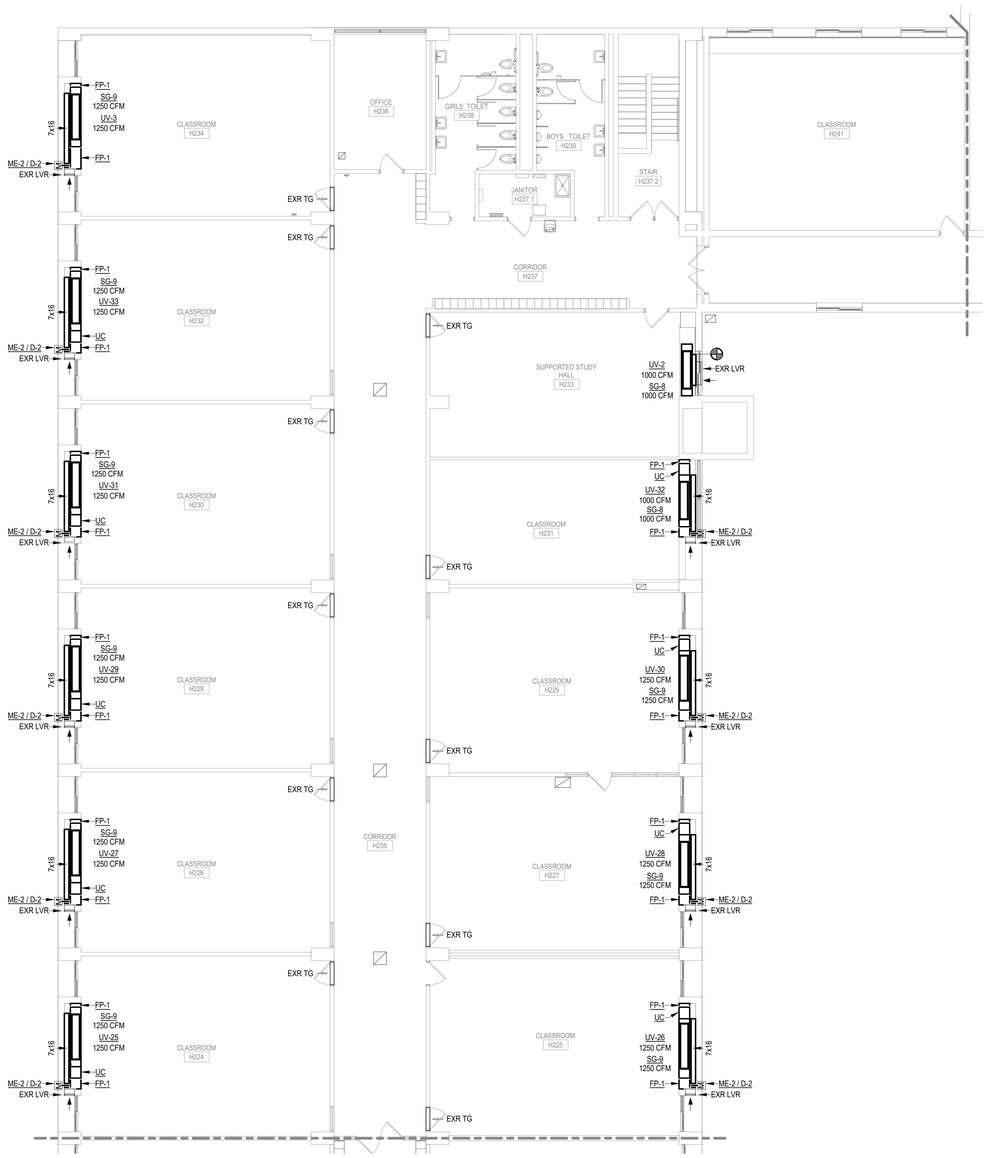
SECOND FLOOR KEY PLAN

GENERAL NOTES:

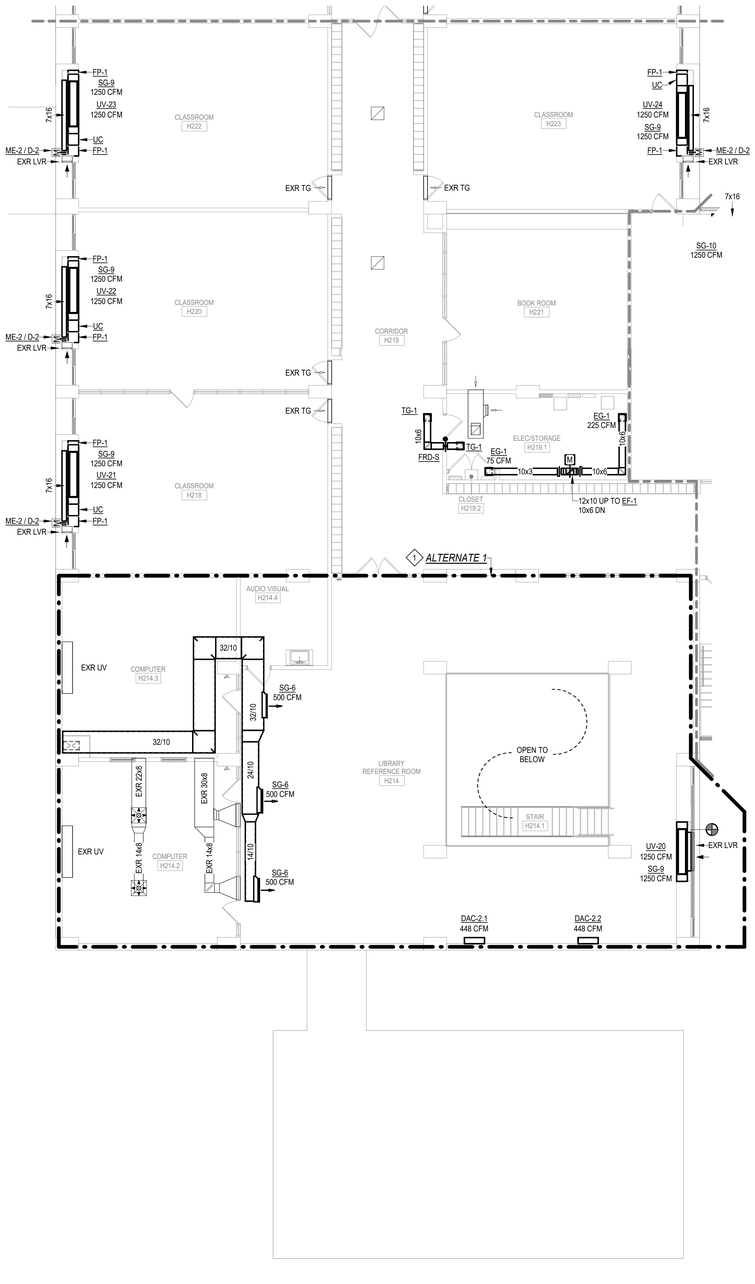
A. MC TO FIELD MEASURE AND CUT FILLER PANELS TO FIT AS INTENDED.

ALTERNATE NOTES:

1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING H&V UNIT VENTILATORS, COUNTERTOPS, FILLER PANELS, CONDENSING UNITS, ROOF SUPPORTS, PIPING PORTALS, REFRIGERANT AND CONDENSATE PIPING INCLUDING HANGERS & INSULATION, COOLING COILS, MANUFACTURER'S REQUIRED ACCESSORIES IN UNIT VENTILATORS (CONTROL BOX & EXPANSION VALVE KITS), ADDITIONAL DDC CONTROLS & INTEGRATION FOR CONTROL OF COOLING, ALL NECESSARY APPURTENANCES, AND LABOR FOR A FULLY FUNCTIONAL SYTEM. ADDITIONALLY, SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING LINED DUCTWORK, AIR TERMINALS, DUCT CONNECTIONS, DAMPERS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.



1 M306 SECOND FLOOR DUCT PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 M306 SECOND FLOOR DUCT PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
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#	REVISIONS DESCRIPTION	DATE	BY
1	SED Addendum #1	01/21/2026	DAG

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

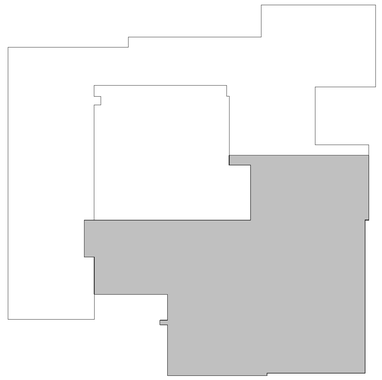
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD
TIOGA COUNTY, NY

SECOND FLOOR DUCT PLAN - AREA 3

SHEET NO.
M306
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:45 AM



ROOF KEY PLAN

ALTERNATE NOTES:

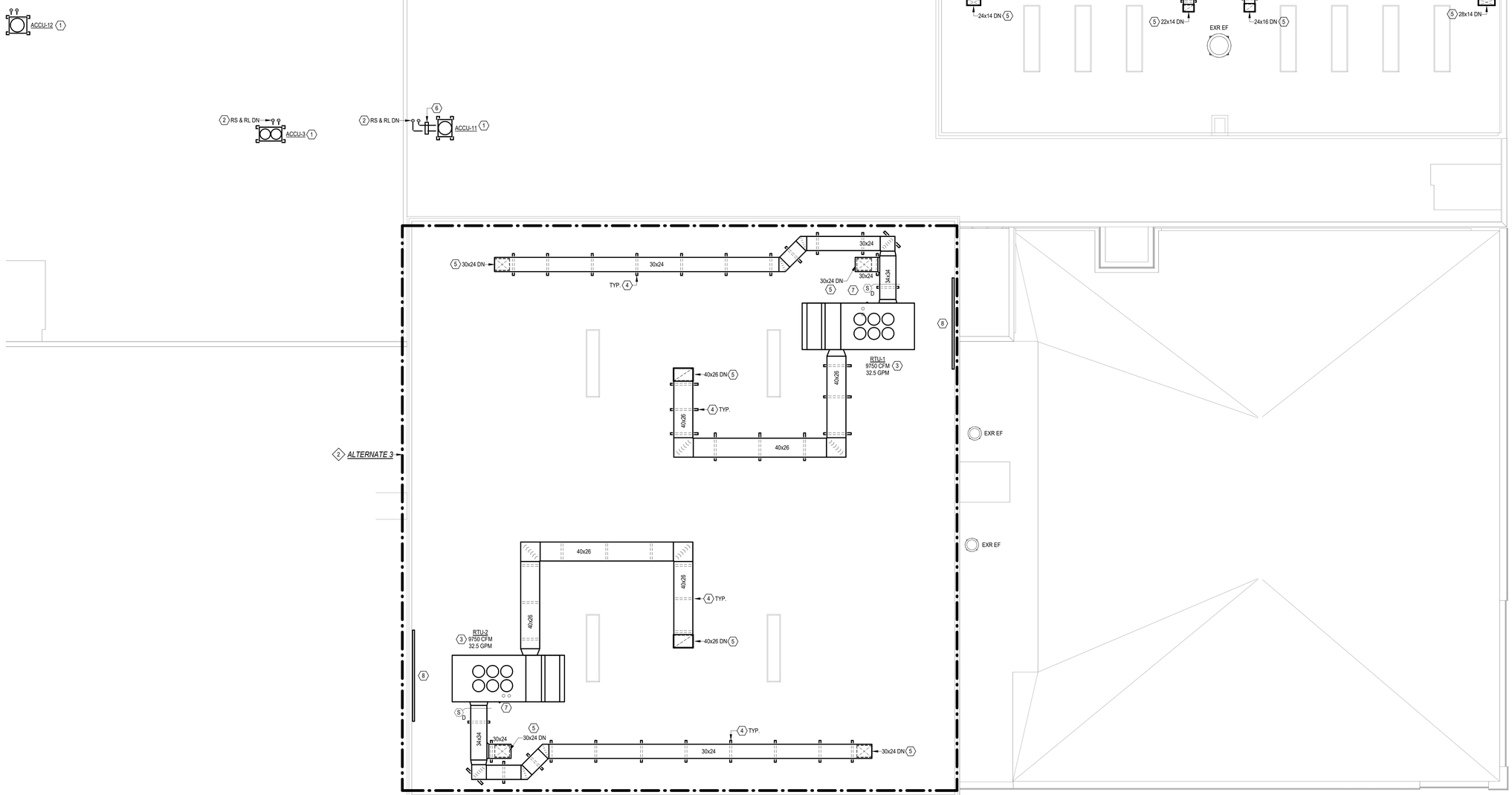
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2. ALTERNATE IS TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING DUCTWORK, INSULATION WRAP, DUCT MOUNTING PEDESTALS, ROOFTOP UNIT, CURB, FILTERS, AND MANUFACTURER'S REQUIRED ACCESSORIES IN ROOF TOP UNIT, CONTROLS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.

GENERAL NOTES:

A. REFER TO 600 SERIES DRAWINGS FOR REFRIGERANT PIPING SIZE.

DRAWING NOTES:

1. PROVIDE ROOF EQUIPMENT SUPPORT, RESS - TWO PER CONDENSING UNIT. GC TO ANCHOR TO DECK AND FLASH INTO ROOFING SYSTEM.
2. FURNISH PIPING PORTAL FOR INSTALLATION BY GC.
3. FURNISH ROOF CURB FOR INSTALLATION BY GC.
4. FURNISH DUCT MOUNT PEDESTAL, DMP-1 FOR INSTALLATION BY GC.
5. PROVIDE DUCT LINER ONLY ON PORTION OF DUCT BELOW ROOF LINE.
6. PROVIDE PIPE SUPPORTS FOR SUPPORT OF REFRIGERANT PIPING. PROVIDE QUANTITY NECESSARY TO ADEQUATELY SUPPORT REFRIGERANT PIPING SO IT IS FREE OF SAGS AND DIPS. SUPPORTS TO BE RPS PEDESTAL PLUS, OR EQUAL.
7. PROVIDE 2-1/2" PGHWS&R PIPING TO EQUIPMENT.
8. PROVIDE RAILING IN LOCATION SHOWN FOR SERVICING ROOF TOP EQUIPMENT LOCATED WITHIN 10 FEET OF THE ROOF EDGE.
9. FURNISH PLENUM ROOF CURB FOR INSTALLATION BY GC.
10. PROVIDE 1-1/2" PGHWS&R PIPING TO EQUIPMENT.



1 M307 ROOF MECHANICAL PLAN - AREA 1

1/8" = 1'-0"

1/26/2026 11:57:45 AM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ESI 1.25191

SED PROJECT NUMBERS: 60-04-02-04-0-007-023
HIGH SCHOOL

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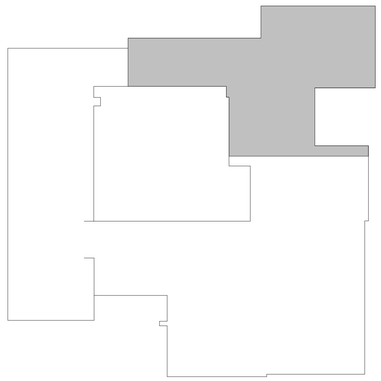
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NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
TIOGA COUNTY, NY
66 WILSON CREEK ROAD

ROOF MECHANICAL PLAN - AREA 1

SHEET NO.
M307
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RV124.rvt



ROOF KEY PLAN

GENERAL NOTES:

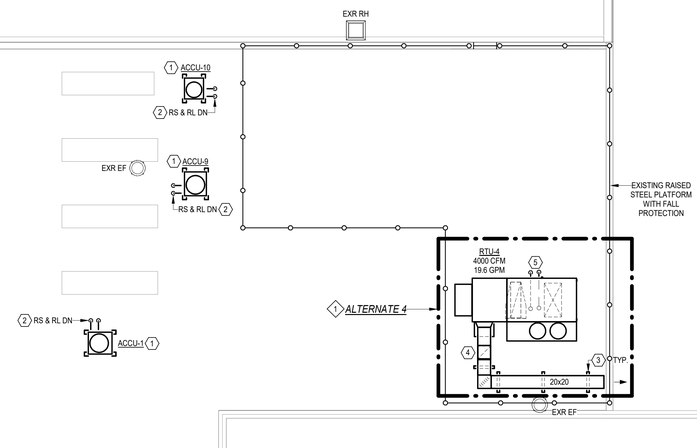
A. REFER TO 600 SERIES DRAWINGS FOR REFRIGERANT PIPING SIZE.

DRAWING NOTES:

1. PROVIDE ROOF EQUIPMENT SUPPORT, RESR - TWO PER CONDENSING UNIT. GC TO ANCHOR TO DECK AND FLASH INTO ROOFING SYSTEM.
2. FURNISH PIPING PORTAL FOR INSTALLATION BY GC.
3. FURNISH DUCT MOUNT PEDESTAL, DMP-1 FOR INSTALLATION BY GC/RC.
4. PROVIDE DUCT CONNECTION TO RTU-4 EXHAUST AIR HOOD TO MAINTAIN 10'-0" CLEARANCE TO OUTSIDE AIR INTAKES.
5. PROVIDE 2" PGHWS&R PIPING TO RTU-4. HANG PIPING FROM METAL FRAMING. GC/RC TO FLASH PIPING THRU ROOF.

ALTERNATE NOTES:

1. ALTERNATE IS TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO: PROVIDING PIPE SUPPORTS, ROOFTOP UNIT, CURB, FILTERS, AND MANUFACTURER'S REQUIRED ACCESSORIES IN ROOF TOP UNIT, CONTROLS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.



1 M308 ROOF MECHANICAL PLAN - AREA 2

1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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No.	Revisions and Submissions	Date
1	SED Addendum #1	01/21/2026

SED PROJECT NUMBERS:
HIGH SCHOOL
60-04-02-04-0-007-023

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
66 WILSON CREEK ROAD
TIOGA COUNTY, NY

ROOF MECHANICAL PLAN - AREA 2

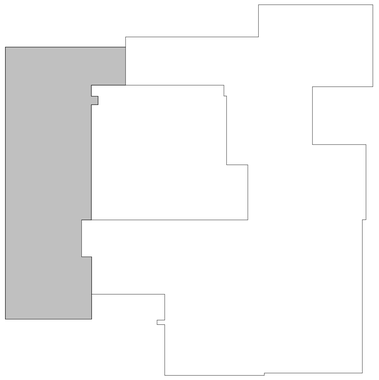
SHEET NO.
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PROJECT NO.
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DATE: 12/12/2025

CAD FILE NO.: High School_RV124.rvt

1/26/2026 11:57:45 AM



ROOF KEY PLAN

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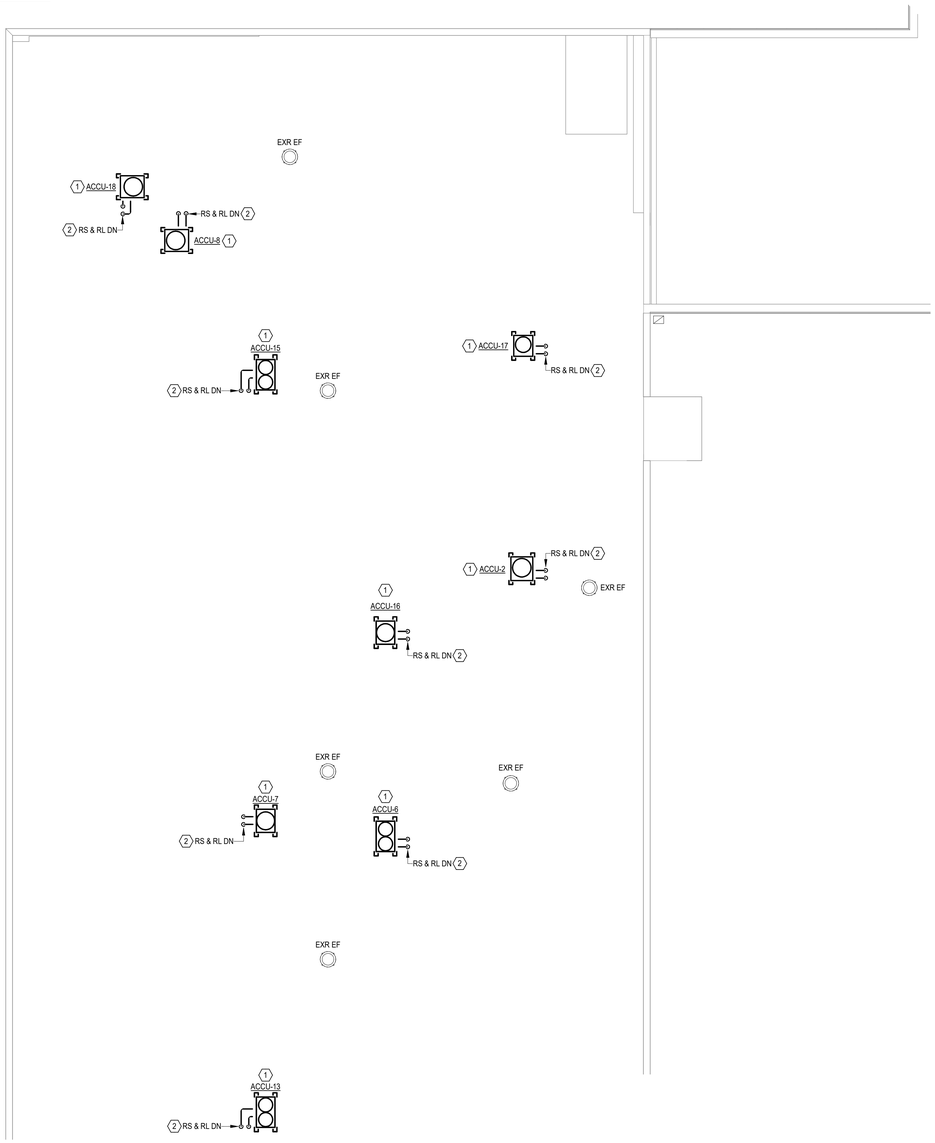
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GENERAL NOTES:

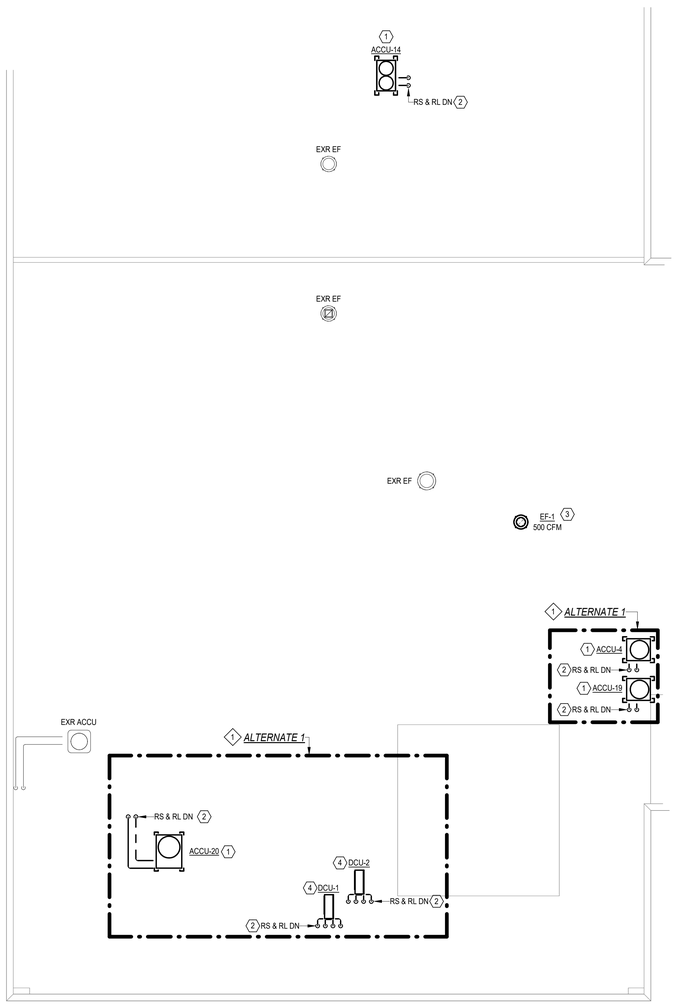
A. REFER TO 600 SERIES DRAWINGS FOR REFRIGERANT PIPING SIZE.

DRAWING NOTES:

1. PROVIDE ROOF EQUIPMENT SUPPORT, RESR - TWO PER CONDENSING UNIT. GC TO ANCHOR TO DECK AND FLASH INTO ROOFING SYSTEM.
2. FURNISH PIPING PORTAL FOR INSTALLATION BY GC.
3. FURNISH ROOF CURB FOR INSTALLATION BY GC/RC.
4. PROVIDE MANUFACTURER'S 18" TALL EQUIPMENT STAND.



1 M309 ROOF MECHANICAL PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 M309 ROOF MECHANICAL PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
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NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
66 WILSON CREEK ROAD TIOGA COUNTY, NY

ROOF MECHANICAL PLAN - AREA 3

SHEET NO.
M309

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

1/26/2026 11:57:46 AM

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GENERAL NOTES:

A. REFRIGERANT LINESET PATH TO BE FREE OF ANY OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO LIGHT FIXTURES, PROJECTORS, SPRINKLERS, ETC.

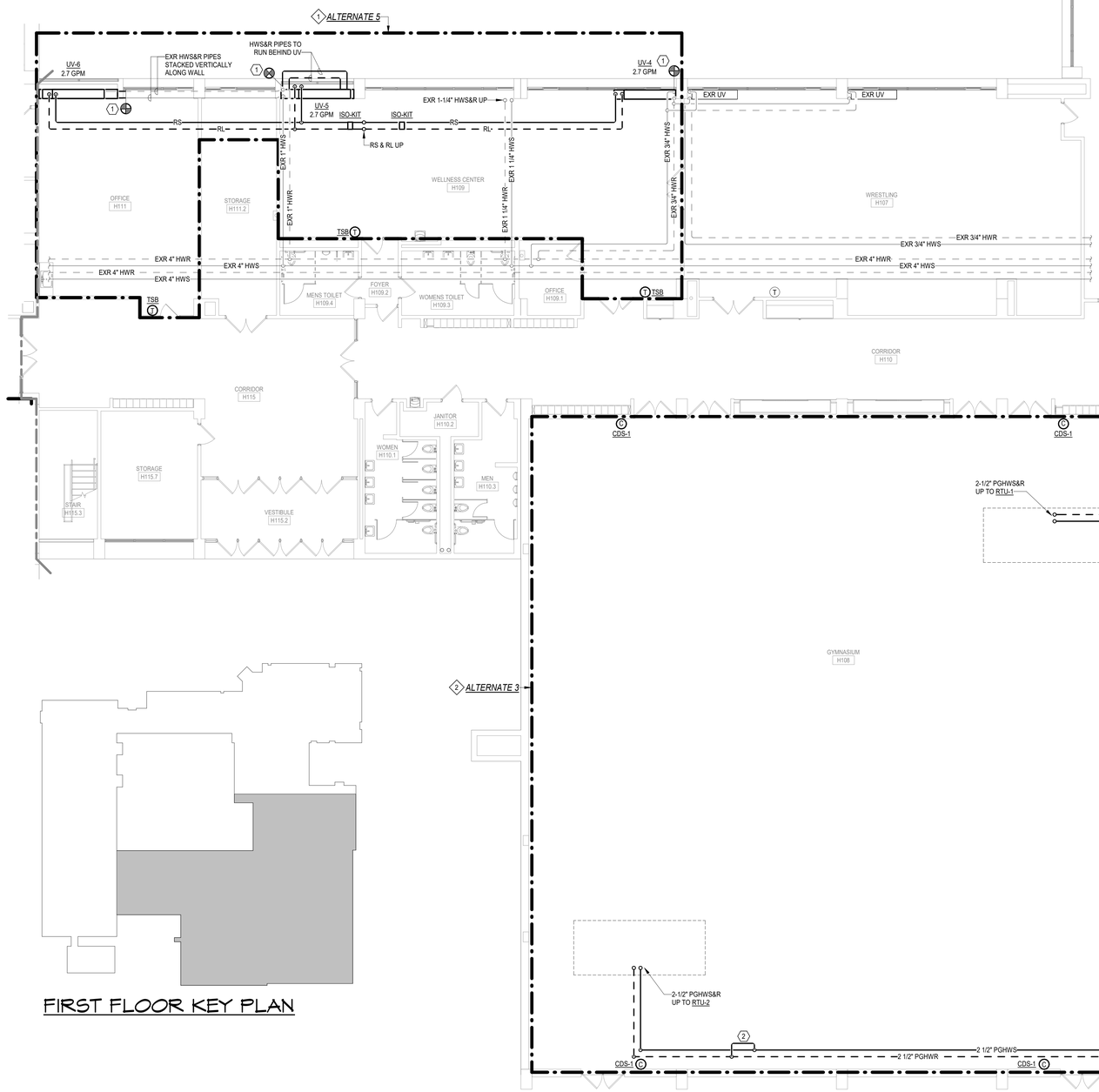
B. REFER TO 600 SERIES DRAWINGS FOR REFRIGERANT PIPING SIZE.

C. REFER TO 600 SERIES DRAWINGS FOR CONDENSATE DRAIN DETAILS.

D. PIPING TYPICALLY EXPOSED IN SPACE - PROVIDE CONTINUOUS PVC JACKETING ON ALL EXPOSED PIPING.

DRAWING NOTES:

1. PROVIDE 3/4" HWS&R PIPING TO EQUIPMENT.
2. PROVIDE 1" SYSTEM BYPASS FOR PUMP MINIMUM FLOW - REFER TO PIPING DIAGRAM FOR ADDITIONAL INFORMATION.



FIRST FLOOR KEY PLAN

1 FIRST FLOOR PIPING PLAN - AREA 1

M401 — 1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023

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NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — TIOGA COUNTY, NY

FIRST FLOOR PIPING PLAN - AREA 1

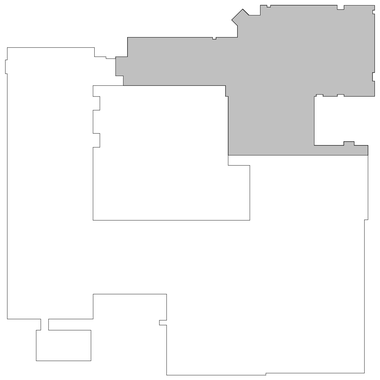
SHEET NO.
M401

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

1/26/2026 12:16:20 PM



FIRST FLOOR KEY PLAN

ALTERNATE NOTES:

1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING LINED DUCTWORK, AIR TERMINALS, DUCT CONNECTIONS, DAMPERS, PIPES, HANGERS, VALVES, PIPE INSULATION, PVC JACKETING, PUMPS, HEAT EXCHANGERS, EXPANSION TANKS, AIR SEPARATORS, GLYCOL FILL TANKS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.

GENERAL NOTES:

A. REFRIGERANT LINESET PATH TO BE FREE OF ANY OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO LIGHT FIXTURES, PROJECTORS, SPRINKLERS, ETC.

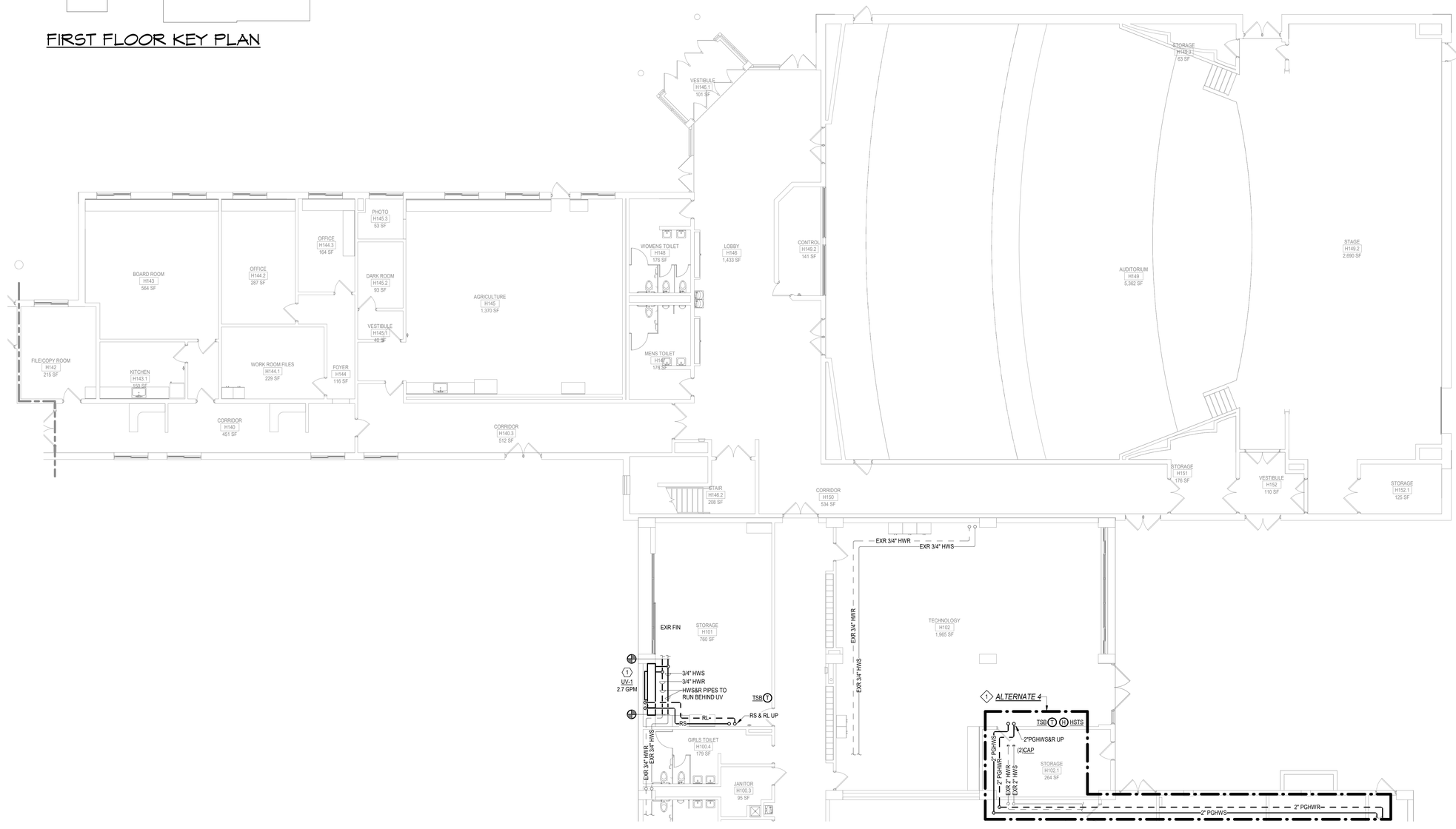
B. REFER TO 600 SERIES DRAWINGS FOR REFRIGERANT PIPING SIZE.

C. REFER TO 600 SERIES DRAWINGS FOR CONDENSATE DRAIN DETAILS.

D. PIPING TYPICALLY EXPOSED IN SPACE - PROVIDE CONTINUOUS PVC JACKETING ON ALL EXPOSED PIPING.

DRAWING NOTES:

1. PROVIDE 3/4" HWS&R PIPING TO EQUIPMENT.



1 M402 FIRST FLOOR PIPING PLAN - AREA 2

1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD TIOGA COUNTY, NY

FIRST FLOOR PIPING PLAN - AREA 2

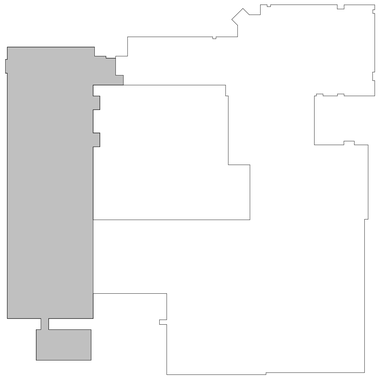
SHEET NO.
M402

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24-rvt

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FIRST FLOOR KEY PLAN

ALTERNATE NOTES:

1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING H&V UNIT VENTILATORS, COUNTERTOPS, FILLER PANELS, CONDENSING UNITS, ROOF SUPPORTS, PIPING PORTALS, REFRIGERANT AND CONDENSATE PIPING INCLUDING HANGERS & INSULATION, COOLING COILS, MANUFACTURER'S REQUIRED ACCESSORIES IN UNIT VENTILATORS (CONTROL BOX & EXPANSION VALVE KITS), ADDITIONAL DDC CONTROLS & INTEGRATION FOR CONTROL OF COOLING, ALL NECESSARY APPURTENANCES, AND LABOR FOR A FULLY FUNCTIONAL SYSTEM. ADDITIONALLY, SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING PIPES, HANGERS, VALVES, PIPE INSULATION, PVC JACKETING, LINED DUCTWORK, AIR TERMINALS, DUCT CONNECTIONS, DAMPERS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.

GENERAL NOTES:

A. REFRIGERANT LINESET PATH TO BE FREE OF ANY OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO LIGHT FIXTURES, PROJECTORS, SPRINKLERS, ETC.

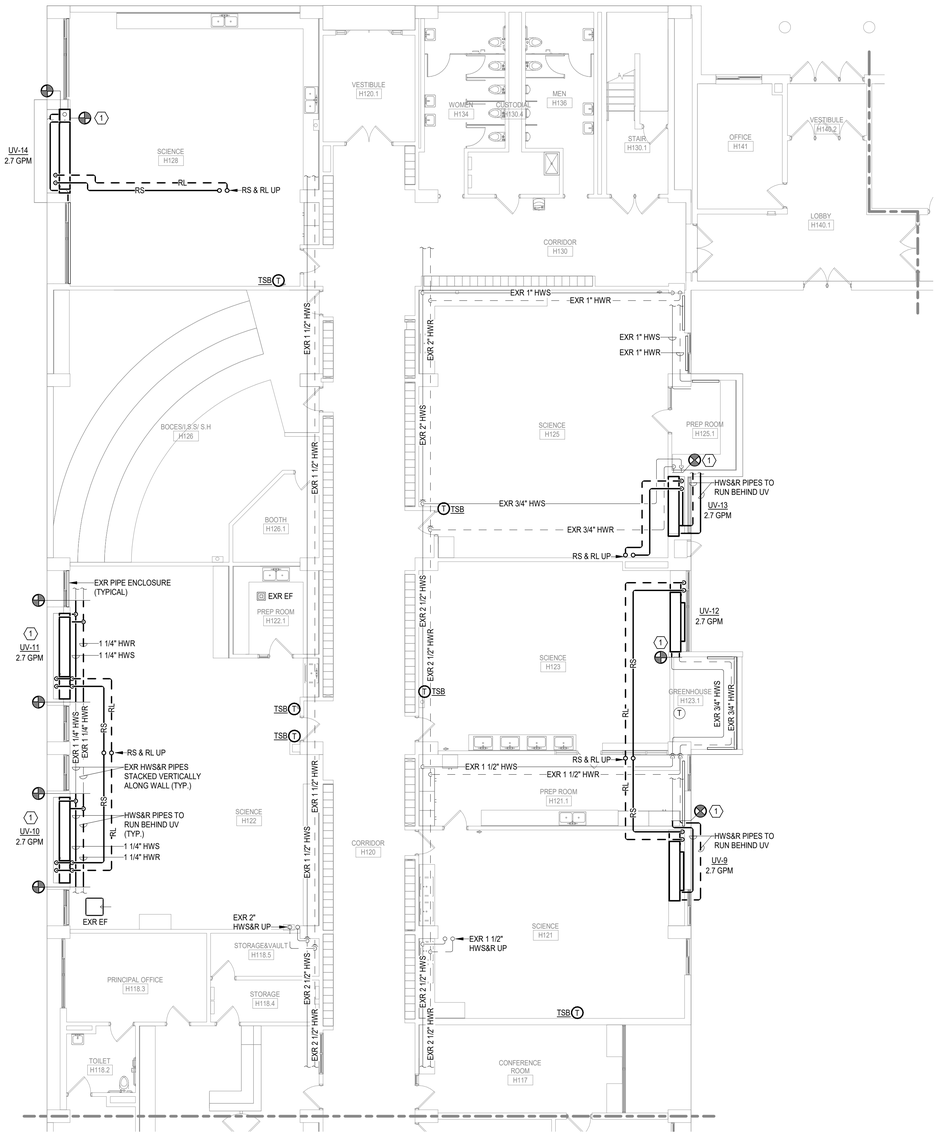
B. REFER TO 600 SERIES DRAWINGS FOR REFRIGERANT PIPING SIZE.

C. REFER TO 600 SERIES DRAWINGS FOR CONDENSATE DRAIN DETAILS.

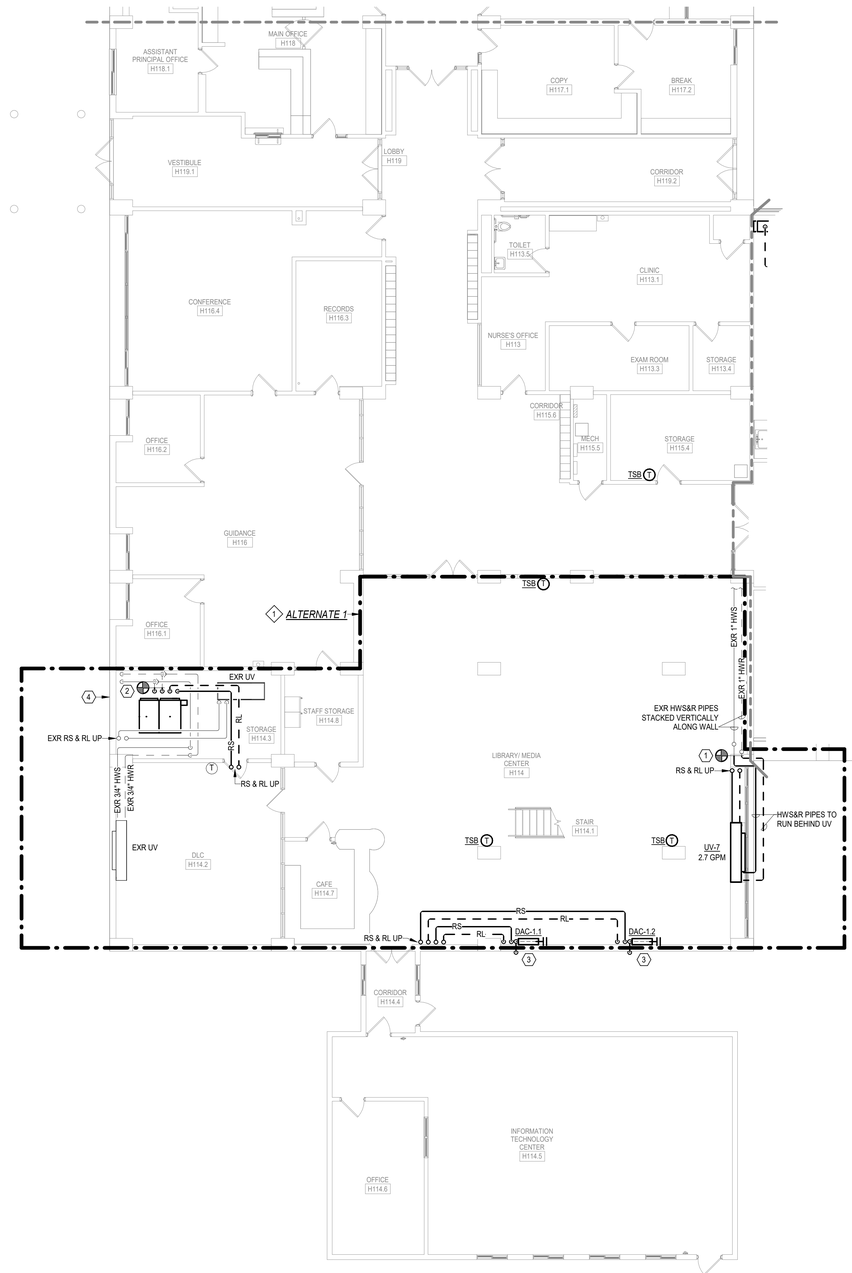
D. PIPING TYPICALLY EXPOSED IN SPACE - PROVIDE CONTINUOUS PVC JACKETING ON ALL EXPOSED PIPING.

DRAWING NOTES:

1. PROVIDE 3/4" HWS&R PIPING TO EQUIPMENT.
2. PROVIDE 2" HWS&R PIPING TO EQUIPMENT.
3. PROVIDE 3/4" CONDENSATE TO EQUIPMENT AND SPILL WITHIN 12" OF GRADE. SEE 600 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
4. PROVIDE 1" CONDENSATE TO EQUIPMENT AND DISCHARGE THROUGH EXTERIOR WALL. SEE 600 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.



1 M403 FIRST FLOOR PIPING PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 M403 FIRST FLOOR PIPING PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023

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NO.	DESCRIPTION	DATE	BY
1	SED Addendum #1	01/21/2026	DRS

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

FIRST FLOOR PIPING PLAN - AREA 3

SHEET NO.
M403

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

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ALTERNATE NOTES:

1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING H&V UNIT VENTILATORS, COUNTERTOPS, FILLER PANELS, CONDENSING UNITS, ROOF SUPPORTS, PIPING PORTALS, REFRIGERANT AND CONDENSATE PIPING INCLUDING HANGERS & INSULATION, COOLING COILS, MANUFACTURER'S REQUIRED ACCESSORIES IN UNIT VENTILATORS (CONTROL BOX & EXPANSION VALVE KITS). ADDITIONAL DDC CONTROLS & INTEGRATION FOR CONTROL OF COOLING, ALL NECESSARY APPURTENANCES, AND LABOR FOR A FULLY FUNCTIONAL SYSTEM.

2. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING PTAC, PIPE CONNECTIONS, CONDENSING UNITS, ROOF SUPPORTS, PIPING PORTALS, REFRIGERANT AND CONDENSATE PIPING INCLUDING HANGERS & INSULATION, COOLING COILS, ADDITIONAL DDC CONTROLS & INTEGRATION FOR CONTROL OF COOLING, ALL NECESSARY APPURTENANCES, AND LABOR FOR A FULLY FUNCTIONAL SYSTEM.

GENERAL NOTES:

A. REFRIGERANT LINESET PATH TO BE FREE OF ANY OBSTRUCTIONS SUCH AS, BUT NOT LIMITED TO LIGHT FIXTURES, PROJECTORS, SPRINKLERS, ETC.

B. REFER TO 600 SERIES DRAWINGS FOR REFRIGERANT PIPING SIZE.

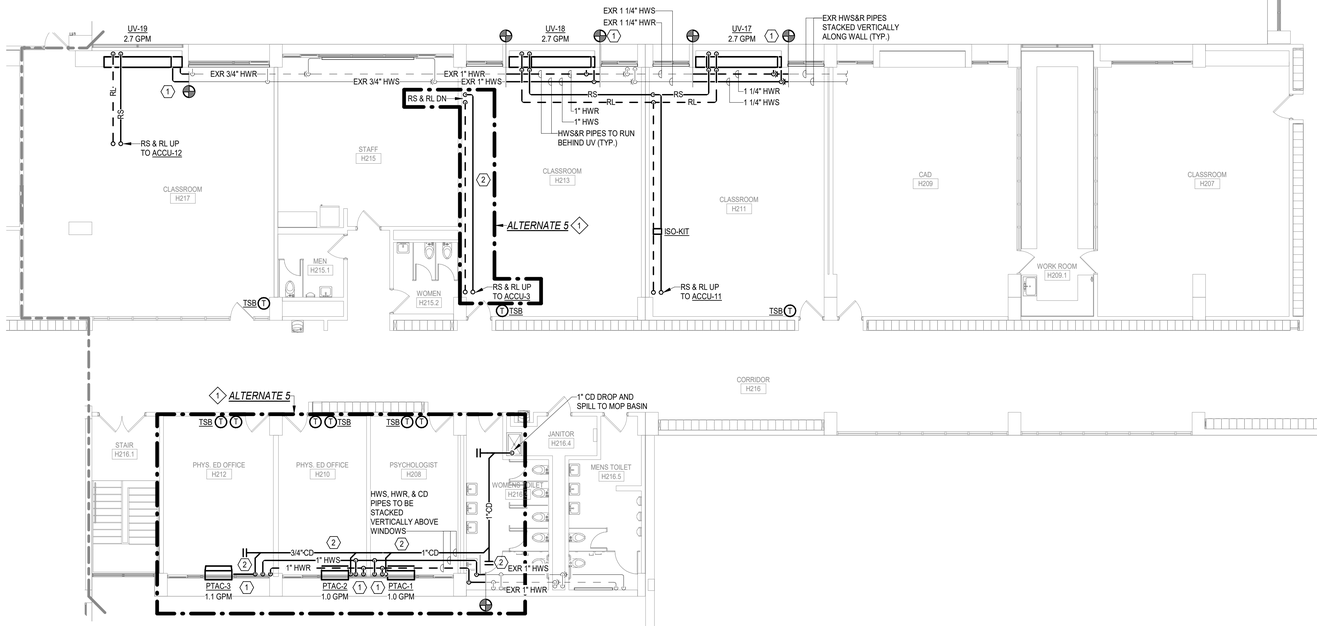
C. REFER TO 600 SERIES DRAWINGS FOR CONDENSATE DRAIN DETAILS.

