WHITE PLAINS CITY SCHOOL DISTRICT

AC AND VENTILATION UPGRADES AT

MAMARONECK AVENUE ELEMENTARY SCHOOL

7 NOSBAND AVENUE, WHITE PLAINS, NEW YORK 10605

SED PROJECT CONTROL NUMBER 66-22 - 00 -01 - 0 - 010 - 017

CONTRACT E - ELECTRICAL CONSTRUCTION WORK
CONTRACT H - HEATING VENTILATION AND AIR CONDITIONING

ABBREVIATIONS

AB	Anchor Bolt	FIN	Finish
A/C	Air Conditioning	FR	Fire Retardent
ACI	American Concrete Institute	FTG	Footing
ACST	Acoustic	GA	Gauge
ACT	Acoustical Ceiling Tile	GWB	Gypsum Wall Board
ACU	Air Conditioning Unit	GYP	Gypsum
AD	Access Door	GYP. BD.	Gypsum Board
ADJ	Adjustable	HC	Handicapped
A/E	Architect/Engineer	HM	Hollow Metal
AFF	Above Finish Floor	HOR	Horizontal
ALUM	Aluminum	HW	Hot Water
ANCH	Anchor	INSUL	Insulation/Insulating
ANSI	American National Standards Institute	INT	Interior
APA	Access Panel	LAV	Lavatory
APPROX	Approximately	LDR	Leader
ASPH	Asphalt	LT	Light
ASTM	American Society for Testing & Materials	MAX	Maximum
AWS	American Welding Society	MECH	Mechanical
B	Fire Blanket	MISC	Miscellaneous
BAL	Balance	MO	Masonry Opening
BB	Bulletin Board	MR	Moisture Resistant
BD	Board	NIC	Not in Contract
BLDG	Building	NTS	Not to Scale
BLK	Block	OC	On Center
BLKG	Blocking	OD	Outside Diameter
BM	Beam	PLYWD	Plywood
B.O.	Bottom Of	PSF	Pounds per Square Foot
BOL	Bottom Of Lintel	PSI	Pounds per Square Inch
BOT	Bottom	PTD	Painted
CEIL	Ceiling	PVC	Polyvinyl Chloride
CEM	Cement	R	Radius or Riser
CER	Ceramic	RCP	Reflected Ceiling Plan
CLO	Closet	RD	Roof Drain
CMU	Concrete Masonry Unit	REINF	Reinforced
COL	Column	RM	Room
CONC	Concrete	RO	Rough Opening
CONST	Construction	SIM	Similar
CONT	Continuous	SPEC	Specifications
CORR	Corridor	SQ	Square
CPT	Carpet	SS	Stainless Steel
DS	Downspout	STL	Steel
DW	Dishwasher	TEMP	Temperature
DWG	Drawing	TER	Terrazzo
EA	Each	THK	Thick
EL	Elevation	TYP	Typical
ELEC	Electric/Electrical	UTIL	Utility
ELEV	Elevator	VB	Vapor Barrier
EP	Electrical Panel	VCT	Vinyl Composition Tile
EPY	Epoxy Coating	VERT	Vertical
EQ	Equal	VTR	Vent Thru Roof
EQUIP	Equipment	WC	Water Closet
EXIST	Existing	WH	Water Heater
EXST	Exhaust	WWF	Welded Wire Fabric
FAI	Fresh Air Intake		
F.C.	Fire Code		
FD	Floor Drain		

GENERAL NOTES

ALL WORK SHALL COMPLY WITH THE NEW YORK STATE FIRE PREVENTION AND BUILDING CODE AS WELL AS THE NEW YORK STATE EDUCATION DEPARTMENT MANUAL OF PLANNING STANDARDS.

ALL NOTES APPEARING HEREIN, WITH THOSE ON VARIOUS DRAWINGS SHALL APPLY TO ALL DRAWINGS AND FORM PART OF THE CONTRACT DOCUMENTS.

IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL DIMENSIONS, SQUARE FOOTAGES, LOCATIONS AND QUANTITIES OF ALL ITEMS AND/OR SPACES WHETHER INDICATED IN THE DRAWINGS OR NOT.

DO NOT SCALE MEASURE ANY DRAWING. VERIFY THE FIGURES, DIMENSIONS AND DESIGN INTENTION SHOWN ON THE DRAWINGS BEFORE BEGINNING LAYOUT OF THE WORK AND REPORT ANY ERRORS, INACCURACIES, OR CONFLICTS TO THE ARCHITECT/ENGINEER IN WRITING BEFORE BEGINNING ANY WORK.

ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, LAWS AND STATUTES AS REQUIRED. STRICTLY ADHERE TO MANUFACTURER'S PRINTED INSTRUCTIONS.

VERIFY EXACT LAYOUT COMPATIBILITY WITH ALL EXISTING CONDITIONS BEFORE BEGINNING WORK.

DISTURB ONLY THOSE AREAS OF THE SITE AFFECTED BY RENOVATION, UNLESS NOTED OTHERWISE. PROTECT ALL OTHER AREAS. CONTRACTORS SHALL BE RESPONSIBLE FOR ALL PATCH AND REPAIR OF EXISTING FINISHES WHICH ARE DAMAGED DURING CONSTRUCTION.

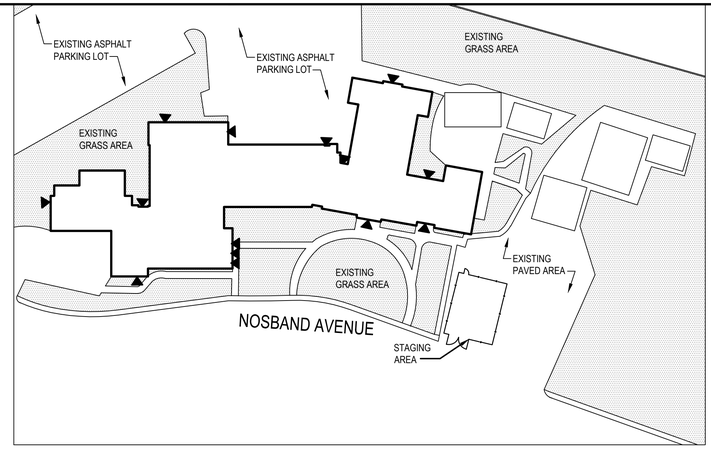
EACH CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ANSI AND PROVIDE WHERE APPLICABLE ADA COMPLIANT BUILDING COMPONENTS.

THE OWNER RESERVES THE RIGHT AT ALL TIMES TO DELIVER, PLACE AND INSTALL EQUIPMENT AND FURNISHINGS AS THE WORK PROGRESSES SO LONG AS THERE IS NOT A CONFLICT WITH THE CONTRACTORS.

THE CONTRACTOR SHALL MAINTAIN AT THE SITE ONE RECORD COPY OF ALL DRAWINGS, SPECIFICATIONS AND APPROVED SHOP DRAWINGS AND APPROVED SAMPLES MARKED CURRENTLY TO RECORD ALL CHANGES DURING CONSTRUCTION.

ANY CHANGES TO THE SCOPE OF WORK OR IN THE CONSTRUCTION DETAILS, WHETHER DUE TO FIELD CONDITIONS OR OMISSION SHALL BE DOCUMENTED BY THE ARCHITECT PRIOR TO EXECUTION. ANY INCREASE OR DECREASE IN THE CONTRACT PRICE MUST BE APPROVED IN WRITING PRIOR TO EXECUTION.

DRAWING LIST



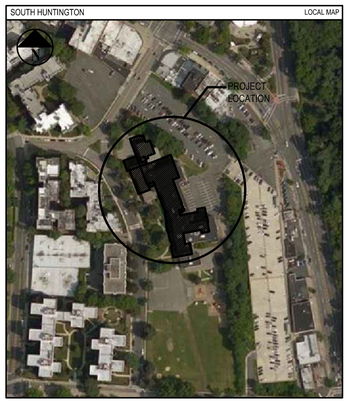
1 **Staging Site Plan**
SCALE: NTS

STAGING NOTES:

1. POST SIGNS INDICATING CONSTRUCTION AREA AND CONSTRUCTION EMPLOYEE ENTRANCE. SEE SIGN SCHEDULE BELOW.
2. CONSTRUCTION FENCE TO BE 8'-0" HIGH CHAIN LINK FENCE LOCATED A MINIMUM OF 15'-0" FROM ALL WINDOW OPENINGS. ALL GATES ARE TO BE LOCKED AT ALL TIMES, EXCEPT FOR WHEN A WORKER IS IN ATTENDANCE TO PREVENT UNAUTHORIZED ENTRY. SEE LEGEND BELOW.
3. CONTRACTOR IS TO STAGE ON THE SITE IN SUCH A MANNER AS TO NOT BLOCK OR ENCROACH UPON EXISTING EXITS/ENTRANCES TO BUILDING, AND VEHICLE ACCESS.
4. CONTRACTOR SHALL RESTORE ALL STAGING AREAS TO PRE-CONSTRUCTION CONDITION, UPON COMPLETION OF WORK IN THAT AREA.

UPGRADES IS SCHEDULED TO BE COMPLETED WHEN SCHOOL IS NOT IN SESSION AND THEREFORE WILL NOT HAVE AN IMPACT ON STUDENT ENTRANCE/EXIT EGRESS.

LOCATION MAPS



SYMBOLS LEGEND

GYMNASIUM — ROOM DESIGNATION

1 / A5.0 — SECTION MARK

1 / A5.1 — DETAIL SYMBOL

1 / A4.0 — ELEVATION KEY

A B C D — INTERIOR ELEVATION REFERENCE

ELEVATION LINE

5 — REVISION

3 — PARTITION TYPE

GYPSUM

CONCRETE

AGGREGATE SUB-BASE

EARTH

BATT INSULATION

PLYWOOD

RIGID INSULATION

STEEL

WOOD

WOOD BLOCKING

UNIFORM SAFETY STANDARDS - FOR SCHOOL CONSTRUCTION AND MAINTENANCE PROJECTS

1. "THE OCCUPIED PORTION OF ANY SCHOOL BUILDING SHALL ALWAYS COMPLY WITH THE MINIMUM REQUIREMENTS NECESSARY TO MAINTAIN A CERTIFICATE OF OCCUPANCY."
2. SPECIFIC AREAS HAVE BEEN TESTED AND FOUND NOT TO CONTAIN ASBESTOS AS DESCRIBED IN THE PROJECT MANUAL. A COPY OF THE REPORT CAN BE VIEWED AT THE DISTRICT OFFICE LOCATED AT 5 HOMESIDE LANE, WHITE PLAINS, NY 10605
3. "GENERAL SAFETY AND SECURITY STANDARDS FOR CONSTRUCTION PROJECTS:
   (1) ALL CONSTRUCTION MATERIALS SHALL BE STORED IN A SAFE AND SECURE MANNER.
   (2) FENCES AROUND CONSTRUCTION SUPPLIES OR DEBRIS SHALL BE MAINTAINED.
   (3) GATES SHALL ALWAYS BE LOCKED UNLESS A WORKER IS IN ATTENDANCE TO PREVENT UNAUTHORIZED ENTRY.
   (4) DURING EXTERIOR RENOVATION WORK, OVERHEAD PROTECTION SHALL BE PROVIDED FOR ANY SIDEWALKS OR AREAS IMMEDIATELY BENEATH THE WORK SITE OR SUCH AREAS SHALL BE FENCED OFF AND PROVIDED WITH WARNING SIGNS TO PREVENT ENTRY.
   (5) WORKERS SHALL BE REQUIRED TO WEAR PHOTO-IDENTIFICATION BADGES AT ALL TIMES FOR IDENTIFICATION AND SECURITY PURPOSES WHILE WORKING AT OCCUPIED SITES."
4. "SEPARATION OF CONSTRUCTION AREAS FROM OCCUPIED SPACES: CONSTRUCTION AREAS WHICH ARE UNDER THE CONTROL OF A CONTRACTOR AND THEREFORE NOT OCCUPIED BY DISTRICT STAFF OR STUDENTS SHALL BE SEPARATED FROM OCCUPIED AREAS. PROVISIONS SHALL BE MADE TO PREVENT THE PASSAGE OF DUST AND CONTAMINANTS INTO OCCUPIED PARTS OF THE BUILDING. PERIODIC INSPECTION AND REPAIRS OF THE CONTAINMENT BARRIERS MUST BE MADE TO PREVENT EXPOSURE TO DUST OR CONTAMINANTS. GYPSUM BOARD MUST BE USED IN EXIT WAYS OR OTHER AREAS THAT REQUIRE FIRE RATED SEPARATION. HEAVY DUTY PLASTIC SHEETING MAY BE USED ONLY FOR A VAPOR, FINE DUST OR AIR INFILTRATION BARRIER, AND SHALL NOT BE USED TO SEPARATE OCCUPIED SPACES FROM CONSTRUCTION AREAS.
   (1) A SPECIFIC STAIRWELL AND/OR ELEVATOR SHALL BE ASSIGNED OR CONSTRUCTION WORKER USE DURING WORK HOURS. IN GENERAL, WORKERS MAY NOT USE CORRIDORS, STAIRS OR ELEVATORS DESIGNATED FOR STUDENTS OR SCHOOL STAFF. WHERE NO STAIRWELL AND OR ELEVATOR IS ASSIGNED, WORKERS MUST ENTER THE CONSTRUCTION SPACES DIRECTLY FROM THE BUILDING EXTERIOR.
   (2) LARGE AMOUNTS OF DEBRIS MUST BE REMOVED BY USING ENCLOSED CHUTES OR A SIMILAR SEALED SYSTEM. THERE SHALL BE NO MOVEMENT OF DEBRIS THROUGH HALLS OF OCCUPIED SPACES OF THE BUILDING. NO MATERIAL SHALL BE DROPPED OR THROWN OUTSIDE THE WALLS OF THE BUILDING.
   (3) ALL OCCUPIED PARTS OF THE BUILDING AFFECTED BY RENOVATION ACTIVITY SHALL BE CLEANED AT THE CLOSE OF EACH WORKDAY. SCHOOL BUILDINGS OCCUPIED DURING A CONSTRUCTION PROJECT SHALL MAINTAIN REQUIRED HEALTH, SAFETY AND EDUCATIONAL CAPABILITIES AT ALL TIMES THAT CLASSES ARE IN SESSION."
5. A PLAN DETAILING HOW EXITING REQUIRED BY THE APPLICABLE BUILDING CODE WILL BE MAINTAINED.
6. WORK UNDER THIS CONTRACT WILL BE CONDUCTED DURING THE SUMMER RECESS WHEN THE BUILDING IS UNOCCUPIED. IF THE BUILDING BECOMES OCCUPIED THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL EXISTING MEANS OF EGRESS IN A CLEAR AND FREE MANNER, INCLUDING THE STORAGE OF MATERIALS AND STAGING OF EQUIPMENT ON THE SITE. IF ANY PORTION OF THE BUILDING DOES BECOME OCCUPIED THE ARCHITECT WILL PROVIDE A DETAILED PLAN FOR EXITING, OVERHEAD PROTECTION AND EGRESS IN ACCORDANCE WITH APPLICABLE BUILDING CODES.
7. A PLAN DETAILING HOW ADEQUATE VENTILATION WILL BE MAINTAINED DURING CONSTRUCTION.
8. WORK UNDER THIS PROJECT WILL BE COMPLETED DURING THE SUMMER RECESS WHEN THE BUILDING WILL NOT BE OCCUPIED BY FACULTY, STAFF OR STUDENTS. IF A PORTION OF THE BUILDING IS TO BECOME OCCUPIED DURING THE CONSTRUCTION PROCESS THE CONTRACTOR SHALL CLOSE OFF ALL INTAKES, OPENINGS, AND MECHANICAL VENTILATION SYSTEMS ADJACENT TO THE WORK AREA. THE ARCHITECT SHALL ASSIST THE CONTRACTOR IN DEVELOPING A PLAN TO PROVIDE ALTERNATE MEANS OF FRESH AIR TO ALL OCCUPIED SPACES.

   "CONSTRUCTION AND MAINTENANCE OPERATIONS SHALL NOT PRODUCE NOISE IN EXCESS OF 60 DBA IN OCCUPIED SPACES OR SHALL BE SCHEDULED FOR TIMES WHEN THE BUILDING OR AFFECTED BUILDING SPACES ARE NOT OCCUPIED OR ACOUSTICAL ABATEMENT MEASURES SHALL BE TAKEN."

   "THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF CHEMICAL FUMES, GASES, AND OTHER CONTAMINATES PRODUCED BY WELDING, GASOLINE OR DIESEL ENGINES, ROOFING, PAVING, PAINTING, ETC. TO ENSURE THEY DO NOT ENTER OCCUPIED PORTIONS OF THE BUILDING OR AIR INTAKES." ALL VENTS SHALL BE SEALED TO PREVENT CONTAMINANTS FROM THE CONSTRUCTION AREA FROM ENTERING THE OCCUPIED AREAS OF THE BUILDING.
9. "THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ACTIVITIES AND MATERIALS WHICH RESULT IN "OFF-GASSING" OF VOLATILE ORGANIC COMPOUNDS SUCH AS GLUES, PAINTS, FURNITURE, CARPETING, WALL COVERING, DRAPERY, ETC. ARE SCHEDULED, CURED OR VENTILATED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS BEFORE A SPACE CAN BE OCCUPIED."
10. "LARGE AND SMALL ASBESTOS ABATEMENT PROJECTS AS DEFINED BY 12NYCRR56 SHALL NOT BE PERFORMED WHILE THE BUILDING IS OCCUPIED." IT IS OUR INTERPRETATION THAT THE TERM "BUILDING", AS REFERENCED IN THIS SECTION, MEANS A WING OR MAJOR SECTION OF A BUILDING THAT CAN BE COMPLETELY ISOLATED FROM THE REST OF THE BUILDING WITH SEALED NON COMBUSTIBLE CONSTRUCTION. THE ISOLATED PORTION OF THE BUILDING MUST CONTAIN EXITS THAT DO NOT PASS THROUGH THE OCCUPIED PORTION AND VENTILATION SYSTEMS MUST BE PHYSICALLY SEPARATED AND SEALED AT THE ISOLATION BARRIER.
11. EXTERIOR WORK SUCH AS ROOFING, FLASHING, SIDING, OR SOFFIT WORK MAY BE PERFORMED ON OCCUPIED BUILDINGS PROVIDED PROPER VARIANCES ARE IN PLACE AS REQUIRED, AND COMPLETE ISOLATION OF VENTILATION SYSTEMS AND AT WINDOWS IS PROVIDED. CARE MUST BE TAKEN TO SCHEDULE WORK SO THAT CLASSES ARE NOT DISRUPTED BY NOISE OR VISUAL DISTRACTION.

    MINOR ASBESTOS PROJECTS DEFINED BY 12NYCRR56 AS AN ASBESTOS PROJECT INVOLVING THE REMOVAL, DISTURBANCE, REPAIR, ENCAPSULATION, ENCLOSURE OR HANDLING OF 10 SQUARE FEET OF ASBESTOS OR ASBESTOS MATERIAL MAY BE PERFORMED IN UNOCCUPIED AREAS OF AN OCCUPIED BUILDING IN ACCORDANCE WITH 12NYCRR56.

    SPECIFIC AREAS HAVE BEEN TESTED AND FOUND TO CONTAIN LEAD AS DESCRIBED IN THE PROJECT MANUAL. THESE AREAS WILL BE ABATED IN ACCORDANCE WITH SPECIFICATION SECTION 020600.
12. UNDER NEW YORK STATE LAW SMOKING IS PROHIBITED ON SCHOOL GROUNDS. EMPLOYEES FOUND TO BE SMOKING ON SCHOOL GROUNDS SHALL BE ORDERED OFF SITE AND A SECOND OFFENSE WILL BE GROUNDS FOR PERMANENT REMOVAL FROM PROJECT. LEGAL PENALTIES MAY ALSO BE APPLIED.