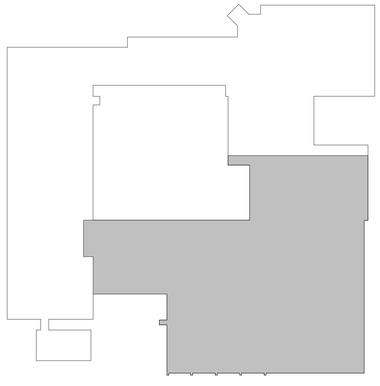
D. PIPING TYPICALLY EXPOSED IN SPACE - PROVIDE CONTINUOUS PVC JACKETING ON ALL EXPOSED PIPING.

DRAWING NOTES:

1. PROVIDE 3/4" HWS&R PIPING TO EQUIPMENT.

2. PROVIDE 3 SIDED SHEET METAL ENCLOSURE FOR HORIZONTAL AND VERTICAL PIPE RUNS. PAINT TO MATCH EXISTING WALL COLOR. COORDINATE EXACT LOCATION WITH OTHER TRADES AND EXISTING CONDITIONS.





SECOND FLOOR KEY PLAN

1 M404 SECOND FLOOR PIPING PLAN - AREA 1
1/8" = 1'-0"

1/26/2026 12:02:00 PM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ES 1.25101

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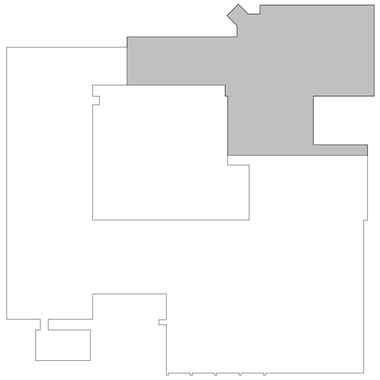
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NO.	REVISIONS AND DESCRIPTIONS	DATE:

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
TIOGA COUNTY, NY
68 WILSON CREK ROAD

SECOND FLOOR PIPING PLAN - AREA 1

SHEET NO.
M404
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt



SECOND FLOOR KEY PLAN

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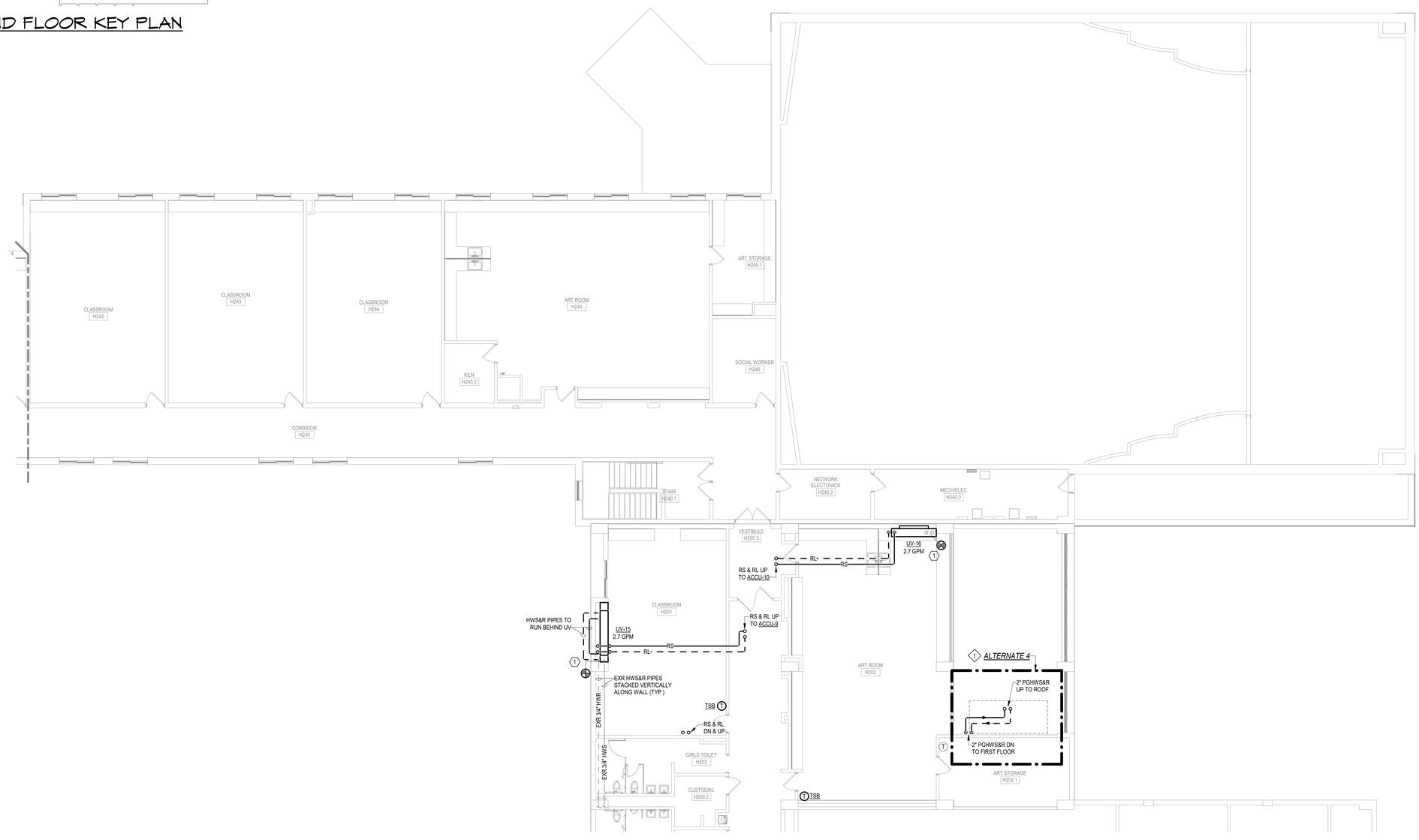
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C. REFER TO 600 SERIES DRAWINGS FOR CONDENSATE DRAIN DETAILS.

D. PIPING TYPICALLY EXPOSED IN SPACE - PROVIDE CONTINUOUS PVC JACKETING ON ALL EXPOSED PIPING.

DRAWING NOTES:

1. PROVIDE 3/4" HWS&R PIPING TO EQUIPMENT.



1 M405 SECOND FLOOR PIPING PLAN - AREA 2
1/8" = 1'-0"

1/26/2026 11:57:52 AM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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PROFESSIONAL ENGINEER
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Phone: (518) 280-2410
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www.esolutionsplc.com
ES: 23101

SED PROJECT NUMBERS:
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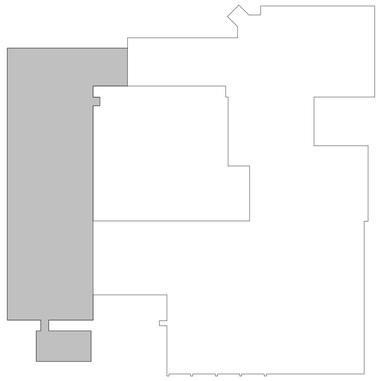
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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

SECOND FLOOR PIPING PLAN - AREA 2

SHEET NO.
M405
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt



SECOND FLOOR KEY PLAN

ALTERNATE NOTES:

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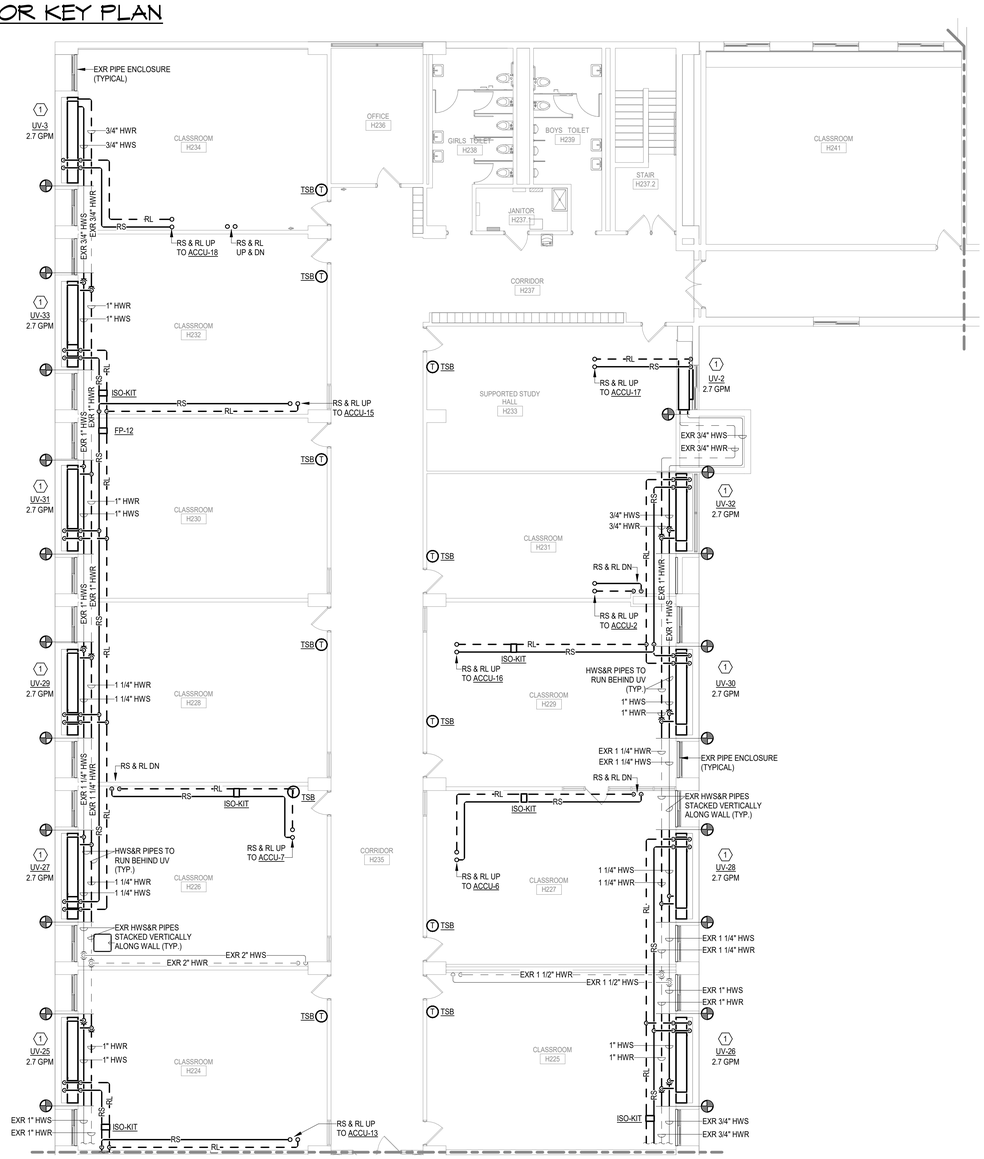
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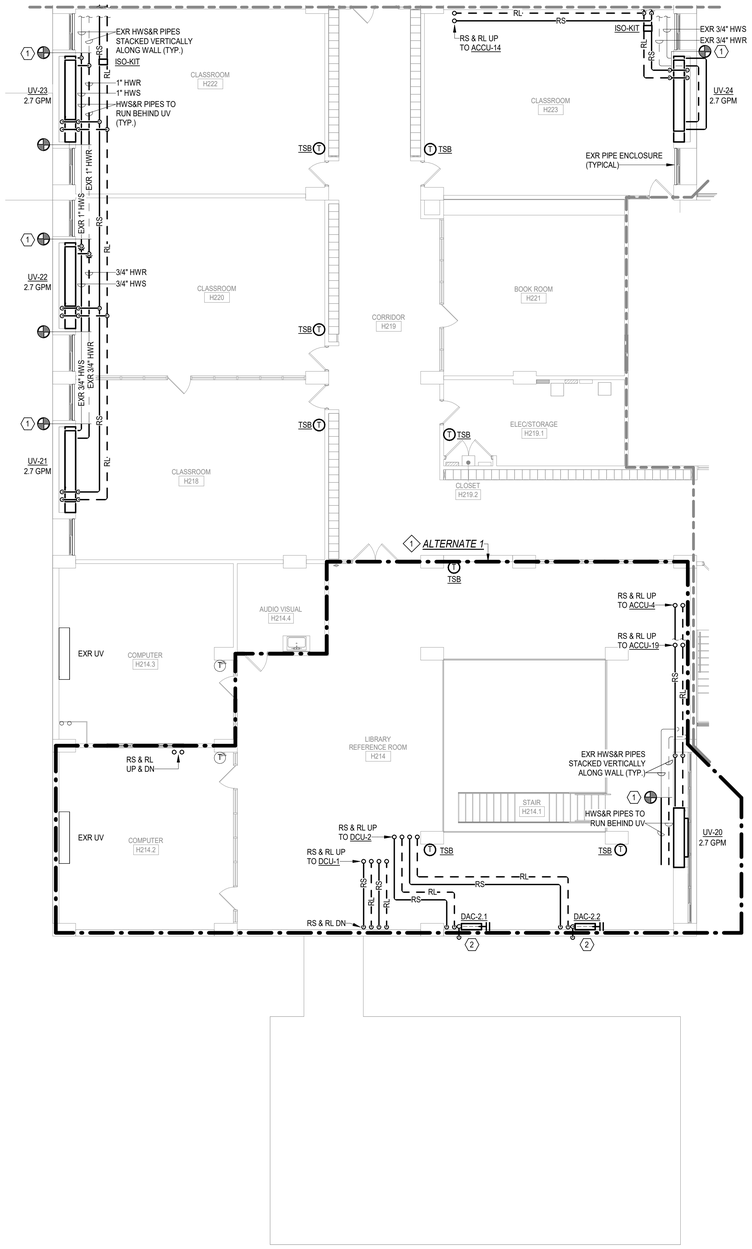
D. PIPING TYPICALLY EXPOSED IN SPACE - PROVIDE CONTINUOUS PVC JACKETING ON ALL EXPOSED PIPING.

DRAWING NOTES:

1. PROVIDE 3/4" HWS&R PIPING TO EQUIPMENT.
2. PROVIDE 3/4" CONDENSATE TO EQUIPMENT AND SPILL WITHIN 12" OF GRADE. SEE 600 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.



2 M406 SECOND FLOOR PIPING PLAN - AREA 3 UPPER
1/8" = 1'-0"



1 M406 SECOND FLOOR PIPING PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
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SURVEY - 0020652

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ES 23191

SED PROJECT NUMBERS:
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No.	Description	Date
1	SED Addendum #1 provide as described	01/21/2026

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — **TIOGA COUNTY, NY**

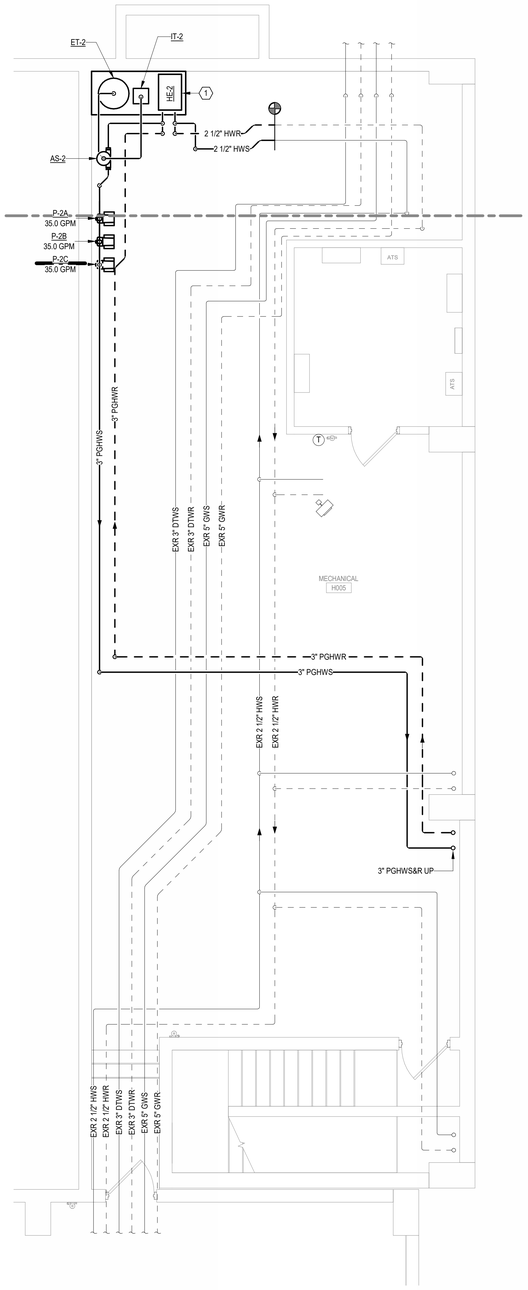
SECOND FLOOR PIPING PLAN - AREA 3

SHEET NO.
M406
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

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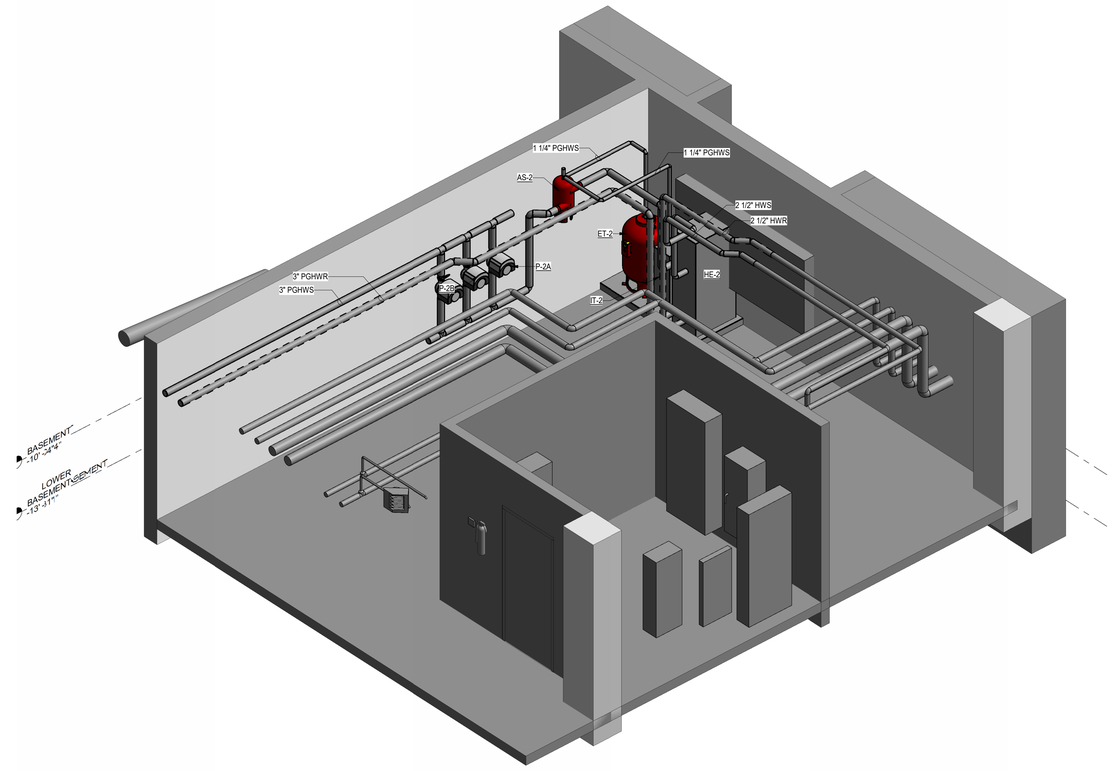
DRAWING NOTES:

1. PROVIDE 4" THICK CONCRETE EQUIPMENT PAD, A MINIMUM OF 4" LARGER THAN EQUIPMENT IN ALL DIRECTIONS.



1 M501 ENLARGED PIPING PLAN - BASEMENT MECHANICAL ROOM

1/4" = 1'-0"



2 M501 BASEMENT MECHANICAL ROOM - ISOMETRIC

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HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD
TIOGA COUNTY, NY

ENLARGED PLANS - BASEMENT MECHANICAL ROOM

SHEET NO.
M501

PROJECT NO.
1823.24221.1.3

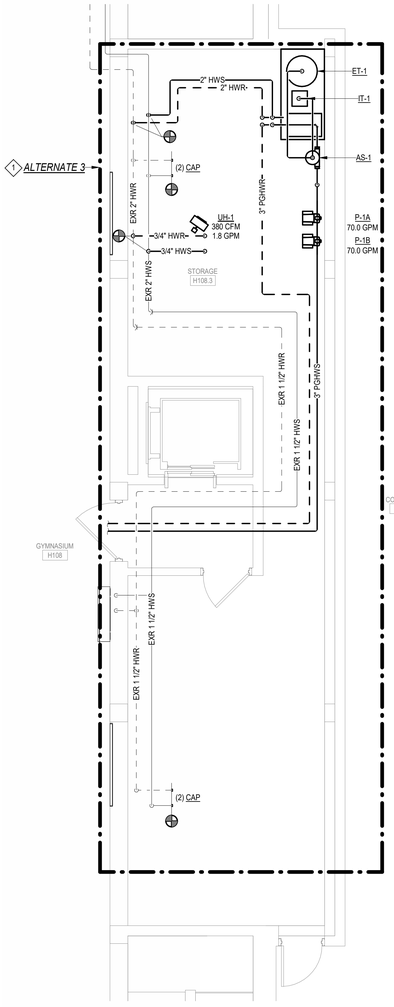
DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

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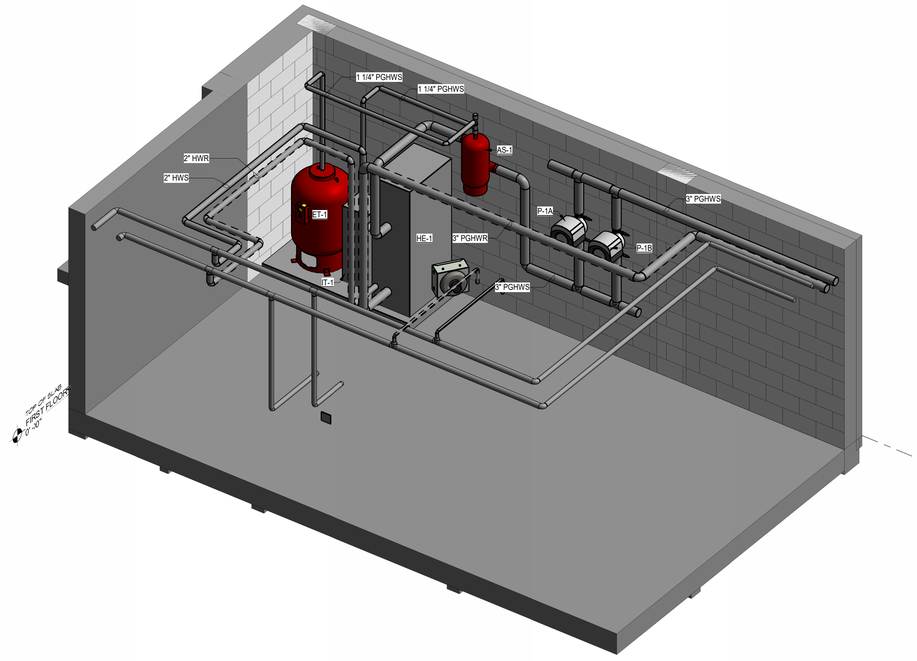
ALTERNATE NOTES:

1. ALTERNATE IS AN ADD TO PROVIDE COOLING AS INDICATED. SCOPE OF WORK TO INCLUDE, BUT NOT NECESSARILY BE LIMITED TO; PROVIDING LINED DUCTWORK, AIR TERMINALS, DUCT CONNECTIONS, DAMPERS, PIPES, HANGERS, VALVES, PIPE INSULATION, PVC JACKETING, PUMPS, HEAT EXCHANGERS, EXPANSION TANKS, AIR SEPARATORS, GLYCOL FILL TANKS, AND ALL NECESSARY APPURTENANCES FOR A FULLY FUNCTIONAL SYSTEM.



FIRST FLOOR ENLARGED PIPING PLAN - GYM HEAT EXCHANGER ROOM

1 M502 1/4" = 1'-0"



GYM HEAT EXCHANGER ROOM - ISOMETRIC

2 M502

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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HIGH SCHOOL

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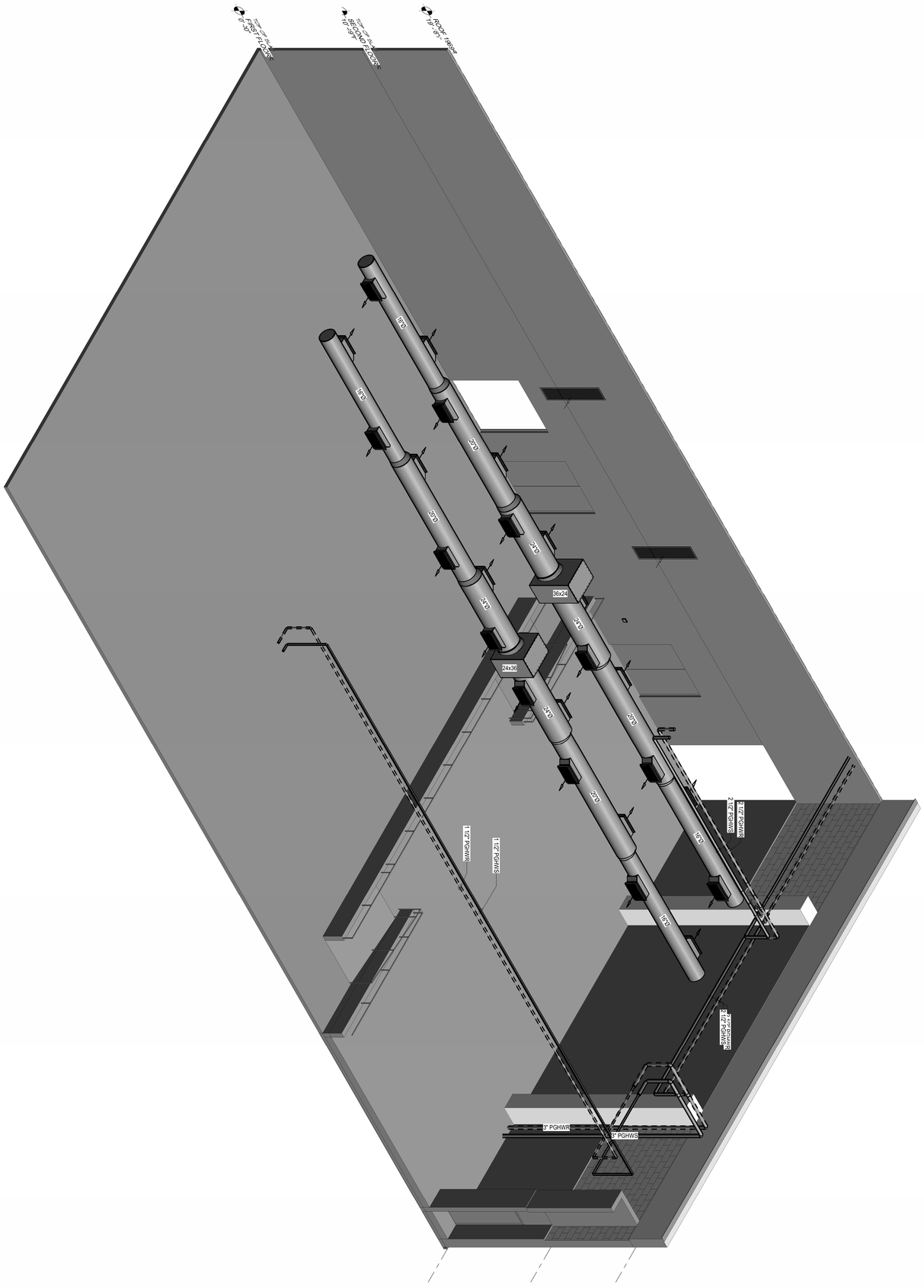
NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

ENLARGED PLANS - GYM HEAT EXCHANGER ROOM

SHEET NO.
M502
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
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1 M503 MULTIPURPOSE ROOM ISOMETRIC

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREK ROAD — TIOGA COUNTY, NY

MULTIPURPOSE ROOM ISOMETRIC

SHEET NO. M503

PROJECT NO. 1823.2021.13

DATE: 12/12/2025

FOR THE NEL High School 2023-24

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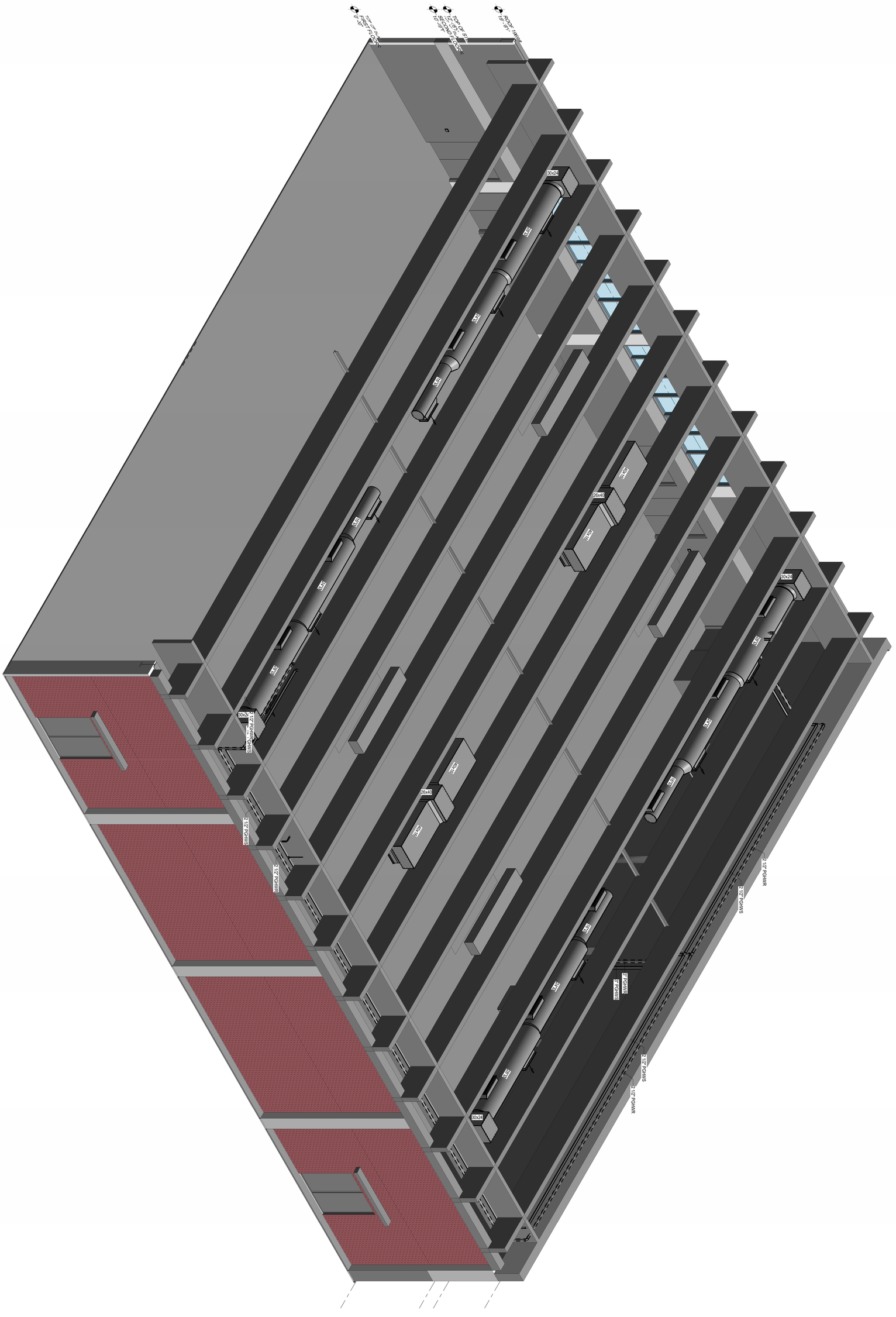
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CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021831
SURVEY - 0020926

1 M504

GYM ISOMETRIC



NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREK ROAD — TIOGA COUNTY, NY

GYM ISOMETRIC

SHEET NO. M504
PROJECT NO. 1823.24221.1.3
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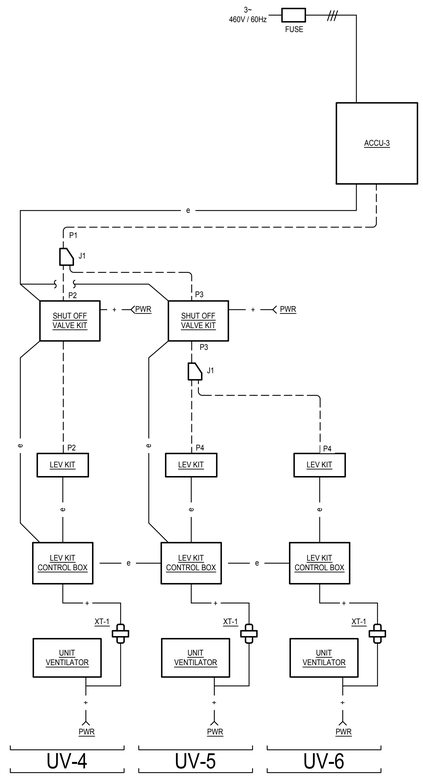
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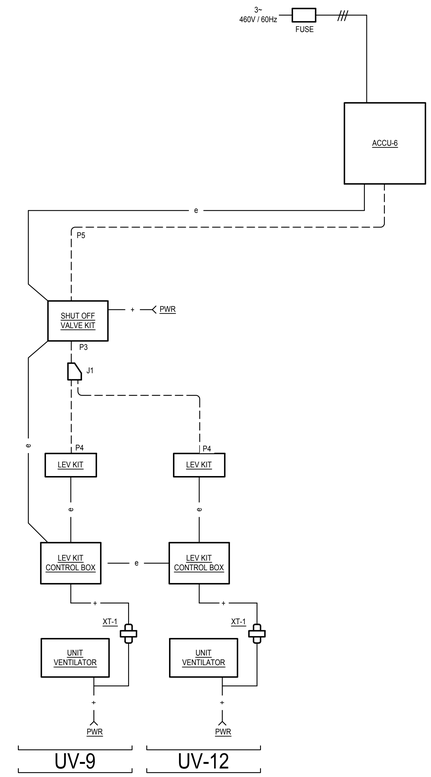
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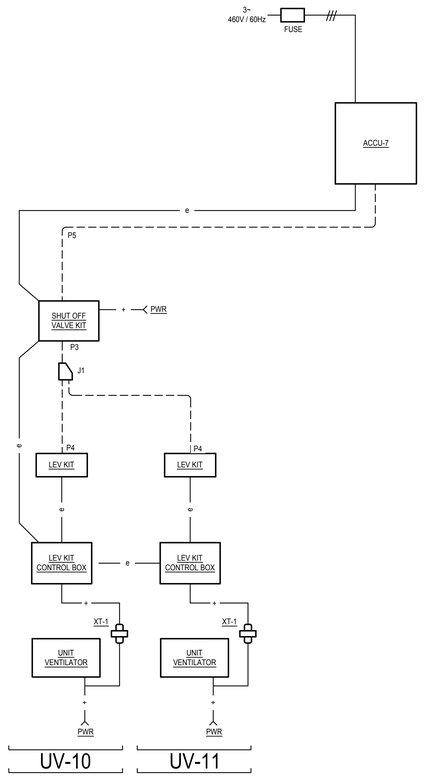
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CERTIFICATE OF AUTHORIZATION
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SURVEY - 0026902

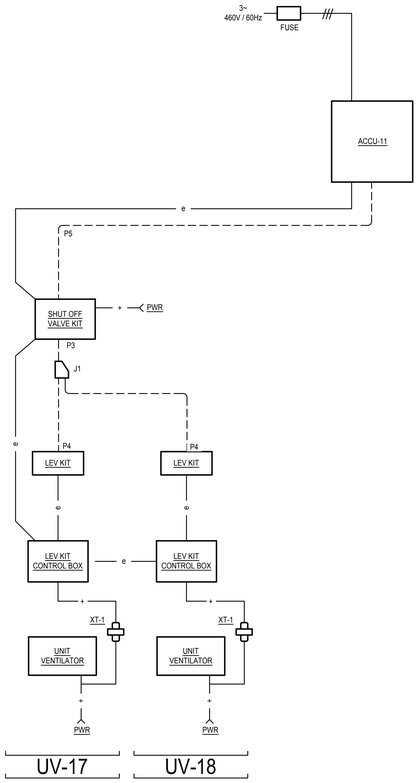


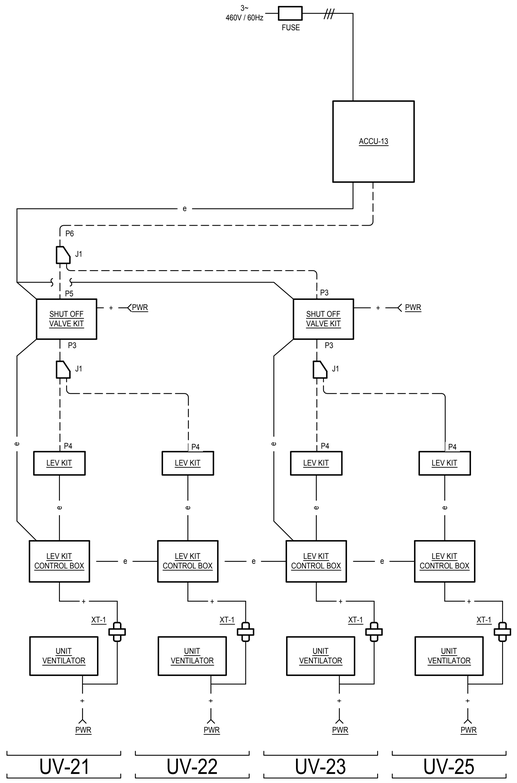


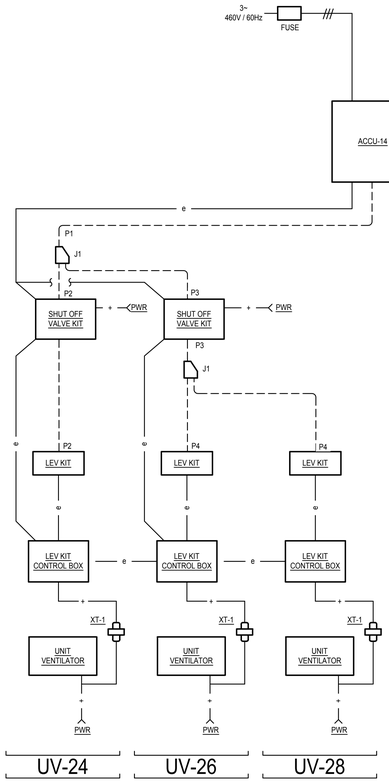


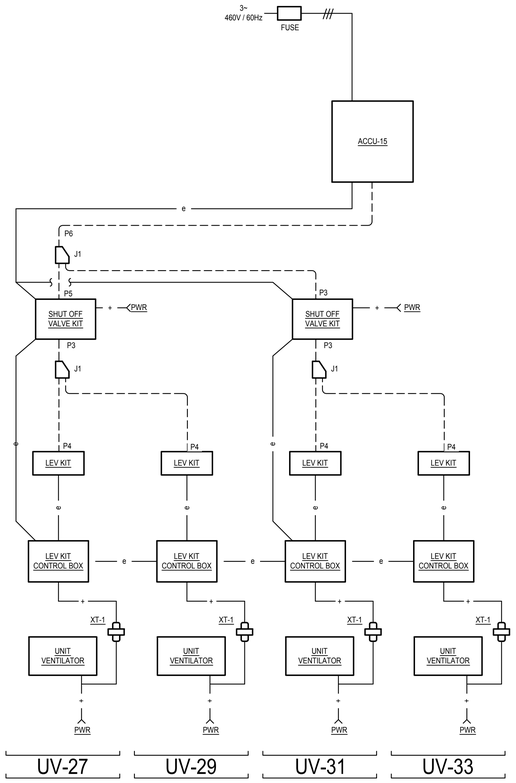
PIPING AND CONTROLS	
SYMBOL	**BRANCH PIPE MODEL NAME**
J1	CMY-Y102LS-G2R1
SVK1	CMR-M100KT-NA
SYMBOL	**LIQUID PIPE / GAS PIPE SIZE**
P1	1/2 / 1-1/8
P2	3/8 / 5/8
P3	1/2 / 7/8
P4	1/2 / 5/8
P5	3/8 / 7/8
P6	5/8 / 1-1/8
P7	1/4 / 3/8
SYMBOL	**MODEL NUMBER**
MA / WR	STOCK CONTROLLER

DIAGRAM SYMBOL LEGEND	
DISPLAY	**DESCRIPTION**
——//——	POWER WIRE
———	CONTROL WIRE
– – –	REFRIGERANT PIPE









1 M601 TYPICAL UNIT VENTILATOR REFRIGERANT PIPING AND WIRING LADDER DIAGRAM

SCALE: NTS

NOTE(S):
1. INSTALL TWINNING Y'S WITHIN 15 DEGREES OF LEVEL AND WITH 20 INCHES OF STRAIGHT PIPEON CONVEYING CONNECTION - REFERENCE INSTALLATION MANUAL FOR ADDITIONAL DETAILS INCLUDING BUT NOT LIMITED TO SPECIAL TRAPPING REQUIREMENTS WHEN TWINNING, AND PIPE SLOPE REQUIREMENTS.
2. VERIFY ALL SYSTEM PIPE ROUTING, SIZES, LENGTHS AND REFRIGERANT CHARGES WITH EQUIPMENT MANUFACTURER'S REPRESENTATIVE PRIOR TO ORDERING.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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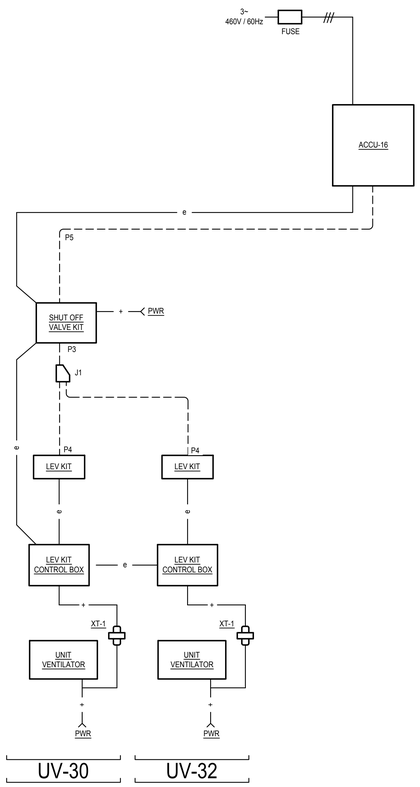
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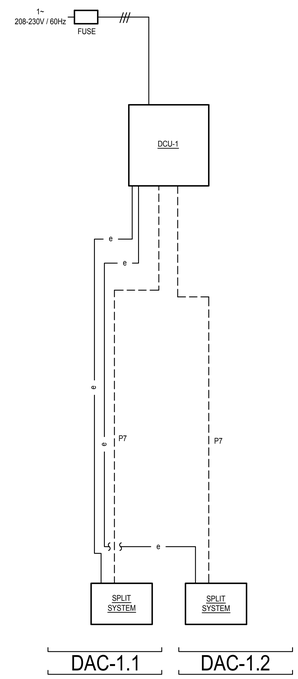
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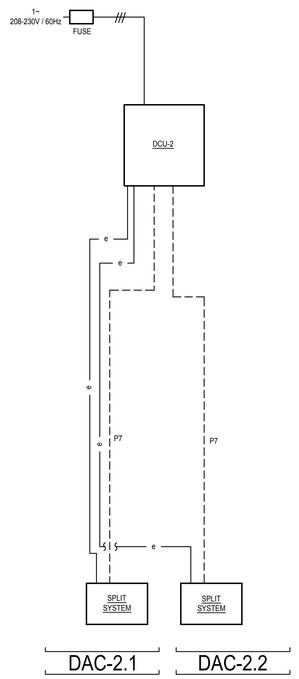
NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD
TIOGA COUNTY, NY

MECHANICAL DETAILS

SHEET NO:
M601
PROJECT NO:
1823.24221.1.3
DATE:
12/12/2025







PIPING AND CONTROLS	
SYMBOL	**BRANCH PIPE MODEL NAME**
J1	CMY-Y102LS-G2R1
SVK1	CMR-M100KT-NA
SYMBOL	**LIQUID PIPE / GAS PIPE SIZE**
P1	1/2 / 1-1/8
P2	3/8 / 5/8
P3	1/2 / 7/8
P4	1/2 / 5/8
P5	3/8 / 7/8
P6	5/8 / 1-1/8
P7	1/4 / 3/8
SYMBOL	**MODEL NUMBER**
MA / WR	STOCK CONTROLLER

DIAGRAM SYMBOL LEGEND	
DISPLAY	**DESCRIPTION**
—//—	POWER WIRE
———	CONTROL WIRE
– – –	REFRIGERANT PIPE

1 M602 TYPICAL UNIT VENTILATOR REFRIGERANT PIPING AND WIRING LADDER DIAGRAM

SCALE: NTS

NOTE(S):
1. INSTALL TWINNING Y'S WITHIN 15 DEGREES OF LEVEL AND WITH 20 INCHES OF STRAIGHT PIPEON CONVEYING CONNECTION - REFERENCE INSTALLATION MANUAL FOR ADDITIONAL DETAILS INCLUDING BUT NOT LIMITED TO SPECIAL TRAPPING REQUIREMENTS WHEN TWINNING, AND PIPE SLOPE REQUIREMENTS.
2. VERIFY SYSTEM WIRING AND NECESSARY COMPONENTS WITH EQUIPMENT MANUFACTURER'S REPRESENTATIVE PRIOR TO ORDERING.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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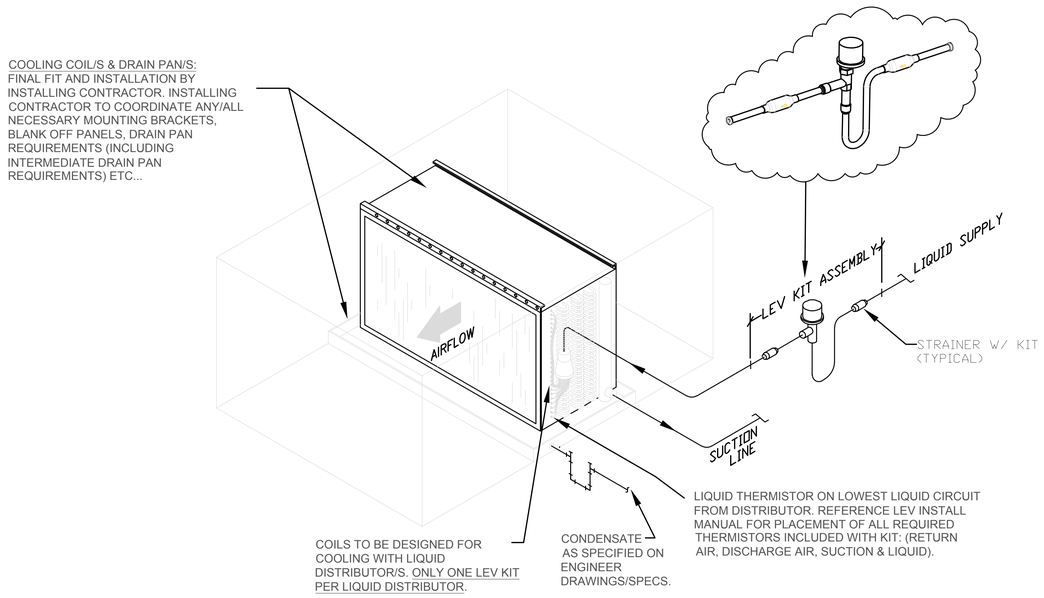
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HIGH SCHOOL

WARNING: Sheet 09, Zones 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42,



P5 3/8 / 7/8

LEV KIT COIL PIPING DETAIL 4.8-60 MBH
SINGLE DISTRIBUTOR, SINGLE REF CIRCUIT
(TYPICAL OF EACH COIL IF MULTIPLE PRESENT)

Installation Requirements:

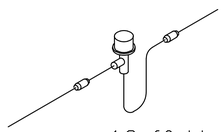
1. Single LEV assemblies (PAC-LV24/28/60) can be installed in horizontal, vertical, or side position. Do not install single LEV assemblies in upside down position.
2. Double LEV assemblies (PAC-LV96/120) must be installed with LEV in horizontal position (i.e. LEV valve heads oriented in upright position). Do not install double valve LEVs in vertical, side, or upside down position
3. LEV valves must be installed within 5ft of coil distributor connection.
4. Twinning double valve assemblies (PAC-LV96 x2 and PAC-LV120 x2) must be completed in the field. They do not come twinned.
5. The bull head T feed configuration should be symmetrical on both liquid and suction.
6. Bull head T's are only allowed at the LEV locations.