    ALL CONTRACTORS SHALL TAKE EVERY PRECAUTION AND SHALL PROVIDE SUCH EQUIPMENT AND FACILITIES AS ARE NECESSARY OR REQUIRED FOR THE SAFETY OF ITS EMPLOYEES. IN CASE OF AN ACCIDENT, FIRST AID SHALL BE ADMINISTERED TO ANY WHO MAY BE INJURED IN THE PROGRESS OF THE WORK. IN ADDITION, THE CONTRACTOR SHALL BE PREPARED FOR THE REMOVAL TO THE HOSPITAL FOR TREATMENT OF ANY EMPLOYEE EITHER SERIOUSLY INJURED OR ILL.

    THE CONTRACTOR FOR GENERAL CONSTRUCTION SHALL PROVIDE TEMPORARY WEATHER-TIGHT AND INSULATED ENCLOSURES AS MAY BE REQUIRED BY THE SCOPE OF WORK FOR ALL EXTERIOR OPENINGS SO AS TO PROTECT ALL WORK FROM THE WEATHER, AND TO PROVIDE SECURITY AGAINST UNAUTHORIZED ENTRY. ENCLOSURES SHALL NOT CREATE DEAD END CONDITIONS, REQUIRED EXITS SHALL BE MAINTAINED FREE AND CLEAR.

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Purchase, NY 10577
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CONSULTANTS:

MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT
1	11-01-23	ADDENDUM #1

STATE OF NEW YORK · JOHN LAHEY · 101303 · LICENSED PROFESSIONAL ENGINEER

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
			QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

CLIENT
White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

White Plains Public Schools · WP · REAL LIFE LEARNING

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT
ALL CONTRACTS

STATUS
FINAL BID DOCUMENT

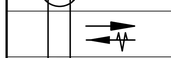
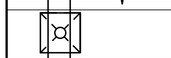
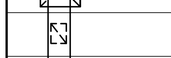
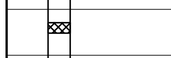
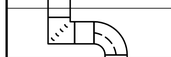
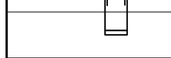
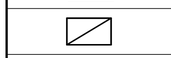
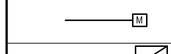
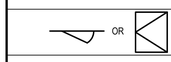
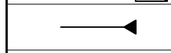
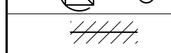
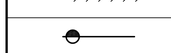
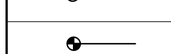
SHEET TITLE
GENERAL NOTES, MAPS, DRAWINGS LIST AND LEGENDS

DRAWING No.
G000.00

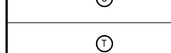
ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BCU	BUILDING CONTROL UNIT
BTU	BRITISH THERMAL UNIT
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
COMM.	COMMUNICATION
CV	CONTROL VALVE
(D)	DEMOLISH
DB	DRY BULB
DCV	DEMAND CONTROLLED VENTILATION
DEG. F	DEGREES FAHRENHEIT
DIA	DIAMETER
DX	DIRECT EXPANSION
'E'	ELECTRICAL CONTRACTOR
(E)	EXISTING
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATING
ESP	EXTERNAL STATIC PRESSURE
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
FLA	FULL LOAD AMPS
FT. H20	FEET OF WATER
FTR	FIN TUBE RADIATOR
'G'	GENERAL CONSTRUCTION CONTRACTOR
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
H	HEIGHT
'H'	HVAC CONTRACTOR
HP	HORSEPOWER
IN.	INCHES
IN. W.C. (W.G.)	INCHES WATER COLUMN (WATER GAUGE)
KW	KILOWATTS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LCD	LIQUID CRYSTAL DISPLAY
LDB	LEAVING DRY BULB TEMPERATURE
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M	METER
MAX	MAXIMUM
MBH	1,000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MNF	MANUFACTURER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OAI	OUTDOOR AIR INTAKE
OD	OUTER DIAMETER
OED	OPEN ENDED DUCT
'P'	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PSIG	LBS / SQUARE INCH (GAUGE PRESSURE)
RA	RETURN AIR
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SEER	SEASONAL ENERGY EFFICIENCY RATING
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
W	WIDTH
WB	WET BULB
WMS	WIRE MESH SCREEN

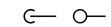
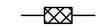
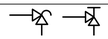
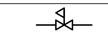
DUCTWORK LEGEND

SYMBOL	ABBREV	DESCRIPTION
		DUCTWORK BRANCH CONNECTION
	VD	VOLUME DAMPER
	CD	ROUND FACE SUPPLY DIFFUSER
	SEE AIR DEVICE SCHEDULE	SIDEWALL SUPPLY, RETURN OR EXHAUST GRILLE/REGISTER
	SEE AIR DEVICE SCHEDULE	SQUARE FACE SUPPLY DIFFUSER
	SEE AIR DEVICE SCHEDULE	BOTTOM RETURN OR EXHAUST GRILLE/REGISTER
	FC	FLEXIBLE CONNECTION
		TURNING VANES
		RECTANGULAR TO ROUND TRANSITION
	AL	ACOUSTICAL LINING
		END CAP
	SEE AIR DEVICE SCHEDULE	SUPPLY DIFFUSER WITH DIRECTIONAL FLOW (SOLID HATCH INDICATES BLANK OFF PANEL)
		SUPPLY DUCT DROP (TURN DOWN)
		RETURN/EXHAUST DUCT DROP (TURN DOWN)
		SUPPLY DUCT RISE
		RETURN/EXHAUST DUCT RISE
	DSD	DUCT SMOKE DETECTOR
	MD	MOTORIZED DAMPER WITH ACTUATOR
	AD	ACCESS DOOR
	FD/AD	FIRE DAMPER WITH ACCESS DOOR
	FSD/AD	FIRE SMOKE DAMPER WITH ACCESS DOOR
		FAN
		WORK TO BE REMOVED
		POINT OF DISCONNECTION FROM EXISTING
		POINT OF CONNECTION TO EXISTING

CONTROLS LEGEND

SYMBOL	ABBREV	DESCRIPTION
		CARBON MONOXIDE SENSOR
		THERMOSTAT
		DIGITAL TEMPERATURE SENSOR
		HUMIDITY SENSOR
		CARBON DIOXIDE SENSOR
		PRESSURE SENSOR

PIPING LEGEND

SYMBOL	ABBREV	DESCRIPTION
		NEW WORK
		PIPING DOWN/ PIPING UP
		BALL VALVE WITH HOSE END CONNECTION
	TH	THERMOMETER
	U	UNION
	FPC	FLEXIBLE PIPE CONNECTION
		DIRECTION OF FLOW
	PSR	PRESSURE SAFETY AND RELIEF VALVE
	PRV	PRESSURE REDUCING VALVE
	BV	BALL VALVE
	BA	BALANCING VALVE
	BFV	BUTTERFLY VALVE
		TEMPERATURE SENSOR WITH THERMOWELL
	GA	GATE VALVE
	GB	GLOBE VALVE
	AV	AUTOMATIC AIR VENT
	CV	2-WAY ELECTRONIC CONTROL VALVE
	CV	3-WAY ELECTRONIC CONTROL VALVE
	CV	2-WAY PNEUMATIC CONTROL VALVE
	CV	3-WAY PNEUMATIC CONTROL VALVE
	STR	STRAINER WITH BLOW OFF VALVE WITH HOSE END CONNECTION
	FD	FLOOR DRAIN
		AIR SEPARATOR
		STEAM TRAPS (INDICATE TYPE)
	CH	CHECK VALVE
	PG	PRESSURE GAUGE WITH GAUGE COCK
	RED	REDUCER
	CO	CLEANOUT END CAP
		PIPE GUIDE
		PIPE ANCHOR
		CAPPED PIPE
		PUMP
		WORK TO BE REMOVED
		POINT OF DISCONNECTION FROM EXISTING
		POINT OF CONNECTION TO EXISTING
	TDV	TRIPLE DUTY VALVE

SYSTEM COMMISSIONING NOTES (NYS):

1. COMMISSION ALL NEW BUILDING MECHANICAL SYSTEMS IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2020 NEW YORK STATE (NYS) ENERGY CONSERVATION CODE (ECC) SECTION C408. COMMISSIONING SHALL BE PERFORMED BY AN APPROVED THIRD-PARTY COMMISSIONING AGENCY HIRED BY THE OWNER. REFER TO SPECIFICATION SECTION 230800 - COMMISSIONING OF MECHANICAL SYSTEMS FOR MORE INFORMATION.
2. PROVIDE DRAWINGS, OPERATION & MAINTENANCE (O&M) MANUALS, AND SYSTEM BALANCING REPORTS TO BUILDING OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY OR LETTER OF COMPLETION IN ACCORDANCE WITH THE 2020 NYS ECC SECTION C408.2.5.
3. PROVIDE FINAL COMMISSIONING REPORT TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT WITHIN 90 DAYS OF THE RECEIPT OF THE CERTIFICATE OF OCCUPANCY OR LETTER OF COMPLETION IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2020 NYS ECC SECTION C408.2.5.4.

GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. THE CONTRACTOR, BY PRESENTING THEIR BID FOR THE WORK, REPRESENTS THAT HE/SHE HAS INSPECTED THE SITE AND IS COMPLETELY FAMILIAR WITH THE SCOPE OF WORK AND ALL FIELD CONDITIONS RELATED TO, AND AFFECTING THE WORK AND ITS PERFORMANCE. EXCEPTIONS AFFECTING THE WORK AND ITS PERFORMANCE, OR CONFLICTS BETWEEN FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS.
3. PERFORM ALL WORK IN ACCORDANCE WITH THE PLUMBING CODE, FIRE CODE, MECHANICAL CODE, ENERGY CONSERVATION CONSTRUCTION CODE, AND FUEL GAS CODE OF NEW YORK STATE AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
4. COMPLY WITH THE NATIONAL ELECTRIC CODE AND THE REQUIREMENTS OF DIVISION 26 FOR ALL ELECTRICAL INSTALLATIONS.
5. FIRE STOP ALL OPENINGS IN FIRE RATED CONSTRUCTION FOR PIPING, DUCTWORK, CONDUIT, ETC. PROVIDE FIRE DAMPERS AND ACCESS DOORS IN ALL OPENINGS IN FIRE RATED FLOORS, PARTITIONS, AND WALLS FOR DUCTWORK AS PER THE MECHANICAL CODE OF NEW YORK STATE. (SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED CONSTRUCTION.)
6. DO NOT SCALE DRAWINGS. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE. COORDINATE CONTRACT DOCUMENTS, PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS. INSTALL ALL EQUIPMENT AS PER MANUFACTURER'S REQUIREMENTS TO PROVIDE PROPER CLEARANCE FOR INSTALLATION, OPERATION, AND MAINTENANCE. CONTRACTOR'S INTENDED MEANS AND METHODS OF INSTALLATION AND CONTRACTOR'S FABRICATED ITEMS SHALL ENSURE A PROPER "FIT" AND INSTALLATION. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER DURING THE SUBMITTAL PHASE FOR RESOLUTION PRIOR TO PURCHASING ANY EQUIPMENT.
7. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS, WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE FROM FINISHED FLOOR TO UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
8. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK. OBTAIN THE APPROVAL OF THE ARCHITECT/ENGINEER FOR MODIFICATIONS.
9. PROVIDE PRODUCTS OF ONE MANUFACTURER WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF MATERIAL OR EQUIPMENT IS REQUIRED.
10. INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS. REFER TO DETAILS FOR ADDITIONAL PIPING AND EQUIPMENT INSTALLATION REQUIREMENTS.
11. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER TO ENSURE MANUFACTURER CERTIFIED ACCURACY.
12. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL PIPING AND DUCT TRANSITIONS REQUIRED FOR FINAL CONNECTIONS TO EQUIPMENT.
13. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURE WITH GENERAL CONSTRUCTION WORK.
14. COORDINATE INSTALLATION OF SUPPLY AND RETURN GRILLES WITH INSTALLATION OF FINISHED CEILINGS.
15. COMPLETE ALL PRESSURE TESTS BEFORE ANY MECHANICAL EQUIPMENT, DUCTWORK, OR PIPING INSULATION IS APPLIED.
16. TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB), PERFORM ALL TESTING, ADJUSTING, AND BALANCING IN ACCORDANCE WITH THE SPECIFICATIONS.
17. MAKE ALL ATTACHMENTS TO JOISTS, TRUSSES, OR JOIST GIRDERS AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. THE USE OF C-CLAMPS IS NOT PERMITTED.
18. PROVIDE CONCRETE PADS A MINIMUM OF 6 INCHES HIGH FOR ALL FLOOR MOUNTED EQUIPMENT. EXTEND PAD 4 INCHES BEYOND THE EQUIPMENT ON ALL SIDES.
19. INTERNALLY LINE ALL SUPPLY AND RETURN DUCTWORK WITHIN 20 FEET UPSTREAM AND DOWNSTREAM OF FANS WITH 1" THICK INSULATION. INTERNALLY LINED DUCTWORK MEETING THIS REQUIREMENT SHALL ALSO BE PROVIDED WITH EXTERNALLY APPLIED INSULATION AS REQUIRED BY THE SPECIFICATIONS. SEE SPECIFICATION SECTION 230719 FOR ADDITIONAL REQUIREMENTS.
20. PROVIDE TRAPPED DRAIN PIPING FROM DRAIN PANS OF ALL COOLING COILS, FANS, AND OTHER ACTIVE DRAINS EXPOSED TO SYSTEM AIR STREAM. PROVIDE TRAP AT CONNECTION, WATER SEAL DEPTH 1 INCH GREATER THAN UNIT OPERATING PRESSURE. DIRECT DRAINS TO NEAREST FLOOR DRAIN, MOP SINK, OR OTHER LOCATION APPROVED BY THE ARCHITECT/ENGINEER.
21. INSTALL PIPING, DUCTWORK, AND CONDUIT CONCEALED IN AREAS HAVING HUNG CEILINGS AND/OR FURRED SPACES UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

WORK IN EXISTING AREAS

1. EXISTING CONDITIONS, INCLUDING EQUIPMENT, DUCT AND PIPE SIZES AND LOCATIONS, INDICATED ON THE DRAWINGS ARE DIAGRAMMATIC. CONFIRM ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH THE WORK.
2. CUT AND ROUGH PATCH EXISTING CONSTRUCTION AS REQUIRED FOR THE PERFORMANCE OF THE WORK. FINISH PATCHING AND FLASHING REQUIREMENTS ARE SHOWN ON THE ARCHITECTURAL DRAWINGS. PERFORM ALL CUTTING AND PATCHING WORK IN A MANNER SUCH THAT ANY EXISTING WARRANTEES/GUARANTEES ARE NOT VOIDED. USE QUALIFIED PERSONNEL IN PERFORMANCE OF THE WORK.

SCOPE NOTES

1. PROVIDE ALL LOUVERS FOR INSTALLATION. SUBMIT LOUVER COLOR AND CONFIGURATION TO THE ARCHITECT/ENGINEER FOR APPROVAL.
2. INSTALL SMOKE DETECTORS IN DUCTWORK FOR AIR HANDLING UNITS RATED AT 2,000 CFM OR GREATER AND AT FSD/SD, SMOKE DETECTOR SUPPLY AND WIRING IS PART OF CONTRACT 'E'.
3. FURNISH AND INSTALL ALL NECESSARY CONTROL WIRING, CONDUIT, AND ACCESSORIES AS REQUIRED TO PROVIDE FULLY FUNCTIONING SYSTEMS AND SEQUENCES OF OPERATION.
4. FURNISH ALL LINTELS FOR DUCT AND PIPE PENETRATIONS IN MASONRY WALLS FOR INSTALLATION.
5. FURNISH ALL SLEEVES FOR PIPE AND CONDUIT FLOOR, WALL, PARTITION, AND ROOF PENETRATIONS FOR INSTALLATION.
6. FURNISH ALL CURBS FOR ALL ROOF MOUNTED EQUIPMENT AND DUCT PENETRATIONS FOR INSTALLATION.
7. REMOVE CHASE ENCLOSURE COVER WHEN PERFORMING WORK IN ANY CHASE, AND REINSTALL THE CHASE ENCLOSURE COVER WHEN WORK IS COMPLETE.
8. PERFORM ALL CUTTING, ROUGH PATCHING, FINISH PATCHING, AND FLASHING AS REQUIRED IN THE EXECUTION OF THE WORK.
9. ALL NEW EQUIPMENT TO BE INTEGRATED WITH EXISTING SCHNEIDER ELECTRIC EMF BMS.

LEGENDS/ABBREVIATIONS NOTES

1. ABBREVIATIONS AND SYMBOLS ON THIS SHEET DO NOT DEFINE THE SCOPE OF WORK.

ADD ALTERNATE 1

1. PROVIDE PRICING FOR REMOVAL OF PNEUMATIC RADIATOR CONTROL VALVES AND ASSOCIATED THERMOSTATS, SEE MD DRAWINGS FOR FURTHER INFORMATION.
2. PROVIDE PRICING FOR FURNISH AND INSTALL OF NEW DDC RADIATOR CONTROL VALVES (CV-1) SEE DRAWINGS FOR FURTHER INFORMATION.
3. PROVIDE NEW TWO STAGE THERMOSTATS IN PLACE OF NEW SINGLE STAGE THERMOSTATS ON PLAN. STAGE ONE: HEAT PUMP HEATING, STAGE TWO: HOT WATER RADIATOR HEATING. INTEGRATE WITH EXISTING BUILDING MANAGEMENT SYSTEM.

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CONSULTANTS:

MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT
1	11-01-23	ADDENDUM #1

STATE OF NEW YORK · JOHN LAMEY · 101303 · LICENSED PROFESSIONAL ENGINEER

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MJV	KCM	MJV	QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

CLIENT
White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

White Plains Public Schools · WP · REAL LIFE LEARNING

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT
CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS
FINAL BID DOCUMENT

SHEET TITLE
HVAC LEGENDS, SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES

DRAWING No.
M001.00

GENERAL NOTES:

1. EXISTING CONDITIONS ARE BASED ON A LIMITED FIELD SURVEY. CONTRACT IS RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS FOR ALL CONFLICTS AND SHALL ALERT ENGINEER PRIOR TO COMMENCEMENT OF NEW WORK AND PURCHASE OF EQUIPMENT.
2. DO NOT SCALE DRAWINGS. LINE WORK SHOWN IS SCHEMATIC. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS BASED ON DESIGN INTENT, SURVEY OF EXISTING CONDITIONS, AND COORDINATION WITH OTHER TRADES.
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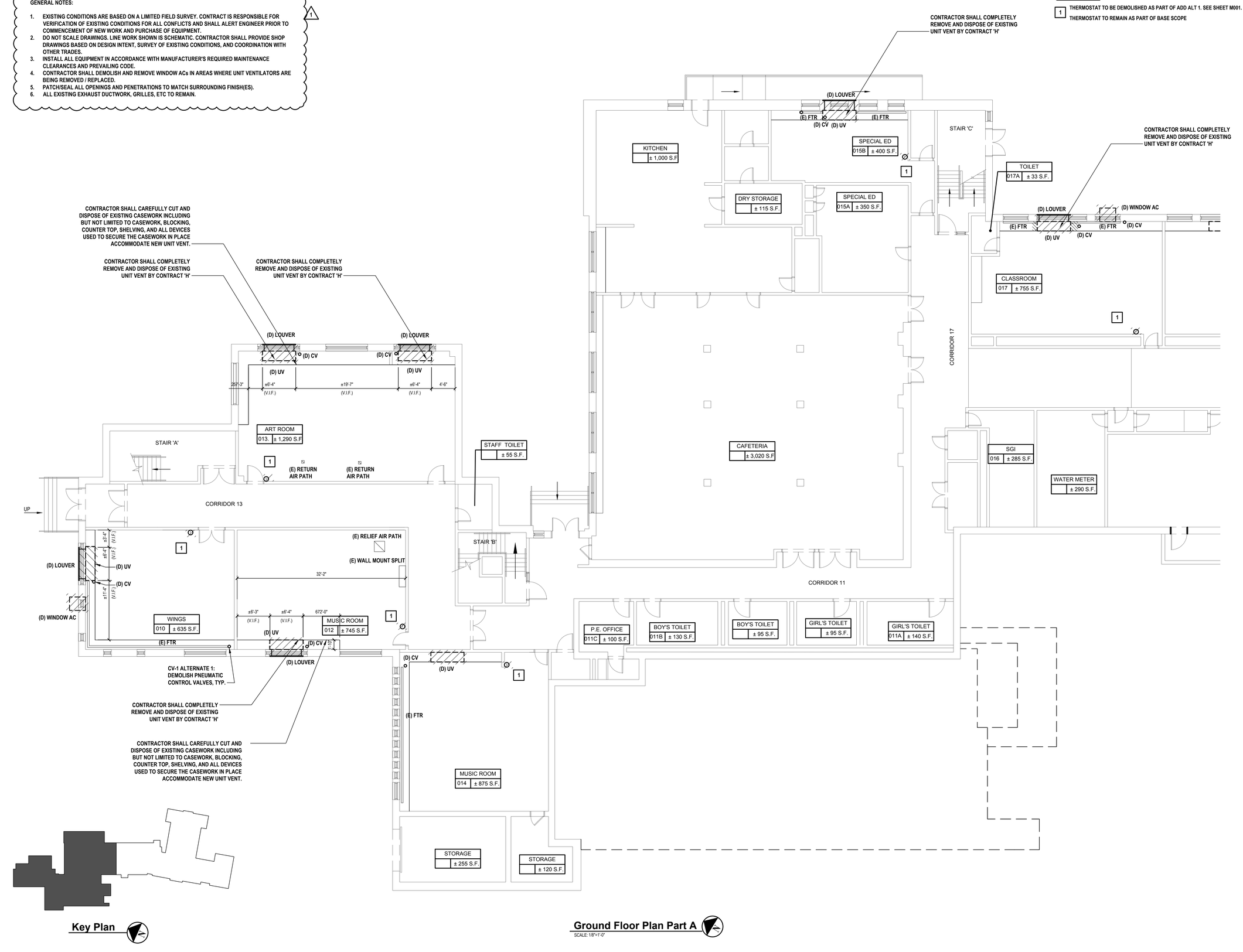
5. PATCH/SEAL ALL OPENINGS AND PENETRATIONS TO MATCH SURROUNDING FINISH(ES).
6. ALL EXISTING EXHAUST DUCTWORK, GRILLES, ETC TO REMAIN.