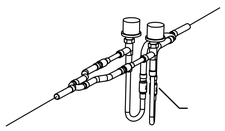
Controls Requirements:

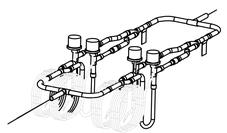
1. Each distributor must have its own PAC-AH001-1 Controller.
2. Each distributor must have its own set of 4 thermistors (included with PAC-AH001-1 Controller)
   - 2.1. Liquid thermistor must be installed on lowest cap tube per distributor.
   - 2.2. Gas thermistor must be installed on the branch pipe closest to the coil header.
   - 2.3. Inlet air thermistor must be installed at the inlet of the coil (mixed air).
   - 2.4. Discharge air thermistor must be installed on discharge of coil approximately 2ft away.
   - 2.5. Refer to installation manual for full details on sensor placement.

DISCLAIMER:

THESE DETAILS ARE PROVIDED PURELY FOR REFERENCE. FINAL USE OF ANY DETAILS IN THIS FILE IS AT THE SOLE DISCRETION OF THE ENGINEER OF RECORD. THE ENGINEER OF RECORD MUST REVIEW AND MODIFY AND ACCEPT FULL RESPONSIBILITY FOR THE FINAL DETAILS USED IN ANY CONSTRUCTION DRAWING SET, CONFORMING TO THE PROJECT SPECIFIC REQUIREMENTS AND LOCAL CODE REQUIREMENTS. MITSUBISHI ELECTRIC TRANE HVAC US LLC (METUS) MAKES NO WARRANTY OR GUARANTEE OF ANY KIND, EXPRESSED OR IMPLIED, BASED ON ANY INFORMATION IN THESE DETAILS.


4.8-60mbh


96-120mbh

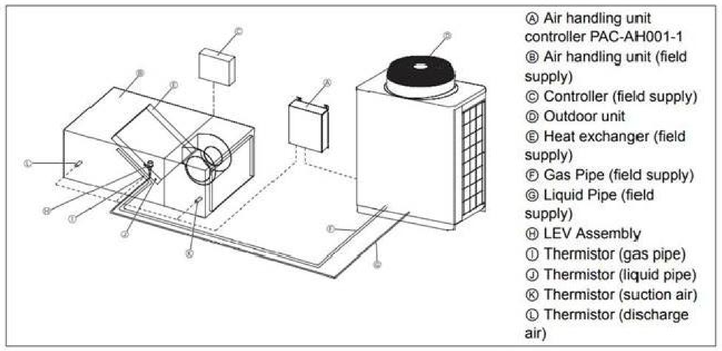

144-240mbh

1 M603 LEV KIT DETAILS
SCALE: NTS

Important considerations for LEV designs :

1. LEV Kit Guidelines
   1. The Linear Expansion Valve (LEV) kit includes at least one valve assembly per distributor, an LEV Control box for each distributor, and qty(2) refrigerant temperature thermistors and qty(2) air temperature thermistors for each LEV control box.
   2. The Linear Expansion Valve Controller requires 208-230V/1ph power.
   3. The Linear Expansion Valve Controller must be within 16ft wire length of the valve assembly. The AHU controller cut sheet is attached for reference.
   4. LEVs and air handler controllers shall be located indoors or in a water tight outdoor enclosure. LEV kits are not suitable for hazardous locations both indoor and outdoor.
2. The LEV kit will not handle a full complex air handler DDC sequence. For any application other than basic City Multi room temperature control, requiring standard City Multi remotes, a third party DDC controller by others is required.
3. DAT EAT Range: Cooling: 59 °F wb – 75 °F wb, Heating: 0 °F db – 59 °F db
4. 100% Raw OA not approved, should have energy recovery wheel or other.
5. Can be used to control discharge temperature (46 – 80F Clg & 63 – 83F* Htg set point)
   ** Can be raised to 95F with non published dip switch change*
6. Minimum airflow turndown must not drop below 70% of design for DX coil

The LEV kit can be used with a 0 – 10 VDC input for set point control from other devices.



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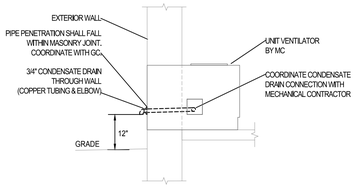
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

MECHANICAL DETAILS

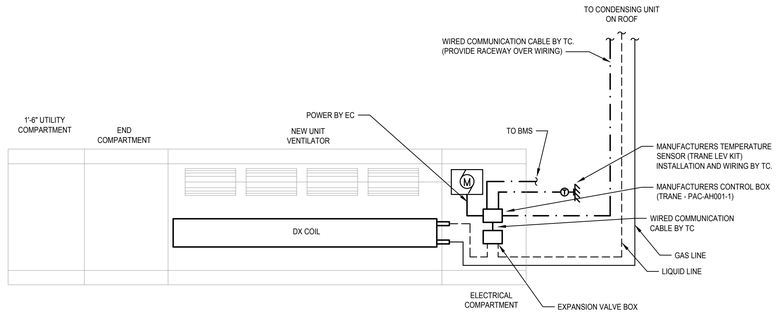
SHEET NO.
M603
PROJECT NO.
1823.24221.1.3
DATE
12/12/2025



1. PROVIDE CONDENSATE DRAIN THROUGH EXTERIOR WALL, EXPOSED DRAIN PIPE SHALL BE COPPER.
2. PENETRATIONS THROUGH WALL SHALL BE CORE DRILLED AND SEALED WATER & GAS TIGHT.
3. PROVIDE INSECT SCREEN ON OUTLET

1 M604 UNIT VENTILATOR CONDENSATE DRAIN AT EXTERIOR WALL DETAIL

SCALE: NTS



2 M604 UNIT VENTILATOR REFRIGERANT PIPING AND WIRING DIAGRAM

SCALE: NTS

NOTE(S):
1. ALL COMPONENTS AND PIPING BY MC. MC RESPONSIBLE TO MAKE A FULLY FUNCTIONAL SYSTEM.

1. PROVIDE CONDENSATE DRAIN THROUGH EXTERIOR WALL, EXPOSED DRAIN PIPE SHALL BE COPPER.
2. PENETRATIONS THROUGH WALL SHALL BE CORE DRILLED AND SEALED WATER & GAS TIGHT.
3. PROVIDE INSECT SCREEN ON OUTLET

3 M604 EXTERIOR WALL CONDENSATE DRAIN DETAIL

SCALE: NTS

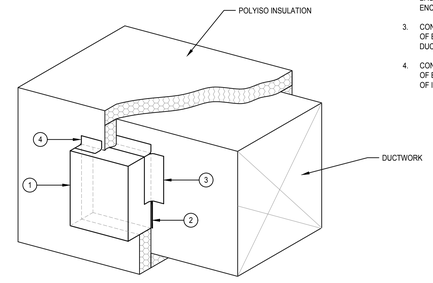
4 M604 DOWNBLAST EXHAUST FAN DIAGRAM

SCALE: NTS

NOTES:
1. PROVIDE 12" TALL ROOF CURB (UNLESS OTHERWISE NOTED).

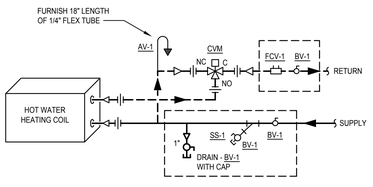
DIAGRAM NOTES

1. WEATHERPROOF ENCLOSURE DESIGNED FOR INSTALLATION OF DUCT SMOKE DETECTOR.
2. CONTINUOUS BEAD OF SILICONE SEALANT ON BACKSIDE OF ENCLOSURE, THE ENTIRE PERIMETER OF ENCLOSURE.
3. CONTINUOUS VENTURECLAD TAPE ENTIRE PERIMETER OF ENCLOSURE, SEALING BACK OF ENCLOSURE TO DUCT.
4. CONTINUOUS VENTURECLAD TAPE ENTIRE PERIMETER OF ENCLOSURE, SEALING ENCLOSURE TO EXTERIOR OF INSULATION.



5 M604 EXTERIOR DUCT DETECTOR INSTALLATION

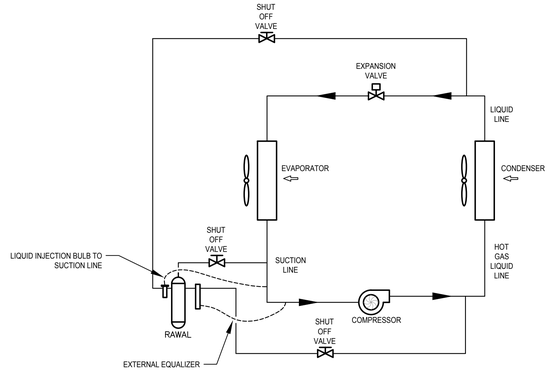
SCALE: NTS



6 M604 TYPICAL UV, DUCT HEATING COIL, AND PTAC PIPING DIAGRAM (3-WAY CONTROL VALVE)

SCALE: NTS

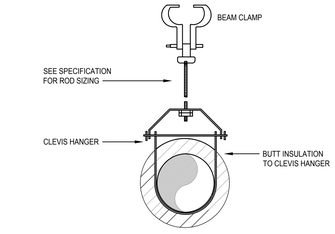
NOTES:
1. FCV SIZED TO MATCH FLOW.
2. PROVIDE UNIONS ON COIL AND CONTROL VALVE CONNECTIONS.
3. AREAS SHOWN IN DASHED BOXES WILL BE ALLOWED FOR COIL KITS.
4. COILS KITS THAT ARE SUPPLIED WITH FLEXIBLE HOSES WILL BE REJECTED WITHOUT REVIEW.
5. NOTE-STRAINER TO BE USED A DRAIN. INSTALL AS REQUIRED.



7 M604 AC REFRIGERANT COIL PIPING DIAGRAM

SCALE: NTS

NOTES:
1. REFER TO MANUFACTURERS RECOMMENDATIONS FOR ADDITIONAL INFORMATION.
2. SIZE REFRIGERANT PIPING TO MANUFACTURERS RECOMMENDATIONS.
3. REFER TO AC REFRIGERANT COIL PIPING DIAGRAM FOR SPECIALTIES.



8 M604 HW PIPING MAIN HANGER

SCALE: NTS

NOTES:
1. PROVIDE ANCHORS FOR CONNECTION INTO DECKING.

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HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD
TIOGA COUNTY, NY

MECHANICAL DETAILS

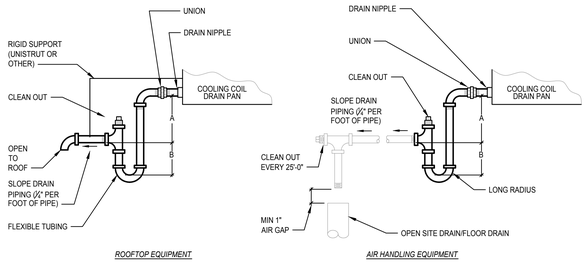
SHEET NO.
M604

PROJECT NO.
1823.24221.1.3

DATE
12/12/2025

DRAW-THRU UNIT			BLOW-THRU UNIT		
MAX NEGATIVE PRESSURE	MIN A (IN.)	MIN B (IN.)	MAX POSITIVE PRESSURE	MIN A (IN.)	MIN B (IN.)
1	2	1.5	1	1	1
2	3	2.0	2	1	2
3	4	2.5	3	1	3
4	5	3.0	4	1	4
5	6	3.5	5	1	5
6	7	4.0	6	1	6
7	8	4.5	7	1	7
8	9	5.0	8	1	8
9	10	5.5	9	1	9
10	11	6.0	10	1	10

DRAIN SIZE CHART	
COOLING CAPACITY (TONS)	MIN PIPE DIAMETER (IN.)
UP TO 20	¾
20-40	1
40-90	1-1/4
90-125	1-1/2
125-250	2

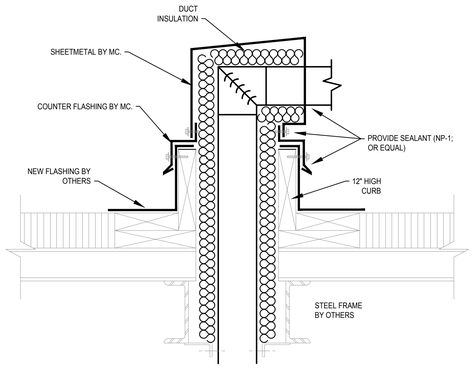


ROOFTOP EQUIPMENT *AIR HANDLING EQUIPMENT*

1 M605 COOLING COIL DRAIN DIAGRAM

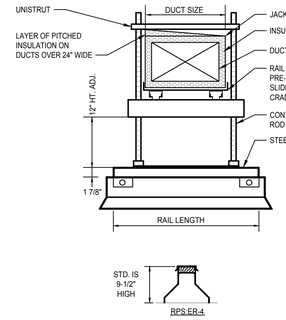
SCALE: NTS

NOTES:
1. DRAIN PIPE SIZING SHALL NOT BE SMALLER THAN EQUIPMENT DRAIN CONNECTION.



2 M605 DUCT CURB DIAGRAM

SCALE: NTS



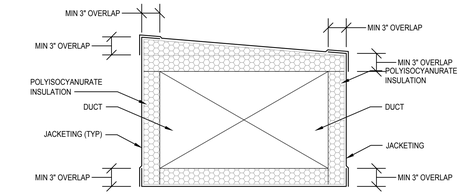
SIZE CHART	
DUCT SIZE	EQUIPMENT RAIL LENGTH
UP TO 12"	2'-0"
12 1/4" TO 24"	3'-0"
24 1/4" TO 36"	4'-0"
36 1/4" TO 48"	5'-0"
48 1/4" TO 60"	6'-0"
60 1/4" TO 72"	7'-0"
72 1/4" TO 84"	8'-0"

NOTE:
WHEN DUCT IS INSULATED, TOTAL OUTSIDE DIMENSIONS OF DUCT & COVERING SHOULD BE USED TO DETERMINE SIZE OF SLIDE ASSEMBLY.

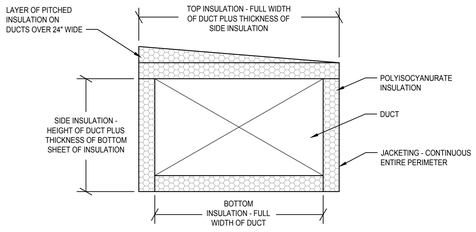
3 M605 DUCT MOUNTING PEDESTAL DETAIL

SCALE: NTS

NOTES:
1. INSULATION AND JACKETING SHALL BE CONTINUOUS ALONG ENTIRETY OF DUCTWORK - SLIDE ASSEMBLY CRADLE SHALL SUPPORT DUCTWORK FROM OUTSIDE OF INSULATION AND JACKETING.
2. SIZE THREADED RODS TO ALLOW FOR 12" OF VERTICAL ADJUSTMENT AND INSTALLATION OF UNISTRUT OVER TOP OF DUCT AND INSULATION. UTILIZE WASHERS AND NUTS AND SECURE TOP SECTION OF UNISTRUT SNUG TO TOP OF DUCT AND INSULATION.
3. CONTRACTOR TO REVIEW INSTALLATION REQUIREMENTS WITH CM AND ENGINEERS REPRESENTATIVE PRIOR TO INSTALLATION.



JACKETING

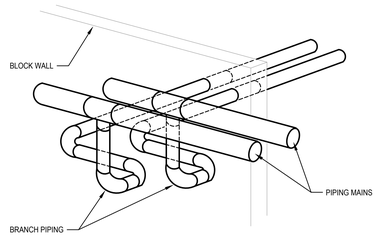


INSULATION

4 M605 EXTERIOR DUCTWORK INSULATION AND JACKETING DETAIL

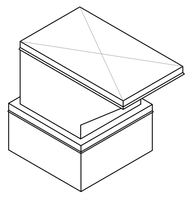
SCALE: NTS

NOTES:
1. INSULATION AND JACKETING SHALL BE CONTINUOUS ALONG ENTIRETY OF DUCTWORK.
2. INSTALL JACKETING PER MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR TO REVIEW INSTALLATION REQUIREMENTS WITH OWNER'S REPRESENTATIVE AND ENGINEER PRIOR TO INSTALLATION.

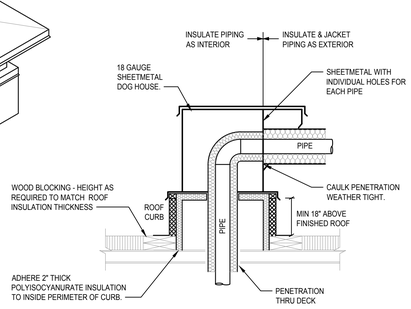


5 M605 BRANCH PIPING THROUGH BLOCK WALL DETAIL

SCALE: NTS



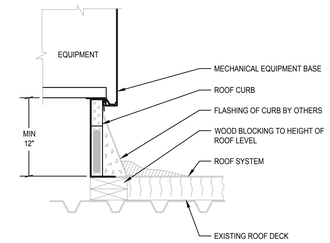
ISOMETRIC



7 M605 REFRIGERANT SYSTEM DOG HOUSE DIAGRAM

SCALE: NTS

NOTES:
1. WELD ALL SEAMS ON DOG HOUSE.
2. COORDINATE CURB AND ENCLOSURE SIZE FOR PIPE SIZES AND QUANTITIES THRU ENCLOSURE.

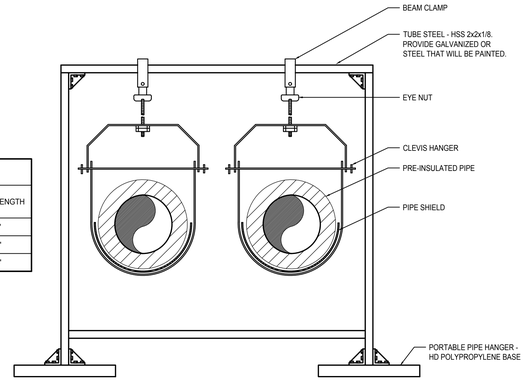


6 M605 ROOF CURB DETAIL

SCALE: NTS

NOTE(S):
1. MECHANICAL CONTRACTOR TO VERIFY THAT CURBS ARE INSTALLED, INCLUDING ANY SUPPLEMENTARY BLOCKING REQUIRED TO ENSURE THAT BOTTOM OF EQUIPMENT IS A MINIMUM OF 12" ABOVE FINISHED ROOF LEVEL PRIOR TO SETTING EQUIPMENT ON CURB.

SHIELD SIZE CHART		
PIPE SIZE	THICKNESS	SHIELD LENGTH
2" AND SMALLER	18 GA	12"
2-1/2" TO 4"	16 GA	24"
6" TO 10"	14 GA	24"



8 M605 ROOF PIPING PEDESTAL DETAIL

SCALE: NTS

NOTES:
1. INSULATION AND JACKETING SHALL BE CONTINUOUS ALONG ENTIRETY OF PIPE.
2. COORDINATE DIMENSIONS WITH QUANTITY AND SIZES OF PIPING BEING SUPPORTED.

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1	SED Addendum #1	01/27/2026

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

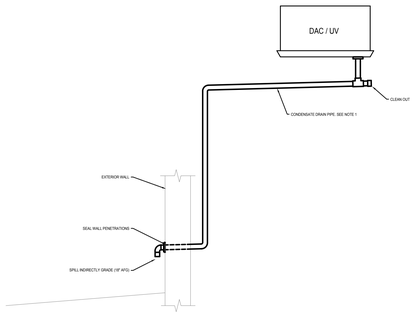
MECHANICAL DETAILS

SHEET NO.
M605

PROJECT NO.
1823.24221.1.3

DATE
12/12/2025

CAD FILE NO./FILE NAME



NOTE:
1. DWV COPPER INSULATED CONDENSATE DRAIN PIPING. PITCH 1/4" PER 1'-0". REFER TO PLANS FOR PIPE SIZES AND ROUTING.

1 M606 DAC COIL DRAIN DETAIL
SCALE: NTS

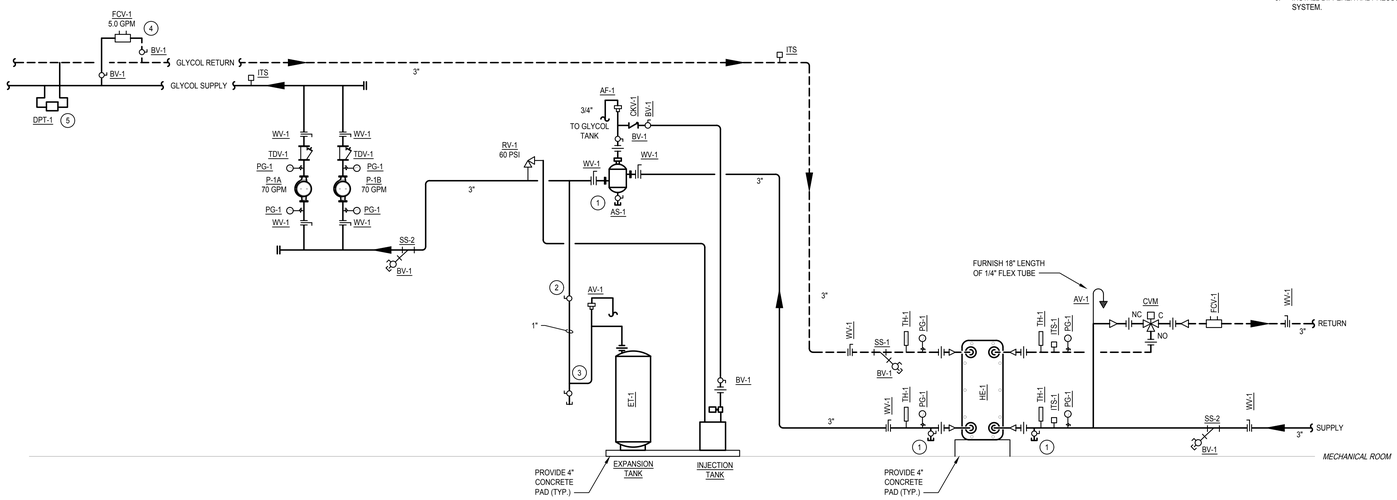
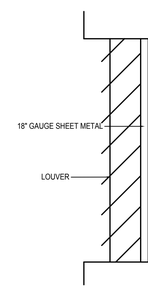


DIAGRAM NOTES

1. PROVIDE 3/4" DRAIN WITH VALVE AND CAP.
2. REMOVE HANDLE FROM VALVE AND ATTACH TO PIPE.
3. PROVIDE ANTI-THERMOSYPHON LOOP WITH A MINIMUM DROP OF 12".
4. PROVIDE 1" SYSTEM BYPASS FOR PUMP MINIMUM FLOW RATE - REFER TO PLANS FOR LOCATION
5. INSTALL DIFFERENTIAL PRESSURE SENSOR 90% OUT IN SYSTEM.

2 M606 PLATE AND FRAME HEAT EXCHANGER PIPING DIAGRAM
SCALE: NTS



BLANK OFF INACTIVE LOUVER AS SHOWN.

3 M606 LOUVER AND INSULATION DETAIL
SCALE: NTS

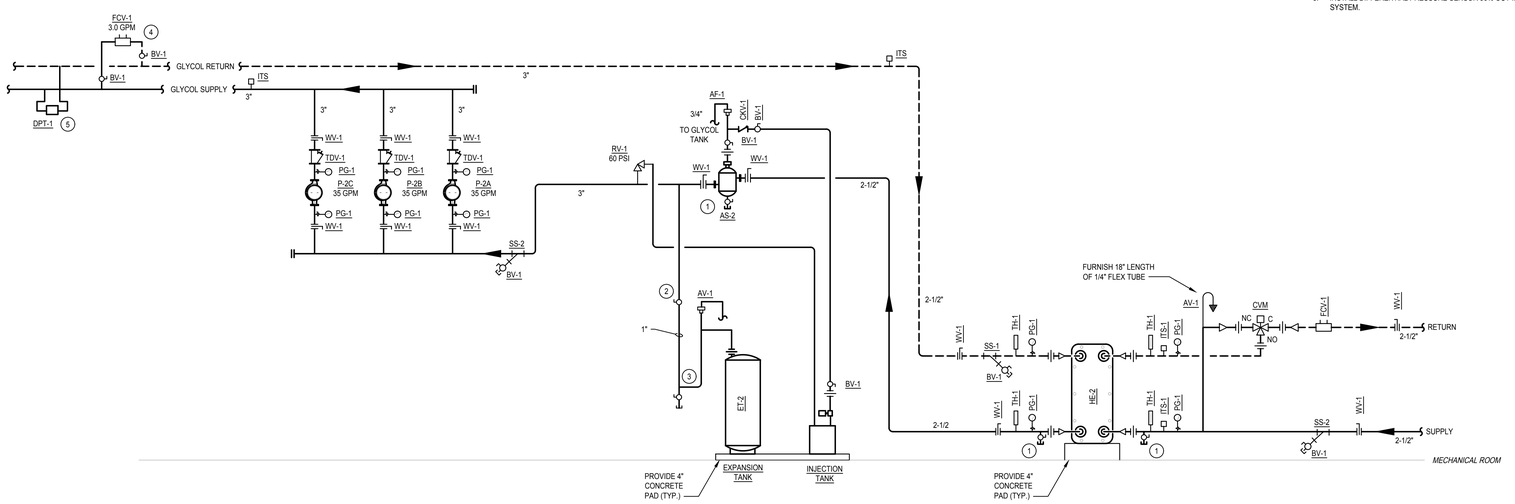


DIAGRAM NOTES

1. PROVIDE 3/4" DRAIN WITH VALVE AND CAP.
2. REMOVE HANDLE FROM VALVE AND ATTACH TO PIPE.
3. PROVIDE ANTI-THERMOSYPHON LOOP WITH A MINIMUM DROP OF 12".
4. PROVIDE 1" SYSTEM BYPASS FOR PUMP MINIMUM FLOW RATE - REFER TO PLANS FOR LOCATION
5. INSTALL DIFFERENTIAL PRESSURE SENSOR 90% OUT IN SYSTEM.

4 M606 PLATE AND FRAME HEAT EXCHANGER PIPING DIAGRAM
SCALE: NTS

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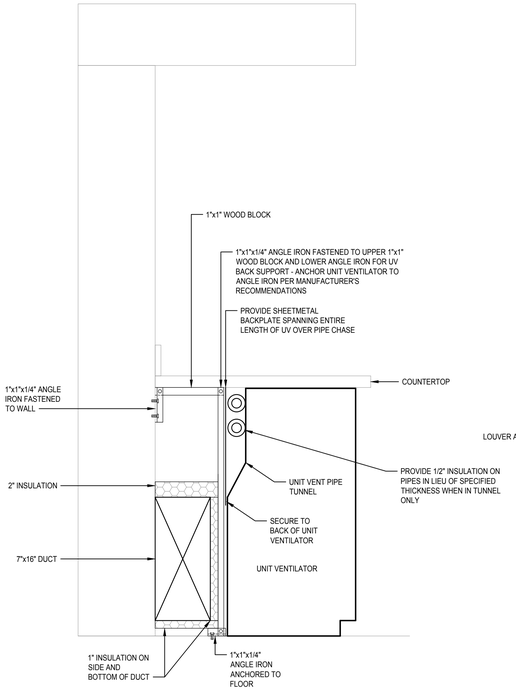
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HIGH SCHOOL

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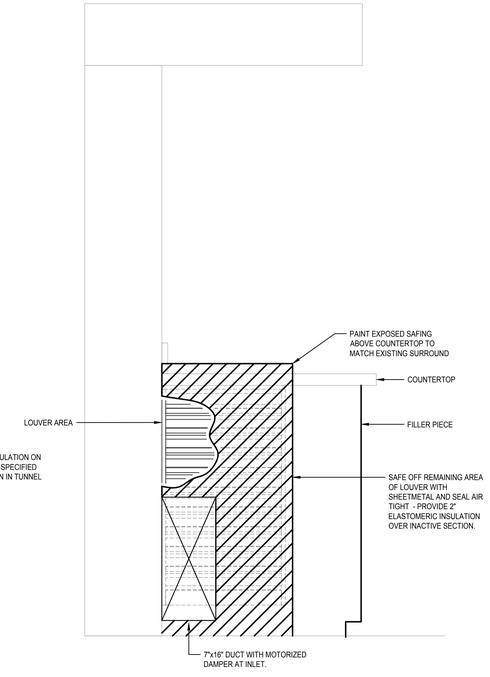
NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

MECHANICAL DETAILS

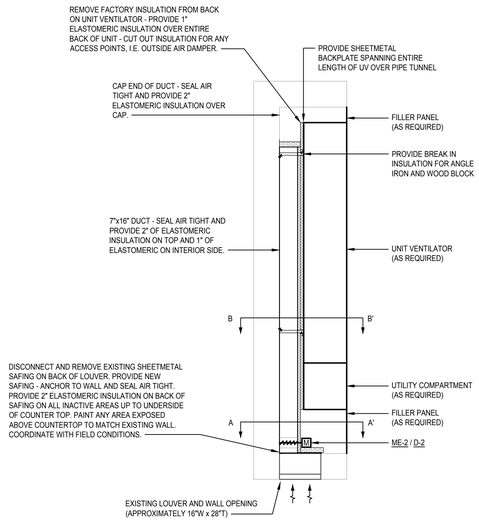
SHEET NO.: **M606**
PROJECT NO.: 1823.24221.1.3
DATE: 12/12/2025



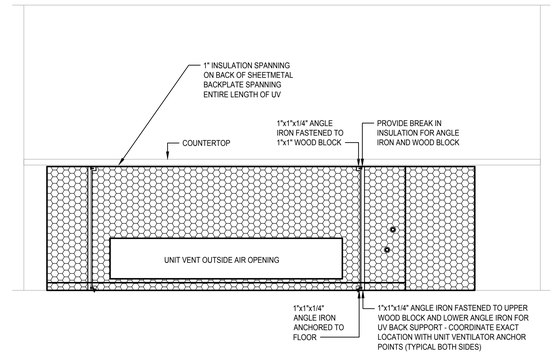
SECTION B-B'



SECTION A-A'



PLAN



UV BACK INSULATION

GENERAL DIAGRAM NOTES

A. INSULATE HOT WATER SUPPLY AND RETURN WITH 1/2" INSULATION WHEN IN SAFED OFF UNIT VENTILATOR TUNNEL. PROVIDE SPECIFIED INSULATION THICKNESS IN ALL OVER LOCATIONS.

B. ELASTOMERIC INSULATION TO BE SELF ADHERING TYPE, WITH ANTI-MICROBIAL PRODUCT PROTECTION, RESISTANCE TO WATER VAPOR OF 0.08PERM/INCH, AND FLAME SPREAD INDEX OF LESS THAN 25 AND SMOKE DEVELOPED INDEX OF LESS THAN 50. INSULATION SHALL HAVE A MINIMUM R-VALUE OF 4.2 AT A THICKNESS OF 1" AND 8 AT A THICKNESS OF 2. INSULATION SHALL BE ARMACELL AP/ARMAFLEX SELF-ADHESIVE, OR EQUAL.

C. CONTRACTOR TO INSTALL A MOCK UP OF INSTALLATION, MINUS COUNTER TOP INSTALLATION FOR REVIEW BY OWNER'S REPRESENTATIVE, ENGINEER, AND EQUIPMENT MANUFACTURER. RECOMMEND OMITTING COUNTER TOP TO ALLOW FOR FULL ACCESS AND REVIEW OF INSTALLATION.

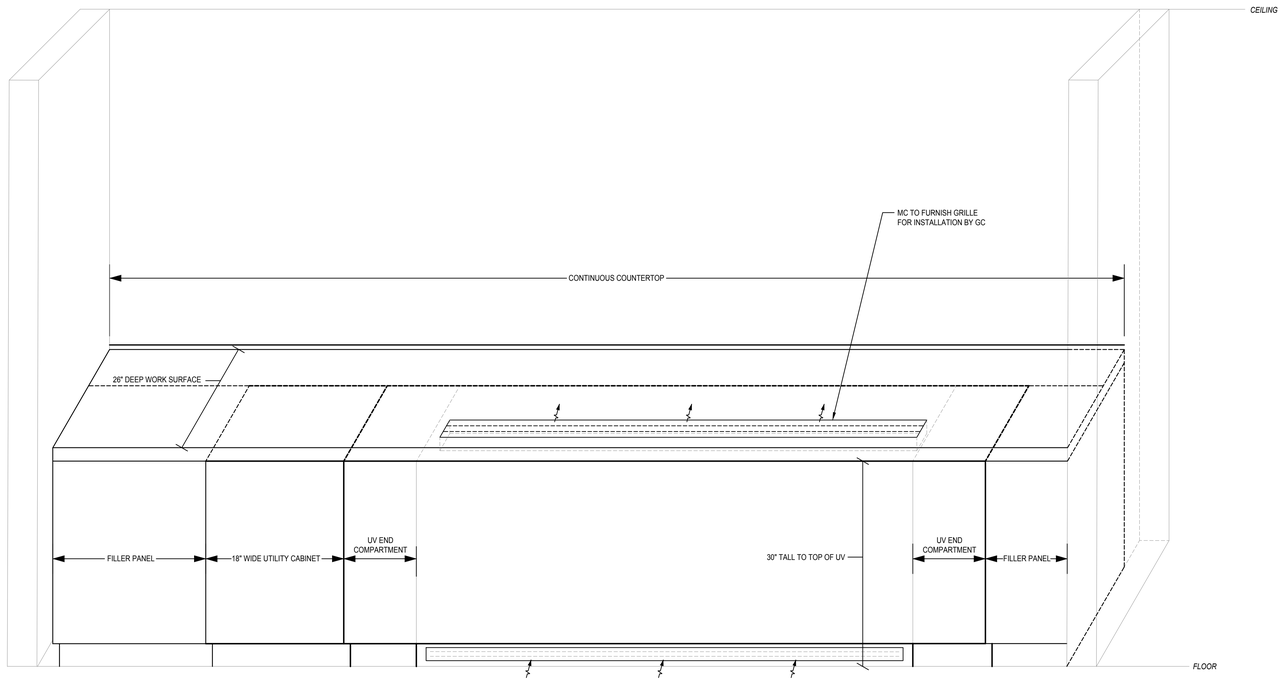
D. CONTRACTOR TO BRUSH SCREEN / BACK OF EXISTING LOUVER AND PLENUM AREA BEHIND EXISTING UNIT VENTILATOR AND VACUUM UP ALL LOOSE DEBRIS.

E. INSTALLATION MAY BE MIRRORED OR ROTATED - COORDINATE INSTALLATION WITH LOUVER LOCATION AND PROPOSED REFRIGERANT PIPE ROUTING.

F. REFER TO PIPING DIAGRAM(S) FOR ADDITIONAL INFORMATION ON WATER SYSTEM SPECIALTIES REQUIRED FOR EQUIPMENT CONNECTIONS



EXISTING CONDITIONS PHOTOS



1 M607 UNIT VENTILAOR DIAGRAM
SCALE: NTS

CERTIFICATE OF AUTHORIZATION
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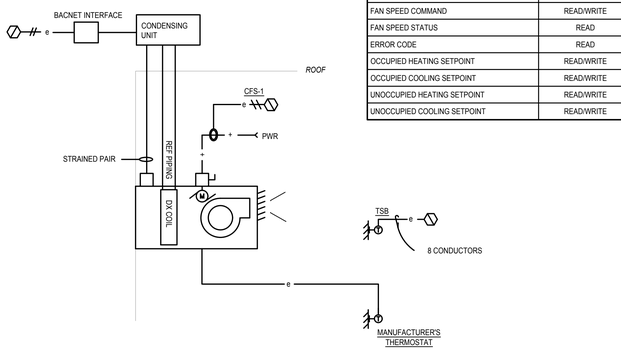
NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

MECHANICAL DETAILS

SHEET NO:
M607
PROJECT NO.
1823.24221.1.3
DATE:
12/12/2025

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	BV	SCHED	TREND	ALARM	
SPACE TEMPERATURE	TSB	X						X	X		X
SPACE TEMPERATURE SETPOINT						X			X		X
LOW LIMIT SPACE TEMPERATURE										X	
HIGH LIMIT SPACE TEMPERATURE										X	

BACNET READ/WRITE POINTS		
POINT NAME	READ/WRITE	GRAPHIC
ON / OFF COMMAND	READ/WRITE	X
ON / OFF STATUS	READ	X
MODE COMMAND	READ/WRITE	X
MODE STATUS	READ	X
FAN SPEED COMMAND	READ/WRITE	X
FAN SPEED STATUS	READ	X
ERROR CODE	READ	X
OCCUPIED HEATING SETPOINT	READ/WRITE	X
OCCUPIED COOLING SETPOINT	READ/WRITE	X
UNOCCUPIED HEATING SETPOINT	READ/WRITE	X
UNOCCUPIED COOLING SETPOINT	READ/WRITE	X



1 M701 SPLIT SYSTEM BMS INTERFACE
NO SCALE

NOTES:
1. SPLIT SYSTEM UNITS ARE TO BE COMMISSIONED, AND CALIBRATED BY HEATING CONTRACTOR AND SUPPLIER OF EQUIPMENT. MANUFACTURES REPRESENTATIVE TO BE PRESENT DURING START UP.
2. MANUFACTURERS ROOM TEMPERATURE SENSORS ARE TO BE CALIBRATED BY THIS CONTRACTOR, SO THEY ALIGN WITH TSB IN ROOM.

SEQUENCE OF OPERATION:

A. GENERAL:
1. THIS TEMPERATURE CONTROL CONTRACTOR WILL INSTALL ROOM SENSORS/CONTROLLER BOARDS PROVIDED BY HEATING CONTRACTOR AS PER SPECIFICATIONS 238115
2. THIS CONTRACTOR TO INSTALL TSB IN EACH ROOM THAT WILL HAVE FIN IN IT OR BE SERVED BY A DUCT COIL OR SPLIT SYSTEM UNIT.
3. THERE SHALL BE A 5°F DEADBAND BETWEEN HEATING AND COOLING TO PREVENT SIMULTANEOUS HEATING AND COOLING.
4. BMS SHALL INTERFACE WITH MANUFACTURERS PACKAGED CONTROLS. BMS SHALL HAVE OVERALL CONTROL OF THE SYSTEM.

B. SPLIT SYSTEM:
1. SPLIT SYSTEM SHALL RUN CONTINUOUSLY IN OCCUPIED MODE AT ALL TIMES SO OA IS SUPPLIED TO ROOM. UNIT SHALL RUN INTERMITTENTLY IN UNOCCUPIED TIME TO MAINTAIN NIGHT SETBACK AS DESCRIBED BELOW.
2. THERE SHALL BE A 5°F DEADBAND BETWEEN HEATING AND COOLING TO PREVENT SIMULTANEOUS HEATING AND COOLING.
3. HEATING MODE: SPLIT SYSTEM (REFRIGERANT SYSTEM) SHALL BE THE PRIMARY SOURCE OF HEAT IN HEATING MODE. WHEN THE SPLIT SYSTEM CAN NO LONGER MAINTAIN THE SPACE TEMPERATURE SETPOINT, BMS SHALL ENABLE PERIMETER RADIATION. REFER TO SEQUENCE BELOW FOR CONTROL OF FIN.
4. ECONOMIZER MODE: WHEN THERE IS A CALL FOR COOLING IN THE ROOM AND THE DISCHARGE AIR TEMPERATURE FROM THE ENERGY RECOVERY UNIT IS BELOW 75°F, THE SUPPLY FROM THE ENERGY RECOVERY UNIT SHALL ACT AS THE FIRST STAGE OF COOLING. THE SPLIT SYSTEM SUPPLY AIR FAN SHALL RUN CONTINUOUSLY TO PROVIDE MIXING AND DISTRIBUTION TO SPACE.
5. COOLING MODE: IF THE ENERGY RECOVERY UNIT AIR CAN NO LONGER MAINTAIN THE SPACE TEMPERATURE SETPOINT, COOLING SHALL BE ENABLED. ENERGY RECOVERY SHALL CONTINUE TO RUN TO CONTINUOUSLY INTRODUCE FRESH AIR INTO SPACE AND SPLIT SYSTEMS SHALL RUN TO MAINTAIN SPACE TEMPERATURE SETPOINT.

C. SPACE TEMPERATURE SETPOINTS
1. OCCUPIED HEATING SETPOINT: 70°F
2. UNOCCUPIED HEATING SETPOINT: 55°F
3. OCCUPIED COOLING SETPOINT: 75°F
4. UNOCCUPIED COOLING SETPOINT: OFF

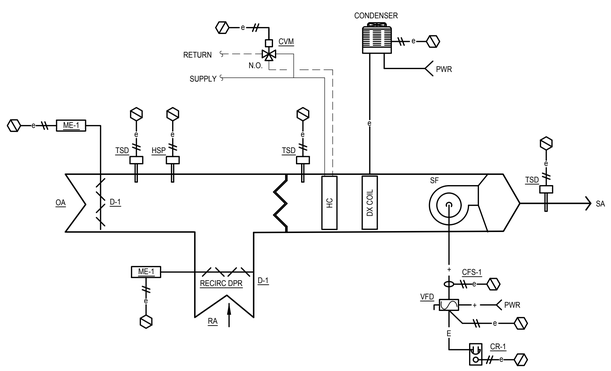
GENERAL NOTES - CONTROLS & EQUIPMENT

THE EXISTING BUILDING AUTOMATION SYSTEM AT NEWARK VALLEY CSD IS A SCHNEIDER ELECTRIC DDC SYSTEM, INSTALLED AND SERVICED BY STARKTECH / DAY AUTOMATION.

A. THE TEMPERATURE CONTROL CONTRACTORS LABOR SHALL BE BID UNDER THE MECHANICAL CONTRACTOR AND THE TEMPERATURE CONTROL CONTRACTOR WILL BE A SUB TO THE MC. THE TEMPERATURE CONTROL CONTRACTORS SCOPE SHALL INCLUDE CONTROLS INSTALLATION AND WIRING, PROVIDING OPERATING MANUALS, START UP SERVICES, CONTROL ENGINEERING AND TRAINING AND WARRANTY FOR FACTORY RELATED ISSUES ON EQUIPMENT AND CONTROLS.

B. THE PARTS SHALL BE ON STATE CONTRACT AND THE TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE A LIST OF EQUIPMENT THAT THE MC SHALL NEED TO INSTALL PRIOR TO BID. ALL NEW DDC CONTROLS SHALL BE PROVIDED BY STARKTECH / DAY AUTOMATION AND CONNECTED TO THE EXISTING SYSTEM. TEMPERATURE CONTROL EQUIPMENT IDENTIFIED AS PER SCHEDULE AND DDC CONTROLS WILL BE PRE-PURCHASED AND SUPPLIED FOR THIS PROJECT VIA STARKTECH / DAY AUTOMATION'S NYS OGS CONTRACT.
1. EQUIPMENT WILL BE SHIPPED FROM THE FACTORY TO THE TEMPERATURE CONTROLS CONTRACTOR. THE EQUIPMENT WILL BE UNLOADED, INSPECTED AND STORED BY THE TC. ANY VALVES OR DAMPERS WILL BE GIVEN TO AND INSTALLED BY THE MECHANICAL CONTRACTOR.
2. THE STATE CONTRACT PURCHASED TC EQUIPMENT AND TC CONTROLS SHALL INCLUDE TEMPERATURE CONTROLLERS AND DEVICES.
3. SEE SPECIFICATION SECTIONS FOR ADDITIONAL REQUIREMENTS.
4. ALL OTHER WARRANTY SERVICES ARE BY THE HVAC CONTRACTOR.

2 M701 STATE CONTRACT INFORMATION
NO SCALE



CONTROL SEQUENCE:

A. OCCUPIED CYCLE:
1. WHEN SPACE OR LOCAL ZONE SWITCHES TO DAY CYCLE, SUPPLY AIR FAN SHALL START AND RUN CONTINUOUSLY. OA AND EXHAUST DAMPERS SHALL OPEN TO MINIMUM POSITION (REFER TO EQUIPMENT SCHEDULES). CONTROLLER SHALL SIGNAL ALARM CONDITION IF NO AIR FLOW DETECTED.
2. HEATING MODE:
   a. GENERAL: OAD SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
   b. HOT WATER:
      (a) SINGLE ZONE HOT WATER: CHANGES IN SPACE TEMPERATURE BELOW SETPOINT WILL CAUSE CONTROLLER TO INDEX DISCHARGE TEMPERATURE ACCORDING TO A PRESET SCHEDULE. CONTROLLER WILL MODULATE HEATING CONTROL VALVE TO MAINTAIN DESIRED TEMPERATURE.
      (b) IF HEATING COIL LEAVING AIR TEMPERATURE FALLS BELOW 35°F, LOW LIMIT CONTROLLER (LC-1) SHALL STOP FAN, CLOSE OAD, OPEN CONTROL VALVE (AND OPEN FACE DAMPER WHERE APPLICABLE), AND SIGNAL ALARM CONDITION TO SYSTEM.
3. ECONOMIZER MODE:
   a. CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE OUTSIDE AIR, RETURN AIR, AND RELIEF AIR DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2°F LESS THAN THE SPACE TEMPERATURE SETPOINT. THE ECONOMIZER SHALL BE ENABLED WHENEVER:
      - THE OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F.
      - AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB.
      - AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
   b. THE ECONOMIZER SHALL BE DISABLED WHENEVER:
      - MIXED AIR TEMPERATURE DROPS BELOW 55°F.
      - OR SUPPLY FAN IS OFF/IN ALARM.
      - OR FUME HOOD EXHAUST IS IN OPERATION (AS INDICATED)
   c. OR WHEN ECONOMIZER CAN NO LONGER MAINTAIN SPACE TEMPERATURE OR RELATIVE HUMIDITY SETPOINT.
   d. ECONOMIZER MODE SHALL OVERRIDE DEMAND CONTROL VENTILATION DAMPER POSITION TO MAXIMIZE FREE COOLING.
4. COOLING MODE:
   b. ON A RISE IN SPACE TEMPERATURE, CONTROLLER SHALL CLOSE HOT WATER VALVE. WHEN SPACE TEMPERATURE IS ABOVE SETPOINT, AND ECONOMIZER CAN NO LONGER SATISFY LOAD, MECHANICAL COOLING SHALL BE ENABLED. CONTROLLER SHALL SEQUENCE ALL STAGES OF COOLING.
   c. DX UNITS: CONTROLLER SHALL SEQUENCE 1ST STAGE CONDENSER, 2ND STAGE CONDENSER, AND OTHER STAGES (IF ANY) OF COOLING. LIQUID LINE SOLENOID VALVES (LLS) SHALL CYCLE IN ACCORDANCE TO SIGNAL FROM CONDENSER UNIT. FOR UNITS WITH HOT GAS BYPASS, SEQUENCE HOT GAS PILOT SOLENOID VALVE AT LOW LOAD CONDITIONS.
   d. IF SAF STOPS, LOCK OUT MECHANICAL COOLING.
   e. FOR UNITS WITHOUT LOW AMBIENT CONTROLS LOCK OUT CONDENSER WHEN OAT BELOW 50°F. FOR UNITS EQUIPPED WITH LOW AMBIENT CONTROLS, LOCK OUT CONDENSER BELOW 10°F.
   f. COOLING COIL FREEZE PROTECTION:
      (a) A HARDWIRED, LOW LIMIT TEMPERATURE SWITCH SHALL BE ELECTRICALLY INTERLOCKED WITH THE MOTOR STARTER. IF THE LOW LIMIT TEMPERATURE SWITCH IS TRIPPED 38.0 DEG. F (ADJ.), THE OUTSIDE AIR DAMPER SHALL CLOSE, ALL VALVES SHALL OPEN TO 100% (ADJUST PER CLIMATE), ALL STAGES OF COOLING SHALL BE DISABLED AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS. A MANUAL RESET OF THE LOW LIMIT TEMPERATURE SWITCH SHALL BE REQUIRED TO RESTART THE FAN.