KEYED NOTES:

1 THERMOSTAT TO BE DEMOLISHED AS PART OF ADD ALT 1. SEE SHEET M001.
THERMOSTAT TO REMAIN AS PART OF BASE SCOPE



Key Plan

Ground Floor Plan Part A
SCALE: 1/8"=1'-0"

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			QAQC

PROJECT No:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

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White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL GROUND FLOOR PLAN PART A

DRAWING No.

MD100.00

GENERAL NOTES:

1. EXISTING CONDITIONS ARE BASED ON A LIMITED FIELD SURVEY. CONTRACT IS RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS FOR ALL CONFLICTS AND SHALL ALERT ENGINEER PRIOR TO COMMENCEMENT OF NEW WORK AND PURCHASE OF EQUIPMENT.
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6. ALL EXISTING EXHAUST DUCTWORK, GRILLES, ETC TO REMAIN.

KEYED NOTES:

1 THERMOSTAT TO BE DEMOLISHED AS PART OF ADD ALT 1. SEE SHEET M001.
THERMOSTAT TO REMAIN AS PART OF BASE SCOPE

Ground Floor Plan Part B
SCALE: 1/8"=1'-0"

Key Plan

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PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

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White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL GROUND FLOOR PLAN PART B

DRAWING No.

MD101.00

GENERAL NOTES:

1. EXISTING CONDITIONS ARE BASED ON A LIMITED FIELD SURVEY. CONTRACT IS RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS FOR ALL CONFLICTS AND SHALL ALERT ENGINEER PRIOR TO COMMENCEMENT OF NEW WORK AND PURCHASE OF EQUIPMENT.
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5. PATCH/SEAL ALL OPENINGS AND PENETRATIONS TO MATCH SURROUNDING FINISH(ES).
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KEYED NOTES:

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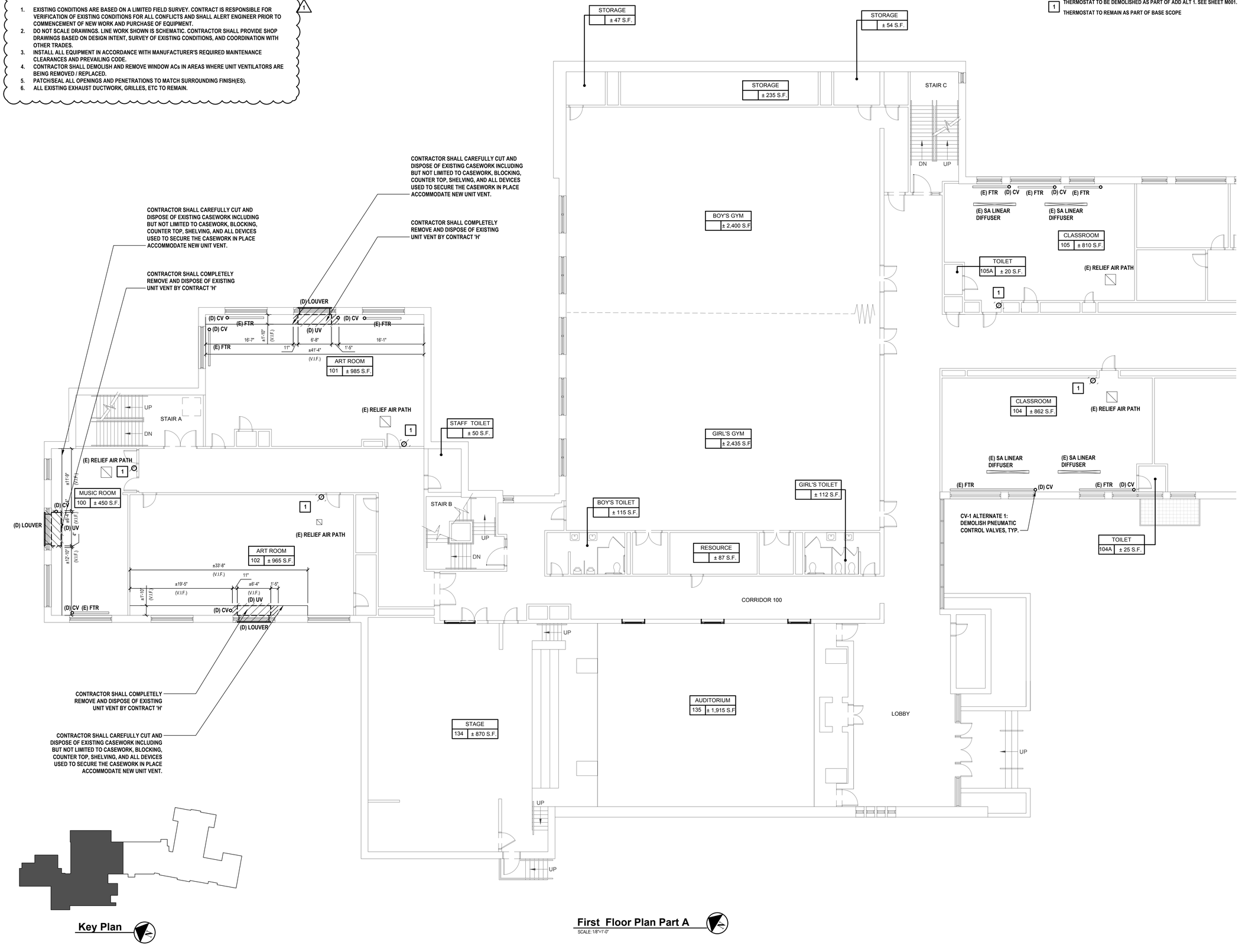

Key Plan

First Floor Plan Part A
SCALE: 1/8"=1'-0"

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MJV	KCM	MJV	QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

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SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT
CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS
FINAL BID DOCUMENT

SHEET TITLE
MECHANICAL FIRST FLOOR PLAN PART A

DRAWING No.
MD110.00

GENERAL NOTES:

1. EXISTING CONDITIONS ARE BASED ON A LIMITED FIELD SURVEY. CONTRACT IS RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS FOR ALL CONFLICTS AND SHALL ALERT ENGINEER PRIOR TO COMMENCEMENT OF NEW WORK AND PURCHASE OF EQUIPMENT.
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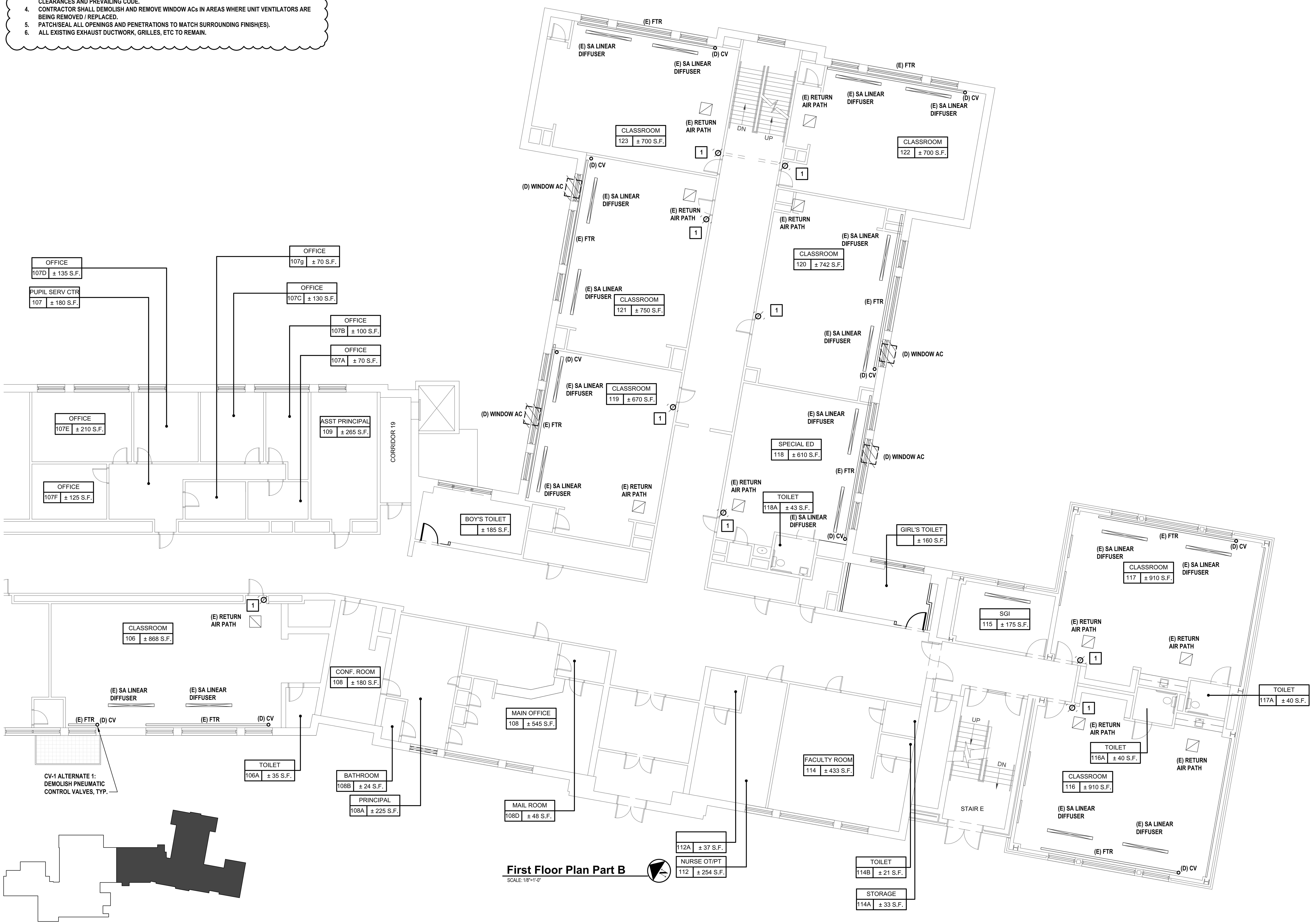
6. ALL EXISTING EXHAUST DUCTWORK, GRILLES, ETC TO REMAIN.