B. UNOCCUPIED MODE:
1. WHEN LOCAL ZONE SWITCHES TO NIGHT CYCLE, CLOSE OAD, RELIEF AIR DAMPER AND FULLY OPEN RAD. WHERE APPLICABLE, HEATING VALVE OPEN TO COIL. FAN SHALL RUN INTERMITTENTLY ON A CALL FOR HEATING.
2. COOLING SHALL BE LOCKED OUT.
3. SPACE SHALL MAINTAIN A DEPRESSED NIGHT SETTING.
4. NIGHT OVERRIDE BY PB SWITCH ON TEMPERATURE SENSOR AND/OR CONSOLE.
5. WHEN OUTSIDE AIR TEMPERATURE IS 40F OR BELOW, CONTROL VALVE SHALL BE A MINIMUM OF 25% OPEN AT ALL TIMES TO PREVENT SLUSHING OF FLUID.

C. SETPOINTS:
1. OCCUPIED HEATING: 68°F
2. OCCUPIED COOLING: 75°F
3. UNOCCUPIED HEATING: 55°F
4. UNOCCUPIED COOLING: OFF

D. ALARMS:
1. SPACE TEMPERATURE HIGH LIMIT: TEMPERATURE ABOVE 82°F
2. SPACE TEMPERATURE LOW LIMIT: TEMPERATURE BELOW 50°F
3. UNIT DISCHARGE TEMPERATURE HIGH LIMIT: 125°F
4. UNIT DISCHARGE TEMPERATURE LOW LIMIT: 10°F BELOW SETPOINT.
5. SUPPLY FAN FAULT.

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	DV	SCHED	TREND	ALARM	
SUPPLY FAN		--									
SUPPLY FAN START/STOP	CR-1				X				X		X
SUPPLY FAN VFD / ECM SPEED			X						X		X
SUPPLY FAN VFD / ECM FAULT				X						X	
SUPPLY FAN STATUS	CFS-1			X					X	X	X
O.A. DAMPER	ME-1		X						X		X
RECIRC DAMPER	ME-1		X						X		X
MIXED AIR TEMPERATURE	TSD	X							X		X
HEATING COIL CONTROL VALVE	CVM		X						X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
FREEZESTAT	LC-1			X					X	X	X
COOLING ENABLE					X				X		X
COOLING COIL DISCHARGE AIR SETPOINT			X						X		X
DISCHARGE AIR TEMPERATURE	TSD	X							X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
OUTSIDE AIR TEMPERATURE	TSD	X							X		X
OUTSIDE AIR HUMIDITY	HSP	X							X		X
SPACE TEMPERATURE	TSB	X						X			X
SPACE TEMP. SET POINT						X			X		
LOW SPACE TEMPERATURE										X	
HIGH SPACE TEMPERATURE										X	

3 M701 AIR HANDLER CONTROL DIAGRAM
NO SCALE

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
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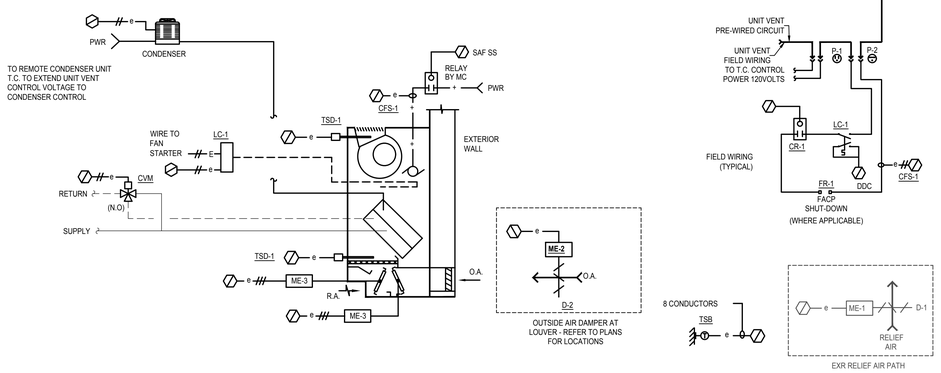
SED PROJECT NUMBERS: 60-04-02-94-0-007-023
HIGH SCHOOL

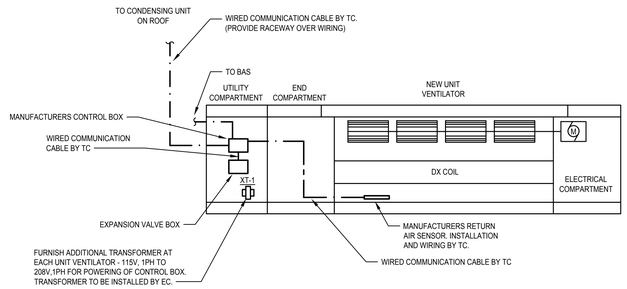
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

MECHANICAL CONTROLS

SHEET NO.
M701
PROJECT NO.
1823.24221.1.3
DATE:
12/12/2025





POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	DV	SCHED	TREND	ALARM	
SUPPLY FAN						--					
FAN START/STOP	CR-1				X				X		X
FAN STATUS	CFS-1			X					X		X
FAN FAILURE										X	
O.A. DAMPER	ME-2				X				X		X
O.A. DAMPER	ME-3		X						X		X
R.A. DAMPER	ME-3		X						X		X
MIXED AIR TEMPERATURE	TSD	X							X		X
HEATING VALVE	CVM		X						X		X
FREEZESTAT	LC-1			X						X	X
DISCHARGE AIR TEMPERATURE	TSD	X							X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
SPACE TEMPERATURE	TSB	X							X		X
HIGH SPACE TEMPERATURE										X	
LOW SPACE TEMPERATURE										X	
SPACE TEMP. SETPOINT						X			X		
SCHEDULE								X			
RELIEF AIR DAMPER	ME-1		X						X		X
REFRIGERANT LEAK DETECTION				X						X	X

SEQUENCE FOR CONNECTION TO VARIABLE REFRIGERANT VOLUME SYSTEM

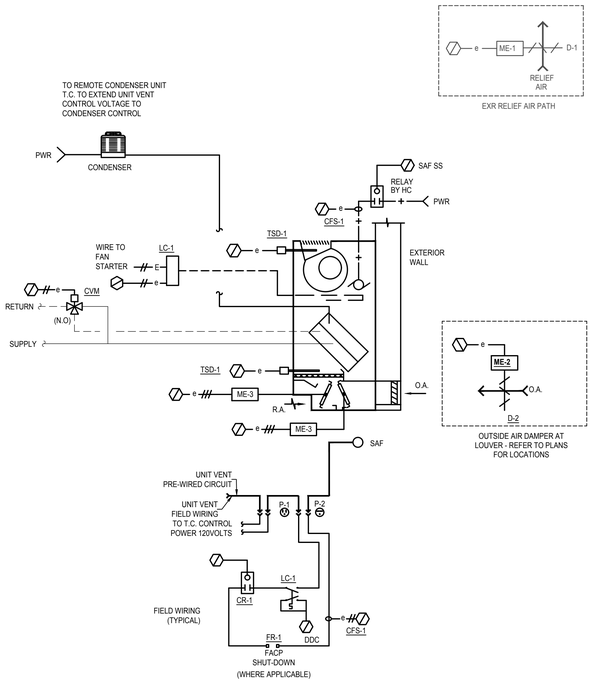
1. HEATING COIL CONTROL VALVE IS FULL CLOSED.
2. IF POSSIBLE, THE FAN SPEED SHOULD BE SET TO HIGH SPEED.
3. THE VRF SYSTEM MODE SHOULD BE SET TO COOLING THROUGH THE BMS.
4. THE BMS SHALL SEND AN ENABLE SIGNAL TO EACH UV VRF CONTROLLER AND PROVIDE A 0-10V SIGNAL TO CONTROL THE COOLING CAPACITY.
5. THE BMS SHALL BRING THE FOLLOWING POINTS FROM THE VRF SYSTEM: ON/OFF, OPERATION MODE, SETPOINT SETTING, MALFUNCTION CODE, ROOM TEMPERATURE AND COMPRESSOR STATUS.
6. TC TO SET MANUFACTURER'S COOLING SETPOINT TO FULL COOLING. PROVIDE RELAY TO INTERUPT SIGNAL TO ALLOW FOR ENABLE/DISABLE OF UNIT COOLING BASED ON SPACE TEMPERATURE SENSOR, TSB, MOUNTED ELSEWHERE IN THE SPACE.

A. UNIT VENTILATOR WITH COOLING:

1. GENERAL: WHEN SUPPLY FAN IS OFF, OUTDOOR AIR AND RELIEF AIR DAMPERS ARE CLOSED. RETURN AIR DAMPER IS OPEN. WHERE APPLICABLE, HEATING COIL VALVE IS OPEN TO COIL AND/OR FACE DAMPER IS OPEN TO COIL.
2. WHEN SPACE OR LOCAL ZONE SWITCHES TO OCCUPIED CYCLE, FAN SHALL START AND RUN CONTINUOUSLY.
3. OUTSIDE AIR DAMPER AND RELIEF AIR DAMPER OPENS TO MINIMUM POSITION. MINIMUM POSITION SHALL BE ADJUSTABLE.
   a) GENERAL: OAD SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE. FAN DISCHARGE SENSOR WILL MAINTAIN A MINIMUM TEMPERATURE OF 60°F (ADJUSTABLE).
   b) HEATING:
      (1) CHANGES IN SPACE TEMPERATURE BELOW SETPOINT WILL CAUSE CONTROLLER TO INDEX DISCHARGE TEMPERATURE ACCORDING TO A PRESET SCHEDULE. CONTROLLER WILL MODULATE HEATING CONTROL VALVE TO MAINTAIN DESIRED TEMPERATURE.
      (2) IF OUTSIDE AIR TEMPERATURE IS ABOVE 60F AND THE BOILER IS OFF, THE REFRIGERANT COIL SHALL PROVIDE HEAT.
      (3) IF HEATING COIL LEAVING AIR TEMPERATURE FALLS BELOW 35°F, LOW LIMIT CONTROLLER (LC-1) SHALL STOP FAN, CLOSE OAD, OPEN CONTROL VALVE (AND OPEN FACE DAMPER WHERE APPLICABLE), AND SIGNAL ALARM CONDITION TO SYSTEM.
   c. VRF COOLING.
      (1) BMS TO PROVIDE 0-10V SIGNAL TO EXPANSION VALVE TO INDICATE DESIRED LEAVING AIR TEMPERATURE.
5. SPACE TEMPERATURE SETPOINT SHALL BE AN ADJUSTABLE BIAS LIMITED TO ±2°F SPACE SENSOR, NORMAL SETPOINT SHALL BE ADJUSTABLE FROM MAIN CONSOLE ONLY.
6. IF SAT FALLS BELOW 35°F, LOW LIMIT CONTROLLER (LC-1) SHALL STOP FAN. SHUT DOWN INCLUDES CLOSE OAD, STOP SUPPLY AIR FAN, OPEN CONTROL VALVE AND SIGNAL ALARM CONDITION TO DDC SYSTEM.
7. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
8. ON RISE IN SPACE TEMPERATURE, OAD RELIEF DAMPER MODULATE OPEN TO PROVIDE ECONOMIZER COOLING. LOW LIMIT THERMOSTAT SHALL PREVENT DISCHARGE AIR FROM FALLING BELOW SETPOINT (SET AT 57°F).
9. WHEN OAT UNABLE TO PROVIDE COOLING, HEATING CONTROL VALVE (END OF CYCLE FUNCTION) SHALL CLOSE, OAD, RELIEF DAMPER SHALL CLOSE TO MINIMUM POSITION. ON DX UNITS CONDENSER UNIT SHALL START OPERATION ONLY IF SUPPLY FAN IS RUNNING. CONDENSER WILL STOP WHEN DISCHARGE AIR TEMPERATURE DROPS BELOW 50F OR HOT WATER COIL AIR TEMPERATURE DROPS BELOW 38F.
10. IF OAT FALLS BELOW SETPOINT (50°F), LTCO SHALL LOCK OUT CONDENSER UNITS.
11. IF HOT WATER/DX COIL DISCHARGE SENSOR TEMPERATURE FALLS BELOW 50F WHEN CONDENSER IS OPERATING, ALARM DDC SYSTEM IMMEDIATELY.
12. UNOCCUPIED CYCLE:
    WHEN ZONE SWITCHES TO NIGHT CYCLE, CLOSE OAD, RELIEF DAMPER AND FULLY OPEN RA DAMPER. WHERE APPLICABLE, HEAT CONTROL VALVE OPENS TO COIL AND/OR FACE DAMPER OPENS TO COIL.
    c) FAN SHALL RUN INTERMITTENTLY TO MAINTAIN A LOWER NIGHT SETPOINT.
    d) COOLING SHALL BE LOCKED OUT, I.E. CONDENSER UNIT IS OFF.
    e) NIGHT OVERRIDE SHALL BE BY PB ON TEMPERATURE SENSOR OR BY MAIN CONSOLE.

1 M702 NO SCALE

FLOOR MOUNTED UNIT VENTILATOR WITH VRF HEAT PUMP COOLING CONTROLS



POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	DV	SCHED	TREND	ALARM	
SUPPLY FAN						--					
FAN START/STOP	CR-1				X				X		X
FAN STATUS	CFS-1			X					X		X
FAN FAILURE										X	
O.A. DAMPER	ME-2				X				X		X
O.A. DAMPER	ME-3		X						X		X
R.A. DAMPER	ME-3		X						X		X
MIXED AIR TEMPERATURE	TSD	X							X		X
HEATING VALVE	CVM		X						X		X
FREEZESTAT	LC-1			X						X	X
DISCHARGE AIR TEMPERATURE	TSD	X							X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
SPACE TEMPERATURE	TSB	X							X		X
HIGH SPACE TEMPERATURE										X	
LOW SPACE TEMPERATURE										X	
SPACE TEMP. SETPOINT						X			X		
SCHEDULE								X			
MOTION DETECTOR	MS-1	X							X		X
REFRIGERANT LEAK DETECTION				X						X	X

A. UNIT VENTILATOR WITH COOLING:

1. GENERAL: WHEN SUPPLY FAN IS OFF, OUTDOOR AIR AND RELIEF AIR DAMPERS ARE CLOSED. RETURN AIR DAMPER IS OPEN. WHERE APPLICABLE, HEATING COIL VALVE IS OPEN TO COIL AND/OR FACE DAMPER IS OPEN TO COIL.
2. MORNING WARM UP:
   (1) OUTSIDE DAMPER IS CLOSED AND RETURN DAMPER IS OPEN 100% UNTIL ROOM COMES UPTO OCCUPIED ROOM SETPOINT.
3. WHEN SPACE OR LOCAL ZONE SWITCHES TO OCCUPIED CYCLE, FAN SHALL START AND RUN CONTINUOUSLY.
4. OUTSIDE AIR DAMPER AND RELIEF AIR DAMPER OPENS TO MINIMUM POSITION. MINIMUM POSITION SHALL BE ADJUSTABLE.
5. HEATING:
   a) GENERAL: OAD SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE. FAN DISCHARGE SENSOR WILL MAINTAIN A MINIMUM TEMPERATURE OF 60°F (ADJUSTABLE).
   b) HOT WATER:
      (1) CHANGES IN SPACE TEMPERATURE BELOW SETPOINT WILL CAUSE CONTROLLER TO INDEX DISCHARGE TEMPERATURE ACCORDING TO A PRESET SCHEDULE. CONTROLLER WILL MODULATE HEATING CONTROL VALVE TO MAINTAIN DESIRED TEMPERATURE.
      (2) IF HEATING COIL LEAVING AIR TEMPERATURE FALLS BELOW 35°F, LOW LIMIT CONTROLLER (LC-1) SHALL STOP FAN, CLOSE OAD, OPEN CONTROL VALVE (AND OPEN FACE &BYPASS DAMPER WHERE APPLICABLE) AND SIGNAL ALARM CONDITION TO DDC SYSTEM.
5. SPACE TEMPERATURE SETPOINT SHALL BE AN ADJUSTABLE BIAS LIMITED TO ±2°F SPACE SENSOR, NORMAL SETPOINT SHALL BE ADJUSTABLE FROM MAIN CONSOLE ONLY.
6. IF SAT FALLS BELOW 35°F, LOW LIMIT CONTROLLER (LC-1) SHALL STOP FAN. SHUT DOWN INCLUDES CLOSE OAD, STOP SUPPLY AIR FAN, OPEN CONTROL VALVE (AND FACE & BYPASS DAMPER WHERE APPLICABLE) AND SIGNAL ALARM CONDITION TO DDC SYSTEM.
7. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
8. ON RISE IN SPACE TEMPERATURE, OAD RELIEF DAMPER MODULATE OPEN TO PROVIDE ECONOMIZER COOLING. LOW LIMIT THERMOSTAT SHALL PREVENT DISCHARGE AIR FROM FALLING BELOW SETPOINT (SET AT 57°F).
9. WHEN OAT UNABLE TO PROVIDE COOLING, HEATING CONTROL VALVE (END OF CYCLE FUNCTION) SHALL CLOSE, OAD, RELIEF DAMPER SHALL CLOSE TO MINIMUM POSITION, ON DX UNITS CONDENSER UNIT SHALL START OPERATION ONLY IF SUPPLY FAN IS RUNNING. CONDENSER WILL STOP WHEN DISCHARGE AIR TEMPERATURE DROPS BELOW 50F OR HOT WATER COIL AIR TEMPERATURE DROPS BELOW 38F.
10. IF OAT FALLS BELOW SETPOINT (50°F), LTCO SHALL LOCK OUT CONDENSER UNITS.
11. IF HOT WATER/DX COIL DISCHARGE SENSOR TEMPERATURE FALLS BELOW 50F WHEN CONDENSER IS OPERATING, ALARM DDC SYSTEM IMMEDIATELY.
12. IF MOTION SENSOR SHOWS THAT THERE IS NO ONE IN THE ROOM, THE OUTSIDE AIR DAMPER SHALL SHUT.
13. UNOCCUPIED CYCLE:
    WHEN ZONE SWITCHES TO NIGHT CYCLE, CLOSE OAD, RELIEF DAMPER AND FULLY OPEN RA DAMPER. WHERE APPLICABLE, HEAT CONTROL VALVE OPENS TO COIL AND/OR FACE DAMPER OPENS TO COIL.
    c) FAN SHALL RUN INTERMITTENTLY TO MAINTAIN A LOWER NIGHT SETPOINT.
    d) COOLING SHALL BE LOCKED OUT, I.E. CONDENSER UNIT IS OFF.
    e) NIGHT OVERRIDE SHALL BE BY PB ON TEMPERATURE SENSOR OR BY MAIN CONSOLE.

2 M702 NO SCALE

FLOOR MOUNTED UNIT VENTILATOR WITH DX COOLING CONTROLS

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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Expires: 4/30/2027

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ESS #P3101

SED PROJECT NUMBERS: 60-04-02-94-0-007-023
HIGH SCHOOL

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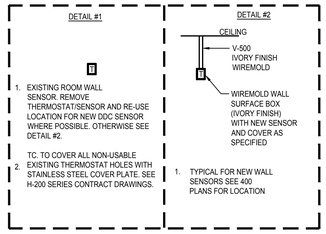
NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

MECHANICAL CONTROLS

SHEET NO.
M702

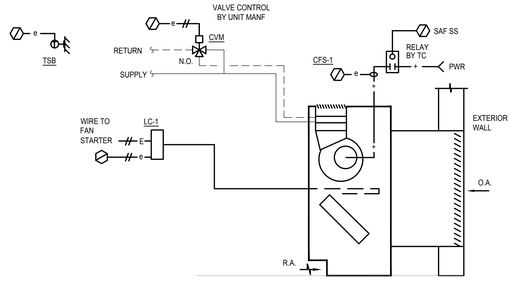
PROJECT NO.
1823.24221.1.3

DATE:
12/12/2025



1 M703 THERMOSTAT/SENSOR DIAGRAM

NO SCALE



CONTROL SEQUENCE:

A. PTAC WILL COME WITH PACKAGED CONTROLS. SETPOINTS AND ON/OFF OPERATIONS BY UNIT.

B. BUILDING BMS SYSTEM WILL MONITOR ROOM TEMPERATURES, INDICATE RUN STATUS AND TURN OFF UNITS DURING EVENING HOURS. IF ROOM TEMPERATURE DROPS BELOW 55F, BMS TO TURN UNIT ON.

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	BV	SCHED	TREND	ALARM	
FAN START/STOP	CR-1				X				X		X
SPACE TEMPERATURE SENSOR	TSB							X			X
UNIT BMS								X	X		X
SETPOINT									X		
HIGH LIMIT										X	
LOW LIMIT										X	
FREEZESTAT	LC-1			X						X	X

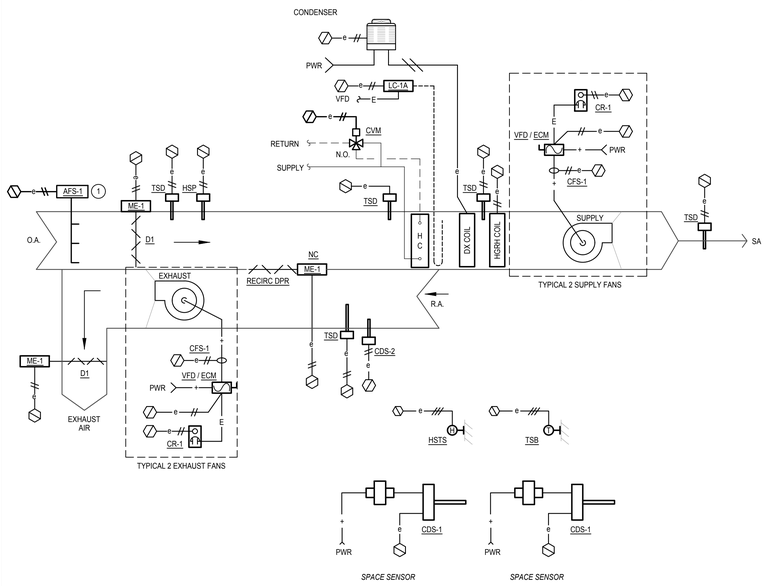
2 M703 PTAC UNIT CONTROL

NO SCALE

NOTE:
1. UNIT TO COME WITH STANDALONE CONTROLS.
2. PROVIDE BMS INTERFACE.
3. UNIT TO OPERATE DAMPER FOR OA DAMPER.
4. MC TO PROVIDE AND WIRE CONTROL VALVE.
5. PROVIDE REMOTE, WALL MOUNTED THERMOSTAT.

DIAGRAM NOTES

1. AIRFLOW STATION PROVIDED BY RTU MANUFACTURER.



CONTROL SEQUENCE:

A. OCCUPIED CYCLE:
1. WHEN SPACE OR LOCAL ZONE SWITCHES TO DAY CYCLE, SUPPLY AIR FAN SHALL START AND RUN CONTINUOUSLY. OA AND EXHAUST DAMPERS SHALL OPEN TO MINIMUM POSITION (REFER TO EQUIPMENT SCHEDULES). CONTROLLER SHALL SIGNAL ALARM CONDITION IF NO AIR FLOW DETECTED.
2. EXHAUST AIR FAN SHALL RUN WHENEVER THE UNIT IS SUPPLYING OUTSIDE AIR TO THE SPACE(S). EXHAUST AIR FAN SHALL MODULATE SPEED IN UNISON WITH THE OUTSIDE AIR FLOW RATE, MINUS 100CFM.
3. WHEN IN THE OCCUPIED MODE, THE CONTROLLER SHALL MEASURE THE OUTSIDE AIRFLOW AND MODULATE THE OUTSIDE AIR DAMPERS TO MAINTAIN THE PROPER MINIMUM OUTSIDE AIR VENTILATION, OVERRIDDING NORMAL DAMPER CONTROL. ON DROPPING OUTSIDE AIRFLOW, THE CONTROLLER SHALL MODULATE THE OUTSIDE AIR DAMPERS OPEN TO MAINTAIN THE OUTSIDE AIRFLOW SETPOINT.
4. HEATING MODE:
   a. GENERAL: OAD SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
   b. HOT WATER:
      (a) SINGLE ZONE HOT WATER: CHANGES IN SPACE TEMPERATURE BELOW SETPOINT WILL CAUSE CONTROLLER TO INDEX DISCHARGE TEMPERATURE ACCORDING TO A PRESET SCHEDULE. CONTROLLER WILL MODULATE HEATING CONTROL VALVE TO MAINTAIN DESIRED TEMPERATURE.
      (b) IF HEATING COIL LEAVING AIR TEMPERATURE FALLS BELOW 35°F, LOW LIMIT CONTROLLER (LC-1) SHALL STOP FAN, CLOSE OAD, OPEN CONTROL VALVE (AND OPEN FACE DAMPER WHERE APPLICABLE), AND SIGNAL ALARM CONDITION TO SYSTEM.
5. ECONOMIZER MODE:
   a. CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE OUTSIDE AIR, RETURN AIR, AND RELIEF AIR DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2°F LESS THAN THE SPACE TEMPERATURE SETPOINT. THE ECONOMIZER SHALL BE ENABLED WHENEVER:
      - THE OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F.
      - AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB.
      - AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
      - AND THE SUPPLY FAN IS ON
   b. THE ECONOMIZER SHALL BE DISABLED WHENEVER:
      - MIXED AIR TEMPERATURE DROPS BELOW 55°F.
      - OR SUPPLY FAN IS OFF/IN ALARM.
      - OR WHEN ECONOMIZER CAN NO LONGER MAINTAIN SPACE TEMPERATURE OR RELATIVE HUMIDITY SETPOINT.
   c. ECONOMIZER MODE SHALL OVERRIDE DEMAND CONTROL VENTILATION DAMPER POSITION TO MAXIMIZE FREE COOLING.
6. COOLING MODE:
   b. ON A RISE IN SPACE TEMPERATURE, CONTROLLER SHALL CLOSE HOT WATER VALVE. WHEN SPACE TEMPERATURE IS ABOVE SETPOINT, AND ECONOMIZER CAN NO LONGER SATISFY LOAD, MECHANICAL COOLING SHALL BE ENABLED. CONTROLLER SHALL SEQUENCE ALL STAGES OF COOLING.
   c. DX UNITS: CONTROLLER SHALL SEQUENCE 1ST STAGE CONDENSER, 2ND STAGE CONDENSER, AND OTHER STAGES (IF ANY) OF COOLING. LIQUID LINE SOLENOID VALVES (LLS) SHALL CYCLE IN ACCORDANCE TO SIGNAL FROM CONDENSER UNIT. FOR UNITS WITH HOT GAS BYPASS, SEQUENCE HOT GAS PILOT SOLENOID VALVE AT LOW LOAD CONDITIONS.
   d. IF SAF STOPS, LOCK OUT MECHANICAL COOLING.
   e. FOR UNITS WITHOUT LOW AMBIENT CONTROLS LOCK OUT CONDENSER WHEN OAT BELOW 50°F. FOR UNITS EQUIPPED WITH LOW AMBIENT CONTROLS, LOCK OUT CONDENSER BELOW 10°F.
   f. COOLING COIL FREEZE PROTECTION:
      (a) A HARDWIRED, LOW LIMIT TEMPERATURE SWITCH SHALL BE ELECTRICALLY INTERLOCKED WITH THE MOTOR STARTER. IF THE LOW LIMIT TEMPERATURE SWITCH IS TRIPPED 38.0 DEG. F (ADJ.), THE OUTSIDE AIR DAMPER SHALL CLOSE, ALL VALVES SHALL OPEN TO 100% (ADJUST PER CLIMATE), ALL STAGES OF COOLING SHALL BE DISABLED AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS. A MANUAL RESET OF THE LOW LIMIT TEMPERATURE SWITCH SHALL BE REQUIRED TO RESTART THE FAN.
5. DE-HUMIDIFICATION MODE:
   a. BMS SHALL MONITOR SPACE HUMIDITY LEVELS. WHEN LEVEL RISES ABOVE 60%RH, COOLING COIL DISCHARGE AIR TEMPERATURE WILL BE MODULATED TO 55°F, AND HOT GAS REHEAT SHALL BE MODULATED AS REQUIRED TO PROVIDE COOL, DEHUMIDIFIED AIR AND MAINTAIN SPACE TEMPERATURE SETPOINT UNTIL ROOM HUMIDITY LEVEL REACHES 50%RH.

B. CARBON DIOXIDE DEMAND CONTROL VENTILATION - GYM UNITS, AUDITORIUM/STAGE, CAFETERIA UNIT:
1. UNITS EQUIPPED WITH CO_2 SENSORS (CDS) SHALL OPERATE WITH NORMAL SEQUENCE OF OPERATION EXCEPT AS LISTED BELOW:
2. GENERAL: CDS SYSTEM SHALL MEASURE RELATIVE DIFFERENCE IN CO_2 BETWEEN CONTROLLED SPACE/RETURN DUCT AND OUTDOOR REFERENCE CONTINUOUSLY. UNLESS OTHERWISE NOTED, SENSING POINTS SHALL BE AS FOLLOWS:
   a. SPACE: CO_2 ROOM SENSOR(S).
   b. OUTDOOR: OA DUCT UPSTREAM OF OAD (1).
3. PRE-PURGE: UNIT WILL START (30) MINUTES BEFORE NORMAL OCCUPANCY TIMES. OA DAMPER WILL MODULATE TO EVENT OCCUPANCY POSITION.
4. POST-PURGE: BEFORE UNIT CAN GO TO UNOCCUPIED CONDITION, THE CO_2 CONDITION WITHIN THE SPACE MUST BE EQUAL TO THE OUTDOOR AIR LEVEL. TO REACH THIS LEVEL, THE OUTDOOR AIR DAMPER WILL BE OPEN TO MAXIMUM OCCUPANCY POSITION.
5. VENTILATION MODE: NORMAL OPERATION SHALL BE DEFINED AS OCCURRING DURING OCCUPIED "DAY" MODE AND NO FAULT CONDITIONS PRESENT (I.E.- NO FAILURES OR FREEZE CONDITIONS). SEE CO_2 SYSTEM PARAMETER SCHEDULE FOR NORMAL/EVENT OA REQUIREMENTS.
   a. OUTSIDE AIR CONTROL SHALL BE SET FOR A NORMAL MINIMUM POSITION BASED ON REGULAR STUDENT OCCUPANCY QUANTITY.
   b. WHEN THE SPACE CO_2 LEVEL IS 100 PPM ABOVE OA AMBIENT LEVEL, THE UNIT OUTDOOR DAMPERS SHALL IMMEDIATELY BEGIN TO MODULATE FURTHER OPEN FOR ADDITIONAL OA. WHEN THE SPACE CO_2 LEVEL IS 530 PPM ABOVE OA AMBIENT LEVEL, THE UNIT OA AND RA DAMPERS SHALL MODULATE TO MAINTAIN CO_2 LEVELS BELOW 530 PPM.
6. DURING NORMAL OCCUPIED CYCLE, OR DURING A SPECIAL EVENT (I.E. BASKETBALL GAME), CDS CO_2 CONTROL CAN BE OVERRIDDEN BY ECONOMIZER OVERRIDE TO ALLOW FOR FREE COOLING. IF CO_2 LEVELS IN SPACE EXCEED SETPOINT, SYSTEM SHALL ALERT OPERATOR(S) TO INCREASED OCCUPANCY. SYSTEM SHALL AUTOMATICALLY MODULATE DAMPER SYSTEM TO ALLOW INTRODUCTION OF ADDITIONAL OUTSIDE AIR.
7. WHEN CO_2 LEVELS FALL, CYCLE SHALL REVERSE TO CLOSE DAMPERS TO NORMAL OA MINIMUM POSITION.
8. IF CO_2 SENSOR GOES OFF LINE OR MALFUNCTIONS, OA DAMPERS SHALL BE POSITIONED TO 50% OF VENTILATION LEVEL. SYSTEM SHALL SIGNAL ALARM TO OPERATOR.
9. SYSTEM SHALL MAINTAIN A CLOCK CALENDAR TO NOTIFY OPERATOR OF MAINTENANCE AND CALIBRATION SCHEDULE FOR CDS SYSTEM.
10. SOFTWARE PARAMETERS: CONTRACTOR MUST PROVIDE PROPORTIONAL INTEGRAL DERIVATIVE FOR ALL CO_2 CONTROLLERS WITH EACH SYSTEM.
11. PROVIDE PROVISION FOR EXTENDED COMMISSIONING (1 YEAR) TO CHECK CALIBRATION OF CO_2 SENSOR. RETEST CO_2 SENSOR LEVELS TO ENSURE TARGET PER PERSON.
12. RECORD KEEPING: CONTRACTOR IS TO RECORD SPACE AND OUTSIDE AIR CO2 CONDITIONS AT 15-MINUTE INTERVALS. RECORDS OF CO2 CONCENTRATIONS MUST BE KEPT FOR A MINIMUM OF THREE YEARS.
13. AFTER UNIT HAS BEEN IN SERVICE FOR ONE YEAR, CONTRACTOR/COMMISSIONING AGENT IS TO RETURN AND CHECK CALIBRATION OF CO2 SENSOR, MONITOR/TEST CO2 LEVELS TO ENSURE TARGET PER PERSON VENTILATION RATES ARE MET AND MAINTAINED.
14. CONTRACTOR TO PROVIDE GRAPHIC SCREEN FOR OCCUPIED/UNOCCUPIED SCHEDULING PER AREA INDICATING PROGRAM UNOCCUPIED OVERRIDE ON GIVEN AREA FOR NO MORE THAN (4) HOURS.

C. UNOCCUPIED MODE:
1. WHEN LOCAL ZONE SWITCHES TO NIGHT CYCLE, CLOSE OAD, RELIEF AIR DAMPER AND FULLY OPEN RAD. WHERE APPLICABLE, HEATING VALVE OPEN TO COIL. FAN SHALL RUN INTERMITTENTLY ON A CALL FOR HEATING.
2. COOLING SHALL BE LOCKED OUT.
3. SPACE SHALL MAINTAIN A DEPRESSED NIGHT SETTING.
4. NIGHT OVERRIDE BY PB SWITCH ON TEMPERATURE SENSOR AND/OR CONSOLE.
5. WHEN OUTSIDE AIR TEMPERATURE IS 40F OR BELOW, CONTROL VALVE SHALL BE A MINIMUM OF 25% OPEN AT ALL TIMES TO PREVENT SLUSHING OF FLUID.

D. SETPOINTS:
1. OCCUPIED HEATING: 70°F
2. OCCUPIED COOLING: 75°F
3. UNOCCUPIED HEATING: 55°F
4. UNOCCUPIED COOLING: OFF

E. ALARMS:
1. SPACE TEMPERATURE HIGH LIMIT: TEMPERATURE ABOVE 82°F
2. SPACE TEMPERATURE LOW LIMIT: TEMPERATURE BELOW 50°F
3. SPACE HUMIDITY HIGH LIMIT: 70% RH
4. UNIT DISCHARGE TEMPERATURE HIGH LIMIT: 125°F
5. UNIT DISCHARGE TEMPERATURE LOW LIMIT: 10°F BELOW SETPOINT.
6. SUPPLY FAN FAULT.
7. EXHAUST FAN FAULT.

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	DV	SCHED	TREND	ALARM	
SUPPLY FAN		--									
SUPPLY FAN START/STOP	CR-1				X				X		X
SUPPLY FAN VFD / ECM SPEED			X						X		X
SUPPLY FAN VFD / ECM FAULT				X						X	
SUPPLY FAN STATUS	CFS-1			X					X	X	X
EXHAUST FAN		--									
EXHAUST FAN START/STOP	CR-1				X				X		X
EXHAUST FAN VFD / ECM SPEED			X						X		X
EXHAUST FAN VFD / ECM FAULT				X						X	
EXHAUST FAN STATUS	CFS-1			X					X	X	X
O.A. DAMPER	ME-1		X						X		X
RECIRC DAMPER	ME-1		X						X		X
E.A. DAMPER	ME-1		X						X		X
MIXED AIR TEMPERATURE	TSD	X							X		X
HEATING COIL CONTROL VALVE	CVT		X						X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
FREEZESTAT	LC-1			X					X	X	X
COOLING COIL CAPACITY MODULATION	0-10VDC		X						X		X
COOLING COIL DISCHARGE AIR TEMPERATURE	TSD	X							X		X
COOLING COIL DISCHARGE AIR SETPOINT			X						X		X
HOT GAS REHEAT START/STOP					X				X		X
HGRH CAPACITY MODULATION	0-10VDC		X						X		X
DISCHARGE AIR TEMPERATURE	TSD	X							X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
OUTSIDE AIR TEMPERATURE	TSD	X							X		X
OUTSIDE AIR HUMIDITY	HSP	X							X		X
HIGH DISCHARGE HUMIDITY										X	X
RETURN AIR TEMPERATURE	TSD	X							X		X
SPACE TEMPERATURE	TSB	X						X			X
SPACE TEMP. SET POINT					X				X		
LOW SPACE TEMPERATURE										X	
HIGH SPACE TEMPERATURE										X	
SPACE HUMIDITY	HSTS	X						X			X
SPACE HUMIDITY SET POINT									X		
HIGH SPACE HUMIDITY										X	
SPACE CO2 SENSOR (DCV)	CDS-1	X							X		X
SPACE CO2 SENSOR (DCV)	CDS-1	X							X		X
RETURN CO2 SENSOR (DCV)	CDS-2	X							X		X
OUTDOOR AIRFLOW MEASUREMENT	AFS-1	X							X		X

GYMNASIUM
Area of Gymnasium = 5,700 ft²
Classification: Gym, Stadium, Arena (Play Area)
Area of Seating = 3,500 ft²
Classification: Spectator Area

Outdoor Air:
[(5700 x (7/1000) x 20 + 5700 x 0.18) / 0.8] + [(3500 x (150/1000) x 7.5 + 3500 x 0.06) / 0.8] = 7,468 cfm

Unit
Space Configuration:

Space Served	Gymnasium
Total Number of Units	2
Normal Student Occupants	60
Max. Event Occupants (persons)	565
Posted Occupancy (persons)	--
Individual Unit Arrangement:	
Supply Air (cfm)	9,750 (Per unit)
Heating Coil OA Capacity (cfm)	3,750 (Per unit)
Unit EAT/LAT	36/93 (Per unit)
Normal Ventilation OA (cfm) Min.	940 (Per unit)
Event Ventilation OA (cfm)	3,750 (Per unit)
Malfunction Ventilation OA (cfm)	1,875 (Per unit)
Pre-Purge OA (cfm)	1,875 (Per unit)
Pre-Purge Duration (min.)	30
Post-Purge OA (cfm)	1,875 (Per unit)
Post-Purge Duration (min.)	30

Note 1: Run units 30 minutes or until CO_2 levels in space are equivalent to ambient.

DEMAND CONTROL VENTILATION CALCULATIONS

MULTIPURPOSE ROOM / PLATFORM
Area = 5,260 ft²
Classification: Dining Room

Outdoor Air:
(5260 x (70/1000) x 7.5 + 5260 x 0.18) / 0.8 = 4643 cfm

Unit
Space Configuration:

Space Served	Multipurpose Room
Total Number of Units	1
Normal Student Occupants	60
Max. Event Occupants (persons)	369
Posted Occupancy (persons)	--
Individual Unit Arrangement:	
Supply Air (cfm)	12,000
Heating Coil OA Capacity (cfm)	4,650
Unit EAT/LAT	36/89
Normal Ventilation OA (cfm) Min.	1,170
Event Ventilation OA (cfm)	4,650
Malfunction Ventilation OA (cfm)	2,330
Pre-Purge OA (cfm)	2,330
Pre-Purge Duration (min.)	30
Post-Purge OA (cfm)	2,330
Post-Purge Duration (min.)	30

Note 1: Run units 30 minutes or until CO_2 levels in space are equivalent to ambient.

DEMAND CONTROL VENTILATION CALCULATIONS

3 M703 SINGLE ZONE ROOFTOP CONTROL SEQUENCE

NO SCALE

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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Expires: 4/30/2027

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ESS #P301

SED PROJECT NUMBERS:
60-04-02-04-0-007-023

HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD
TIOGA COUNTY, NY

MECHANICAL CONTROLS

SHEET NO.
M703
PROJECT NO.
1823.24221.1.3
DATE
12/12/2025

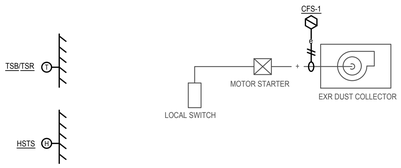
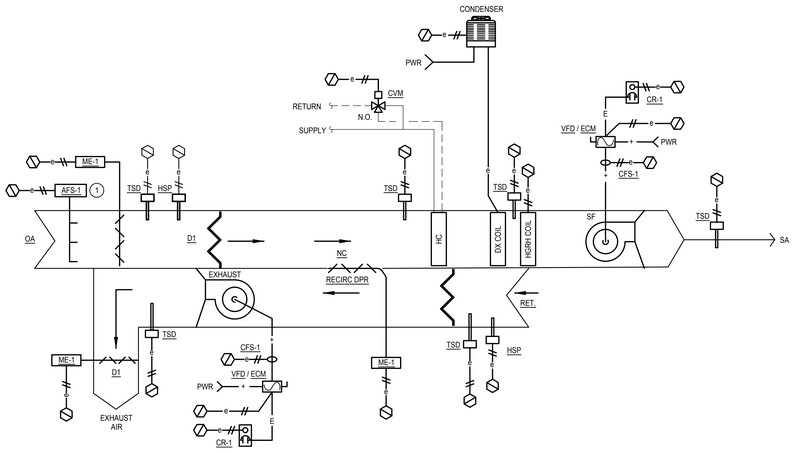


DIAGRAM NOTES

1. AIRFLOW STATION PROVIDED BY RTU MANUFACTURER.

SEQUENCE OF OPERATION:

1. BMS SHALL MONITOR DUST COLLECTOR STATUS VIA CURRENT TRANSDUCER.



SEQUENCE OF OPERATION:

A. OCCUPIED CYCLE:
1. WHEN SPACE OR LOCAL ZONE SWITCHES TO DAY CYCLE, SUPPLY AIR FAN SHALL START AND RUN CONTINUOUSLY. OA & RELIEF DAMPERS SHALL OPEN TO MINIMUM POSITION. CONTROLLER SHALL SIGNAL ALARM CONDITION IF NO AIR FLOW DETECTED.
2. EXHAUST AIR FAN SHALL RUN WHENEVER THE UNIT IS SUPPLYING OUTSIDE AIR TO THE SPACE(S). EXHAUST AIR FAN SHALL MODULATE SPEED IN UNISON WITH THE OUTSIDE AIR FLOW RATE, MINUS 100CFM.
3. WHEN IN THE OCCUPIED MODE, THE CONTROLLER SHALL MEASURE THE OUTSIDE AIRFLOW AND MODULATE THE OUTSIDE AIR DAMPERS TO MAINTAIN THE PROPER MINIMUM OUTSIDE AIR VENTILATION, OVERRIDDING NORMAL DAMPER CONTROL.
ON DROPPING OUTSIDE AIRFLOW, THE CONTROLLER SHALL MODULATE THE OUTSIDE AIR DAMPERS OPEN TO MAINTAIN THE OUTSIDE AIRFLOW SETPOINT.

C. HEATING MODE:
1. OA DAMPER SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
2. DISCHARGE AIR TEMPERATURE SENSOR WILL MODULATE DUCT HEATING COIL VALVE CVT TO MAINTAIN SPACE TEMPERATURE SETPOINT.
3. WHEN COIL IS EQUIPPED WITH A COIL PUMP, PUMP SHALL RUN DURING CONTINUOUSLY WHEN THERE IS A CALL FOR HEAT AND THE BOILER PLANT IS ENABLED.
4. LOW LIMIT CONTROLLER WILL SHUT DOWN SUPPLY FAN AND ALARM TO DDC SYSTEM WHENEVER SUPPLY AIR TEMPERATURE OFF HEATING COIL DROPS BELOW 38°F (ADJUSTABLE).
5. HOT WATER HEATING COIL:
   a. DISCHARGE AIR TEMPERATURE SENSOR WILL MODULATE DUCT HEATING COIL VALVE CVT TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT OF 55°F.
   b. LOW LIMIT CONTROLLER WILL SHUT DOWN SUPPLY FAN AND ALARM TO DDC SYSTEM WHENEVER SUPPLY AIR TEMPERATURE OFF HEATING COIL DROPS BELOW 38°F (ADJUSTABLE).GAS HEAT SHALL BE ENABLED WHEN DUST COLLECTOR IS RUNNING AND THE OUTDOOR AIR TEMPERATURE IS BELOW 50F.

D. ECONOMIZER MODE:
1. THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE OUTSIDE AIR, RETURN AIR, AND RELIEF AIR DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2°F LESS THAN THE SPACE TEMPERATURE SETPOINT. THE ECONOMIZER SHALL BE ENABLED WHENEVER:
   - THE OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F.
   - AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB.
   - AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
   - AND THE SUPPLY FAN IS ON
2. THE ECONOMIZER SHALL BE DISABLED WHENEVER:
   - MIXED AIR TEMPERATURE DROPS BELOW 55°F.
   - OR SUPPLY FAN IS OFF/IN ALARM.
   - OR WHEN ECONOMIZER CAN NO LONGER MAINTAIN SPACE TEMPERATURE OR RELATIVE HUMIDITY SETPOINT.

E. COOLING MODE:
1. OA DAMPER SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
2. BMS SHALL ENABLE COMPRESSOR STAGES AND POSITION THE REVERSING VALVE TO OPERATE IN COOLING MODE.
   a. THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND MAINTAIN A SUPPLY AIR TEMPERATURE SETPOINT RESET BASED ON ZONE COOLING REQUIREMENTS.
   b. THE INITIAL SUPPLY AIR TEMPERATURE SETPOINT SHALL BE 60°F.
   c. AS COOLING DEMAND INCREASES, THE SETPOINT SHALL INCREMENTALLY DECREASE DOWN TO A MINIMUM OF 55°F.
   d. AS COOLING DEMAND DECREASES, THE SETPOINT SHALL INCREMENTALLY RESET UP TO A MAXIMUM OF 72°F.
4. IF SAF STOPS, LOCK OUT COMPRESSORS.

G. DEHUMIDIFICATION MODE:
1. BMS SHALL MONITOR RETURN AIR HUMIDITY LEVEL AND SPACE HUMIDITY SENSORS. IF ANY VALUES EXCEED SETPOINT BY 10 PERCENTAGE POINTS, THE FOLLOWING SHALL HAPPEN:
   a. BMS SHALL MODULATE THE COOLING COIL DISCHARGE AIR TEMPERATURE DOWN TO 55F.
   b. BMS SHALL ENABLE AND MODULATE HOT GAS REHEAT IN THE ROOFTOP TO MAINTAIN SPACE TEMPERATURE SETPOINT(S).
2. RETURN AIR HUMIDITY SETPOINT: 50% RH.

H. DUST COLLECTOR CYCLE:
1. WHEN CT SENSOR MONITORING DUST COLLECTOR INDICATES COLLECTOR HAS STARTED, THE FOLLOWING SHALL OCCUR:
   a. MODULATE DAMPERS TO BRING IN 2900CFM OUTDOOR AIR.
   b. UNIT SHALL RUN IN THIS MODE UNTIL IT IS DETECTED THAT THE DUST COLLECTOR HAS BEEN DISABLED - UNIT SHALL RETURN TO NORMAL SEQUENCE.

I. UNOCCUPIED CYCLE:
1. WHEN LOCAL ZONE SWITCHES TO NIGHT CYCLE, CLOSE OAD, RELIEF AIR DAMPERS, FULLY OPEN RAD AND STOP EXHAUST FAN. SUPPLY FAN SHALL RUN INTERMITTENTLY ON A CALL FOR HEATING.
2. MODULATE HOT WATER HEATING COIL CONTROL VALVE TO FULL OPEN.
3. COOLING SHALL BE LOCKED OUT.
4. SPACE SHALL MAINTAIN A DEPRESSED NIGHT SETTING AT 55°F (ADJUSTABLE).
5. NIGHT OVERRIDE BY PB SWITCH ON ANY ZONE TEMPERATURE SENSOR AND/OR CONSOLE.
6. WHEN AMBIENT AIR TEMPERATURE FALLS BELOW 35°F, HEATING COIL CONTROL VALVE SHALL REMAIN 10% OPEN ON ROOF MOUNTED EQUIPMENT TO ALLOW FOR CIRCULATION OF FLUID TO PREVENT SLUSHING.

J. SAFETIES:
1. EQUIPMENT LOCKOUT: ON A LOSS OF SUPPLY FAN STATUS, THE OUTDOOR AIR DAMPERS AND RELIEF DAMPERS WILL CLOSE, RETURN DAMPER WILL OPEN, COMPRESSORS SHALL BE LOCKED OUT.
2. GENERATOR LOCKOUT: ON A LOSS OF NORMAL POWER, COMPRESSORS SHALL BE LOCKED OUT.
3. SAFETIES: A STATIC PRESSURE HIGH LIMIT LOCATED IMMEDIATELY AFTER THE SUPPLY FAN WILL SHUTDOWN THE SUPPLY FAN VARIABLE SPEED DRIVE IF THE DUCT STATIC PRESSURE EXCEEDS ITS SETPOINT.
4. LO-LIMIT CONTROLLER WILL STOP SUPPLY FAN DIRECTLY AND ALARM THE CONDITION THRU DDC. DAMPERS WILL CLOSE TO OUTDOOR AIR, HEATING VALVE WILL OPEN.

I. SETPOINTS:
1. OCCUPIED HEATING: 70°F
2. OCCUPIED COOLING: 75°F
3. UNOCCUPIED HEATING: 55°F
4. UNOCCUPIED COOLING: OFF

J. ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. SUPPLY FAN FAILURE (COMMANDED ON, BUT THE STATUS IS OFF)
2. SUPPLY FAN IN HAND (COMMANDED OFF, BUT STATUS IS ON)
3. RETURN FAN FAILURE (COMMANDED ON, BUT THE STATUS IS OFF)
4. RETURN FAN IN HAND (COMMANDED OFF, BUT STATUS IS ON)
5. HIGH SUPPLY AIR TEMPERATURE: IF SUPPLY AIR TEMPERATURE IS 5°F GREATER THAN SETPOINT
6. LOW SUPPLY AIR TEMPERATURE: IF SUPPLY AIR TEMPERATURE IS 5°F LESS THAN SETPOINT
7. HIGH RETURN AIR HUMIDITY: IF RETURN AIR HUMIDITY EXCEEDS 70%RH

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	DV	SCHED	TREND	ALARM	
SUPPLY FAN						--					
SUPPLY FAN START/STOP	CR-1				X				X		X
SUPPLY FAN VFD / ECM SPEED			X						X		X
SUPPLY FAN VFD / ECM FAULT				X						X	
SUPPLY FAN STATUS	CFS-1			X					X	X	X
EXHAUST FAN						--					
EXHAUST FAN START/STOP	CR-1				X				X		X
EXHAUST FAN VFD / ECM SPEED			X						X		X
EXHAUST FAN VFD / ECM FAULT				X						X	
EXHAUST FAN STATUS	CFS-1			X					X	X	X
O.A. DAMPER	ME-1		X						X		X
RECIRC DAMPER	ME-1		X						X		X
E.A. DAMPER	ME-1		X						X		X
MIXED AIR TEMPERATURE	TSD	X							X		X
AIRFLOW MEASURING STATION		X							X		X
HEATING COIL CONTROL VALVE	CVM		X						X		X
COOLING COIL START/STOP					X				X		X
COOLING COIL CAPACITY MODULATION	0-10VDC		X						X		X
HOT GAS REHEAT START/STOP					X				X		X
HOT GAS REHEAT CAPACITY MODULATION	0-10VDC			X					X		X
DISCHARGE AIR SETPOINT			X						X		X
DISCHARGE AIR TEMPERATURE	TSD	X							X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
RETURN AIR TEMPERATURE	TSD	X							X		X
SPACE TEMPERATURE	TSB	X						X			X
SPACE TEMP. SET POINT						X			X		
LOW SPACE TEMPERATURE										X	
HIGH SPACE TEMPERATURE										X	
SPACE HUMIDITY SENSOR	HSTS	X						X			X
SPACE HUMIDITY SETPOINT						X			X		
HIGH SPACE HUMIDITY										X	
DUST COLLECTOR STATUS	CFS-1			X					X	X	X
OUTDOOR AIRFLOW MEASUREMENT	AFS-1	X							X		X

SHOP AREA CONTROL DIAGRAM

1 / M704 — NO SCALE

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	BV	SCHED	TREND	ALARM	
GLYCOL LOOP PUMP											
PUMP START/STOP	CR-1				X				X		X
PUMP STATUS	CFS-1			X					X		X
GLYCOL LOOP PUMP											
PUMP START/STOP	CR-1				X				X		X
PUMP STATUS	CFS-1			X					X		X
CONTROL VALVE	CVM		X						X		X
DIFFERENTIAL PRESSURE	DPT-1	X							X	X	X
HIGH DIFFERENTIAL PRESSURE										X	
LOW DIFFERENTIAL PRESSURE										X	
GLYCOL LOOP SUPPLY TEMP	ITS	X							X		X
GLYCOL LOOP SUPPLY TEMP. SETPOINT			X						X		X
HIGH GLYCOL LOOP SUPPLY TEMP										X	
LOW GLYCOL LOOP SUPPLY TEMP										X	
GLYCOL LOOP RETURN TEMP	ITS	X							X		X

CONTROL SEQUENCE:

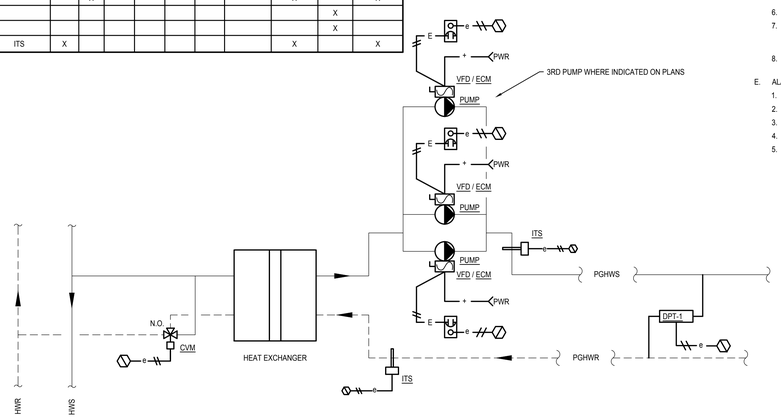
A. GENERAL:
1. SOFTWARE BIAS ADJUSTMENT SHALL BE PROVIDED FOR EACH ZONE. BIAS ADJUSTMENT SHALL BE 20°F MIN. ABOVE AND BELOW SETPOINT. DAY-NIGHT WATER TEMPERATURE RESET, RESET 20°F (ADJUSTABLE) BELOW DAY TEMPERATURE SETPOINT AT NIGHT.

B. THE CONTROL VALVE ON THE HOT WATER SIDE OF THE HEAT EXCHANGER SHALL MODULATE TO CONTROL THE LOOP TEMPERATURE ON THE GLYCOL SIDE OF THE HEAT EXCHANGER. THE GLYCOL LOOP SHALL MAINTAIN A RESET SCHEDULE AS FOLLOWS WITH A STRAIGHT LINE GRADIENT BETWEEN END POINTS:
1. OCCUPIED SETPOINTS: 30°F OA, HWS 170°F + 60°F OA, HWS 120°F.
2. UNOCCUPIED SETPOINTS: 0°F OA, HWS 160°F + 60°F OA, HWS 100°F

C. IF ALL CONTROL VALVES ARE CLOSED ON THE GLYCOL SIDE OF THE HEAT EXCHANGER, THE HOT WATER CONTROL VALVE SHALL CLOSE.

D. GLYCOL LOOP PUMP CONTROL
1. SET PUMP MOTOR VFDS / ECM TO AUTO MODE.
2. WHEN OAT FALLS BELOW 62°F START LEAD PUMP (SOFTWARE SELECTABLE). WHEN OAT RISES ABOVE 65°F, STOP PUMP.
3. PUMPS SHALL MODULATE SPEED BASED ON BUILT-IN DIFFERENTIAL PRESSURE CONTROLS.
4. WHEN PUMP(S) OPERATING CONTINUOUSLY, CONTROLLER SHALL AUTOMATICALLY ALTERNATE PUMPS EVERY (7) DAYS (SOFTWARE SELECTABLE).
5. CONTROLLER SHALL AUTOMATICALLY SWITCH LEAD PUMP ON LOSS OF PRESSURE AT DIFFERENTIAL PRESSURE SENSOR.
6. DUPLEX PUMPS SHALL BE INTERLOCKED TO PREVENT SIMULTANEOUS OPERATION.
7. WHERE THREE PUMPS ARE SHOWN IN PARALLEL, TWO PUMPS SHALL BE ALLOWED TO RUN IN PARALLEL. BMS TO STAGE PUMPS ON AND OFF AND MODULATE SPEED IN UNISON TO SATISFY TERMINAL EQUIPMENT AND MAXIMIZE EFFICIENCY.
8. DIFFERENTIAL PRESSURE TRANSMITTER WILL MAINTAIN 10 PSIG (ADJ) DIFFERENTIAL PRESSURE BETWEEN SUPPLY AND RETURN HOT WATER LINE BY VARYING THE VFD DRIVES ON SECONDARY PUMPS.

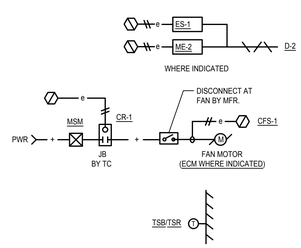
E. ALARMS:
1. LOOP LOW LIMIT: 10°F BELOW SETPOINT
2. LOOP HIGH LIMIT: 10°F ABOVE SETPOINT
3. LOW DIFFERENTIAL PRESSURE: 5 PSI BELOW SETPOINT
4. HIGH DIFFERENTIAL PRESSURE: 5 PSI ABOVE SETPOINT
5. PUMP FAILURE



GLYCOL LOOP CONTROL SEQUENCE

2 / M704 — NO SCALE

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	BV	SCHED	TREND	ALARM	
FAN START/STOP	CR-1				X			X	X		X
FAN STATUS	CFS-1			X					X	X	X
FAN SPEED (ECM)			X		X				X		X
DAMPER OPEN/CLOSE	ME-2				X			X	X		X
END SWITCH	ES-1				X			X	X		X



CONTROL SEQUENCE:

A. THE CONTROLLER SHALL CONTINOUSLY MONITOR THE SPACE TEMPERATURE. IF THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT, THE MOTORIZED DAMPER SHALL OPEN AND AFTER THE END SWITCH PROVES DAMPER POSITION, THE EXHAUST FAN SHALL START AND RUN.

B. THE FAN SHALL RUN UNTIL THE SPACE TEMPERATURE IS 2°F BELOW SETPOINT, AT WHICH POINT THE FAN SHALL BE DISABLED AND AFTER A 30 SECOND DELAY, THE DAMPER SHALL CLOSED.

C. SETPOINT(S):
- 78°F.

EXHAUST FAN CONTROL SEQUENCE

3 / M705 — NO SCALE

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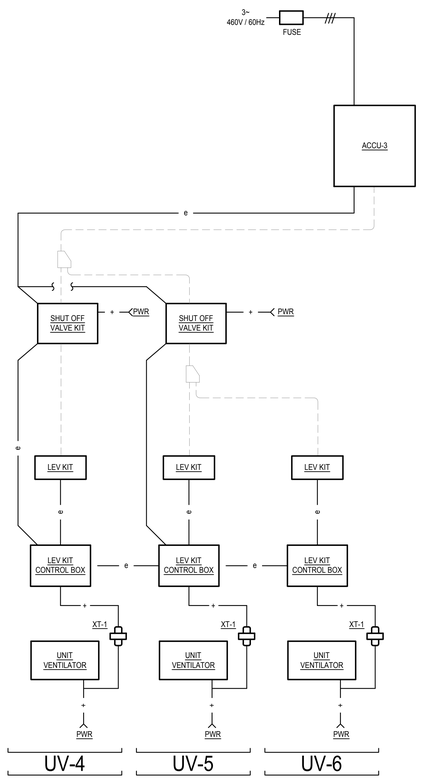
SED PROJECT NUMBERS:
60-04-02-94-0-007-023
HIGH SCHOOL

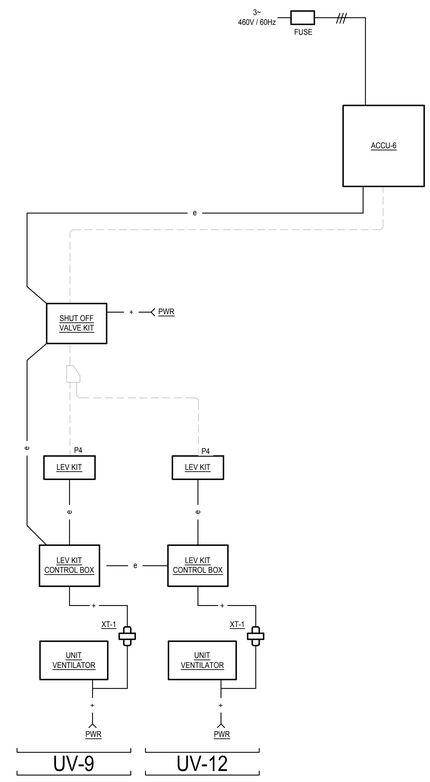
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
TIOGA COUNTY, NY
68 WILSON CREEK ROAD

MECHANICAL CONTROLS

SHEET NO.
M704
PROJECT NO.
1823.24221.1.3
DATE:
12/12/2025





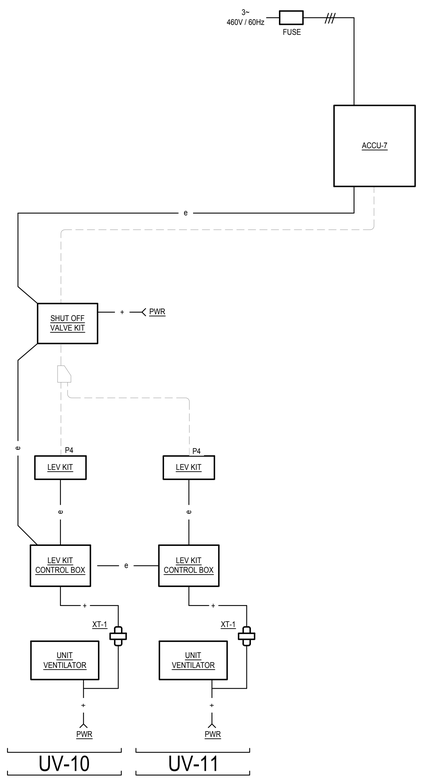
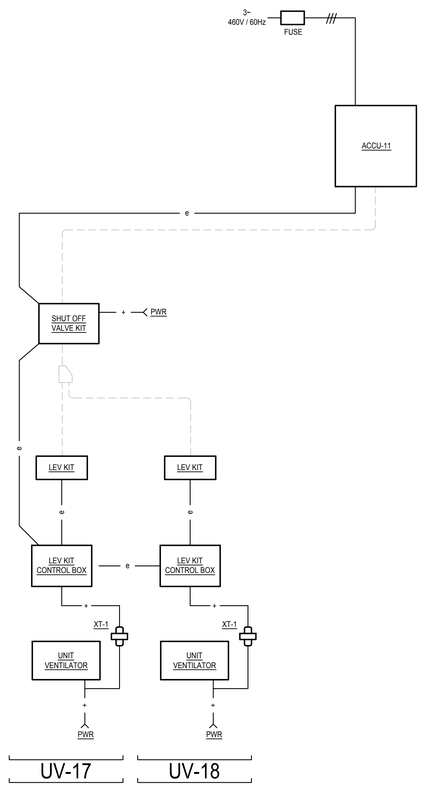
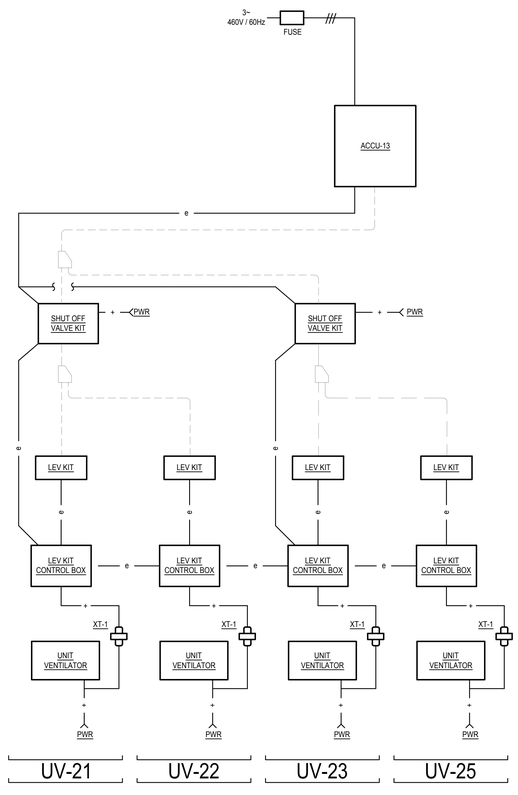
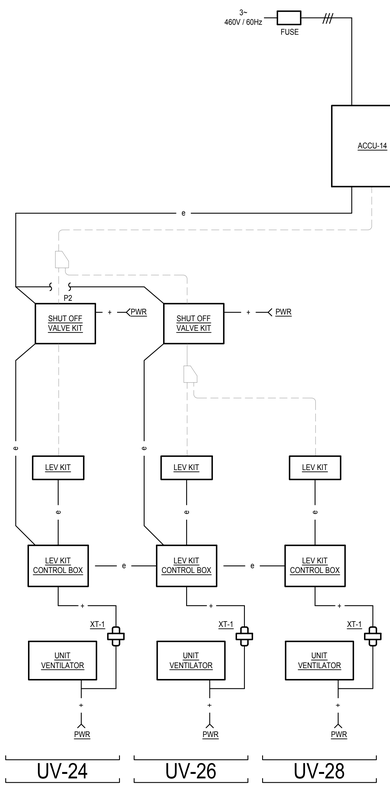
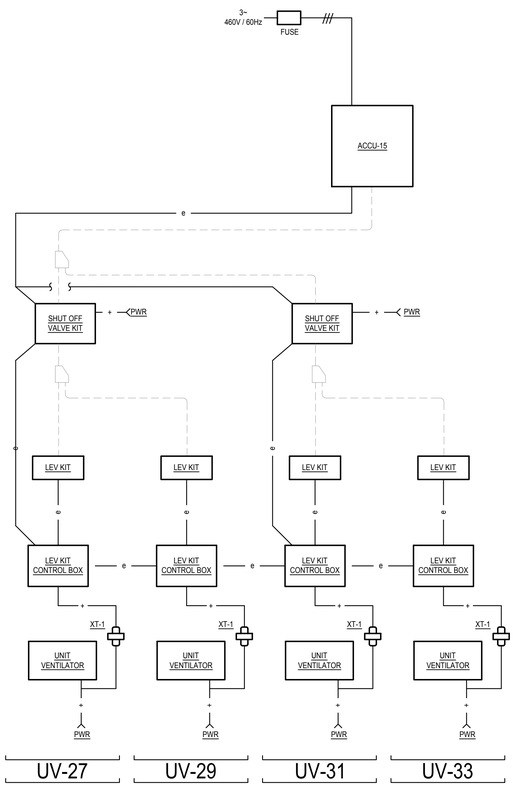


DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—//—	POWER WIRE
———	CONTROL WIRE
— — —	REFRIGERANT PIPE









1 M705 UNIT VENTILATOR CONTROL WIRING LADDER DIAGRAM

SCALE: NTS

NOTE(S):
1. INSTALL TWINNING Y'S WITHIN 15 DEGREES OF LEVEL AND WITH 20 INCHES OF STRAIGHT PIPEON CONVEYING CONNECTION - REFERENCE INSTALLATION MANUAL FOR ADDITIONAL DETAILS INCLUDING BUT NOT LIMITED TO SPECIAL TRAPPING REQUIREMENTS WHEN TWINNING, AND PIPE SLOPE REQUIREMENTS.
2. VERIFY SYSTEM WIRING AND NECESSARY COMPONENTS WITH EQUIPMENT MANUFACTURER'S REPRESENTATIVE PRIOR TO ORDERING.

CERTIFICATE OF AUTHORIZATION
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SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023
HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD
TIOGA COUNTY, NY

MECHANICAL CONTROLS

SHEET NO.
M705

PROJECT NO.
1823.24221.1.3

DATE
12/12/2025

CAD FILE: M705.DWG

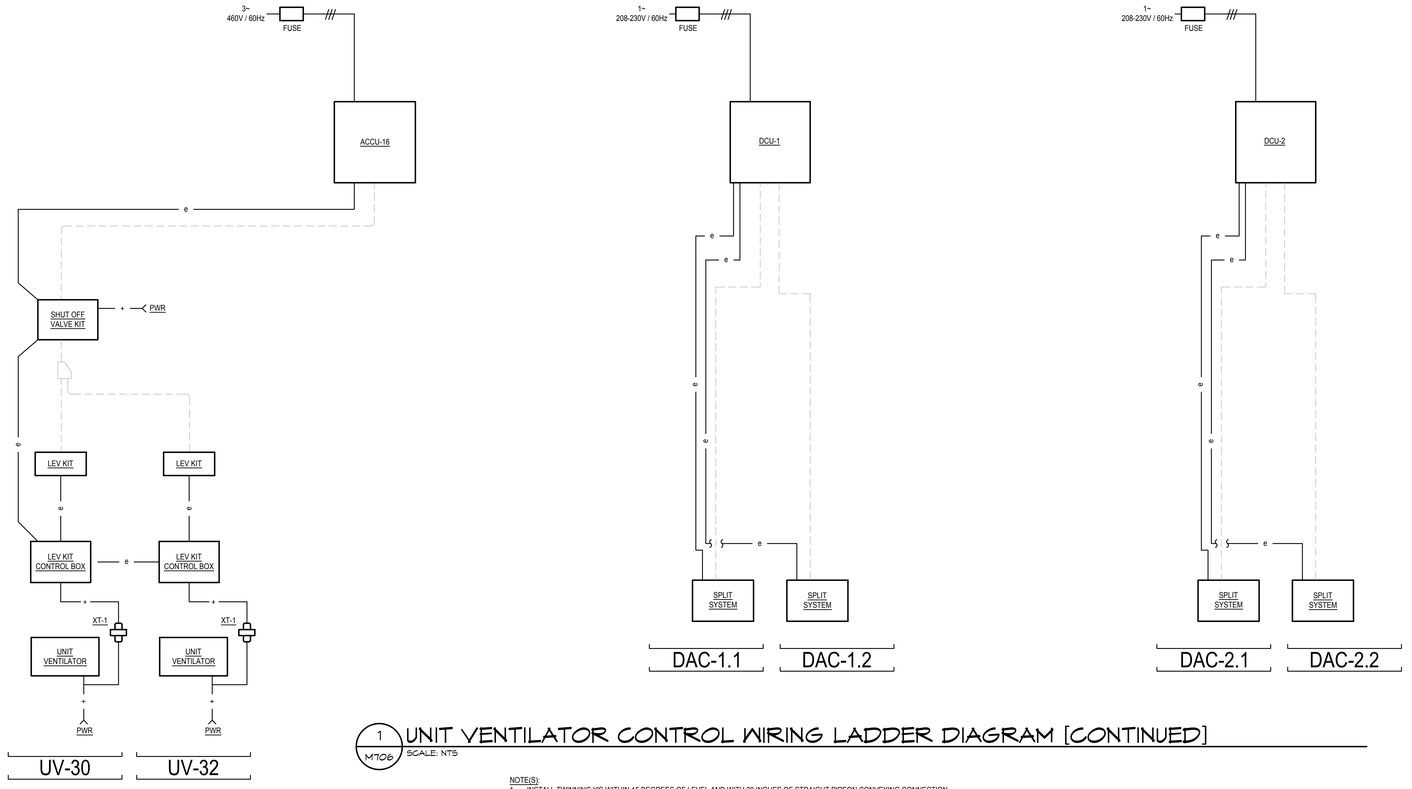
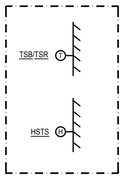


DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—//—	POWER WIRE
———	CONTROL WIRE
– – –	REFRIGERANT PIPE

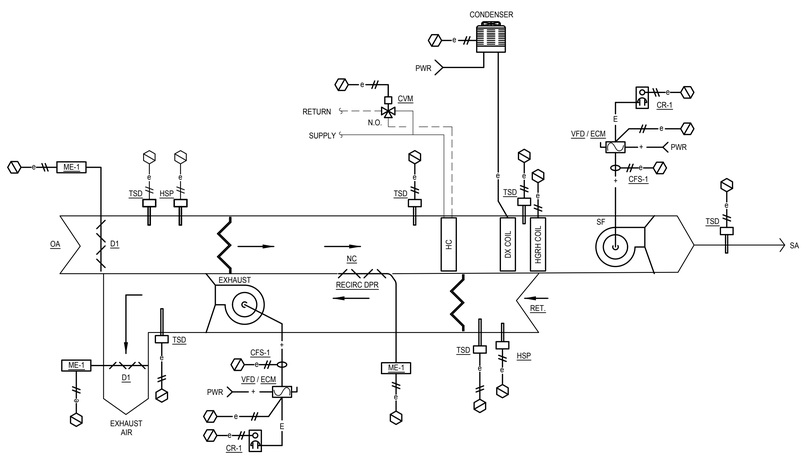
1 M706 — UNIT VENTILATOR CONTROL WIRING LADDER DIAGRAM [CONTINUED]

SCALE: NTS

NOTE(S):
1. INSTALL TWINNING Y'S WITHIN 15 DEGREES OF LEVEL AND WITH 20 INCHES OF STRAIGHT PIPEON CONVEYING CONNECTION - REFERENCE INSTALLATION MANUAL FOR ADDITIONAL DETAILS INCLUDING BUT NOT LIMITED TO SPECIAL TRAPPING REQUIREMENTS WHEN TWINNING, AND PIPE SLOPE REQUIREMENTS.
2. VERIFY SYSTEM WIRING AND NECESSARY COMPONENTS WITH EQUIPMENT MANUFACTURER'S REPRESENTATIVE PRIOR TO ORDERING.



QUANTITY PER PLANS



2 M706 — MUSIC ROOM ROOFTOP CONTROL DIAGRAM

NO SCALE

SEQUENCE OF OPERATION:

A. OCCUPIED CYCLE:
1. WHEN SPACE OR LOCAL ZONE SWITCHES TO DAY CYCLE, SUPPLY AIR FAN SHALL START AND RUN CONTINUOUSLY. OA & RELIEF DAMPERS SHALL OPEN TO MINIMUM POSITION. CONTROLLER SHALL SIGNAL ALARM CONDITION IF NO AIR FLOW DETECTED.
2. EXHAUST AIR FAN SHALL RUN WHENEVER THE UNIT IS SUPPLYING OUTSIDE AIR TO THE SPACE(S). EXHAUST AIR FAN SHALL MODULATE SPEED IN UNISON WITH THE OUTSIDE AIR FLOW RATE, MINUS 100CFM.

B. HEATING MODE:
1. OA DAMPER SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
2. DISCHARGE AIR TEMPERATURE SENSOR WILL MODULATE DUCT HEATING COIL VALVE CVT TO MAINTAIN SPACE TEMPERATURE SETPOINT.
3. WHEN COIL IS EQUIPPED WITH A COIL PUMP, PUMP SHALL RUN DURING CONTINUOUSLY WHEN THERE IS A CALL FOR HEAT AND THE BOILER PLANT IS ENABLED.
4. LOW LIMIT CONTROLLER WILL SHUT DOWN SUPPLY FAN AND ALARM TO DDC SYSTEM WHENEVER SUPPLY AIR TEMPERATURE OFF HEATING COIL DROPS BELOW 38°F (ADJUSTABLE).
5. HOT WATER HEATING COIL:
   a. DISCHARGE AIR TEMPERATURE SENSOR WILL MODULATE DUCT HEATING COIL VALVE CVT TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT OF 55°F.
   b. LOW LIMIT CONTROLLER WILL SHUT DOWN SUPPLY FAN AND ALARM TO DDC SYSTEM WHENEVER SUPPLY AIR TEMPERATURE OFF HEATING COIL DROPS BELOW 38°F (ADJUSTABLE).GAS HEAT SHALL BE ENABLED WHEN DUST COLLECTOR IS RUNNING AND THE OUTDOOR AIR TEMPERATURE IS BELOW 50F.

D. ECONOMIZER MODE:
1. THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND MODULATE THE OUTSIDE AIR, RETURN AIR, AND RELIEF AIR DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2°F LESS THAN THE SPACE TEMPERATURE SETPOINT. THE ECONOMIZER SHALL BE ENABLED WHENEVER:
   - THE OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F.
   - AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB.
   - AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
   - AND THE SUPPLY FAN IS ON
2. THE ECONOMIZER SHALL BE DISABLED WHENEVER:
   - MIXED AIR TEMPERATURE DROPS BELOW 55°F.
   - OR SUPPLY FAN IS OFF/IN ALARM.
   - OR WHEN ECONOMIZER CAN NO LONGER MAINTAIN SPACE TEMPERATURE OR RELATIVE HUMIDITY SETPOINT.

E. COOLING MODE:
1. OA DAMPER SHALL BE SET AT A MINIMUM POSITION. OUTSIDE AIR DAMPER AND RELIEF DAMPER SHALL CONTINUOUSLY ALLOW INTRODUCTION OF FRESH AIR REGARDLESS OF OUTSIDE AIR TEMPERATURE.
2. BMS SHALL ENABLE COMPRESSOR STAGES AND POSITION THE REVERSING VALVE TO OPERATE IN COOLING MODE.
   a. THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND MAINTAIN A SUPPLY AIR TEMPERATURE SETPOINT RESET BASED ON ZONE COOLING REQUIREMENTS.
   b. THE INITIAL SUPPLY AIR TEMPERATURE SETPOINT SHALL BE 60°F.
   c. AS COOLING DEMAND INCREASES, THE SETPOINT SHALL INCREMENTALLY DECREASE DOWN TO A MINIMUM OF 55°F.
   d. AS COOLING DEMAND DECREASES, THE SETPOINT SHALL INCREMENTALLY RESET UP TO A MAXIMUM OF 72°F.
4. IF SAF STOPS, LOCK OUT COMPRESSORS.

F. DEHUMIDIFICATION MODE:
1. BMS SHALL MONITOR RETURN AIR HUMIDITY LEVEL AND SPACE HUMIDITY SENSORS. IF ANY VALUES EXCEED SETPOINT BY 10 PERCENTAGE POINTS, THE FOLLOWING SHALL HAPPEN:
   a. BMS SHALL MODULATE THE COOLING COIL DISCHARGE AIR TEMPERATURE DOWN TO 55F.
   b. BMS SHALL ENABLE AND MODULATE HOT GAS REHEAT IN THE ROOFTOP TO MAINTAIN SPACE TEMPERATURE SETPOINT(S).
2. RETURN AIR HUMIDITY SETPOINT: 50% RH.

G. UNOCCUPIED CYCLE:
1. WHEN LOCAL ZONE SWITCHES TO NIGHT CYCLE, CLOSE OAD, RELIEF AIR DAMPERS, FULLY OPEN RAD AND STOP EXHAUST FAN. SUPPLY FAN SHALL RUN INTERMITTENTLY ON A CALL FOR HEATING.
2. MODULATE HOT WATER HEATING COIL CONTROL VALVE TO FULL OPEN.
3. COOLING SHALL BE LOCKED OUT.
4. SPACE SHALL MAINTAIN A DEPRESSED NIGHT SETTING AT 55°F (ADJUSTABLE).
5. NIGHT OVERRIDE BY PB SWITCH ON ANY ZONE TEMPERATURE SENSOR AND/OR CONSOLE.
6. WHEN AMBIENT AIR TEMPERATURE FALLS BELOW 35°F, HEATING COIL CONTROL VALVE SHALL REMAIN 10% OPEN ON ROOF MOUNTED EQUIPMENT TO ALLOW FOR CIRCULATION OF FLUID TO PREVENT SLUSHING.

H. SAFETIES:
1. EQUIPMENT LOCKOUT: ON A LOSS OF SUPPLY FAN STATUS, THE OUTDOOR AIR DAMPERS AND RELIEF DAMPERS WILL CLOSE, RETURN DAMPER WILL OPEN, COMPRESSORS SHALL BE LOCKED OUT.
2. GENERATOR LOCKOUT: ON A LOSS OF NORMAL POWER, COMPRESSORS SHALL BE LOCKED OUT.
3. SAFETIES: A STATIC PRESSURE HIGH LIMIT LOCATED IMMEDIATELY AFTER THE SUPPLY FAN WILL SHUTDOWN THE SUPPLY FAN VARIABLE SPEED DRIVE IF THE DUCT STATIC PRESSURE EXCEEDS ITS SETPOINT.
4. LO-LIMIT CONTROLLER WILL STOP SUPPLY FAN DIRECTLY AND ALARM THE CONDITION THRU DDC. DAMPERS WILL CLOSE TO OUTDOOR AIR; HEATING VALVE WILL OPEN.

I. SETPOINTS:
1. OCCUPIED HEATING: 70°F
2. OCCUPIED COOLING: 75°F
3. UNOCCUPIED HEATING: 55°F
4. UNOCCUPIED COOLING: OFF

J. ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. SUPPLY FAN FAILURE (COMMANDED ON, BUT THE STATUS IS OFF)
2. SUPPLY FAN IN HAND (COMMANDED OFF, BUT STATUS IS ON)
3. RETURN FAN FAILURE (COMMANDED ON, BUT THE STATUS IS OFF)
4. RETURN FAN IN HAND (COMMANDED OFF, BUT STATUS IS ON)
5. HIGH SUPPLY AIR TEMPERATURE: IF SUPPLY AIR TEMPERATURE IS 5°F GREATER THAN SETPOINT
6. LOW SUPPLY AIR TEMPERATURE: IF SUPPLY AIR TEMPERATURE IS 5°F LESS THAN SETPOINT
7. HIGH RETURN AIR HUMIDITY: IF RETURN AIR HUMIDITY EXCEEDS 70%RH

POINT NAME	DEVICE NAME	HARDWARE POINTS				SOFTWARE POINTS					GRAPHIC
		AI	AO	DI	DO	AV	DV	SCHED	TREND	ALARM	
SUPPLY FAN						–					
SUPPLY FAN START/STOP	CR-1				X				X		X
SUPPLY FAN VFD / ECM SPEED			X						X		X
SUPPLY FAN VFD / ECM FAULT				X						X	
SUPPLY FAN STATUS	CFS-1			X					X	X	X
EXHAUST FAN						–					
EXHAUST FAN START/STOP	CR-1				X				X		X
EXHAUST FAN VFD / ECM SPEED			X						X		X
EXHAUST FAN VFD / ECM FAULT				X						X	
EXHAUST FAN STATUS	CFS-1			X					X	X	X
O.A. DAMPER	ME-1		X						X		X
RECIRC DAMPER	ME-1		X						X		X
E.A. DAMPER	ME-1		X						X		X
MIXED AIR TEMPERATURE	TSD	X							X		X
AIRFLOW MEASURING STATION		X							X		X
HEATING COIL CONTROL VALVE	CVM		X						X		X
COOLING COIL START/STOP					X				X		X
COOLING COIL CAPACITY MODULATION	0-10VDC		X						X		X
HOT GAS REHEAT START/STOP					X				X		X
HOT GAS REHEAT CAPACITY CONTROL	0-10VDC		X						X		X
DISCHARGE AIR SETPOINT			X						X		X
DISCHARGE AIR TEMPERATURE	TSD	X							X		X
HIGH DISCHARGE TEMPERATURE										X	
LOW DISCHARGE TEMPERATURE										X	
RETURN AIR TEMPERATURE	TSD	X							X		X
SPACE TEMPERATURE	TSB	X						X			X
SPACE TEMP. SET POINT						X			X		
LOW SPACE TEMPERATURE										X	
HIGH SPACE TEMPERATURE										X	
SPACE HUMIDITY SENSOR	HSTS	X						X			X
SPACE HUMIDITY SETPOINT						X			X		
HIGH SPACE HUMIDITY										X	

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Expires: 4/30/2027

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023
HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

MECHANICAL CONTROLS

SHEET NO:
M706

PROJECT NO:
1823.24221.1.3

DATE:
12/12/2025

ABBREVIATIONS

A	AMPERE
AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AIC	AMPERES INTERRUPTING CAPACITY
AL	ALUMINUM
ARC	ARC ENERGY REDUCTION
ASYM	ASYMMETRICAL
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILLARY CONTACTS
AWG	AMERICAN WIRE GAUGE
BD	BUS DUCT
BR	BRANCH
C	CONDUIT
CB	CIRCUIT BREAKER
CD	CANDELA
CH	CABINET HEATER
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CLG	CEILING
CONT	CONTACTOR
CP	CONTROL PANEL
DA	DOOR ACCESS
DC	DIRECT CURRENT
Δ	DELTA CONNECTED
DISC	DISCONNECT
DF	DRINKING FOUNTAIN
DO	DOOR OPERATOR
DPST	DOUBLE POLE, SINGLE THROW
DPDT	DOUBLE POLE, DOUBLE THROW
EBB	ELECTRIC BASEBOARD
EC	ELECTRICAL CONTRACTOR
EG	EQUIPMENT GROUND
EGC	EQUIPMENT GROUND CONDUCTOR
EM	EMERGENCY
EP	EXPLOSION PROOF
EPR	ETHYLENE PROPYLENE RUBBER
EQUIP	EQUIPMENT
EXR	EXISTING TO REMAIN
ERL	EXISTING TO BE RELOCATED
EXIST	EXISTING
(E)	EXISTING
EXP	EXPLOSION PROOF
ELECT	ELECTRIC
EMT	ELECTRIC METALLIC TUBING
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FARAP	FIRE ALARM REMOTE ANNUNCIATOR PANEL
FBO	FURNISHED BY OWNER
FC	FOOTCANDLE
FCAN	FULL CAPACITY ABOVE NORMAL
FCBN	FULL CAPACITY BELOW NORMAL
FLA	FULL LOAD AMPERES
FLUOR	FLUORESCENT
FVNR	FULL VOLTAGE, NON-REVERSING
FVR	FULL VOLTAGE, REVERSING
G	GUARD
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GF	GROUND FAULT
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL
H	HOSPITAL GRADE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HZ	HERTZ
IC	INTERCOM
IG	ISOLATED GROUND
INCAD	INCANDESCENT
IMC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
K	KILO (THOUSAND)
KCM	THOUSAND CIRCULAR MILS
KCMIL	THOUSAND CIRCULAR MILS
LTG	LIGHTING
LSIG	LONG TIME-SHORT TIME-INSTANTANEOUS-GROUND FAULT
LV	LOW VOLTAGE
M	MEGA (MILLION)
MATV	MASTER ANTENNA TELEVISION
MFS	MAIN FUSED SWITCH
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MM	MULTI MODE FIBER
MV	MEDIUM VOLTAGE
MVA	MEGAVOLT-AMPERE
NEC	NATIONAL ELECTRICAL CODE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NL	NIGHT LIGHT
N	NEUTRAL
NF	NONFUSED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OCPD	OVER CURRENT PROTECTION DEVICE
OH	OVERHEAD
OL	OVERLOAD
PB	PULLBOX
PC	PLUMBING CONTRACTOR
PF	POWER FACTOR
PHL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
Ø	PHASE
PH	PHASE
P	POLE
PL	PILOT LIGHT
PM	PLUGMOLD
PP	POWER PANEL
PWR	POWER
RVNR	REDUCED VOLTAGE, NON-REVERSING
RM	ROOM
RMS	ROOT MEAN SQUARED
RTU	ROOF TOP UNIT
SM	SINGLE MODE FIBER
SS	SURGE SUPPRESSION
SST	SOLID-STATE TRIP DEVICE
ST	SHUNT-TRIP
SW	SWITCH
SWBD	SWITCHBOARD
SYM	SYMMETRICAL
T	TAMPER RESISTANT
TDR	TIME DELAY RELAY
TYP	TYPICAL
TCP	TEMPERATURE CONTROL PANEL
TSTAT	THERMOSTAT
TV	TELEVISION
UG	UNDERGROUND
UH	UNIT HEATER
USB	UNIVERSAL SERIAL BUS
V	VOLT
VR	VOLT-AMPERE
VP	VAPORPROOF
W	WATT
WG	WIRE GUARD
WM	WIREMOLD
WP	WEATHERPROOF
XFMR	TRANSFORMER
XLP	CROSS LINKED POLYETHYLENE
XP	EXPLOSION PROOF
Y	WYE CONNECTED

POWER

- DUPLEX RECEPTACLE
- MOTOR CONNECTION, NUMBER INDICATES ITEM REFER TO ELECTRIC EQUIPMENT AND CONTROL SCHEDULE
- MANUAL MOTOR STARTER
- NON-FUSED DISCONNECT
- FUSED DISCONNECT
- VFD — VARIABLE FREQUENCY DRIVE NUMBER INDICATES ITEM REFER TO ELECTRIC EQUIPMENT AND CONTROL SCHEDULE
- EXISTING SURFACE MOUNTED 480Y/277V BRANCH CIRCUIT PANELBOARD
- EXISTING FLUSH MOUNTED 208Y/120V BRANCH CIRCUIT PANELBOARD
- EXISTING SURFACE MOUNTED 208Y/120V BRANCH CIRCUIT PANELBOARD
- SURFACE MOUNTED 208Y/120V BRANCH CIRCUIT PANELBOARD
- 480Y/277V DISTRIBUTION PANELBOARD
- 208Y/120V DISTRIBUTION PANELBOARD
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- PNL CKT# — INDICATES HOMERUN TO PANEL PANEL NAME AND CKT NUMBERS INDICATED PROVIDE (2) #12 AWG, (1) #12 AWG EGC IN 3/4"C UNLESS OTHERWISE NOTED

FIRE ALARM

- S — SMOKE DETECTOR
- SD — DUCT SMOKE DETECTOR
- SD — SMOKE DAMPER
- FSD — FAN SHUT DOWN RELAY
- FACP — FIRE ALARM CONTROL PANEL
- CO — CARBON MONOXIDE DETECTOR

LINE STYLES

- REMOVAL
- EXISTING
- NEW

GENERAL

- # — REMOVAL NOTE
- # — INSTALLATION NOTE
- OFFSET FOR CLARITY

ONE-LINE DIAGRAM

- CIRCUIT BREAKER
- ENCLOSED CIRCUIT BREAKER
- AF / AT — CIRCUIT BREAKER AF - AMPERE FRAME AT - AMPERE TRIP
- AF / AT — CIRCUIT BREAKER AF - AMPERE FRAME AT - AMPERE TRIP; SST - SOLID-STATE TRIP DEVICE; LSI - LONG TIME-SHORT TIME-INSTANTANEOUS
- AF / AT — CIRCUIT BREAKER AF - AMPERE FRAME AT - AMPERE TRIP; SST - SOLID-STATE TRIP DEVICE; LSIG - LONG TIME-SHORT TIME-INSTANTANEOUS -GROUND-FAULT
- AF / AT — FUSIBLE SWITCH AF - AMPERE FRAME AT - AMPERE TRIP
- TRANSFER SWITCH L - LOAD N - NORMAL E - EMERGENCY
- G — GENERATOR
- CURRENT TRANSFORMER
- M — METER
- TRANSFORMER REFER TO TRANSFORMER SCHEDULE
- GROUND
- FEEDER NOT CONNECTED
- FEEDER CONNECTED
- FEEDER CONNECTED
- # — FEEDER DESIGNATION REFER TO FEEDER SCHEDULE

MOUNTING HEIGHTS

UNLESS OTHERWISE NOTED, MOUNT DEVICES AND EQUIPMENT AT HEIGHTS MEASURED FROM FINISHED FLOOR TO DEVICE/ EQUIPMENT CENTERLINE AS LISTED BELOW.

COORDINATE DEVICE LOCATIONS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.	
WHERE STRUCTURAL OR OTHER INTERFERENCE'S PREVENT COMPLIANCE WITH MOUNTING HEIGHTS LISTED BELOW, CONSULT OWNER'S REPRESENTATIVE FOR APPROVAL TO CHANGE LOCATION BEFORE INSTALLATION.	
TOGGLE SWITCHES	46"
RECEPTACLE OUTLETS	18"
RECEPTACLE OUTLETS ABOVE HOT WATER OR STEAM BASEBOARD HEATERS	30"
DO NOT INSTALL RECEPTACLES OVER ELECTRIC BASEBOARD HEATERS	N/A
RECEPTACLE OUTLETS, HAZARDOUS LOCATIONS	48"
RECEPTACLE OUTLETS, WEATHER PROOF, ABOVE GRADE	24"
CLOCKS, CLOCK	90"
TELECOMMUNICATION OUTLETS	18"
MULTIMEDIA OUTLETS	18"
TELEPHONE OUTLETS, WALL MOUNTED	46"
TELEVISION OUTLETS	18"
FIRE ALARM PULL STATION	46"
FIRE ALARM AUDIO/VISUAL WALL MOUNTED NOTIFICATION DEVICES	80" BOTTOM OF LENS
CARBON MONOXIDE DETECTOR	72"
NATURAL GAS DETECTOR	12" BELOW CEILING
PROPANE DETECTOR	12"
BRANCH CIRCUIT PANELBOARDS, TO THE TOP OF THE BACKBOX	72"
DISTRIBUTION PANELBOARDS, TO THE TOP OF THE BACKBOX	72"
TERMINAL CABINETS, CONTROL CABINETS TO THE TOP OF THE BACKBOX	72"
DISCONNECT SWITCHES, MOTOR STARTERS, ENCLOSED CIRCUIT BREAKERS	48"
"AC" ABOVE COUNTER REFER TO ARCHITECTURAL ELEVATIONS FOR HEIGHT	AC

GENERAL NOTES - REMOVALS

A. THIS INFORMATION REPRESENTS EXISTING CONDITIONS BASED ON ORIGINAL DRAWINGS AND OBSERVED SITE CONDITIONS. NOT ALL CONDUIT, WIRE, FIXTURES AND DEVICES ARE SHOWN. FIELD VERIFY THE EXACT REQUIREMENTS IN ALL REMOVAL AREAS. DISCONNECT AND REMOVE ALL ELECTRICAL WORK THAT IS SHOWN DASHED ON REMOVAL PLANS AND ALL ELECTRIC WORK IN RENOVATION AREAS THAT IS NOT BEING REUSED. REMOVE ALL BRANCH CIRCUITING, LOW VOLTAGE CABLING, SUPPORTING DEVICES, RACEWAY, AND ASSOCIATED TERMINATION HARDWARE.

B. "ERL" ADJACENT TO A DEVICE, FIXTURE OR PIECE OF EQUIPMENT INDICATES AN EXISTING ITEM TO BE RELOCATED. DISCONNECT AND REMOVE THE ITEM. REMOVE ALL UNNECESSARY RACEWAY AND WIRING. REINSTALL AND RECONNECT THE ITEM AS REQUIRED.

C. "EXR" ADJACENT TO A DEVICE FIXTURE OR PIECE OF EQUIPMENT INDICATES AN EXISTING ITEM TO REMAIN. MAINTAIN EXISTING CONNECTIONS TO EQUIPMENT UNLESS NOTED OTHERWISE.