KEYED NOTES:

1. THERMOSTAT TO BE DEMOLISHED AS PART OF ADD ALT 1. SEE SHEET M001. THERMOSTAT TO REMAIN AS PART OF BASE SCOPE



First Floor Plan Part B

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

Key Plan

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MJV	KCM	MJV	QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL FIRST FLOOR PLAN PART B

DRAWING No.

MD111.00

GENERAL NOTES:

1. EXISTING CONDITIONS ARE BASED ON A LIMITED FIELD SURVEY. CONTRACT IS RESPONSIBLE FOR VERIFICATION OF EXISTING CONDITIONS FOR ALL CONFLICTS AND SHALL ALERT ENGINEER PRIOR TO COMMENCEMENT OF NEW WORK AND PURCHASE OF EQUIPMENT.
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KEYED NOTES:

1 THERMOSTAT TO BE DEMOLISHED AS PART OF ADD ALT 1. SEE SHEET M001.
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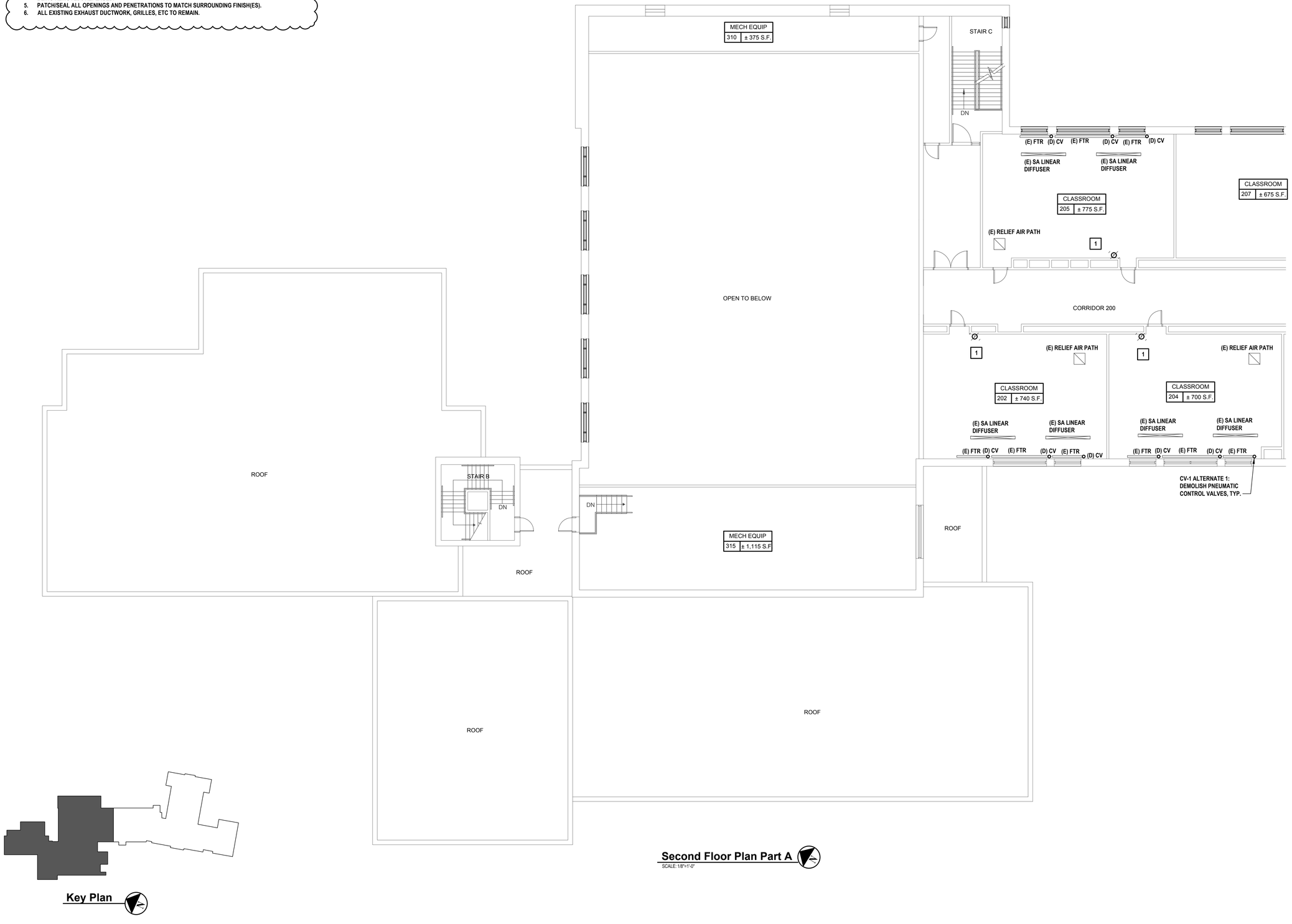

Second Floor Plan Part A
SCALE: 1/8"=1'-0"

Key Plan

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CONSULTANTS:

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STATE OF NEW YORK · JOHN LAMEY · 101303 · LICENSED PROFESSIONAL ENGINEER

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MJV	KCM	MJV	QAQC

PROJECT No.: WPSD 2205 | DATE: OCTOBER 2023 | SCALE:

CLIENT

White Plains City School District

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7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL SECOND FLOOR PART A

DRAWING No.

MD120.00

GENERAL NOTES:

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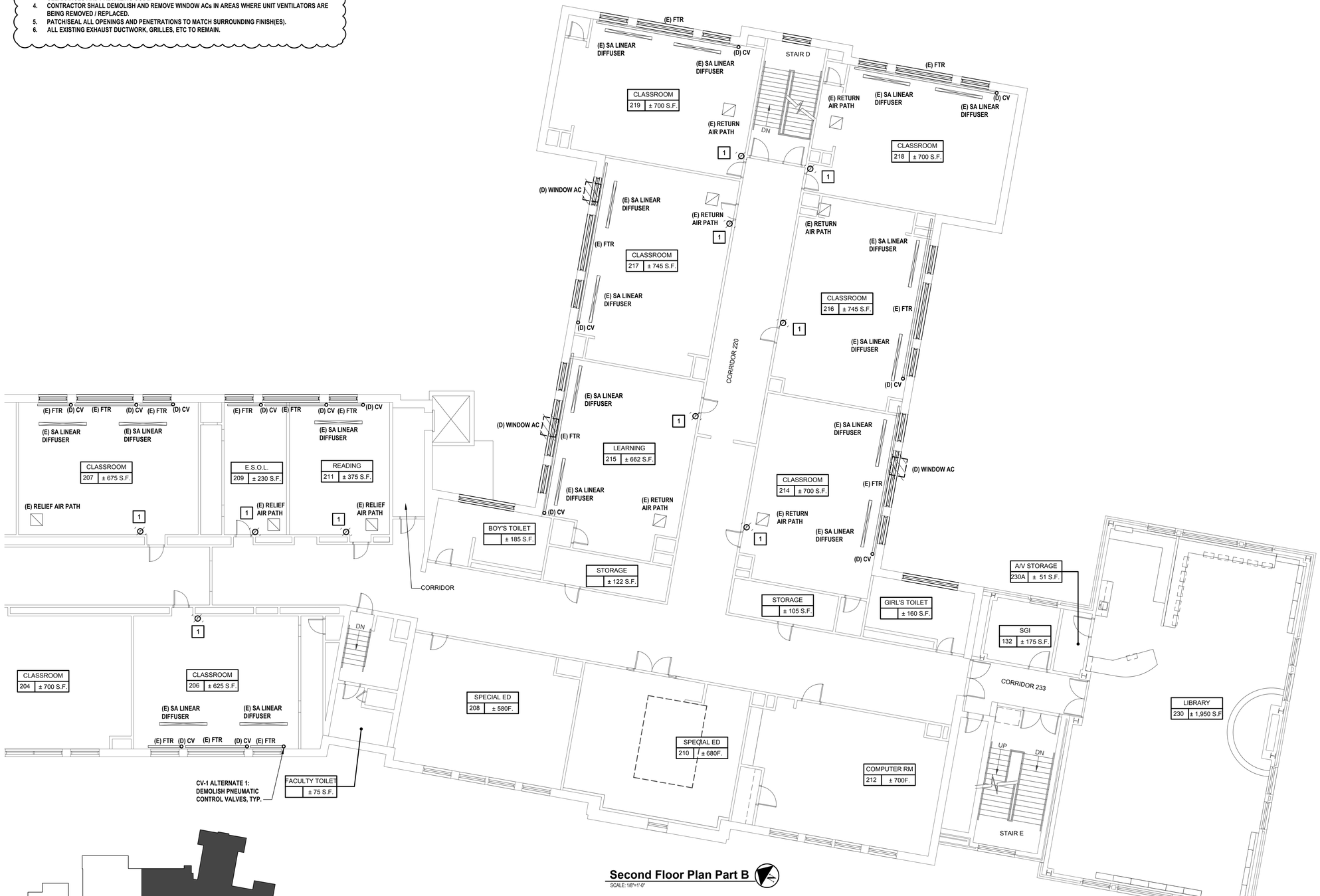
2. DO NOT SCALE DRAWINGS. LINE WORK SHOWN IS SCHEMATIC. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS BASED ON DESIGN INTENT, SURVEY OF EXISTING CONDITIONS, AND COORDINATION WITH OTHER TRADES.
3. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S REQUIRED MAINTENANCE CLEARANCES AND PREVAILING CODE.
4. CONTRACTOR SHALL DEMOLISH AND REMOVE WINDOW ACs IN AREAS WHERE UNIT VENTILATORS ARE BEING REMOVED / REPLACED.
5. PATCH/SEAL ALL OPENINGS AND PENETRATIONS TO MATCH SURROUNDING FINISH(ES).
6. ALL EXISTING EXHAUST DUCTWORK, GRILLES, ETC TO REMAIN.