D. PROVIDE FIRE STOPPING CUTTING, PATCHING AND PAINTING AS REQUIRED TO REPAIR HOLES OR OTHER PHYSICAL DEFECTS CAUSED BY THE REMOVAL OR INSTALLATION OF EQUIPMENT AND DEVICES. THE CONTRACTOR SHALL PROVIDE A QUALIFIED TRADES PERSON TO RESTORE FINISHED WALLS TO ORIGINAL CONDITIONS AND PAINT TO MATCH EXISTING COLORS.

E. PROVIDE STAINLESS STEEL BLANK COVER PLATES ON ALL UNUSED ELECTRICAL BOXES AFTER DEMOLITION AND INSTALLATION WORK IS COMPLETE. PROVIDE CEILING TILE REPLACEMENT FOR ALL ELECTRICAL ITEMS MOUNTED TO CEILING AFTER REMOVALS.

F. WHERE EXISTING DEVICES ARE BEING REMOVED AND THE REMOVAL BREAKS AN EXISTING BRANCH CIRCUIT TO DOWNSTREAM DEVICE THE CONTRACTOR SHALL PROVIDE ALL WIRING TO PERMANENTLY RECONNECT THE REMAINING DEVICE EQUIPMENT OR FIXTURE.

G. THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR WILL SCHEDULE ALL REMOVAL WORK. PRIOR TO BEGINNING REMOVAL WORK PROVIDE AN EXISTING CONDITION REPORT WITH PICTURES AND SUBMIT TO THE CONSTRUCTION MANAGER. ANY DAMAGES OR EXISTING CONDITIONS THAT ARE NOT DOCUMENTED WILL BE CORRECTED BY THE CONTRACTOR PRIOR TO FINAL COMPLETION.

H. LEGALLY DISPOSE OF ALL ELECTRICAL WIRING, DEVICES, BALLAST, LAMPS ETC. FOLLOW ALL LOCAL, STATE AND FEDERAL REGULATIONS REGARDING DISPOSAL OF HAZARDOUS WASTE.

I. FIELD VERIFY ALL IN WALL WIRING WHERE WALLS ARE BEING REMOVED. REROUTE THROUGH WIRING AS REQUIRED.

J. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND CLARIFICATION.

K. THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL DEVICES AND IN-WALL BRANCH CIRCUITING WHERE WALLS ARE BEING DEMOLISHED. RELOCATE AND REWORK ALL DEVICES AND BRANCH CIRCUITING TO ALLOW FOR WALL DEMOLITION.

GENERAL NOTES - INSTALLATION

A. COORDINATE DEVICE LOCATIONS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. VERIFY DEVICE LOCATIONS ABOVE MILLWORK TO ENSURE CLEARANCE ABOVE THE COUNTER-TOP AND BACKSPLASH. DEVICES THAT INTERFERE WITH NEW CASEWORK, MILLWORK OR EQUIPMENT SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE CONTRACT.

B. WHERE DEVICES ARE SCHEDULED TO BE INSTALLED IN CASEWORK AND MILLWORK SUPPLIED BY THE GENERAL CONTRACTOR, OBTAIN A SHOP DRAWING FROM THE GENERAL CONTRACTOR PRIOR TO ROUGHING. WHERE REQUIRED, CUT OPENINGS IN MILLWORK OR COORDINATE OPENINGS WITH THE GENERAL CONTRACTOR.

C. COORDINATE ALL CONDUIT RUNS WITH OTHER TRADES PRIOR TO ROUGH-IN. RELOCATE ANY CONDUITS AS NECESSARY TO PERMIT INSTALLATION OF DUCTWORK OR PIPING.

D. INSTALL ALL CIRCUITING CONCEALED INSIDE WALL CAVITY WHERE EVER POSSIBLE. PROVIDE SURFACE MOUNTED BACKBOXES AND RACEWAY FOR WIRING DEVICES LOCATED ON EXISTING SOLID WALL CONSTRUCTION. PROVIDE SHALLOW TYPE BACKBOXES FOR SURFACE MOUNTED POWER AND SWITCHING APPLICATIONS. REFER TO ARCHITECTURAL PLANS FOR WALL TYPES.

E. FIRESTOP ALL LOW VOLTAGE SLEEVES AND PENETRATIONS AFTER INSTALLATION OF CABLE.

F. PROVIDE OPEN TOP CABLE HANGERS 4' ON CENTER SUPPORTED TO SUPPORT ALL LOW VOLTAGE CABLING ABOVE ACCESSIBLE CEILINGS. PROVIDE SEPARATE CABLE HANGERS FOR BACKBONE CABLING, HORIZONTAL CABLING, PUBLIC ADDRESS & SECURITY CABLING, AND FIRE ALARM CABLING. INSTALL ALL EXPOSED CABLES IN EMT CONDUIT OR SURFACE RACEWAY IN FINISHED AREAS.

G. ALL LOW VOLTAGE CABLING SHALL BE PLENUM RATED.

H. OBTAIN WIRING AND INSTALLATION DIAGRAMS FOR ALL ELECTRICAL CONNECTIONS TO EQUIPMENT PROVIDED BY THE GENERAL, MECHANICAL OR PLUMBING CONTRACTORS PRIOR TO ROUGHING. WORK THAT IS NOT PROPERLY COORDINATED WILL BE RELOCATED AT NO COST TO THE OWNER.

I. COORDINATE THE LOCATION OF ALL RECEPTACLES, COMMUNICATIONS OUTLETS, AND OTHER DEVICES WITH FURNITURE AND MILLWORK CONTRACTORS PRIOR TO ROUGH-IN.

L. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN THE FIRE RATING OF ALL FIRE RATED PARTITIONS. ALL PENETRATIONS BY THIS CONTRACT THROUGH RATED CONSTRUCTION SHALL BE SEALED FIRE SAFE BY A UL APPROVED METHOD. PROVIDE FIRE RATED COVERS OR ENDOTHERMIC WRAPS FOR RECESSED EQUIPMENT. REFER TO ARCHITECTURAL PLANS FOR FIRE RATINGS.

GENERAL NOTES - POWER DISTRIBUTION

A. PROVIDE (2)-#10, (1)-#10 EG WIRING FOR 120V, 20A BRANCH CIRCUITS EXCEEDING 100 FEET.

B. THE DRAWINGS SHOW GENERAL LOCATION OF DEVICES AND CONTROL EQUIPMENT. THE CONTRACTOR SHALL INSTALL ALL DEVICES AND CONTROLS TO MEET ALL NEC REQUIREMENTS. COORDINATE THE EXACT LOCATION IN THE FIELD.

C. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL CONNECTIONS TO ELECTRICAL EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.

D. PROVIDE DEDICATED NEUTRALS FOR ALL 120V, 20A, SINGLE PHASE BRANCH CIRCUITS.

E. DO NOT INSTALL NORMAL AND EMERGENCY POWER IN THE SAME RACEWAY. JUNCTION BOX, OR OUTLET BOX. PROVIDE SEPARATE OR SEGREGATED RACEWAY SYSTEMS.

F. WHERE BREAKERS ARE INSTALLED IN EXISTING PANELBOARDS, THE BREAKERS SHALL BE LISTED/LABELED FOR USE IN THE EXISTING PANEL AND THE KAIC RATING SHALL MATCH THE KAIC RATING OF THE EXISTING PANEL.

G. WHERE BOXES ARE INSTALLED FLUSH IN A FIRE RATED WALL PROVIDE AN APPROVED ENDOTHERMIC WRAP AROUND THE ENTIRE ENCLOSURE. SEAL CONDUIT PENETRATIONS WITH APPROVED FIRE PUTTY.

H. NOT ALL FEEDERS ARE SHOWN IN PLAN, REFER TO ONE-LINE DIAGRAM. FEEDERS INDICATED IN PLAN ARE SCHEMATIC IN NATURE. COORDINATE THE EXACT ROUTING IN THE FIELD. PROVIDE ALL REQUIRED OFFSETS AND PULL BOXES AS REQUIRED.

GENERAL NOTES - PHASING

A. THE PROJECT WILL BE COMPLETED IN MULTIPLE PHASES. REFER TO DIVISION 1 SECTIONS AND DRAWINGS FOR PHASING REQUIREMENTS AND SCHEDULE.

B. PROVIDE TEMPORARY CONNECTIONS FOR FIRE ALARM AND POWER CIRCUITS THAT RUN THROUGH WORK AREAS TO SERVE DEVICES IN OTHER AREAS.

C. WHERE PANELBOARDS ARE SCHEDULED FOR REPLACEMENT. MAKE TEMPORARY CONNECTIONS TO EXISTING BREAKERS AS REQUIRED TO MAINTAIN NEW CIRCUITS UNTIL PANELS ARE INSTALLED.

D. WHERE SHUTDOWNS ARE REQUIRED TO REPLACE AN EXISTING PANEL, MEET WITH THE OWNER TO REVIEW A CUT OVER PLAN. PROVIDE TEMPORARY PANELS, AND CABLE CONNECTIONS TO FACILITY CIRCUITS EFFECTED BY THE CUT OVER.

E. PROVIDE ALL CONDUITS, RACKS, RACEWAYS ETC. THAT ARE REQUIRED FOR WIRING IN FUTURE PHASES THAT WILL PASS THROUGH A CURRENT WORK AREA. ONCE AN AREA IS TURNED OVER TO THE OWNER WORK IN THE FINISHED AREA MUST BE MINIMIZED IF NOT ELIMINATED.

F. AT THE COMPLETION OF THE PROJECT, TURN OVER ALL TEMPORARY FEEDERS #1/0 AND LARGER THAT ARE CHARGED TO THE PROJECT OVER TO THE OWNER.

GENERAL NOTES - FIRE ALARM

A. PROVIDE FAN SHUTDOWN RELAYS FOR ALL FANS OVER 1000 CFM. VERIFY CFM ON MECHANICAL SCHEDULE AND PROVIDE SHUTDOWNS AS REQUIRED.

B. DO NOT INSTALL SMOKE DETECTORS WITHIN 3 FEET OF DIFFUSERS.

C. ALL WIRING SHALL BE IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRIC CODE, AUTHORITIES HAVING JURISDICTION AND LOCAL CODES.

D. ALL WIRING TO BE INSTALLED IN POWER LIMITING FIRE PROTECTIVE SIGNALING CIRCUIT CABLING. CABLE SHALL BE PLENUM RATED.

E. ALL CONDUCTORS ARE TO BE PROPERLY TAGGED OR NUMBERED IN THE CONTROL PANEL AND CORRESPOND WITH CONTROL PANEL TERMINAL OR FIELD WIRE NUMBERS FOR IDENTIFICATION PURPOSES.

F. WIRING CIRCUITS MUST GO TO AND FROM EACH DEVICE. BRANCH CIRCUITS ARE NOT PERMITTED. POLARITY MUST BE OBSERVED THROUGHOUT.

G. EXTREME CARE MUST BE TAKEN TO AVOID GROUND FAULT CONDITIONS OF ALL CONDUCTORS.

H. ALL BACKBOXES ARE TO BE FLUSH MOUNTED WHEREVER POSSIBLE.

I. FIRE ALARM RISER DIAGRAM IS SCHEMATIC ONLY VERIFY EXACT WIRING REQUIREMENTS WITH VENDOR. VERIFY QUANTITIES OF DEVICES ON PLANS.

J. CONNECT DOOR HOLD OPENS TO LOCAL 120V EMERGENCY CIRCUIT. PROVIDE LOW VOLTAGE RELAY TO CONTROL HOLD OPEN.

K. PROVIDE SUPERVISED RELAY IN MOTOR CONTROL CIRCUIT FOR FAN SHUTDOWN, COORDINATE WITH DIVISION 23.

L. DUCT SMOKE DETECTOR INSTALLATION:
1. DUCT SMOKE DETECTOR FURNISHED BY ELECTRICAL CONTRACTOR.
2. COORDINATE SAMPLING TUBE LENGTH WITH MECHANICAL CONTRACTOR.
3. MECHANICAL CONTRACTOR TO INSTALL DUCT SMOKE DETECTOR IN DUCTWORK AND SEAL AIR-TIGHT.
4. ELECTRICAL CONTRACTOR TO PROVIDE ALL REQUIRED WIRING TO CONNECT DUCT SMOKE DETECTOR TO FIRE ALARM SYSTEM.
5. PROVIDE REMOTE TEST SWITCH FOR DUCT MOUNTED SMOKE DETECTORS.

GENERAL NOTES - PANELBOARD REPLACEMENT

A. CONTRACTOR TO ASSUME ALL 1-POLE BRANCH CIRCUITS IN PANELBOARD SCHEDULES LABELED AS EXISTING HAVE SHARED NEUTRALS, TRACE CIRCUITS AND PROVIDE HANDLE TIE BREAKERS IN ACCORDANCE WITH NEC FOR COMMON TRIP.

B. SUBMIT EXISTING VERIFIED PANEL SCHEDULES TO THE CONSTRUCTION MANAGER FOR PROJECT COORDINATION.

C. TAG AND LABEL ALL EXISTING BRANCH CIRCUITS ON ALL PANELBOARDS SCHEDULED FOR REPLACEMENT. RECONNECT TO BREAKERS IN REPLACEMENT PANELBOARDS. FIELD VERIFY BREAKER REQUIREMENTS SHOWN ON THESE SCHEDULES. TRACE AND VERIFY ALL EXISTING CIRCUITS FOR AS-BUILT DRAWINGS.

D. FOR ALL PANELBOARDS, PROVIDE ENGRAVED PLASTIC LABEL WITH PANELBOARD NAME AS CALLED FOR ON THE PANELBOARD SCHEDULE. PROVIDE TYPED PANELBOARD SCHEDULE INSIDE ALL HINGED TRIM COVERS LABELING ALL BRANCH CIRCUIT DESIGNATIONS.

E. PROVIDE FABRICATED HINGED TRIM PANELBOARD FRONT AND COVERS AS REQUIRED FOR PANELBOARD INTERIORS AND ENCLOSURES. REFER TO PANELBOARD SCHEDULES FOR MORE INFORMATION.

F. THE ELECTRICAL CONTRACTOR SHALL PROVIDE QUALIFIED TRADESPERSON OR CONTRACTOR TO REMOVE, CUT AND PATCH BLOCK WALL WHERE PANELBOARD BACKBOXES ARE SCHEDULED TO BE REPLACED OR TOP FED CONDUITS ARE REQUIRED. CONTRACTOR OR TRADESPERSON SHALL RESTORE WALL TO ORIGINAL CONDITION, PAINT, AND PATCH TO MATCH EXISTING WALL COLOR.

G. SUBMIT WORD OR EXCEL FILES FOR ALL PANELBOARD SCHEDULES WITH O&M MANUALS.

GENERAL NOTES - BRANCH CIRCUIT WIRING

A. PROVIDE (2)-#10, (1)-#10 EG WIRING FOR 120V, 20A BRANCH CIRCUITS EXCEEDING 100 FEET.

B. THE DRAWINGS SHOW GENERAL LOCATION OF DEVICES AND CONTROL EQUIPMENT. THE CONTRACTOR SHALL INSTALL ALL DEVICES AND CONTROLS TO MEET ALL NEC REQUIREMENTS. COORDINATE THE EXACT LOCATION IN THE FIELD.

C. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL CONNECTIONS TO ELECTRICAL EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.

D. PROVIDE DEDICATED NEUTRALS FOR ALL 120V, 20A, SINGLE PHASE BRANCH CIRCUITS.

E. DO NOT INSTALL NORMAL AND EMERGENCY POWER IN THE SAME RACEWAY. JUNCTION BOX, OR OUTLET BOX. PROVIDE SEPARATE OR SEGREGATED RACEWAY SYSTEMS. ALL EMERGENCY CONDUIT AND BOXES SHALL BE IDENTIFIED WITH BLUE PAINT ON OUTLET BOXES AND EVERY 50 FEET ON CONDUIT IN CEILINGS.

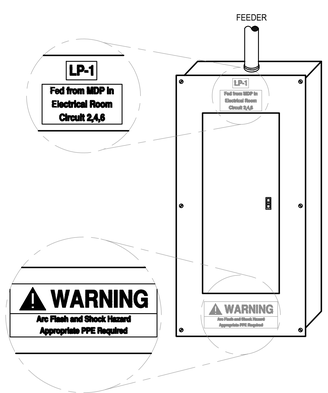
F. WHERE BREAKERS ARE INSTALLED IN EXISTING PANELBOARDS, THE KAIC RATING SHALL MATCH THE KAIC RATING OF THE EXISTING PANEL.

G. MC CABLE AS ALLOWED BY SPECIFICATIONS, PROVIDE HEALTH CARE GRADE.

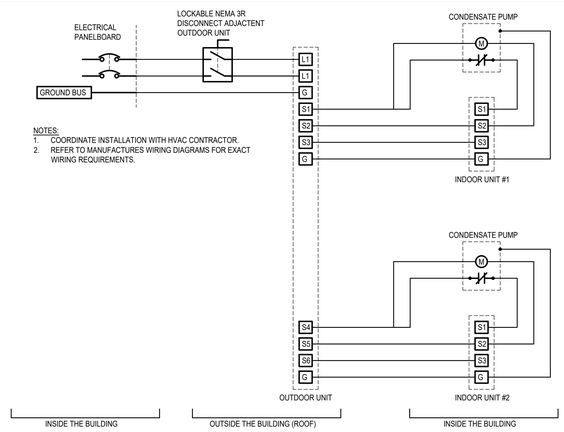
H. GFI DEVICES SHALL BE LISTED PER NFPA 99 SECTION 6.3.2.2.4.2.

I. PROVIDE COORDINATION STUDY WITH POWER DISTRIBUTION SUBMITTAL.

J. ALL EMERGENCY RECEPTACLES SHALL BE RED AND HAVE RED COVERS.

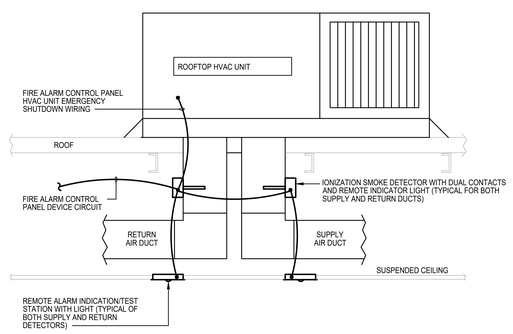


1 E001 — PANELBOARD IDENIFICATION DETAIL
NO SCALE



NOTES:
1. COORDINATE INSTALLATION WITH HVAC CONTRACTOR.
2. REFER TO MANUFACTURES WIRING DIAGRAMS FOR EXACT WIRING REQUIREMENTS.

2 E001 — DUCTLESS SPLIT SYSTEM WIRING SCHEMATIC
NO SCALE



3 E001 — ROOF TOP DUCT SMOKE DETECTOR DETAIL
NO SCALE

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ES # 20101

SED PROJECT NUMBERS: 60-04-02-04-0-007-023
HIGH SCHOOL

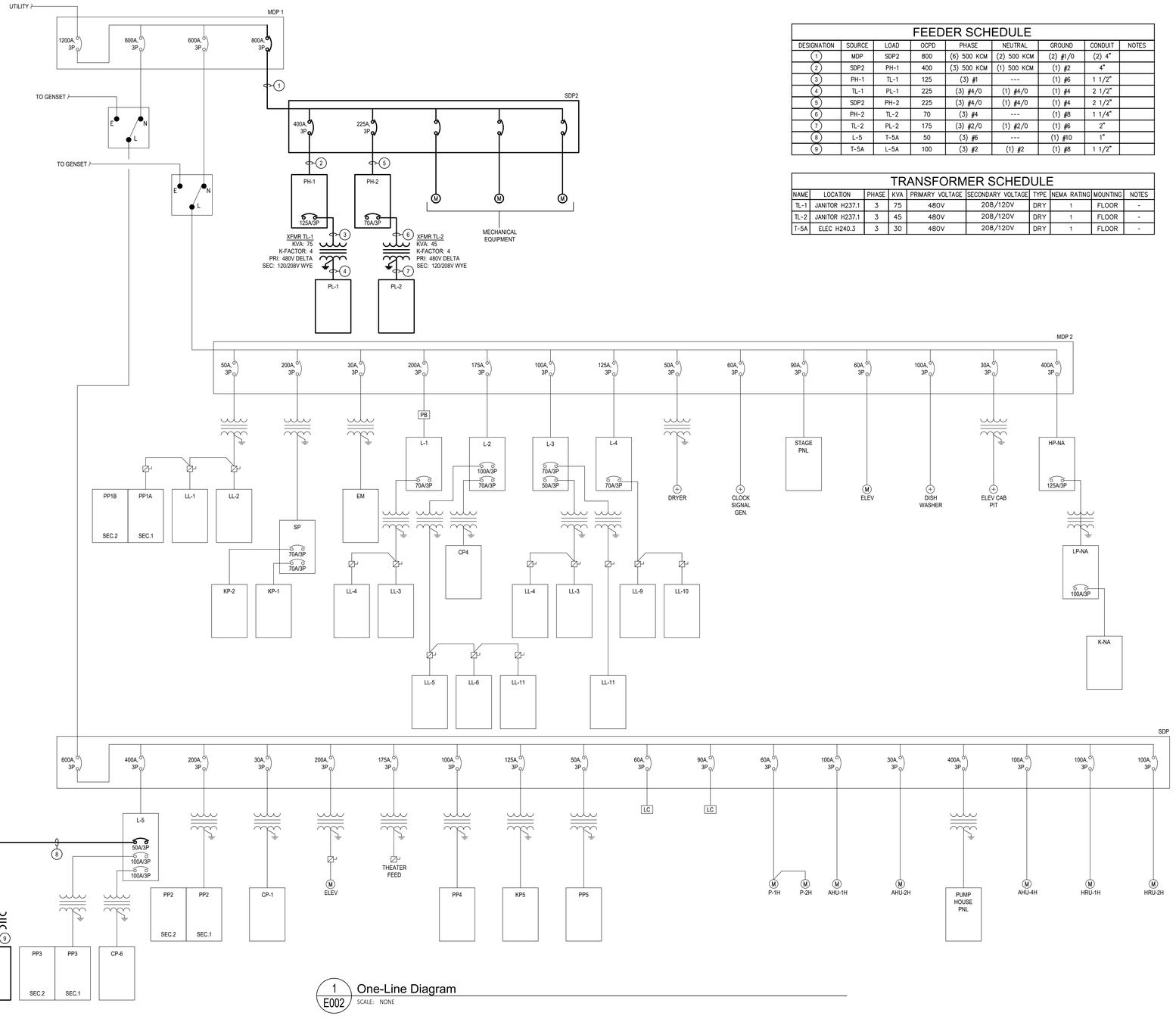
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — TIOGA COUNTY, NY

ELECTRICAL LEGEND

SHEET NO.
E001

PROJECT NO: 1823.24221.1.3
DATE: 12/12/2025
DRAWN BY: MW/TM/TMM



1 E002 One-Line Diagram

SCALE: NONE

FEEDER SCHEDULE

DESIGNATION	SOURCE	LOAD	OCPD	PHASE	NEUTRAL	GROUND	CONDUIT	NOTES
1	MDP	SDP2	800	(6) 500 KCM	(2) 500 KCM	(2) #1/0	(2) 4"	
2	SDP2	PH-1	400	(3) 500 KCM	(1) 500 KCM	(1) #2	4"	
3	PH-1	TL-1	125	(3) #1	---	(1) #6	1 1/2"	
4	TL-1	PL-1	225	(3) #4/0	(1) #4/0	(1) #4	2 1/2"	
5	SDP2	PH-2	225	(3) #4/0	(1) #4/0	(1) #4	2 1/2"	
6	PH-2	TL-2	70	(3) #4	---	(1) #8	1 1/4"	
7	TL-2	PL-2	175	(3) #2/0	(1) #2/0	(1) #6	2"	
8	L-5	T-5A	50	(3) #6	---	(1) #10	1"	
9	T-5A	L-5A	100	(3) #2	(1) #2	(1) #8	1 1/2"	

TRANSFORMER SCHEDULE

NAME	LOCATION	PHASE	KVA	PRIMARY VOLTAGE	SECONDARY VOLTAGE	TYPE	NEMA RATING	MOUNTING	NOTES
TL-1	JANITOR H237.1	3	75	480V	208/120V	DRY	1	FLOOR	-
TL-2	JANITOR H237.1	3	45	480V	208/120V	DRY	1	FLOOR	-
T-5A	ELEC H240.3	3	30	480V	208/120V	DRY	1	FLOOR	-

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS: 60-04-02-04-0-007-023
HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

SCHEDULES & DIAGRAMS

SHEET NO.
E002

PROJECT NO.
1823.24221.1.3

DATE:
12/12/2025

ELECTRIC EQUIPMENT AND CONTROL SCHEDULE

	ITEM NO.	NAME	ROOM LOCATION	EQUIPMENT HP	KW	∅	VOLTS	SUPPLY: PANEL OR CONTROL CENTER	CIRCUIT BREAKER	WIRING FROM PANEL TO DISCONNECT / CONTROL UNIT	WIRING FROM CONTROL UNIT TO EQUIPMENT	DISCONNECT: AMPS	FUSE SIZE	NEMA RATING	CONTROLS: MOTOR STARTER/ CONTROLLER NOTES	CONTROLLER LOCATION	NEMA RATING	NOTES
ADD ALTERNATE	1	RTU-1	ROOF	-	64.0	3	480	SDP2	110A/3P	(3) #1, (1) #6 EG IN 1.5" C	---	---	---	---	10,16	---	---	1,2
	2	RTU-2	ROOF	-	64.0	3	480	SDP2	110A/3P	(3) #1, (1) #6 EG IN 1.5" C	---	---	---	---	10,16	---	---	1,2
	3	RTU-3	ROOF	-	78.5	3	480	SDP2	125A/3P	(3) #1, (1) #6 EG IN 1.5" C	---	---	---	---	10,16	---	---	1,2
	4	RTU-4	ROOF	-	33.3	3	480	L5	60A/3P	(3) #6, (1) #10 EG IN 1" C	---	---	---	---	10,16	---	---	1,2
ADD ALTERNATE	5	ACCU-3	ROOF	-	26.2	3	480	PH-1	50A/3P	(3) #6, (1) #8 EG IN 1" C	(3) #6, (1) #8 EG IN 1" C	60	NF	3R	10	---	---	4
	6	UV-4	WELLNESS - H109	1/4		1	120	LL5	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	7	UV-5	WELLNESS - H109	1/4		1	120	LL5	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	8	UV-6	OFFICE - H111	1/4		1	120	LL5	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	9	ACCU-6	ROOF	-	15.0	3	480	PH-1	35A/3P	(3) #8, (1) #10 EG IN 3/4" C	(3) #8, (1) #10 EG IN 3/4" C	60	NF	3R	---	---	---	4
	10	UV-9	SCIENCE - H121	1/4		1	120	PP2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	11	UV-12	SCIENCE - H123	1/4		1	120	PP2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	12	ACCU-7	ROOF	-	15.0	3	480	PH-2	35A/3P	(3) #8, (1) #10 EG IN 3/4" C	(3) #8, (1) #10 EG IN 3/4" C	60	NF	3R	---	---	---	4
	13	UV-10	SCIENCE - H122	1/4		1	120	PP2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	14	UV-11	SCIENCE - H122	1/4		1	120	PP2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	15	ACCU-11	ROOF	-	15.0	3	480	PH-1	35A/3P	(3) #8, (1) #10 EG IN 3/4" C	(3) #8, (1) #10 EG IN 3/4" C	60	NF	3R	---	---	---	4
	16	UV-17	SCIENCE - H211	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	17	UV-18	SCIENCE - H213	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	18	ACCU-13	ROOF	-	26.2	3	480	PH-1	50A/3P	(3) #6, (1) #8 EG IN 1" C	(3) #6, (1) #8 EG IN 1" C	60	NF	3R	10	---	---	4
	19	UV-21	SCIENCE - H218	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	20	UV-22	SCIENCE - H220	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	21	UV-23	SCIENCE - H222	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	22	UV-25	SCIENCE - H224	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	23	ACCU-14	ROOF	-	26.2	3	480	PH-1	50A/3P	(3) #6, (1) #8 EG IN 1" C	(3) #6, (1) #8 EG IN 1" C	60	NF	3R	10	---	---	4
	24	UV-24	SCIENCE - H223	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	25	UV-26	SCIENCE - H225	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	26	UV-28	SCIENCE - H227	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	27	ACCU-15	ROOF	-	26.2	3	480	PH-2	50A/3P	(3) #6, (1) #8 EG IN 1" C	(3) #6, (1) #8 EG IN 1" C	60	NF	3R	10	---	---	4
	28	UV-27	SCIENCE - H226	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	29	UV-29	SCIENCE - H227	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	30	UV-31	SCIENCE - H230	1/4		1	120	PL-2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	31	UV-33	SCIENCE - H232	1/4		1	120	PL-2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	32	ACCU-16	ROOF	-	15.0	3	480	PH-2	35A/3P	(3) #8, (1) #10 EG IN 3/4" C	(3) #8, (1) #10 EG IN 3/4" C	60	NF	3R	---	---	---	4
	33	UV-30	SCIENCE - H229	1/4		1	120	PL-2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	34	UV-32	SCIENCE - H232	1/4		1	120	PL-2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	35	ACCU-1	ROOF	-	5.3	3	208	L5-A	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	36	UV-1	STORAGE - H101	1/4		1	120	PP4	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	37	ACCU-2	ROOF	-	5.3	3	208	PL-2	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	38	UV-13	SCIENCE - H125	1/4		PP-2	120	PP2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
ADD ALTERNATE	39	ACCU-4	ROOF	-	5.3	3	208	PL-1	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	40	UV-7	LIBRARY - H114	1/4		1	120	LL5	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	41	ACCU-5	ROOF	-	5.3	3	208	PL-1	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	42	NOT USED	---	-	-	-	-	---	---	---	---	---	---	---	---	---	---	---
	43	ACCU-8	ROOF	-	6.8	3	208	PL-2	35A/3P	(3) #8, (1) #10 EG IN 3/4" C	(3) #8, (1) #10 EG IN 3/4" C	60	NF	3R	10	---	---	4
	44	UV-14	SCIENCE - H128	1/4		1	120	LL6-SUB	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	45	ACCU-9	ROOF	-	5.3	3	208	L5-A	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	46	UV-15	SCIENCE - H201	1/4		1	120	L-5A	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	47	ACCU-10	ROOF	-	5.3	3	208	L5-A	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	48	UV-16	ART RM - H202	1/4		1	120	L-5A	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	49	ACCU-12	ROOF	-	6.8	3	208	PL-1	35A/3P	(3) #8, (1) #10 EG IN 3/4" C	(3) #8, (1) #10 EG IN 3/4" C	60	NF	3R	10	---	---	4
	50	UV-19	CLASSROOM - H217	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	51	ACCU-17	ROOF	-	5.3	3	208	PL-2	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	52	UV-34	STUDY HALL - H233	1/4		1	120	PL-2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
	53	ACCU-18	ROOF	-	5.3	3	208	PL-2	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	54	UV-35	CLASSROOM - H234	1/4		1	120	PL-2	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
ADD ALTERNATE	55	ACCU-19	ROOF	-	5.3	3	208	PL-1	25A/3P	(3) #10, (1) #10 EG IN 1/2" C	(3) #10, (1) #10 EG IN 1/2" C	30	NF	3R	10	---	---	4
	56	UV-20	LIBRARY REF - H214	1/4		1	120	PL-1	20A/1P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	10	---	---	1,3
ADD ALTERNATE	57	ACCU-20	ROOF	-	40.4	3	480	PH-1	70A/3P	(3) #4, (1) #8 EG IN 1.25" C	(3) #4, (1) #8 EG IN 1.25" C	100	NF	3R	10	---	---	1
	58	AHU-1	STORAGE - H114.3	-	9.7	3	480	L2	20A/3P	(3) #12, (1) #12 EG IN 1/2" C	---	---	---	---	---	---	---	1
	59	EF-1	ROOF	FRAC	-	3	120	PL-1	15A/1P	(2) #12, (1) #12 EG IN 3/4" C	---	---	---	---	17	---	---	1
ADD ALTERNATE	60	PTAC-1	PYSCH - H208	-	1.4	1	208	PL-1	15A/2P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	SEE NOTES	---	---	5
	61	PTAC-2	PHYS. ED - H210	-	1.4	1	208	PL-1	15A/2P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	SEE NOTES	---	---	5
	62	PTAC-3	PHYS. ED - H212	-	1.6	1	208	PL-1	15A/2P	(2) #12, (1) #12 EG IN 1/2" C	---	---	---	---	SEE NOTES	---	---	5
	63	DCU-1	ROOF	-	4.1	1	208	PL-1	40A/2P	(2) #8, (1) #10 EG IN 3/4" C	(2) #8, (1) #10 EG IN 3/4" C	60A	NF	3R	10	---	---	4
	64	DAC-1.1	LIBRARY - H114	-	-	-	-	DCU-1	---	---	(3) #12, (1) #12 EG IN 1/2" C	30A	15A	3R	10	---	---	4
ADD ALTERNATE	65	DAC-1.2	LIBRARY - H114	-	-	-	-	DCU-1	---	---	(3) #12, (1) #12 EG IN 1/2" C	30A	15A	3R	10	---	---	4
	66	DCU-2	ROOF	-	4.1	1	208	PL-1	40A/2P	(2) #8, (1) #10 EG IN 3/4" C	(2) #8, (1) #10 EG IN 3/4" C	60A	NF	3R	10	---	---	4
	67	DAC-2.1	LIBRARY - H214	-	-	-	-	DCU-2	---	---	(3) #12, (1) #12 EG IN 1/2" C	30A	15A	3R	10	---	---	4
	68	DAC-2.2	LIBRARY - H214	-	-	-	-	DCU-2	---	---	(3) #12, (1) #12 EG IN 1/2" C	30A	15A	3R	10	---	---	4
ADD ALTERNATE	69	P-1A	STORAGE - H108.3	2	-	3	480	PNL F	20A/3P	(3) #12, (1) #12 EG IN 1/2" C	(3) #12, (1) #12 EG IN 1/2" C	30	NF	1	17	---	---	---
	70	P-1B	STORAGE - H108.3	2	-	3	480	PNL F	20A/3P	(3) #12, (1) #12 EG IN 1/2" C	(3) #12, (1) #12 EG IN 1/2" C	30	NF	1	17	---	---	---
	71	P-2A	MECH - H005	2	-	3	480	HP-NA	20A/3P	(3) #12, (1) #12 EG IN 1/2" C	(3) #12, (1) #12 EG IN 1/2" C	30	NF	1	17	---	---	---
	72	P-2B	MECH - H005	2	-	3	480	HP-NA	20A/3P	(3) #12, (1) #12 EG IN 1/2" C	(3) #12, (1) #12 EG IN 1/2" C	30	NF	1	17	---	---	---
	73	P-2C	MECH - H005	2	-	3	480	HP-NA	20A/3P	(3) #12, (1) #12 EG IN 1/2" C	(3) #12, (1) #12 EG IN 1/2" C	30	NF	1	17	---	---	---
	74	RTU-5	ROOF	-	28.0	3	480	SDP2	50A/3P	(3) #6, (1) #8 EG IN 1" C	---	---	---	---	10,16	---	---	1,2

ELECTRIC EQUIPMENT AND CONTROL SCHEDULE GENERAL NOTES:

A. ALL CONTROL EQUIPMENT PROVIDED BY THE DIVISION 26 CONTRACTOR UNLESS OTHERWISE NOTED.
B. ITEM NUMBER INDICATES EQUIPMENT NUMBER.
C. ALL CONTROL DEVICES TO BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
D. PROVIDE OVERLOADS, SIZE AS REQUIRED BY DIVISION 23 CONTRACTOR.
E. "AU" INDICATES CONTROL DEVICE LOCATED AT UNIT.
F. "NF" INDICATES NON-FUSED.
G. WHERE CONTROLS ARE LOCATED REMOTE FROM MOTOR PROVIDE DISCONNECT AND MOTOR IN ADDITION TO CONTROLS.
H. WHERE DISCONNECT SIZES ARE INDICATED PROVIDE DISCONNECT.
I. WHERE VFD'S ARE REMOTE FROM MOTOR PROVIDE DISCONNECT WITH AUXILIARY CONTACTS FOR INTERLOCK OF VFD AND DISCONNECT.

NOTES:

1. UNIT FURNISHED WITH INTEGRAL DISCONNECT.
2. PROVIDE DUCT SMOKE DETECTORS IN SUPPLY AND RETURN DUCT TO THE UNIT.
3. UNIT TO BE PROVIDED WITH 208V/1PH TRANSFORMER CONTROLS. FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
4. SPLIT SYSTEM FAN COIL UNIT & CONDENSATE PUMP POWERED FROM CONDENSING UNIT. REFER TO SPLIT SYSTEM WIRING DETAIL FOR ADDITIONAL INFORMATION.
5. PTAC FURNISHED WITH PLUG CORD. COORDINATE EXACT LOCATION AND PLUG TYPE PRIOR TO ROUGH-IN.

MOTOR STARTER/CONTROLLER NOTES:

1. MOTOR RATED SWITCH.
2. MANUAL MOTOR STARTER.
3. MANUAL MOTOR STARTER WITH RELAY.
4. MAGNETIC STARTER.
5. COMBINATION MAGNETIC STARTER.
6. VARIABLE FREQUENCY DRIVE. FURNISHED BY MC, INSTALLED BY EC.
7. COMBINATION TWO SPEED MAGNETIC STARTER. FURNISHED BY MC, INSTALLED BY EC.
8. COMBINATION REDUCED VOLTAGE MAGNETIC STARTER.
9. DUPLEX CONTROLLER WITH ALTERNATION CIRCUIT.
10. SINGLE POINT CONNECTION.
11. H-O-A SELECTOR SWITCH IN COVER.
12. PILOT LIGHT IN COVER.
13. REMOTE START-STOP PUSHBUTTONS.
14. DUPLEX RECEPTACLE.
15. INSTALL H.C. FURNISHED LINE-VOLTAGE THERMOSTAT.
16. PROVIDE FAN SHUTDOWN RELAY AND CONNECT TO FACP FOR SHUTDOWN ON BUILDING ALARM.
17. ECM MOTOR CONNECTION.

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023

HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD
TIOGA COUNTY, NY

SCHEDULES & DIAGRAMS

SHEET NO.
E003

PROJECT NO.
1823.24221.1.3

DATE
12/12/2025

CAD FILE: M-THE MAIN

Branch Panel: L-5A

Location: Mech/Elec H240.3
Supply From: T-5A
Mounting: Surface

Voltage: 120/208 Wye
Phases: 3
Wires: 4
Mains Type: 100A MCB
Bus Rating (Amps): 100 A
A.I.C. Rating: 10 KAIC
NEMA Rating: Type 1
Design Make: Square D NQ

Options:
SE Rated:
Hinged Trim: X
Feed-Through...
Sub Feed Lugs:
Sub Feed Breaker:
200% Neutral:
Isolated Ground...
Computer Grade:

Notes:

CKT	Circuit Description	Trip	Pol...	A	B	C	A	B	C	Pol...	Trip	Circuit Description	CKT
1	ACCU-10	25 A	3	1767			1767			3	25 A	ACCU-1	2
3	--	--	--		1767			1767		--	--	--	4
5	--	--	--			1767			1767	--	--	--	6
7	ACCU-9	25 A	3	1767			700			1	15 A	UV-15	8
9	--	--	--		1767			700		1	15 A	UV-16	10
11	--	--	--			1767			0	1	20 A	Spare	12
13	Spare	20 A	1	0			0			1	20 A	Spare	14
15	Spare	20 A	1		0			0		1	20 A	Spare	16
17	Spare	20 A	1			0			0	1	20 A	Spare	18
19	Spare	20 A	1	0			0			1	20 A	Spare	20
21	Spare	20 A	1		0			0		1	20 A	Spare	22
23	Spare	20 A	1			0			0	1	20 A	Spare	24
25	Spare	20 A	1	0			0			1	20 A	Spare	26
27	Spare	20 A	1		0			0		1	20 A	Spare	28
29	Spare	20 A	1			0			0	1	20 A	Spare	30
31	Spare	20 A	1	0			0			1	20 A	Spare	32
33	Spare	20 A	1		0			0		1	20 A	Spare	34
35	Spare	20 A	1			0			0	1	20 A	Spare	36
37	Spare	20 A	1	0			0			1	20 A	Spare	38
39	Spare	20 A	1		0			0		1	20 A	Spare	40
41	Spare	20 A	1			0			0	1	20 A	Spare	42
				Total Load:			6000 VA	6000 VA	5300 VA				
				Total Amps:			51 A	51 A	44 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motors	17300 VA	100.00%	17300 VA		
				Total Conn. Load:	17300 VA
				Total Est. Demand:	17300 VA
				Total Conn.:	48 A
				Total Est. Demand:	48 A

Branch Panel: PH-1

Location: Elec. H219.1
Supply From: SDP2
Mounting: Surface

Voltage: 480/277 Wye
Phases: 3
Wires: 4
Mains Type: 400 A MLO
Bus Rating (Amps): 400 A
A.I.C. Rating: 22 KAIC
NEMA Rating: Type 1
Design Make: Square D NF

Options:
SE Rated:
Hinged Trim: X
Feed-Through...
Sub Feed Lugs:
Sub Feed Breaker:
200% Neutral:
Isolated Ground...
Computer Grade:

Notes:

*** Designates ADD ALTERNATE**

CKT	Circuit Description	Trip	Pol...	A	B	C	A	B	C	Pol...	Trip	Circuit Description	CKT
1	TL-1	70 A	3	13970			5000			3	35 A	ACCU-11	2
3	--	--	--		15269			5000		--	--	--	4
5	--	--	--			14568			5000	--	--	--	6
7	ACCU-3 *	50 A	3	8733			8733			3	50 A	ACCU-14	8
9	--	--	--		8733			8733		--	--	--	10
11	--	--	--			8733			8733	--	--	--	12
13	ACCU-13	50 A	3	8733			13467			3	70 A	ACCU-20 *	14
15	--	--	--		8733			13467		--	--	--	16
17	--	--	--			8733			13467	--	--	--	18
19	Spare	20 A	1	0			5000			3	35 A	ACCU-6	20
21	Spare	20 A	1		0			5000		--	--	--	22
23	Spare	20 A	1			0			5000	--	--	--	24
25	Spare	20 A	1	0			0			1	20 A	Spare	26
27	Spare	20 A	1		0			0		1	20 A	Spare	28
29	Spare	20 A	1			0			0	1	20 A	Spare	30
31	Spare	20 A	1	0			0			1	20 A	Spare	32
33	Spare	20 A	1		0			0		1	20 A	Spare	34
35	Spare	20 A	1			0			0	1	20 A	Spare	36
37	Spare	20 A	1	0			0			1	20 A	Spare	38
39	Spare	20 A	1		0			0		1	20 A	Spare	40
41	Spare	20 A	1			0			0	1	20 A	Spare	42
				Total Load:			63637 VA	64935 VA	64235 VA				
				Total Amps:			230 A	235 A	232 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	7 VA	100.00%	7 VA		
Motors	192800 VA	100.00%	192800 VA		
				Total Conn. Load:	192807 VA
				Total Est. Demand:	192807 VA
				Total Conn.:	232 A
				Total Est. Demand:	232 A

Branch Panel: PH-2

Location: Janitor H237.1
Supply From: SDP2
Mounting: Surface

Voltage: 480/277 Wye
Phases: 3
Wires: 4
Mains Type: 225A MLO
Bus Rating (Amps): 225 A
A.I.C. Rating: 22 KAIC
NEMA Rating: Type 1
Design Make: Square D NF

Options:
SE Rated:
Hinged Trim: X
Feed-Through...
Sub Feed Lugs:
Sub Feed Breaker:
200% Neutral:
Isolated Ground...
Computer Grade:

Notes:

CKT	Circuit Description	Trip	Pol...	A	B	C	A	B	C	Pol...	Trip	Circuit Description	CKT
1	TL-2	70 A	3	7901			5000			3	35 A	ACCU-7	2
3	--	--	--		7900			5000		--	--	--	4
5	--	--	--			5801			5000	--	--	--	6
7	ACCU-15	50 A	3	8733			5000			3	35 A	ACCU-16	8
9	--	--	--		8733			5000		--	--	--	10
11	--	--	--			8733			5000	--	--	--	12
13	Spare	20 A	1	0			0			1	20 A	Spare	14
15	Spare	20 A	1		0			0		1	20 A	Spare	16
17	Spare	20 A	1			0			0	1	20 A	Spare	18
19	Spare	20 A	1	0			0			1	20 A	Spare	20
21	Spare	20 A	1		0			0		1	20 A	Spare	22
23	Spare	20 A	1			0			0	1	20 A	Spare	24
25	Spare	20 A	1	0			0			1	20 A	Spare	26
27	Spare	20 A	1		0			0		1	20 A	Spare	28
29	Spare	20 A	1			0			0	1	20 A	Spare	30
31	Spare	20 A	1	0			0			1	20 A	Spare	32
33	Spare	20 A	1		0			0		1	20 A	Spare	34
35	Spare	20 A	1			0			0	1	20 A	Spare	36
37	Spare	20 A	1	0			0			1	20 A	Spare	38
39	Spare	20 A	1		0			0		1	20 A	Spare	40
41	Spare	20 A	1			0			0	1	20 A	Spare	42
				Total Load:			26634 VA	26633 VA	24534 VA				
				Total Amps:			97 A	97 A	89 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	1 VA	100.00%	1 VA		
Motors	77800 VA	100.00%	77800 VA		
				Total Conn. Load:	77801 VA
				Total Est. Demand:	77801 VA
				Total Conn.:	94 A
				Total Est. Demand:	94 A

Branch Panel: SDP2

Location: Elec. H204.2
Supply From: (E) MDP
Mounting: Surface

Voltage: 480/277 Wye
Phases: 3
Wires: 4
Mains Type: 800 A MCB
Bus Rating (Amps): 800 A
A.I.C. Rating: 22 KAIC
NEMA Rating: Type 1
Design Make: Square D I-Line

Options:
SE Rated:
Hinged Trim: X
Feed-Through...
Sub Feed Lugs:
Sub Feed Breaker:
200% Neutral:
Isolated Ground...
Computer Grade:

Notes:

CKT	Circuit Description	Trip	Pol...	A	B	C	A	B	C	Pol...	Trip	Circuit Description	CKT
1	PH-1	400 A	3	63637			26634			3	400 A	PH-2	2
3	--	--	--		64935			26633		--	--	--	4
5	--	--	--			64235			24534	--	--	--	6
7	RTU-1	110 A	3	21733			21733			3	110 A	RTU-2	8
9	--	--	--		21733			21733		--	--	--	10
11	--	--	--			21733			21733	--	--	--	12
13	RTU-3	125 A	3	26800			9333			3	50 A	RTU-5	14
15	--	--	--		26800			9333		--	--	--	16
17	--	--	--			26800			9333	--	--	--	18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
				Total Load:			169871 VA	171169 VA	168369 VA				
				Total Amps:			614 A	619 A	608 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	8 VA	100.00%	8 VA		
Motors	509400 VA	100.00%	509400 VA		
				Total Conn. Load:	509408 VA
				Total Est. Demand:	509408 VA
				Total Conn.:	613 A
				Total Est. Demand:	613 A

Branch Panel: PL-1

Location: Elec. H219.1
Supply From: TL-1
Mounting: Surface

Voltage: 120/208 Wye
Phases: 3
Wires: 4
Mains Type: 225A MCB
Bus Rating (Amps): 225 A
A.I.C. Rating: 10 KAIC
NEMA Rating: Type 1
Design Make: Square D NQ

Options:
SE Rated:
Hinged Trim: X
Feed-Through...
Sub Feed Lugs:
Sub Feed Breaker:
200% Neutral:
Isolated Ground...
Computer Grade:

Notes:

*** Designates ADD ALTERNATE**

CKT	Circuit Description	Trip	Pol...	A	B	C	A	B	C	Pol...	Trip	Circuit Description	CKT
1	ACCU-12	35 A	3	2267			1767			3	25 A	ACCU-4 *	2
3	--	--	--		2267			1767		--	--	--	4
5	--	--	--			2267			1767	--	--	--	6
7	ACCU-5 *	25 A	3	1767			750			2	15 A	PTAC-1 *	8
9	--	--	--		1767			750		2	15 A	PTAC-2 *	10
11	--	--	--			1767			750	2	15 A	PTAC-3 *	12
13	ACCU-19	25 A	3	1767			750			--	--	--	14
15	--	--	--		1767			750		2	15 A	PTAC-3 *	16
17	--	--	--			1767			750	--	--	--	18
19	UV-26, UV-28	15 A	1	1400			1400			1	15 A	UV-27, UV-29	20
21	UV-23, UV-25	15 A	1		1400			700		1	15 A	UV-24	22
23	UV-19	15 A	1			0			1400	1	15 A	UV-21, UV-22	24
25	UV-17, UV-18	15 A	1	1400			700			1	15 A	UV-20	26
27	DCU-1 *	40 A	2		2050			2050		2	40 A	DCU-2 *	28
29	--	--	--			2050			2050	--	--	--	30
31	UV LEV Kit	20 A	2	1			2			2	20 A	UV LEV Kits	32
33	--	--	--		1			2		--	--	--	34
35	UV LEV Kits	20 A	2			2			0	1	20 A	Spare	36
37	--	--	--	2			0			1	20 A	Spare	38
39	Spare	20 A	1		0			0		1	20 A	Spare	40
41	Spare	20 A	1			0			0	1	20 A	Spare	42
				Total Load:			13970 VA	15269 VA	14568 VA				
				Total Amps:			116 A	128 A	122 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	7 VA	100.00%	7 VA		
Motors	43800 VA	100.00%	43800 VA		
				Total Conn. Load:	43807 VA
				Total Est. Demand:	43807 VA
				Total Conn.:	122 A
				Total Est. Demand:	122 A

Branch Panel: PL-2

Location: Janitor H237.1
Supply From: TL-2
Mounting: Surface

Voltage: 120/208 Wye
Phases: 3
Wires: 4
Mains Type: 175A MLO
Bus Rating (Amps): 225 A
A.I.C. Rating: 10 KAIC
NEMA Rating: Type 1
Design Make: Square D NQ

Options:
SE Rated:
Hinged Trim: X
Feed-Through...
Sub Feed Lugs:
Sub Feed Breaker:
200% Neutral:
Isolated Ground...
Computer Grade:

Notes:

CKT	Circuit Description	Trip	Pol...	A	B	C	A	B	C	Pol...	Trip	Circuit Description	CKT
1	ACCU-18	25 A	3	1767			2267			3	35 A	ACCU-8	2
3	--	--	--		1767			2267		--	--	--	4
5	--	--	--			1767			2267	--	--	--	6
7	ACCU-17	25 A	3	1767			0			3	35 A	ACCU-2	8
9	--	--	--		1767			0		--	--	--	10
11	--	--	--			1767			0	--	--	--	12
13	UV-31, UV-33	15 A	1	1400			700			1	15 A	UV-35	14
15	UV-34	15 A	1		700			1400		1	15 A	UV-30, UV-32	16
17	UV LEV Kits	20 A	2			1			0	1	20 A	Spare	18
19	--	--	--	1			0			1	20 A	Spare	20
21	Spare	20 A	1		0			0		1	20 A	Spare	22
23	Spare	20 A	1			0			0	1	20 A	Spare	24
25	Spare	20 A	1	0			0			1	20 A	Spare	26
27	Spare	20 A	1		0			0		1	20 A	Spare	28
29	Spare	20 A	1			0			0	1	20 A	Spare	30
31	Spare	20 A	1	0			0			1	20 A	Spare	32
33	Spare	20 A	1		0			0		1	20 A	Spare	34
35	Spare	20 A	1			0			0	1	20 A	Spare	36
37	Spare	20 A	1	0			0			1	20 A	Spare	38
39	Spare	20 A	1		0			0		1	20 A	Spare	40
41	Spare	20 A	1			0			0	1	20 A	Spare	42
				Total Load:			7901 VA	7900 VA	5801 VA				
				Total Amps:			69 A	69 A	48 A				

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Motor	1 VA	100.00%	1 VA		
Motors	21600 VA	100.00%	21600 VA		
				Total Conn. Load:	21601 VA
				Total Est. Demand:	21601 VA
				Total Conn.:	60 A
				Total Est. Demand:	60 A

1/26/2026 3:22:40 PM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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ESI: 25191

SED PROJECT NUMBERS:
66-04-02-04-0-007-023
HIGH SCHOOL

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NO.	REVISIONS AND DESCRIPTIONS	DATE:

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — **TIOGA COUNTY, NY**

ELECTRICAL PANEL SCHEDULES

SHEET NO.
E004
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



FIRST FLOOR KEY PLAN

1 E201 BASEMENT ELECTRICAL REMOVAL PLAN - AREA 1

1/8" = 1'-0"

1/26/2026 3:22:15 PM

CERTIFICATE OF AUTHORIZATION
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ES 23191

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NO	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — TIOGA COUNTY, NY

BASEMENT ELECTRICAL REMOVAL PLAN - AREA 1

SHEET NO.
E201

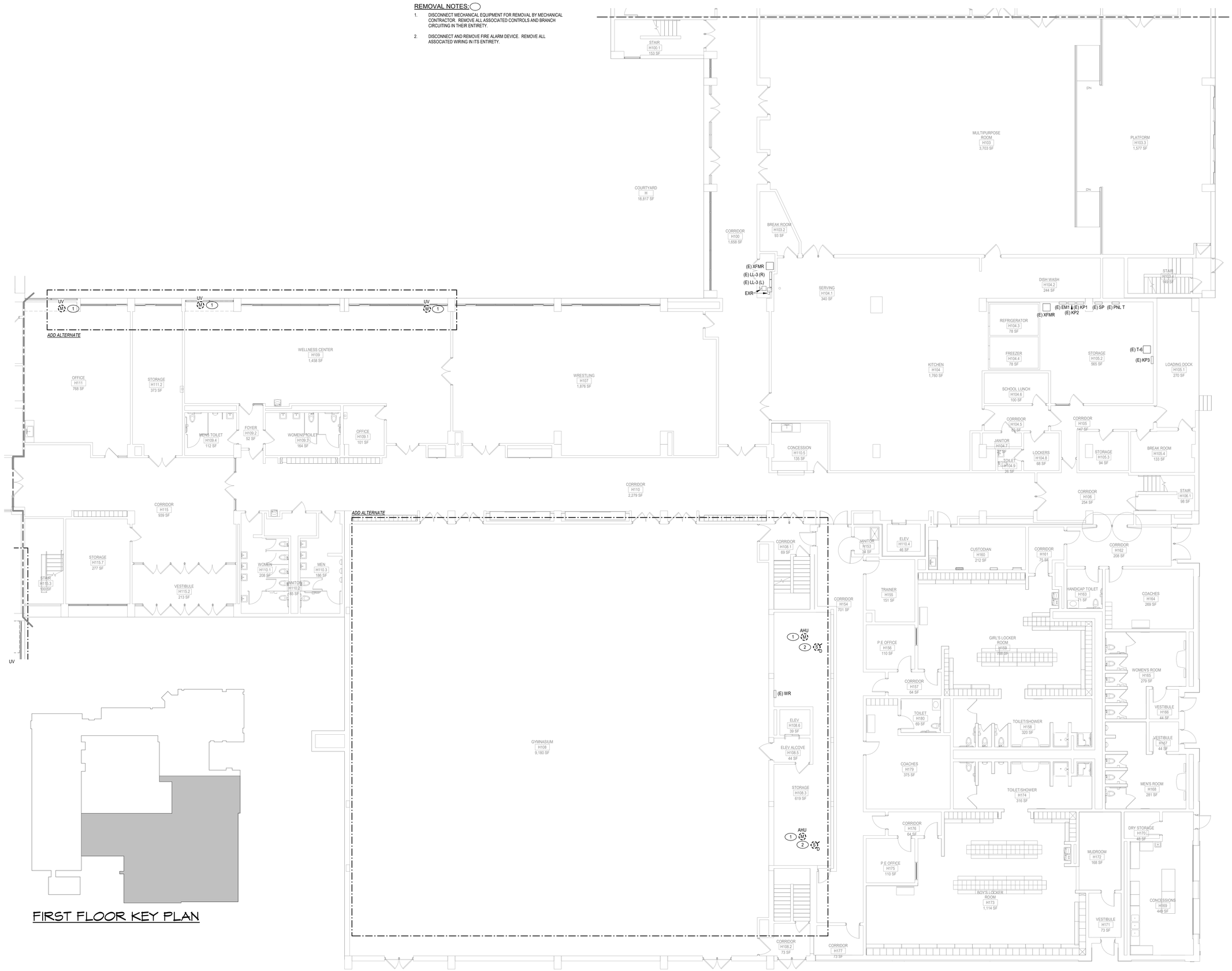
PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.
2. DISCONNECT AND REMOVE FIRE ALARM DEVICE. REMOVE ALL ASSOCIATED WIRING IN ITS ENTIRETY.



FIRST FLOOR KEY PLAN

1 E202 FIRST FLOOR ELECTRICAL REMOVAL PLAN - AREA 1
1/8" = 1'-0"

1/26/2026 3:22:21 PM

CERTIFICATE OF AUTHORIZATION
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66-04-02-04-0-007-023

HIGH SCHOOL

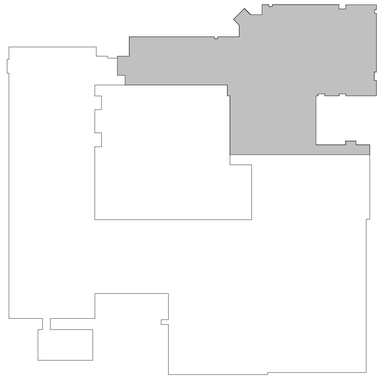
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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — **TIOGA COUNTY, NY**

FIRST FLOOR ELECTRICAL REMOVAL PLAN - AREA 1

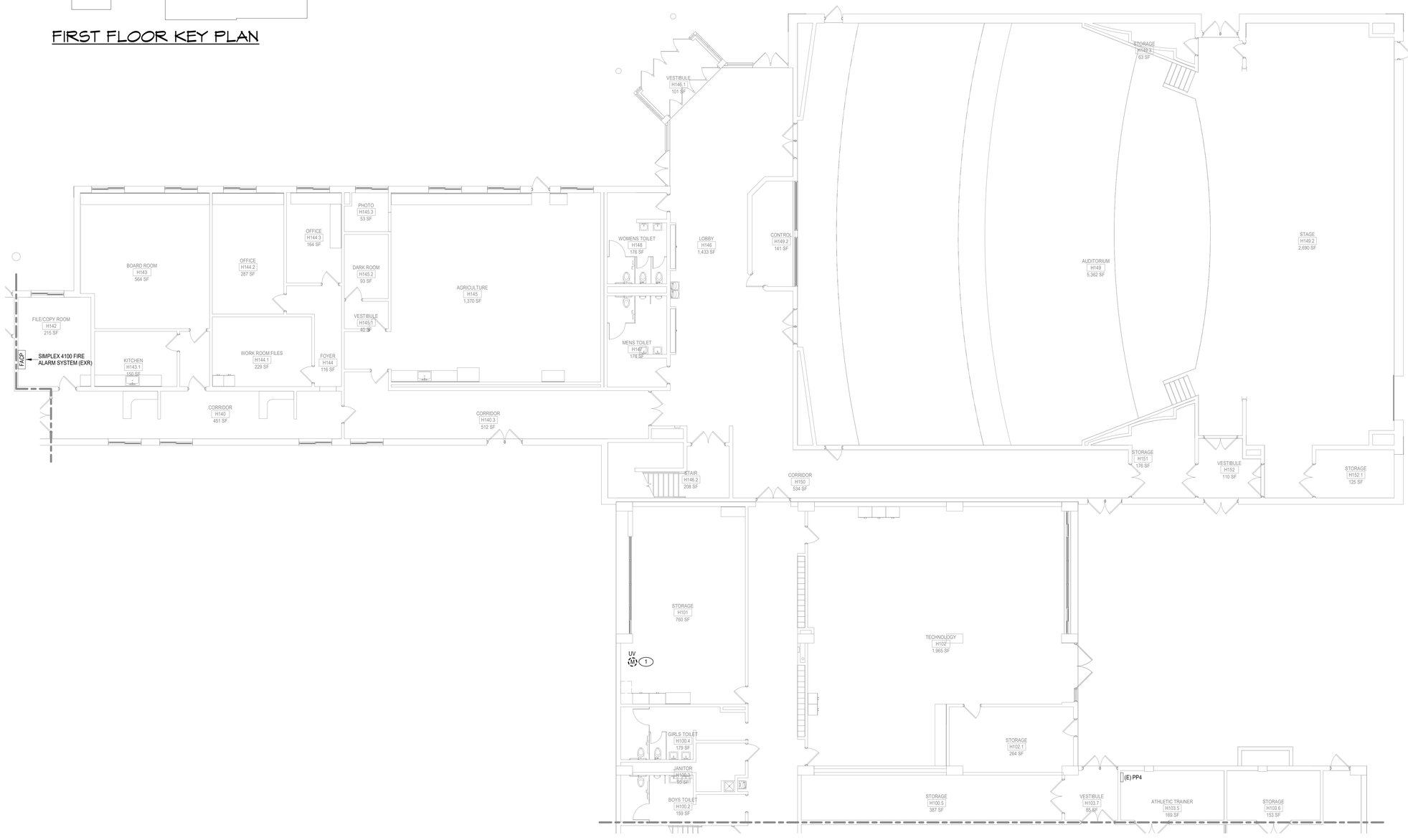
SHEET NO.
E202
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt



FIRST FLOOR KEY PLAN

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



1 E203 FIRST FLOOR ELECTRICAL REMOVAL PLAN - AREA 2

1/8" = 1'-0"

1/26/2026 3:22:24 PM

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66-04-02-04-0-007-023

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — **TIOGA COUNTY, NY**

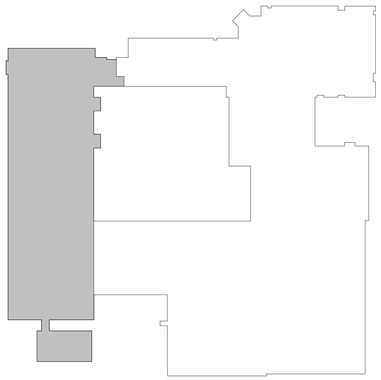
FIRST FLOOR ELECTRICAL REMOVAL PLAN - AREA 2

SHEET NO.
E203

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

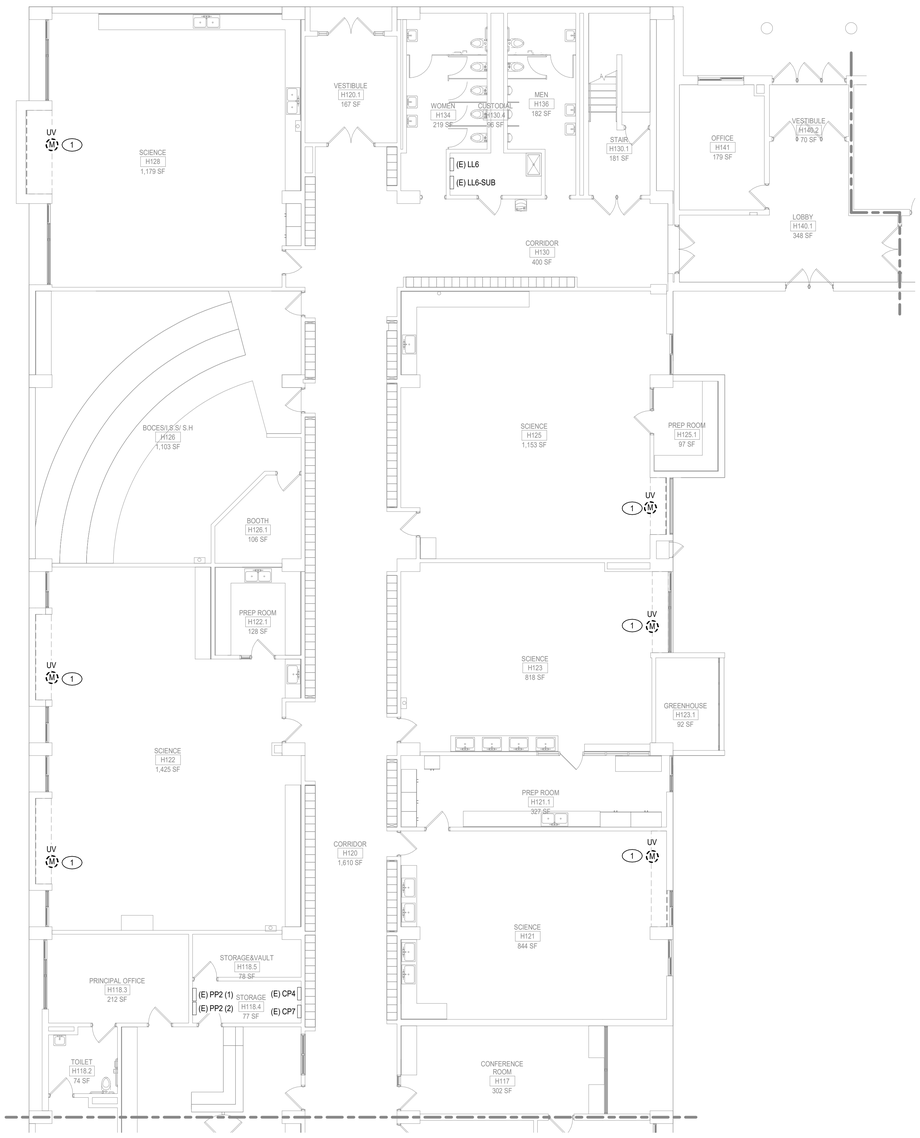
CAD FILE NO.: High School_RVT24-rvt



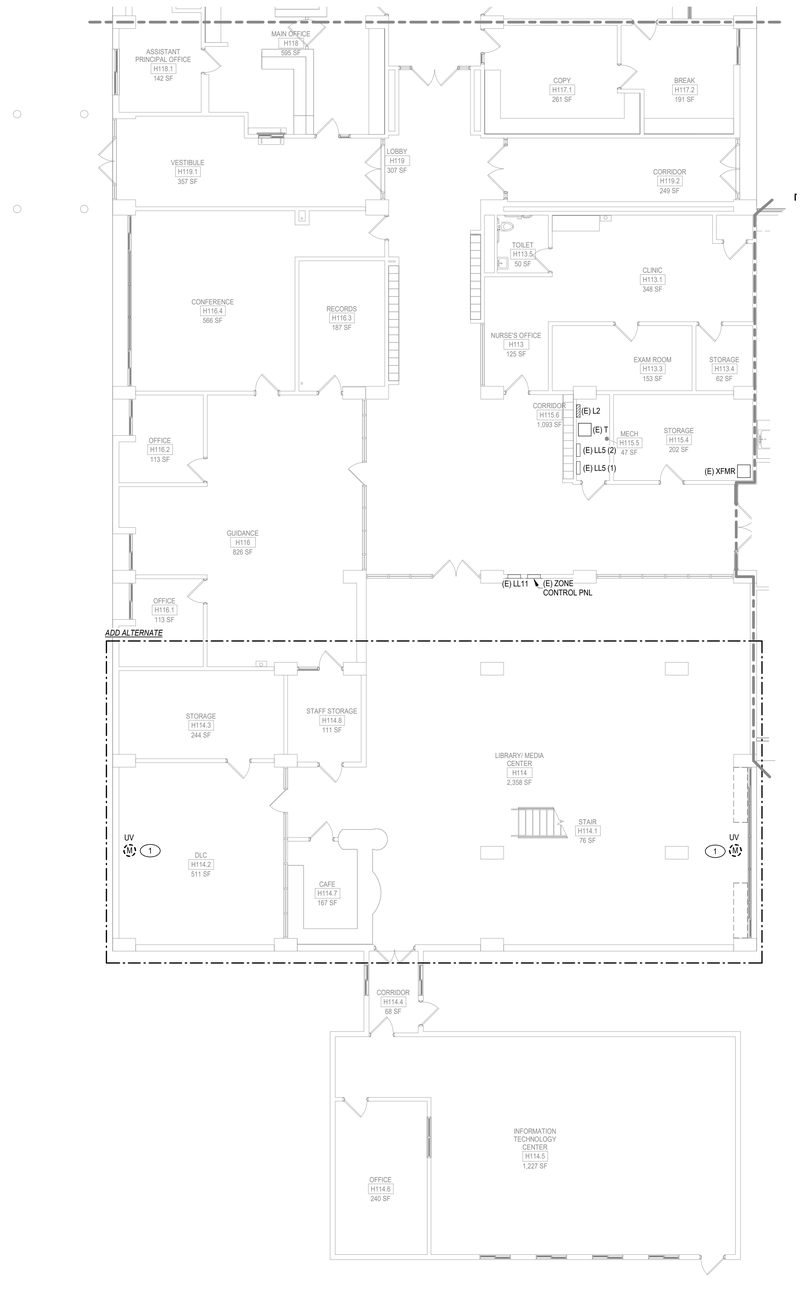
FIRST FLOOR KEY PLAN

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



1 E204 FIRST FLOOR ELECTRICAL REMOVAL PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 E204 FIRST FLOOR ELECTRICAL REMOVAL PLAN - AREA 3 LOWER
1/8" = 1'-0"

1/26/2026 3:22:27 PM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — TIOGA COUNTY, NY

FIRST FLOOR ELECTRICAL REMOVAL PLAN - AREA 3

SHEET NO.
E204

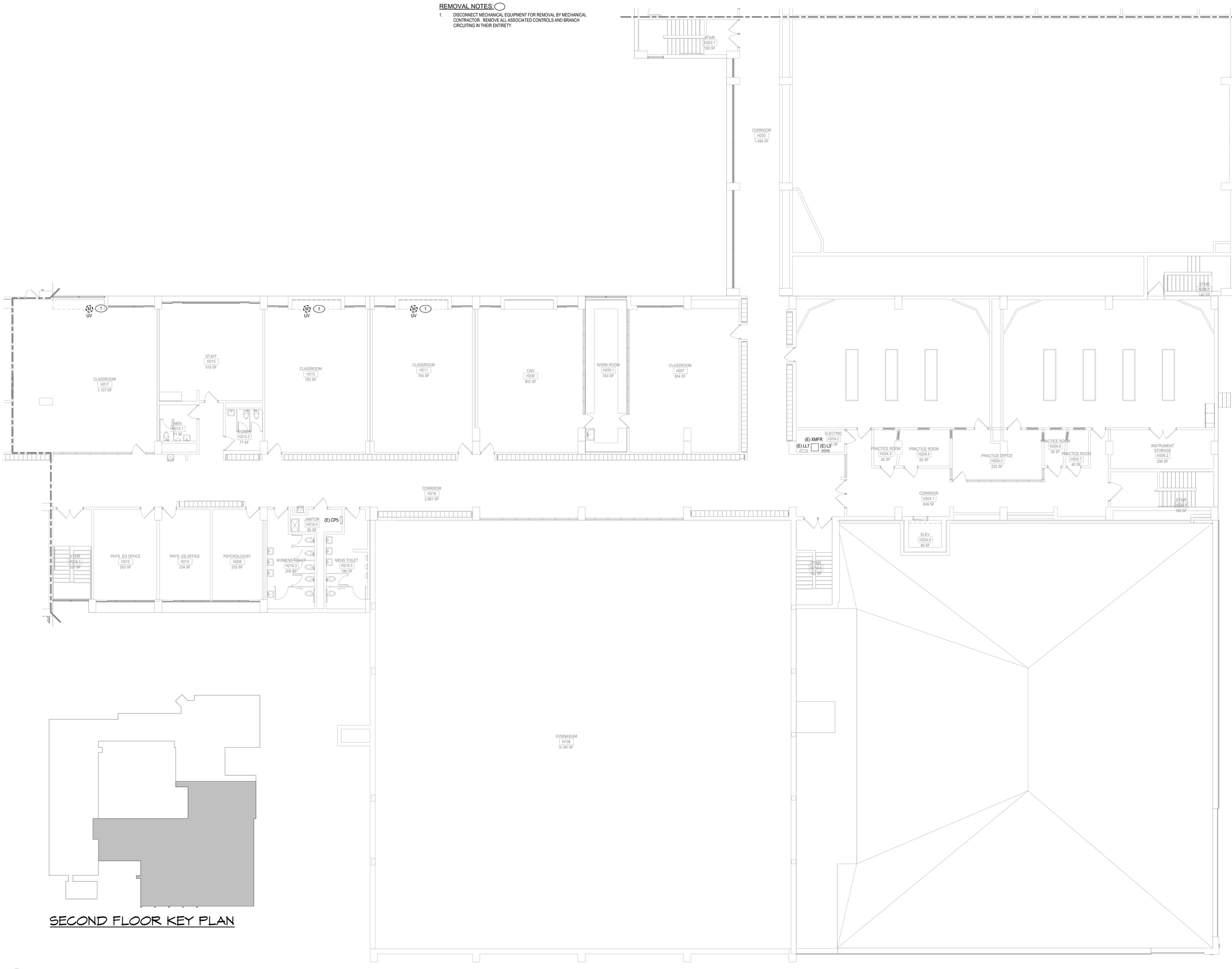
PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



SECOND FLOOR KEY PLAN

1 E205 SECOND FLOOR ELECTRICAL REMOVAL PLAN - AREA 1

1/8" = 1'-0"

1/26/2026 3:22:32 PM

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SED PROJECT NUMBERS:
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HIGH SCHOOL

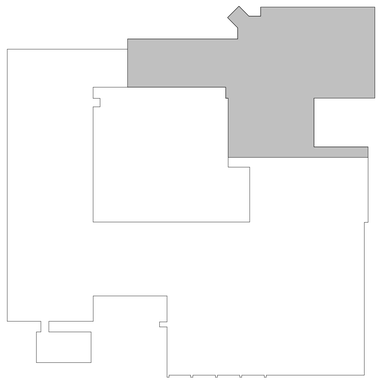
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — TIOGA COUNTY, NY
SECOND FLOOR ELECTRICAL REMOVAL PLAN - AREA 1

SHEET NO.
E205
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt



SECOND FLOOR KEY PLAN

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



1 / E206 SECOND FLOOR ELECTRICAL REMOVAL PLAN - AREA 2

1/8" = 1'-0"

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREK ROAD TIOGA COUNTY, NY

SECOND FLOOR ELECTRICAL REMOVAL PLAN - AREA 2

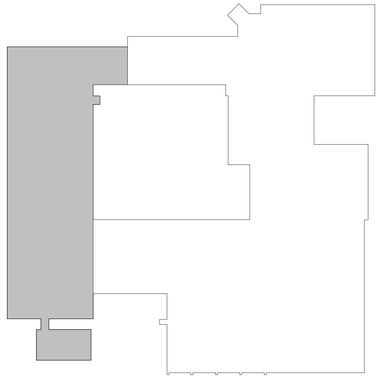
SHEET NO.
E206

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RV124.rvt

1/26/2026 3:22:34 PM



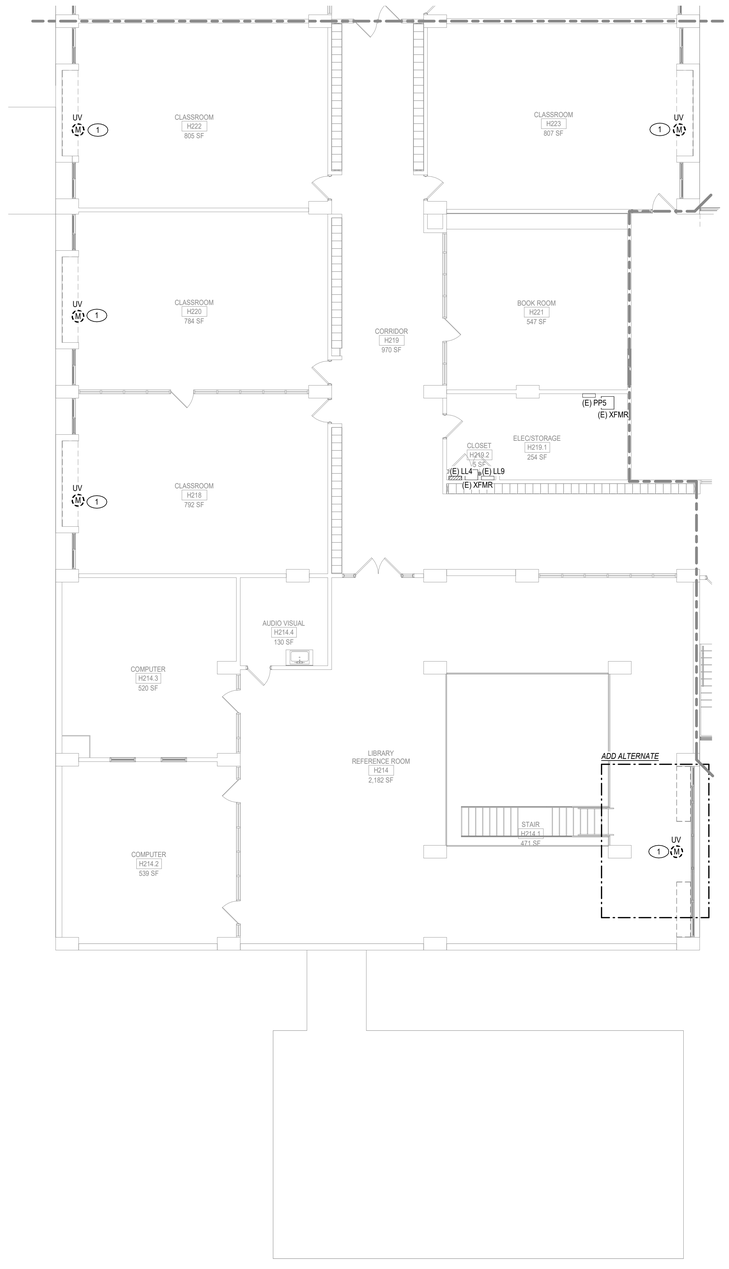
SECOND FLOOR KEY PLAN

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



1 E207 SECOND FLOOR ELECTRICAL REMOVAL PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 E207 SECOND FLOOR ELECTRICAL REMOVAL PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD TIOGA COUNTY, NY

SECOND FLOOR ELECTRICAL REMOVAL PLAN - AREA 3

SHEET NO.
E207

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

1/26/2026 3:22:36 PM

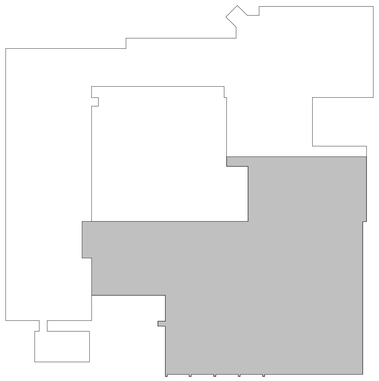
REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.

EF (M) 1
ADD ALTERNATE

ACCU (M) 1

ACCU (M) 1



SECOND FLOOR KEY PLAN

1 / E208 ROOF ELECTRICAL REMOVAL PLAN - AREA 1

1/8" = 1'-0"

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD
TIOGA COUNTY, NY

ROOF ELECTRICAL REMOVAL PLAN - AREA 1

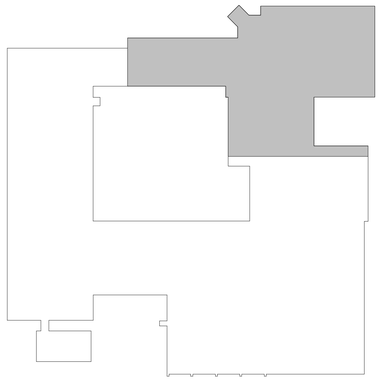
SHEET NO.
E208

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RV124.rvt

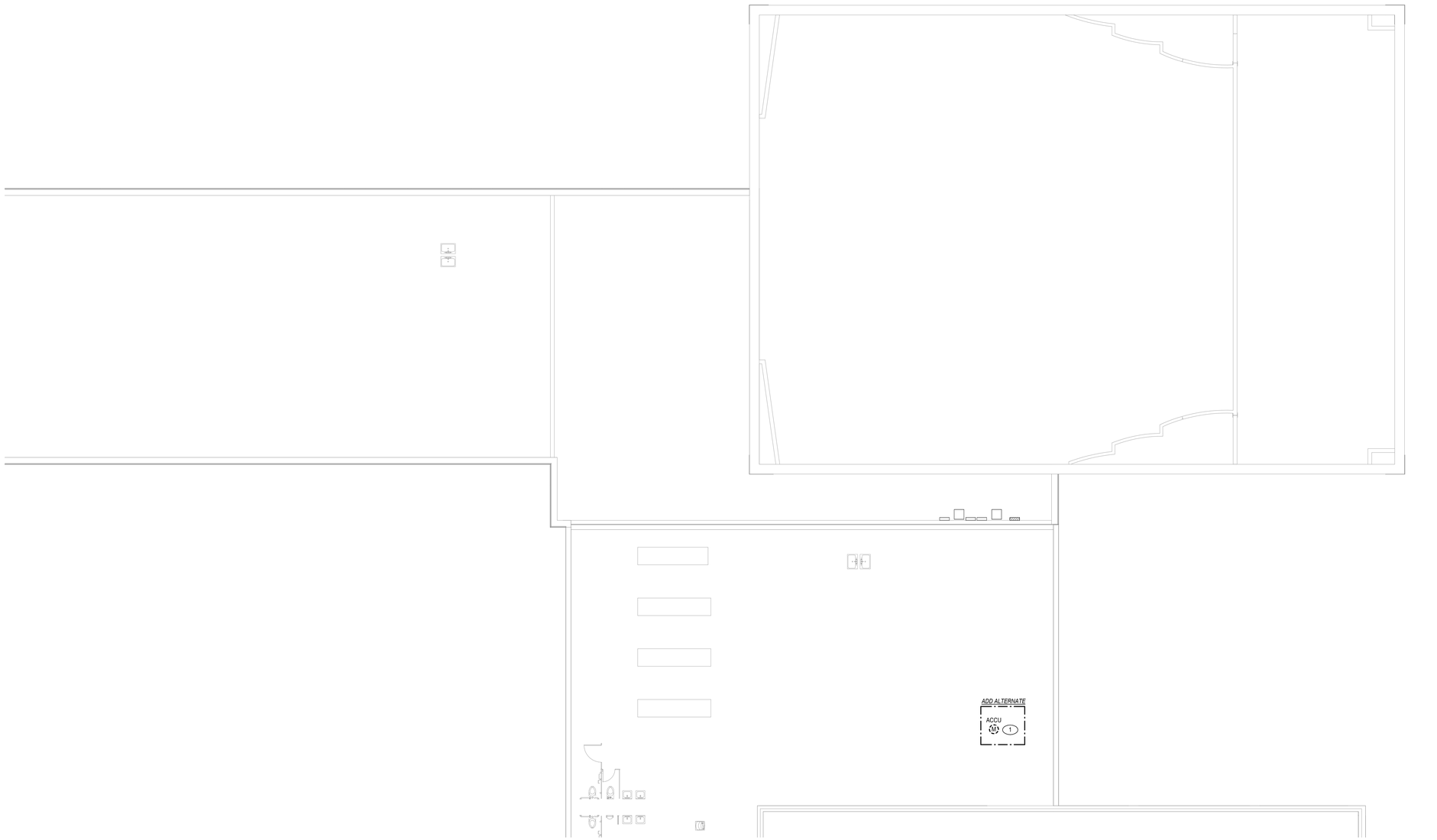
1/26/2026 3:22:36 PM



SECOND FLOOR KEY PLAN

REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



1 E209 ROOF ELECTRICAL REMOVAL PLAN - AREA 2

1/8" = 1'-0"

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
66 WILSON CREK ROAD
TIOGA COUNTY, NY

ROOF ELECTRICAL REMOVAL PLAN - AREA 2

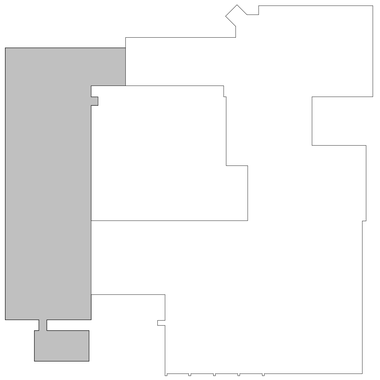
SHEET NO.
E209

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RV124.rvt

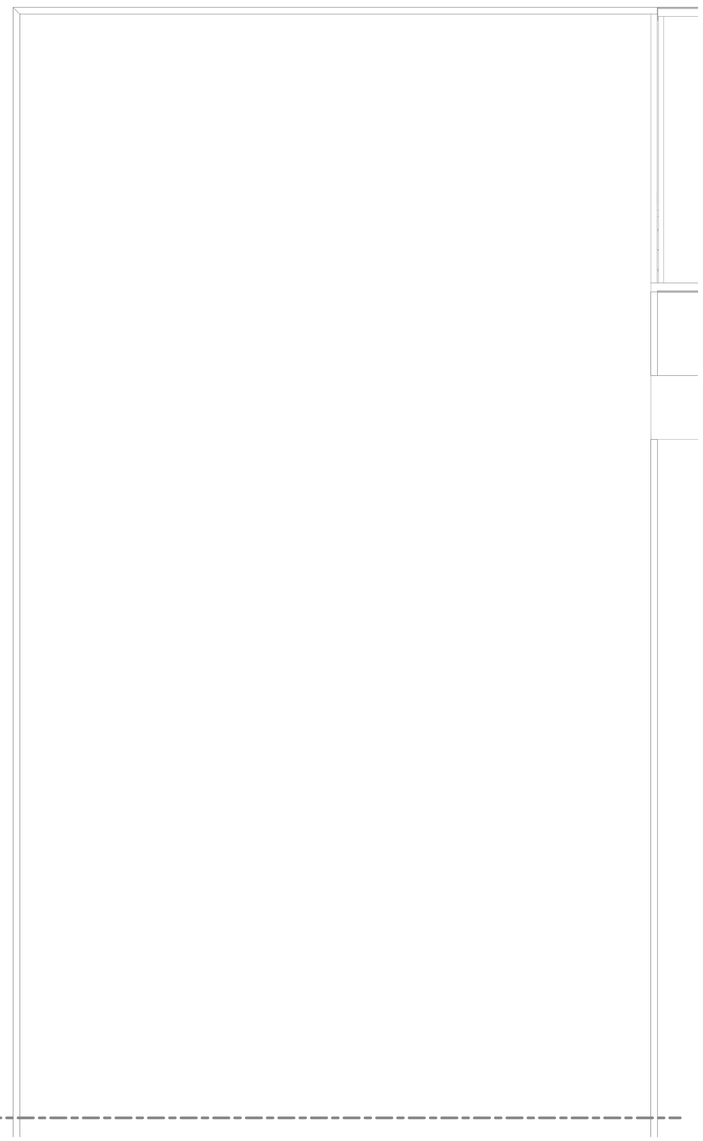
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SECOND FLOOR KEY PLAN

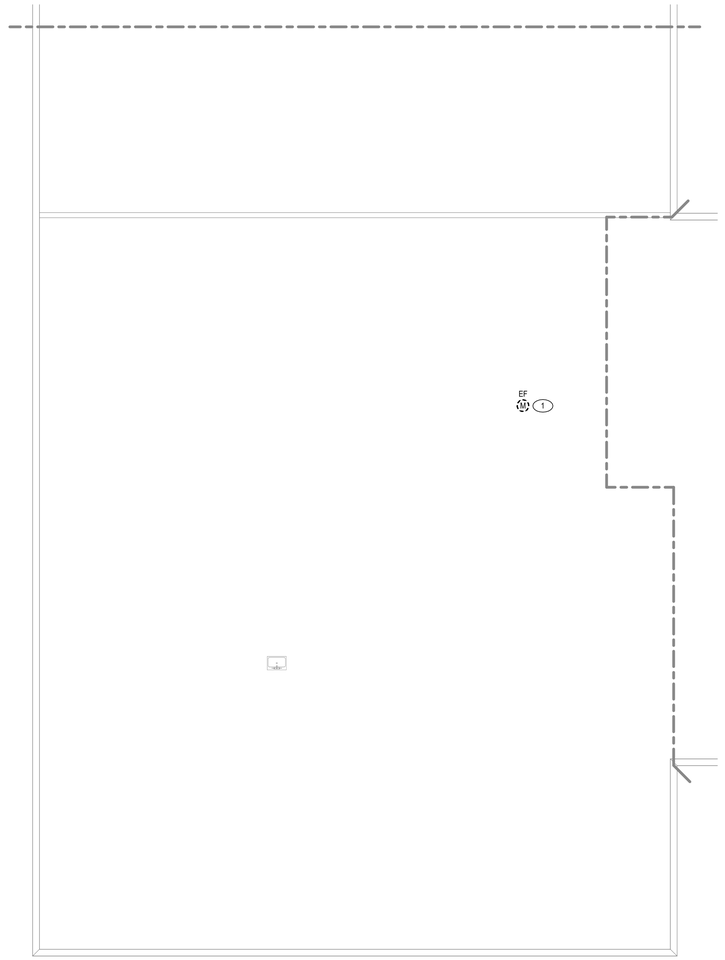
REMOVAL NOTES:

1. DISCONNECT MECHANICAL EQUIPMENT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE ALL ASSOCIATED CONTROLS AND BRANCH CIRCUITING IN THEIR ENTIRETY.



1 E210 ROOF ELECTRICAL REMOVAL PLAN - AREA 3 UPPER

1/8" = 1'-0"



2 E210 ROOF ELECTRICAL REMOVAL PLAN - AREA 3 LOWER

1/8" = 1'-0"

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD TIOGA COUNTY, NY

ROOF ELECTRICAL REMOVAL PLAN - AREA 3

SHEET NO.
E210

PROJECT NO.
1823.24221.1.3

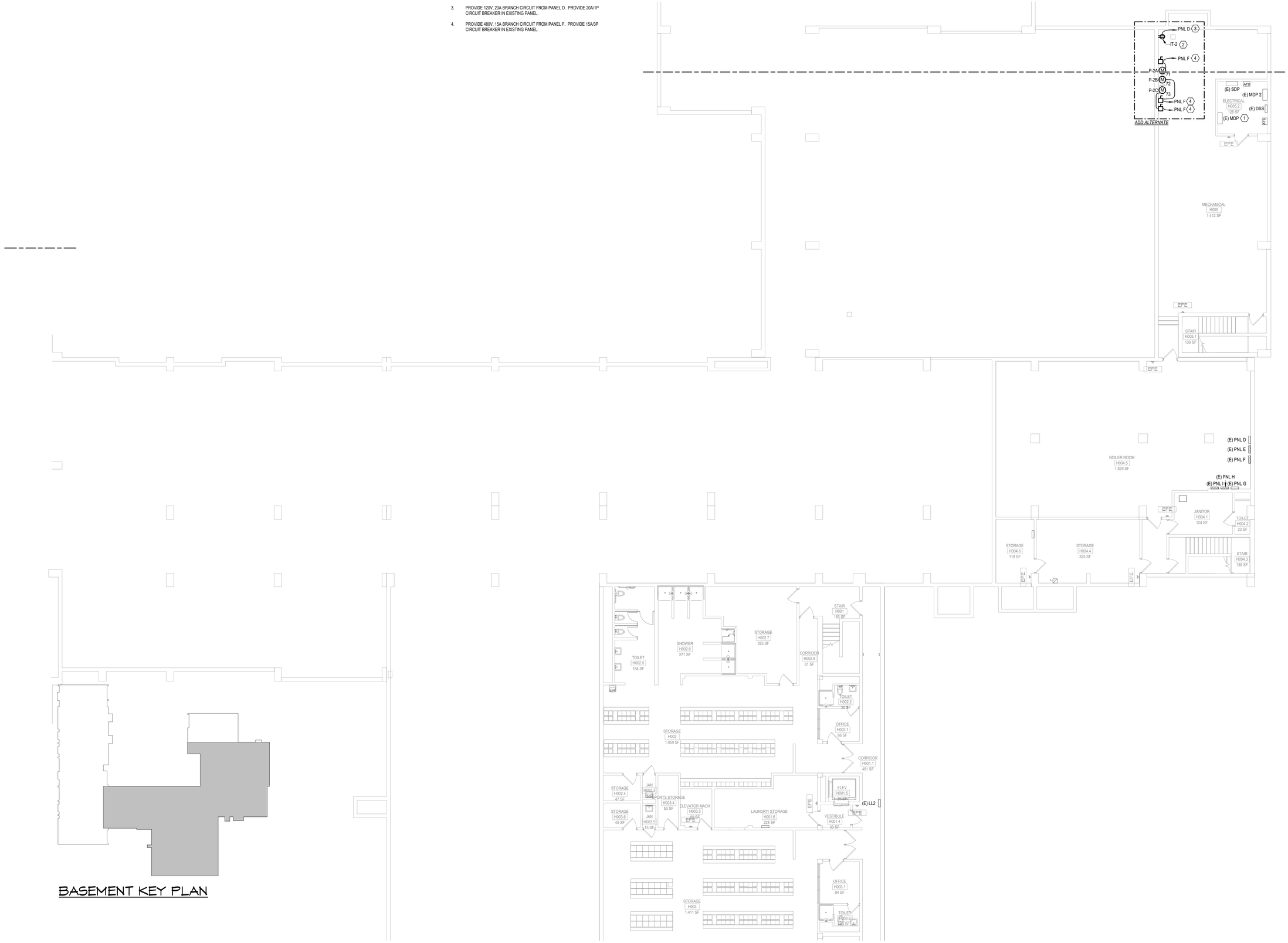
DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

1/26/2026 3:22:38 PM

DRAWING NOTES:

1. PROVIDE 480V, 800A BRANCH CIRCUIT FROM MDP TO NEW PANEL SDP2. PROVIDE 800A/3P CIRCUIT BREAKER IN EXISTING SWITCHGEAR.
2. PROVIDE 120V/20A GFI RECEPTACLE FOR FILL TANK.
3. PROVIDE 120V, 20A BRANCH CIRCUIT FROM PANEL D. PROVIDE 20A/1P CIRCUIT BREAKER IN EXISTING PANEL.
4. PROVIDE 480V, 15A BRANCH CIRCUIT FROM PANEL F. PROVIDE 15A/3P CIRCUIT BREAKER IN EXISTING PANEL.