KEYED NOTES:

1 THERMOSTAT TO BE DEMOLISHED AS PART OF ADD ALT 1. SEE SHEET M001.
THERMOSTAT TO REMAIN AS PART OF BASE SCOPE



Second Floor Plan Part B
SCALE: 1/8"=1'-0"

Key Plan

H2M architects + engineers
2700 Westchester Ave., Suite 415
Purchase, NY 10577
914.358.5623 • www.h2m.com

CONSULTANTS:

MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT
1	11-01-23	ADDENDUM #1

STATE OF NEW YORK JOHN LAMEY 101303 LICENSED PROFESSIONAL ENGINEER

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MJV	KCM	MJV	QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

CLIENT
White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT
CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS
FINAL BID DOCUMENT

SHEET TITLE
MECHANICAL SECOND FLOOR PLAN PART B

DRAWING No.
MD121.00

GENERAL NOTES:

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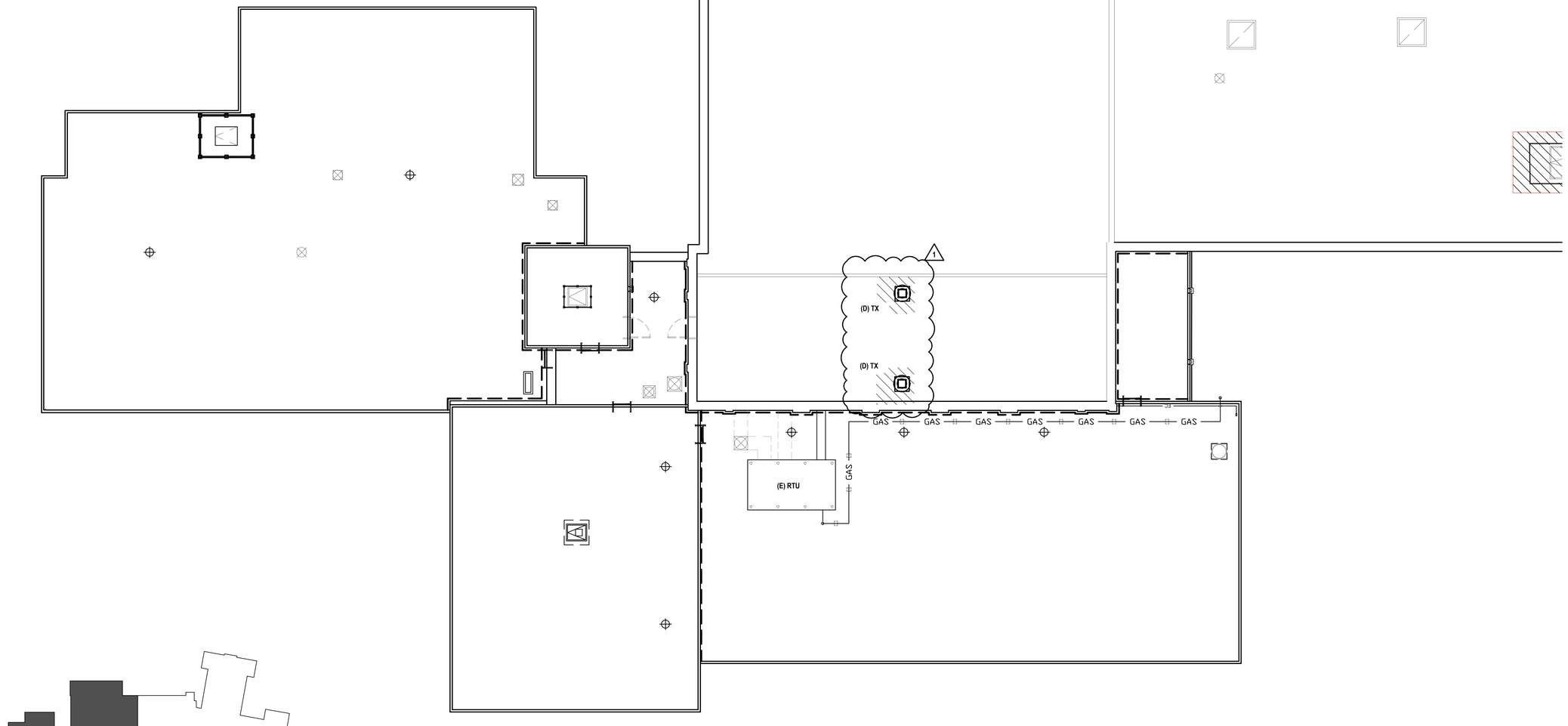
1



Roof Plan Part A
SCALE: 1/8"=1'-0"

Key Plan

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STATE OF NEW YORK
JOHN LAMEY
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WPSD 2205	OCTOBER 2023	

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

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White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL ROOF PLAN PART A

DRAWING No.

MD140.00

GENERAL NOTES:

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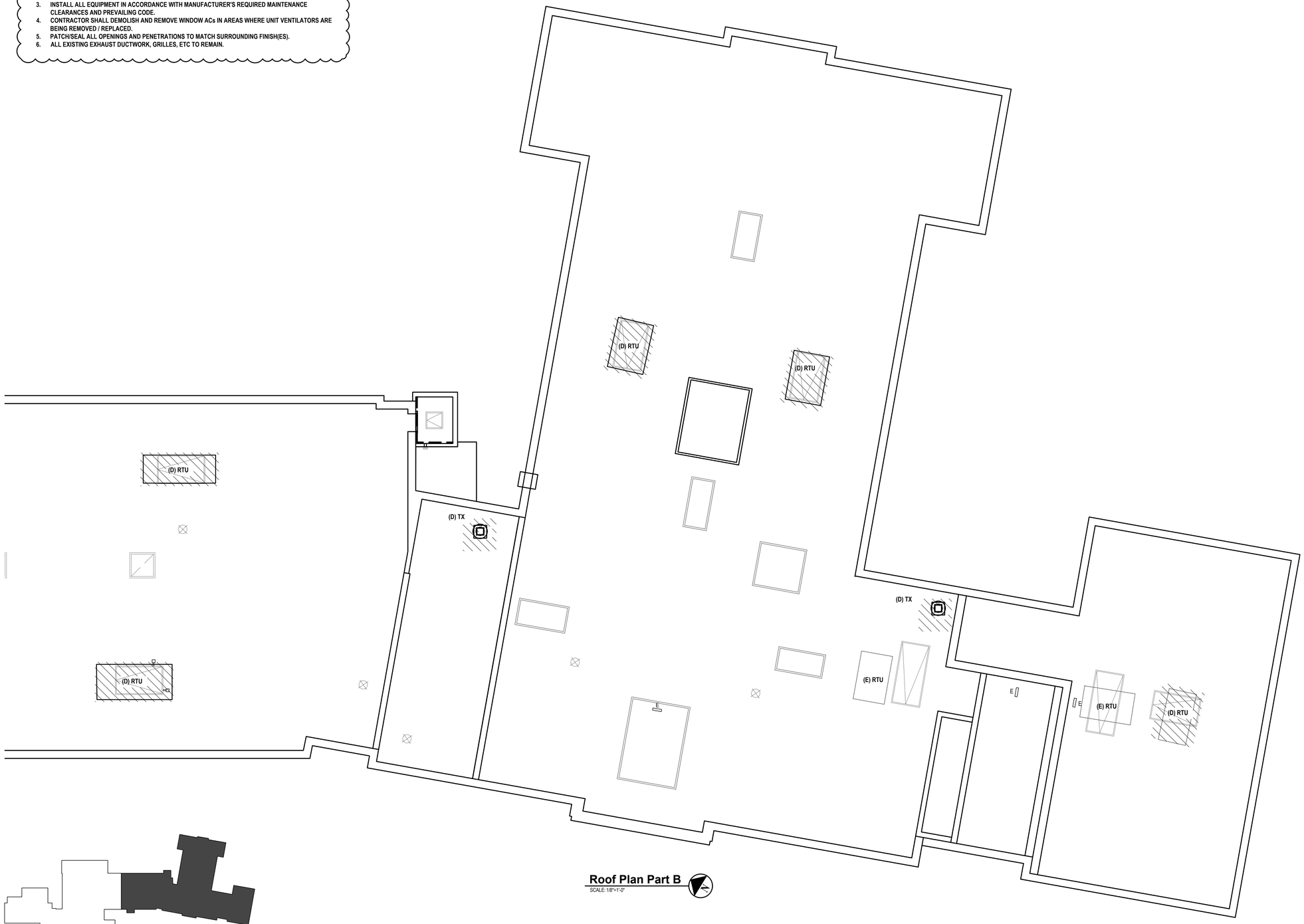

Roof Plan Part B
SCALE: 1/8"=1'-0"

Key Plan

X:\WPSD (White Plains Central School District) - 1099\1WPSD 2205 - (AC & Ventilation at Mamaroneck Elem School)\02 BIM-CAD\Civil\revit\MD141.00 Mechanical Roof Plan Part B.rvt Last Modified: Nov.01, 2023 - 3:34pm Plotted on: Nov.01, 2023 - 3:34pm By KMcdonald

H 2 M architects + engineers

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STATE OF NEW YORK · JOHN LAMAY · 101303 · LICENSED PROFESSIONAL ENGINEER

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CLIENT

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CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL ROOF PLAN PART B

DRAWING No.