BASEMENT KEY PLAN

1 E401 BASEMENT POWER PLAN - AREA 1
1/8" = 1'-0"

1/26/2026 3:22:42 PM

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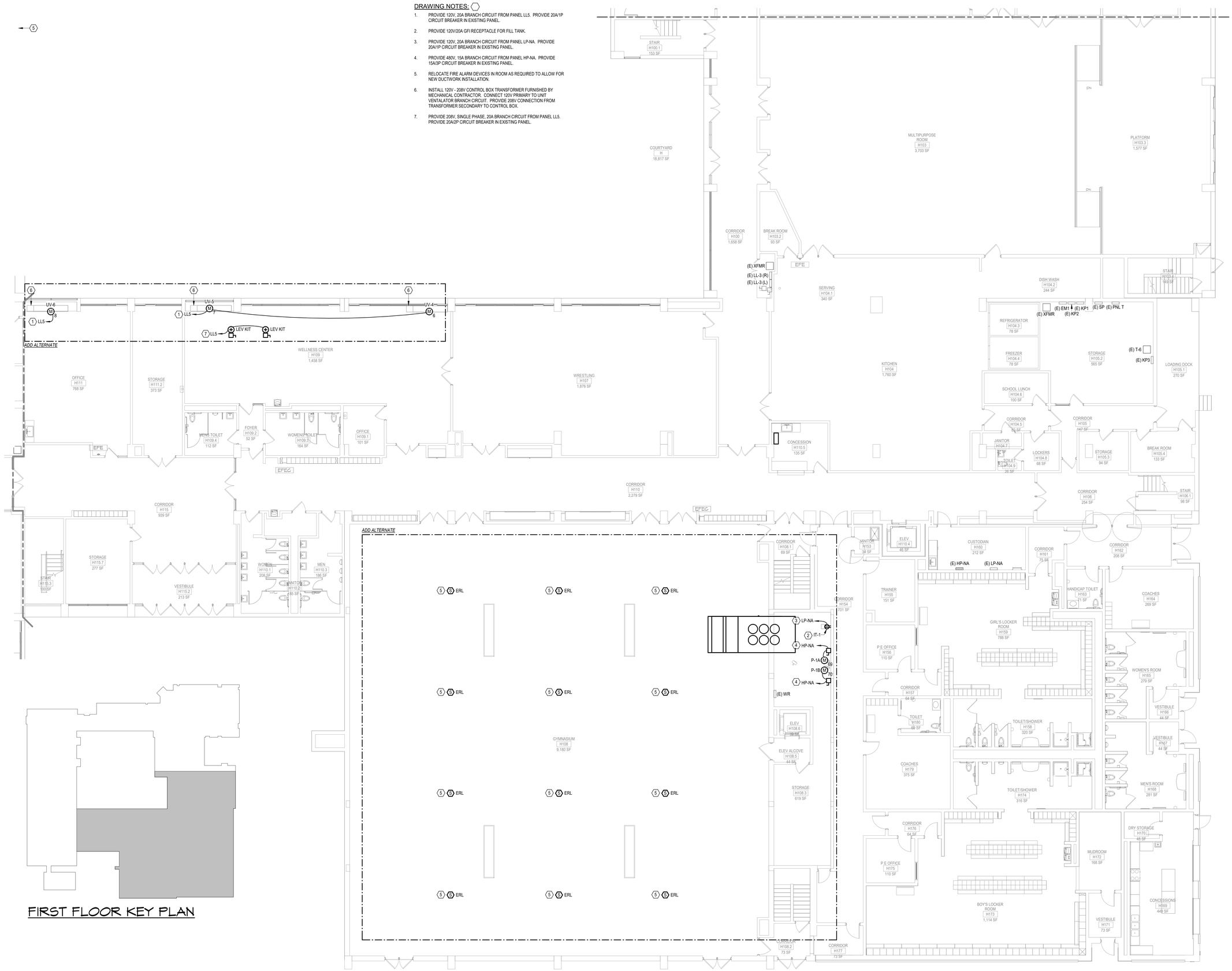
NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
66 WILSON CREEK ROAD — **TIOGA COUNTY, NY**

BASEMENT POWER & SYSTEMS PLAN - AREA 1

SHEET NO.
E401
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

DRAWING NOTES:

1. PROVIDE 120V, 20A BRANCH CIRCUIT FROM PANEL LL5. PROVIDE 20A/1P CIRCUIT BREAKER IN EXISTING PANEL.
2. PROVIDE 120V/20A GFI RECEPTACLE FOR FILL TANK.
3. PROVIDE 120V, 20A BRANCH CIRCUIT FROM PANEL LP-NA. PROVIDE 20A/1P CIRCUIT BREAKER IN EXISTING PANEL.
4. PROVIDE 480V, 15A BRANCH CIRCUIT FROM PANEL HP-NA. PROVIDE 15A/3P CIRCUIT BREAKER IN EXISTING PANEL.
5. RELOCATE FIRE ALARM DEVICES IN ROOM AS REQUIRED TO ALLOW FOR NEW DUCTWORK INSTALLATION.
6. INSTALL 120V - 208V CONTROL BOX TRANSFORMER FURNISHED BY MECHANICAL CONTRACTOR. CONNECT 120V PRIMARY TO UNIT VENTALATOR BRANCH CIRCUIT. PROVIDE 208V CONNECTION FROM TRANSFORMER SECONDARY TO CONTROL BOX.
7. PROVIDE 208V, SINGLE PHASE, 20A BRANCH CIRCUIT FROM PANEL LL5. PROVIDE 20A/2P CIRCUIT BREAKER IN EXISTING PANEL.



FIRST FLOOR KEY PLAN

1 E402 FIRST FLOOR POWER PLAN - AREA 1
1/8" = 1'-0"

1/26/2026 3:22:47 PM

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ESI: 25191

SED PROJECT NUMBERS:
60-04-02-04-0-007-023

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NO.	REVISIONS AND DESCRIPTIONS	DATE

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREK ROAD — TIOGA COUNTY, NY

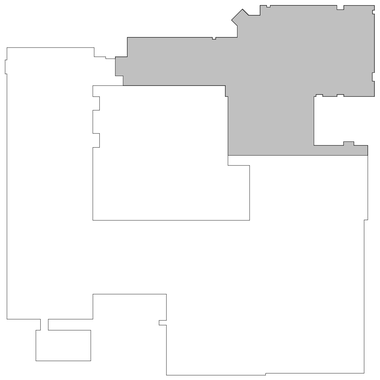
FIRST FLOOR POWER & SYSTEMS PLAN - AREA 1

SHEET NO.
E402

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

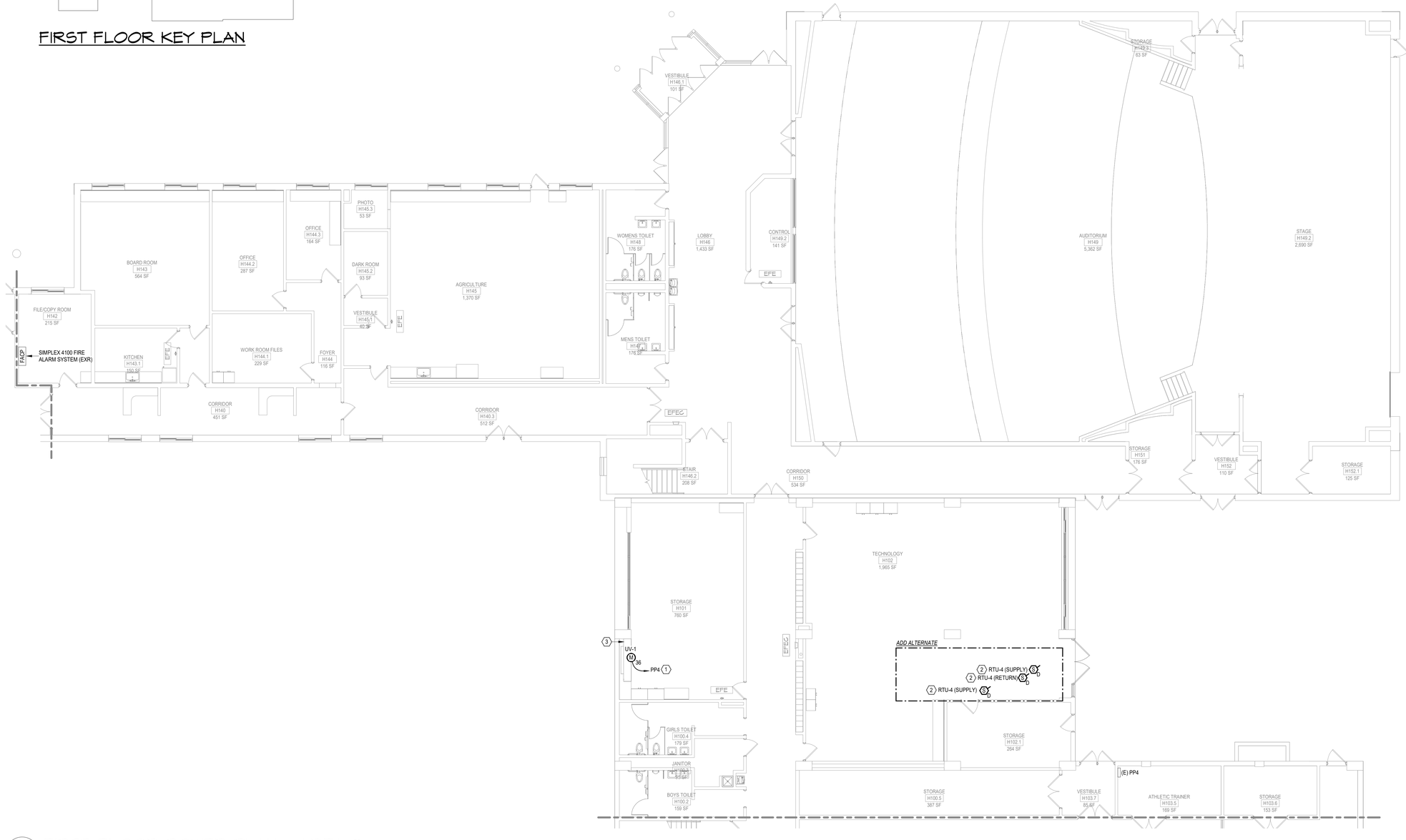
CAD FILE NO.: High School_RVT24.rvt



FIRST FLOOR KEY PLAN

DRAWING NOTES:

1. PROVIDE 120V, 20A BRANCH CIRCUIT FROM PANEL PP4. PROVIDE 20A/1P CIRCUIT BREAKER IN EXISTING PANEL.
2. PROVIDE FIRE ALARM DEVICE TO MATCH EXISTING SYSTEM AND DEVICES. CONNECT TO EXISTING FIRE ALARM SYSTEM.
3. INSTALL 120V - 208V CONTROL BOX TRANSFORMER FURNISHED BY MECHANICAL CONTRACTOR. CONNECT 120V PRIMARY TO UNIT VENTILATOR BRANCH CIRCUIT. PROVIDE 208V CONNECTION FROM TRANSFORMER SECONDARY TO CONTROL BOX.



1 E403 FIRST FLOOR POWER PLAN - AREA 2

1/8" = 1'-0"

1/26/2026 3:22:48 PM

CERTIFICATE OF AUTHORIZATION
ENGINEERING - 0021631
SURVEY - 0020652

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SED PROJECT NUMBERS:
60-04-02-04-0-007-023

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREK ROAD — TIOGA COUNTY, NY

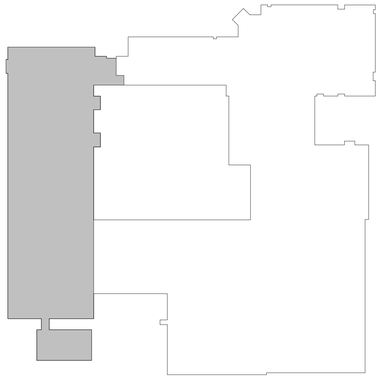
FIRST FLOOR POWER & SYSTEMS PLAN - AREA 2

SHEET NO.
E403

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

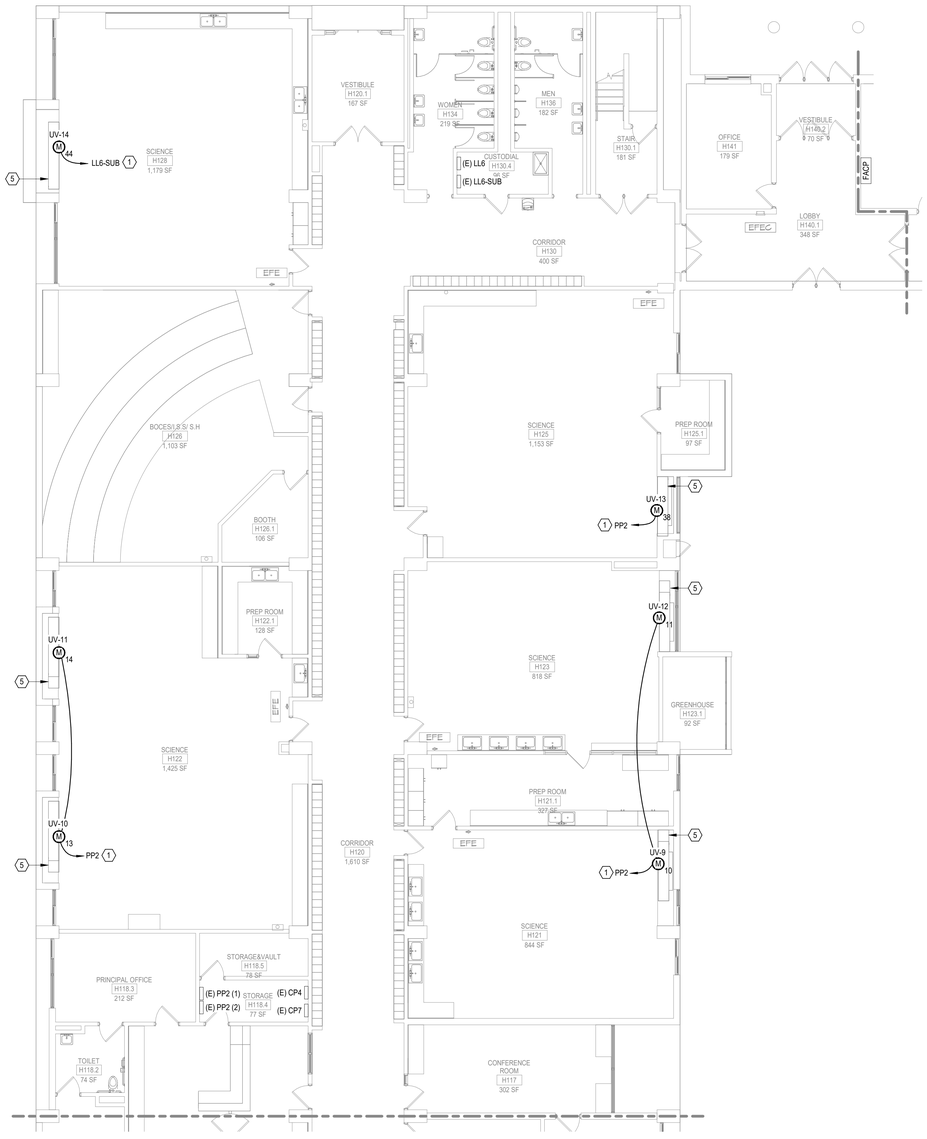
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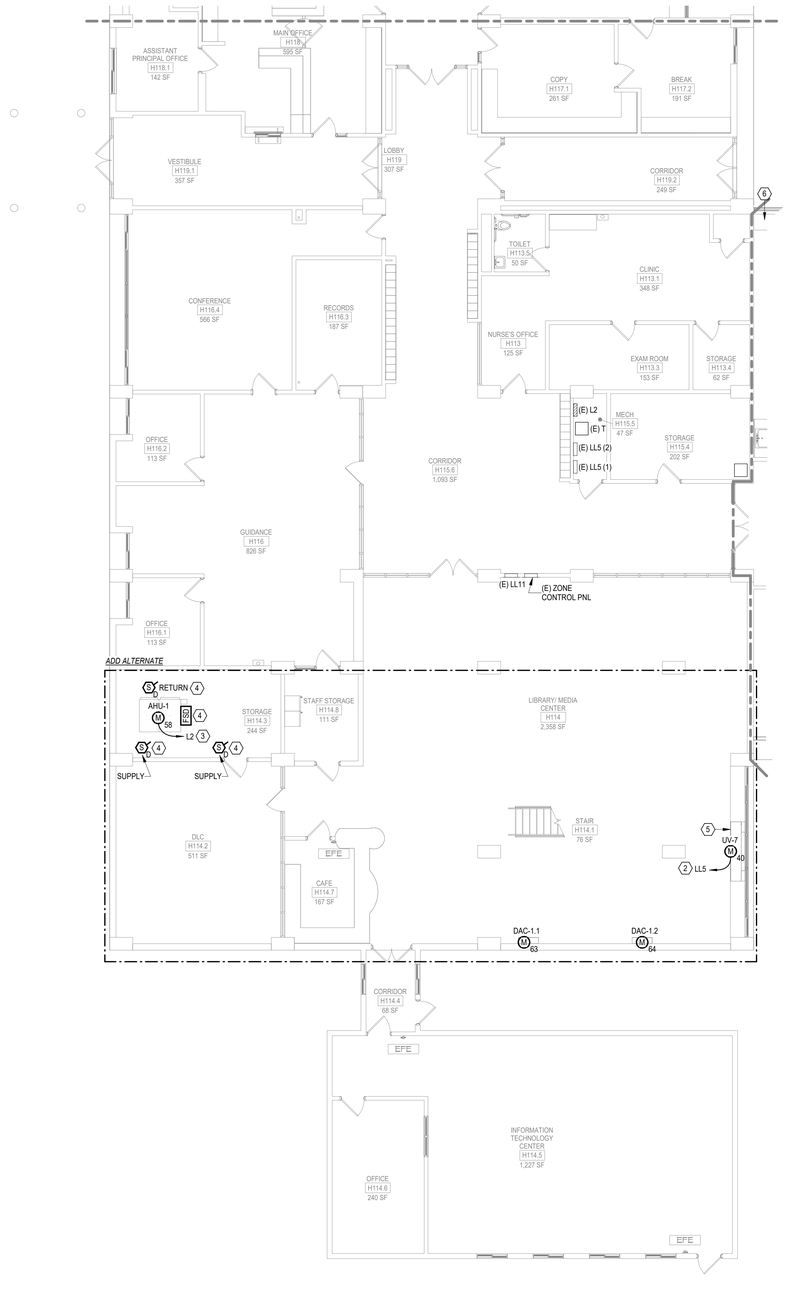
FIRST FLOOR KEY PLAN

REMOVAL NOTES:

1. PROVIDE 120V, 20A BRANCH CIRCUIT FROM PANEL PP2. PROVIDE 20A/1P CIRCUIT BREAKER IN EXISTING PANEL.
2. PROVIDE 120V, 20A BRANCH CIRCUIT FROM PANEL LL5. PROVIDE 20A/1P CIRCUIT BREAKER IN EXISTING PANEL.
3. PROVIDE 480V, 70A BRANCH CIRCUIT FROM PANEL L2. PROVIDE 70A/3P CIRCUIT BREAKER IN EXISTING PANEL.
4. PROVIDE FIRE ALARM DEVICE TO MATCH EXISTING SYSTEM AND DEVICES. CONNECT TO EXISTING FIRE ALARM SYSTEM.
5. INSTALL 120V - 208V CONTROL BOX TRANSFORMER FURNISHED BY MECHANICAL CONTRACTOR. CONNECT 120V PRIMARY TO UNIT VENTILATOR BRANCH CIRCUIT. PROVIDE 208V CONNECTION FROM TRANSFORMER SECONDARY TO CONTROL BOX.



1 E404 FIRST FLOOR POWER PLAN - AREA 3 UPPER
1/8" = 1'-0"



2 E404 FIRST FLOOR POWER PLAN - AREA 3 LOWER
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
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HIGH SCHOOL 60-04-02-04-0-007-023

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD TIOGA COUNTY, NY

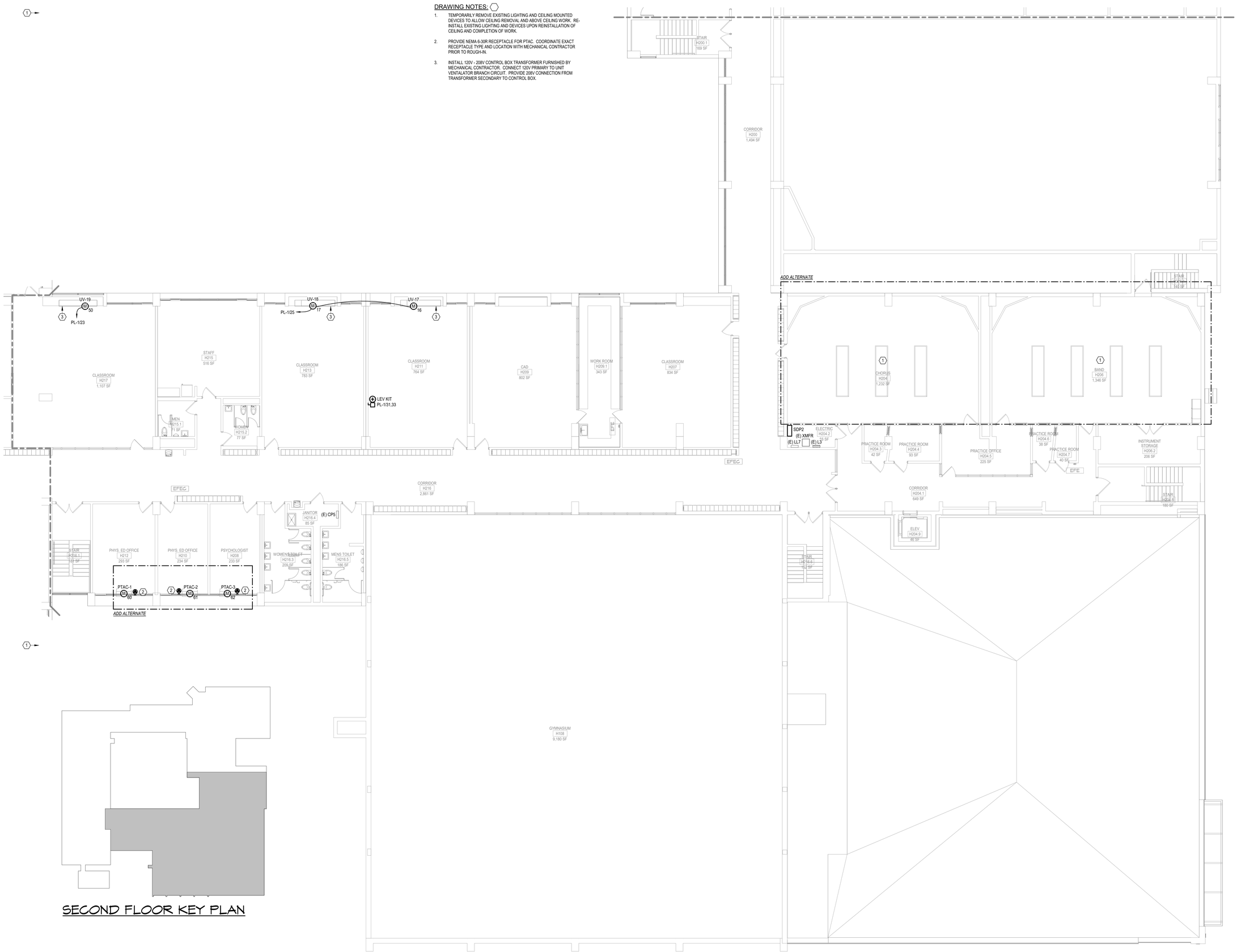
FIRST FLOOR POWER & SYSTEMS PLAN - AREA 3

SHEET NO.
E404
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 3:22:52 PM

DRAWING NOTES:

1. TEMPORARILY REMOVE EXISTING LIGHTING AND CEILING MOUNTED DEVICES TO ALLOW CEILING REMOVAL AND ABOVE CEILING WORK. RE-INSTALL EXISTING LIGHTING AND DEVICES UPON REINSTALLATION OF CEILING AND COMPLETION OF WORK.
2. PROVIDE NEMA 6-30R RECEPTACLE FOR PTAC. COORDINATE EXACT RECEPTACLE TYPE AND LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
3. INSTALL 120V - 208V CONTROL BOX TRANSFORMER FURNISHED BY MECHANICAL CONTRACTOR. CONNECT 120V PRIMARY TO UNIT VENTALATOR BRANCH CIRCUIT. PROVIDE 208V CONNECTION FROM TRANSFORMER SECONDARY TO CONTROL BOX.



SECOND FLOOR KEY PLAN

1 E405 SECOND FLOOR POWER PLAN - AREA 1
1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
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2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
68 WILSON CREEK ROAD — TIOGA COUNTY, NY

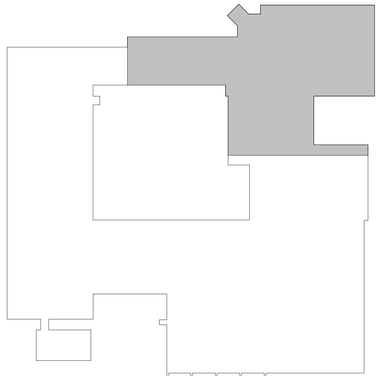
SECOND FLOOR POWER & SYSTEMS PLAN - AREA 1

SHEET NO.
E405
PROJECT NO.
1823.24221.1.3
DATE: 12/12/2025
CAD FILE NO.: High School_RVT24.rvt

1/26/2026 3:22:55 PM

DRAWING NOTES:

1. PROVIDE 480V, 50A BRANCH CIRCUIT FROM PANEL L5 TO T-5A. PROVIDE 50A/3P CIRCUIT BREAKER IN EXISTING PANEL.
2. INSTALL 120V - 208V CONTROL BOX TRANSFORMER FURNISHED BY MECHANICAL CONTRACTOR. CONNECT 120V PRIMARY TO UNIT VENTALATOR BRANCH CIRCUIT. PROVIDE 208V CONNECTION FROM TRANSFORMER SECONDARY TO CONTROL BOX.



SECOND FLOOR KEY PLAN



1 E406 SECOND FLOOR POWER PLAN - AREA 2

1/8" = 1'-0"

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD
TIOGA COUNTY, NY

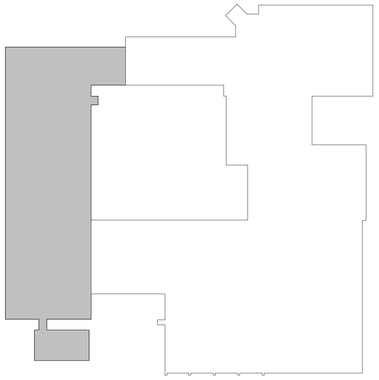
SECOND FLOOR POWER & SYSTEMS PLAN - AREA 2

SHEET NO.
E406

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

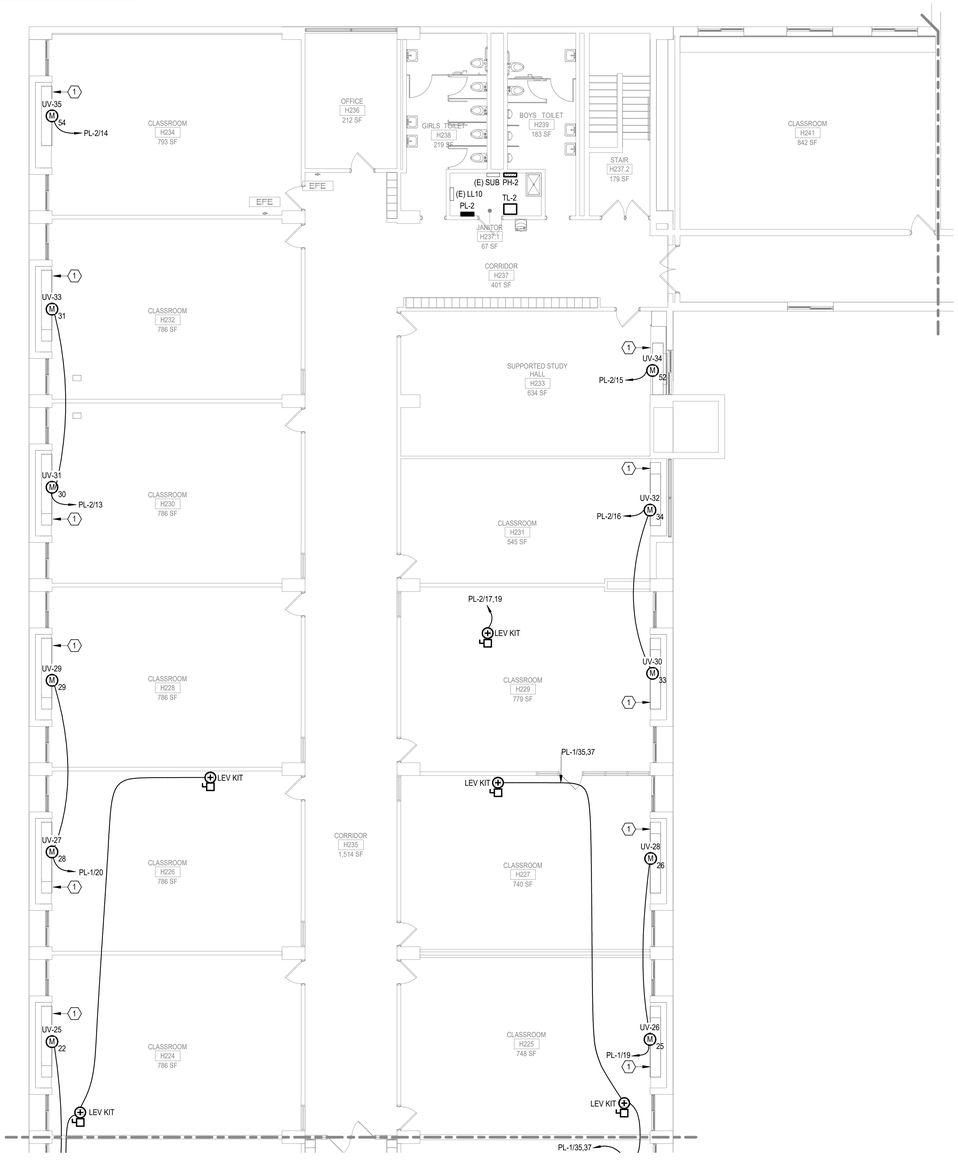
CAD FILE NO.: High School_RVT24.rvt



SECOND FLOOR KEY PLAN

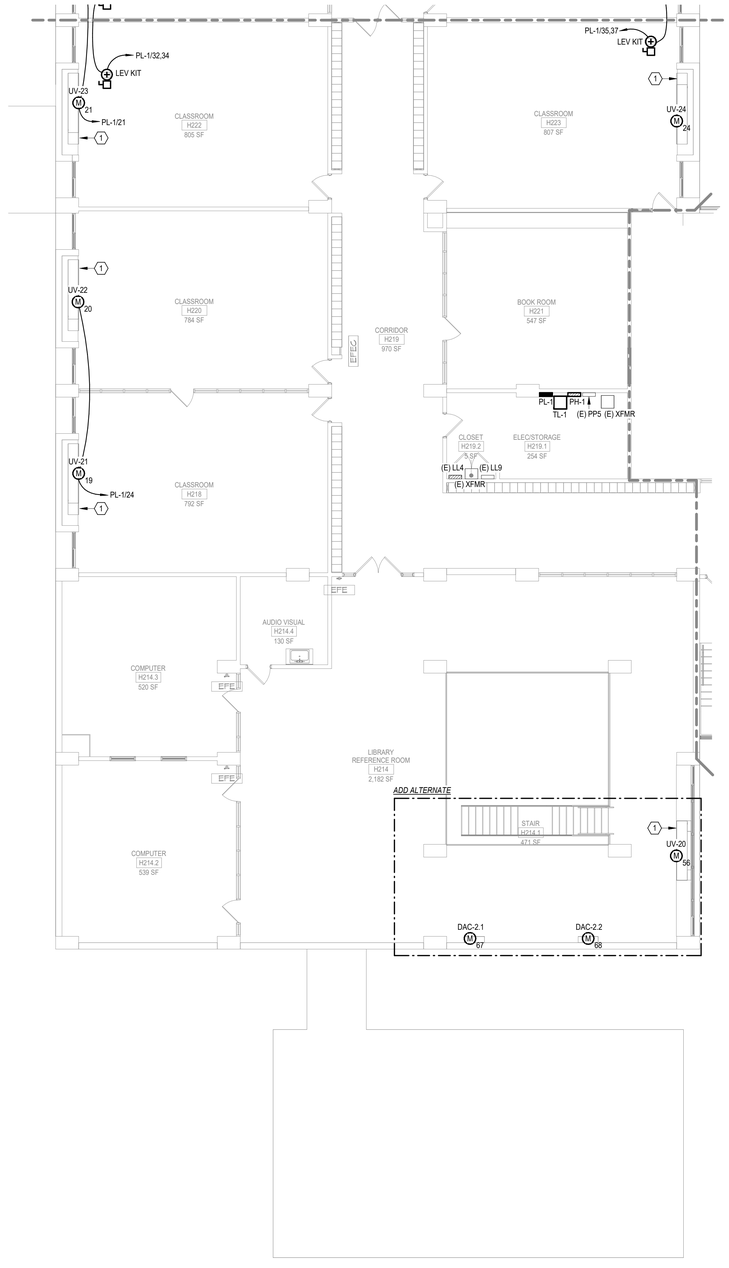
DRAWING NOTES:

1. INSTALL 120V - 208V CONTROL BOX TRANSFORMER FURNISHED BY MECHANICAL CONTRACTOR. CONNECT 120V PRIMARY TO UNIT VENTALATOR BRANCH CIRCUIT. PROVIDE 208V CONNECTION FROM TRANSFORMER SECONDARY TO CONTROL BOX.



1 E407 SECOND FLOOR POWER PLAN - AREA 3 UPPER

1/8" = 1'-0"



2 E407 SECOND FLOOR POWER PLAN - AREA 3 LOWER

1/8" = 1'-0"

CERTIFICATE OF AUTHORIZATION
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HIGH SCHOOL

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — TIOGA COUNTY, NY

SECOND FLOOR POWER & SYSTEMS PLAN - AREA 3

SHEET NO.
E407

PROJECT NO.
1823.24221.1.3

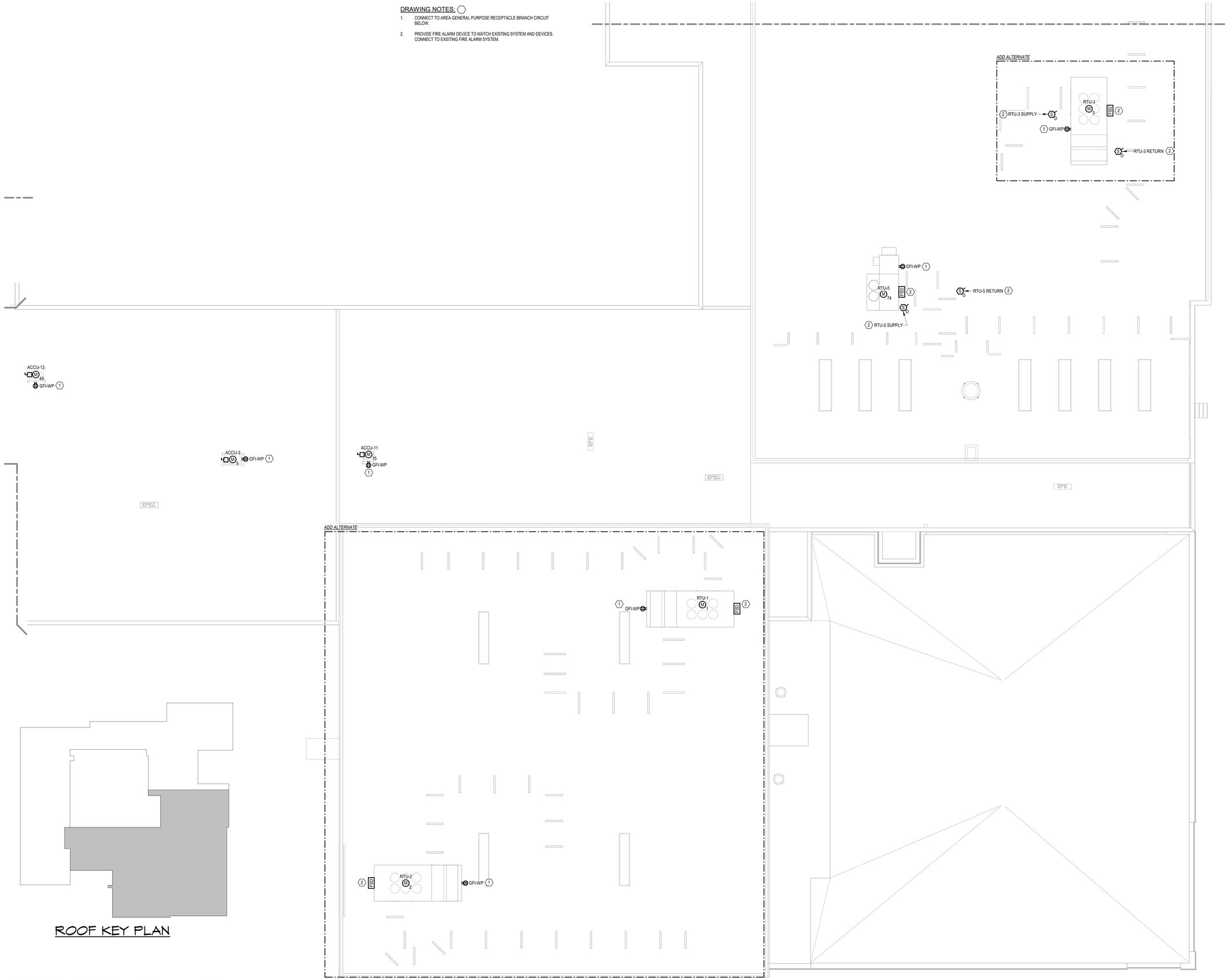
DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt

1/26/2026 3:22:59 PM

DRAWING NOTES:

1. CONNECT TO AREA GENERAL PURPOSE RECEPTACLE BRANCH CIRCUIT BELOW.
2. PROVIDE FIRE ALARM DEVICE TO MATCH EXISTING SYSTEM AND DEVICES. CONNECT TO EXISTING FIRE ALARM SYSTEM.



ROOF KEY PLAN

1 E408 ROOF ELECTRICAL PLAN - AREA 1

1/8" = 1'-0"

1/26/2026 3:23:00 PM

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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREEK ROAD — TIOGA COUNTY, NY

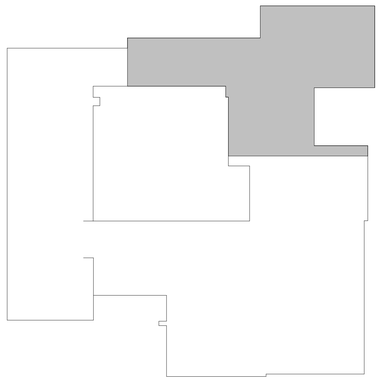
ROOF POWER & SYSTEMS PLAN - AREA 1

SHEET NO.
E408

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

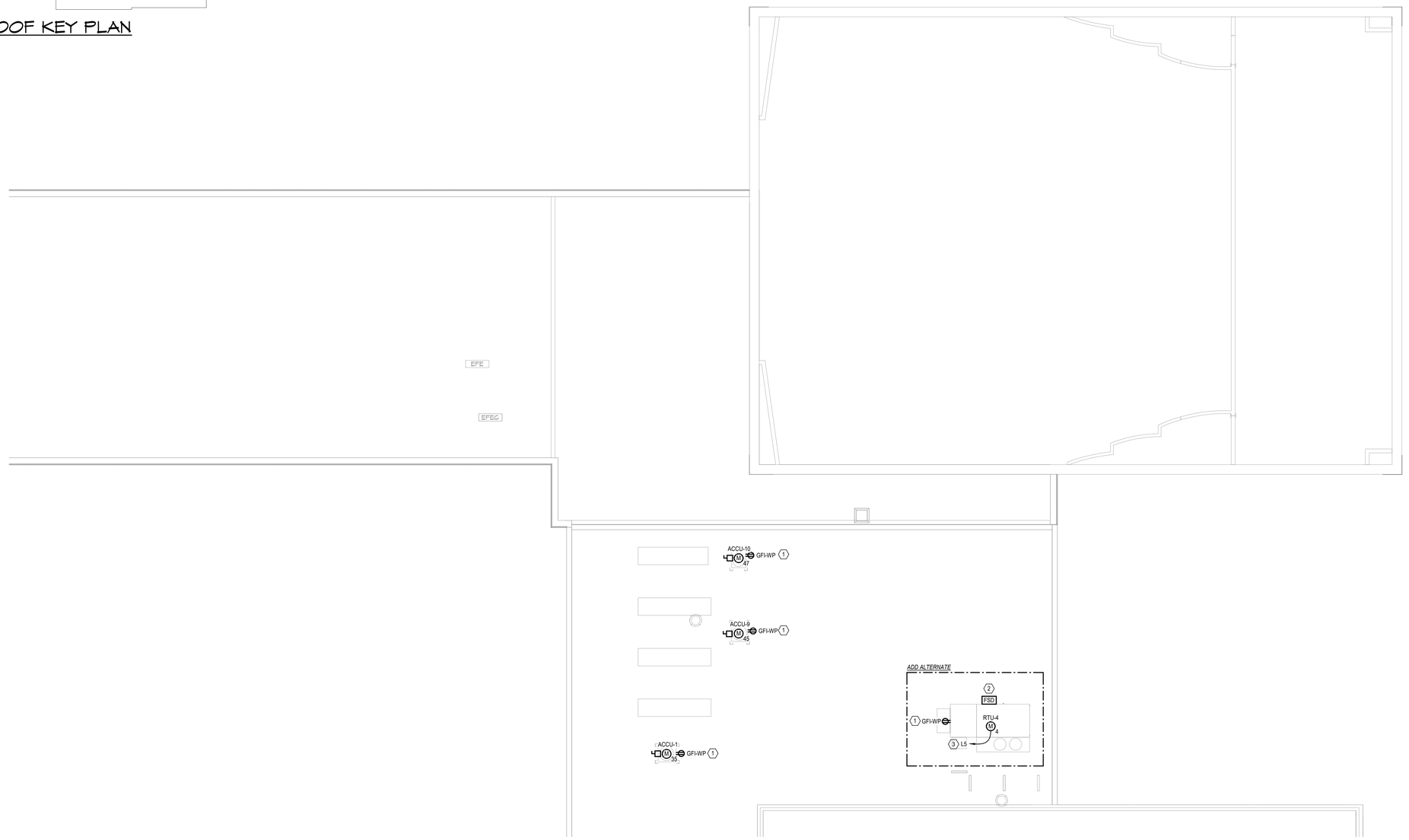
CAD FILE NO.: High School_RVT24.rvt



ROOF KEY PLAN

DRAWING NOTES:

1. CONNECT TO AREA GENERAL PURPOSE RECEPTACLE BRANCH CIRCUIT BELOW.
2. PROVIDE FIRE ALARM DEVICE TO MATCH EXISTING SYSTEM AND DEVICES. CONNECT TO EXISTING FIRE ALARM SYSTEM.
3. PROVIDE 480V, 60A BRANCH CIRCUIT FROM PANEL LL5. PROVIDE 60A/3P CIRCUIT BREAKER IN EXISTING PANEL.



1 E409 ROOF ELECTRICAL PLAN - AREA 2

1/8" = 1'-0"

1/26/2026 3:23:01 PM

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SED PROJECT NUMBERS:
HIGH SCHOOL 60-04-02-04-4-007-023

NEWARK VALLEY CENTRAL SCHOOL DISTRICT
2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING
66 WILSON CREK ROAD TIOGA COUNTY, NY

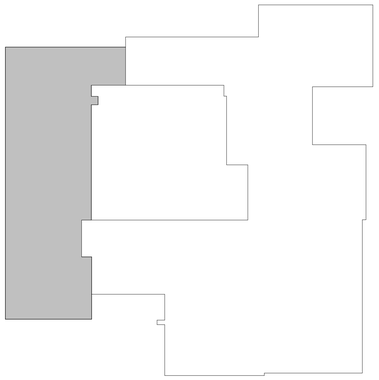
ROOF POWER & SYSTEMS PLAN - AREA 2

SHEET NO.
E409

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

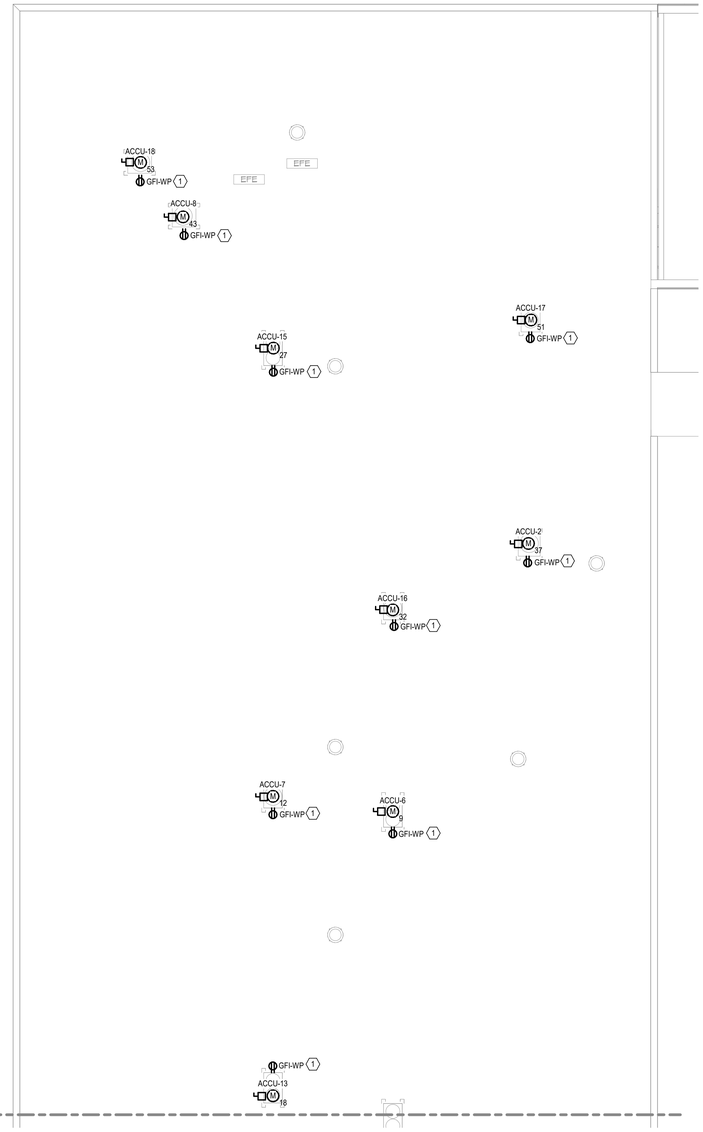
CAD FILE NO.: High School_RVT24.rvt



ROOF KEY PLAN

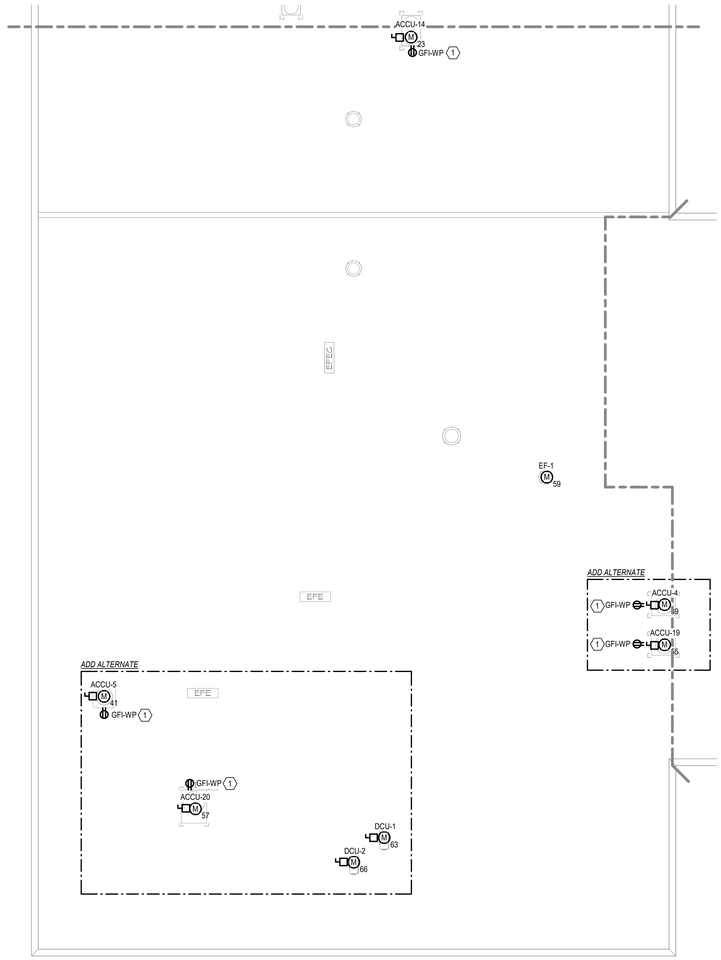
DRAWING NOTES:

1. CONNECT TO AREA GENERAL PURPOSE RECEPTACLE BRANCH CIRCUIT BELOW.



1 E410 ROOF ELECTRICAL PLAN - AREA 3 UPPER

1/8" = 1'-0"



2 E410 ROOF ELECTRICAL PLAN - AREA 3 LOWER

1/8" = 1'-0"

1/26/2026 3:23:02 PM

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ES 23191

SED PROJECT NUMBERS:
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NEWARK VALLEY CENTRAL SCHOOL DISTRICT

2023 CAPITAL PROJECT - PHASE III
HIGH SCHOOL AIR CONDITIONING

68 WILSON CREK ROAD — TIOGA COUNTY, NY

ROOF POWER & SYSTEMS PLAN - AREA 3

SHEET NO.
E410

PROJECT NO.
1823.24221.1.3

DATE: 12/12/2025

CAD FILE NO.: High School_RVT24.rvt