MD141.00

GENERAL NOTES:

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3. ALL CONDENSATE PIPES TO BE PITCHED 1/8" PER FOOT. DRAIN INDIRECTLY IN LOCATIONS SHOWN
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5. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. REFER TO SPECIFICATIONS FOR ALL DUCT CONSTRUCTION REQUIREMENTS.
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8. ~~SEE M-001 FOR ALTERNATE #1.~~
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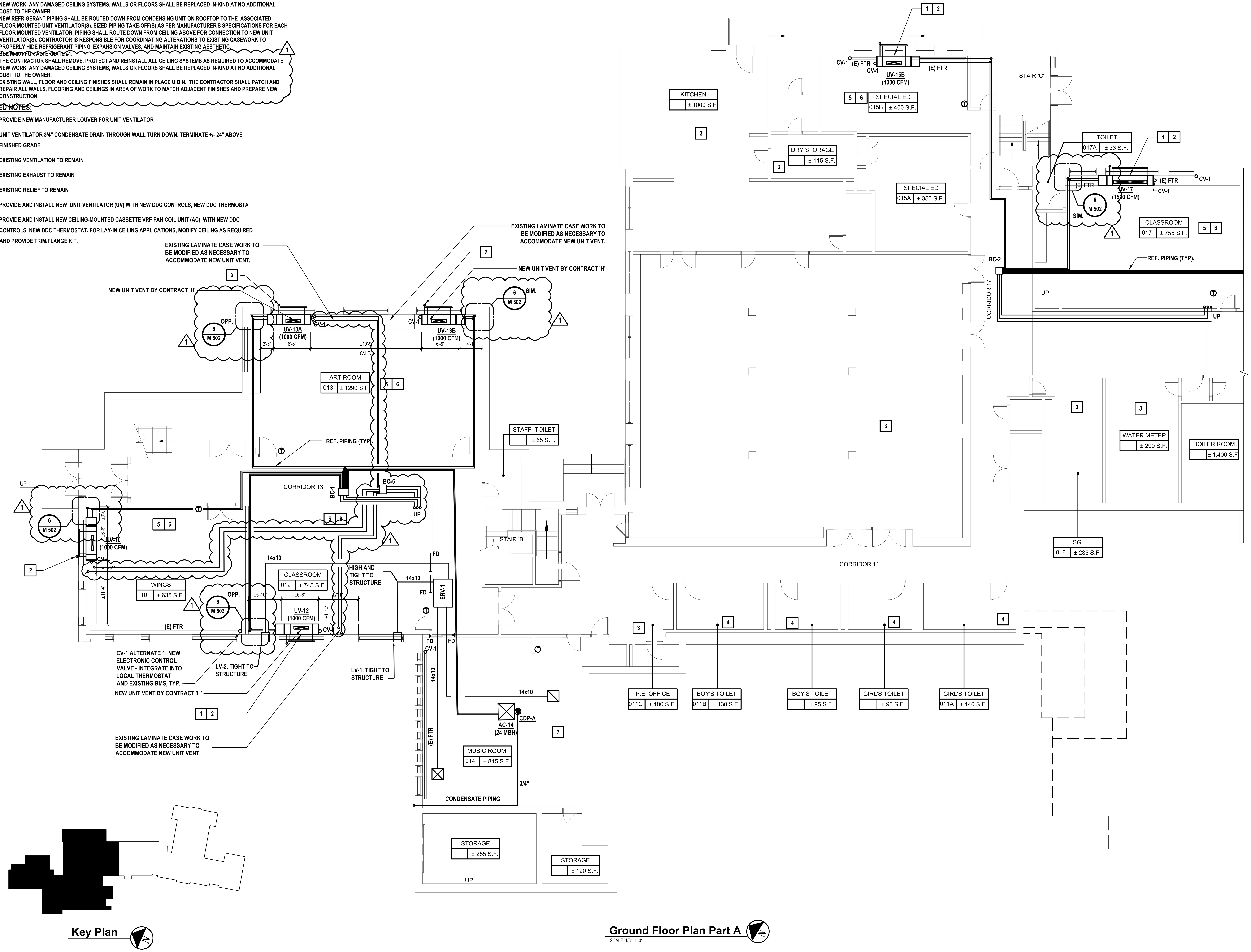
1 (revision)

KEYED NOTES:

1	PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR
2	UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN. TERMINATE +/- 24" ABOVE FINISHED GRADE
3	EXISTING VENTILATION TO REMAIN
4	EXISTING EXHAUST TO REMAIN
5	EXISTING RELIEF TO REMAIN
6	PROVIDE AND INSTALL NEW UNIT VENTILATOR (UV) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT
7	PROVIDE AND INSTALL NEW CEILING-MOUNTED CASSETTE VRF FAN COIL UNIT (AC) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT. FOR LAY-IN CEILING APPLICATIONS, MODIFY CEILING AS REQUIRED AND PROVIDE TRIM/FLANGE KIT.



Ground Floor Plan Part A

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

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STATE OF NEW YORK · JOHN LAHEY · LICENSED PROFESSIONAL ENGINEER · 101303

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
			QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

White Plains Public Schools · WP · REAL LIFE LEARNING

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H

HEATING VENTILATION AND AIR CONDITIONING

STATUS

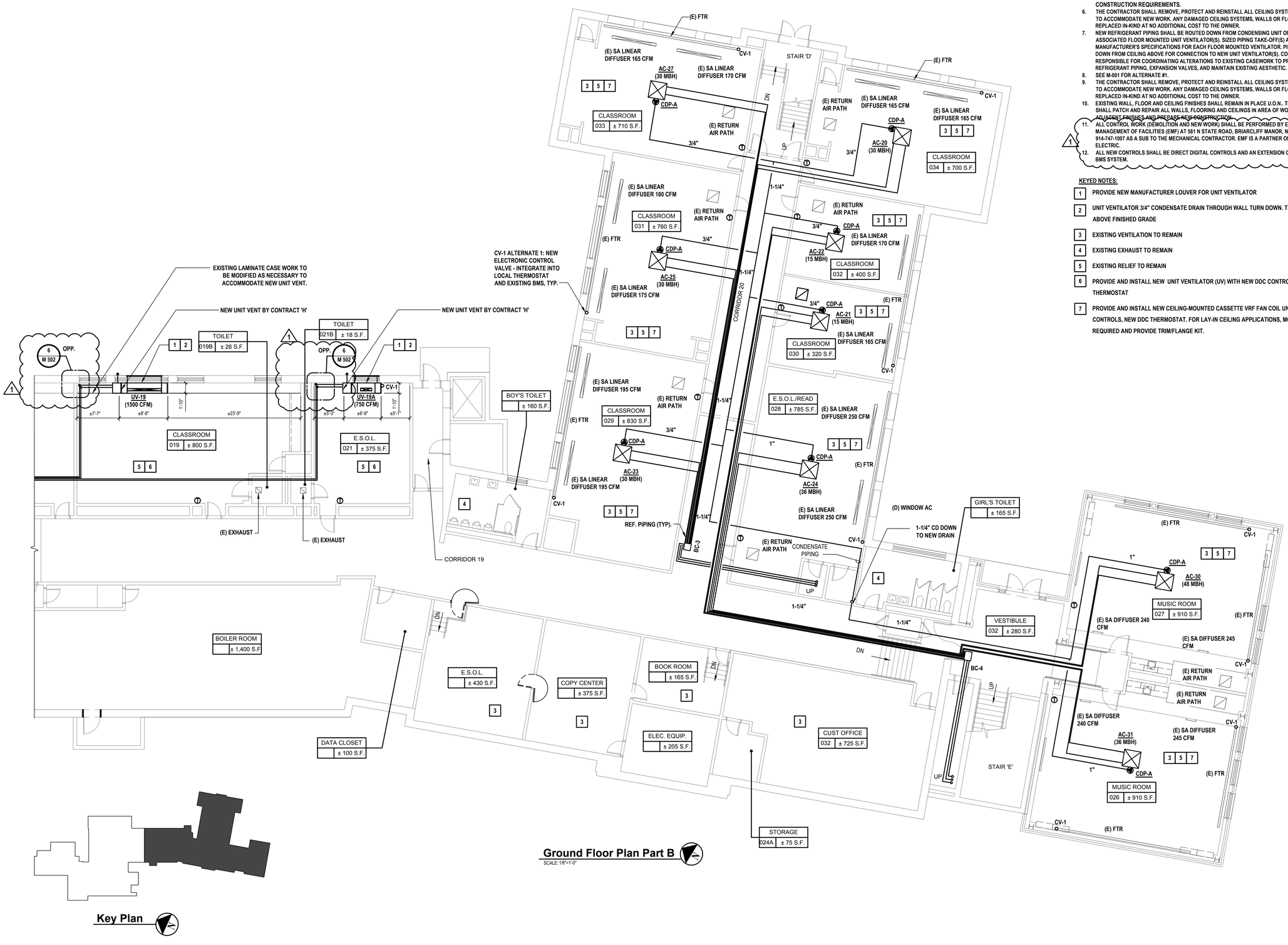
FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL GROUND FLOOR PLAN PART A

DRAWING No.

M100.00



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12. ALL NEW CONTROLS SHALL BE DIRECT DIGITAL CONTROLS AND AN EXTENSION OF EMF'S EXISTING BMS SYSTEM.

KEYED NOTES:

1. PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR
2. UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN. TERMINATE +/- 24" ABOVE FINISHED GRADE
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CONSULTANTS:

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1	11-01-23	ADDENDUM #1

STATE OF NEW YORK · JOHN LAMEY · 101303 · LICENSED PROFESSIONAL ENGINEER

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MJV	KCM	MJV	QAQC

PROJECT No.: WPSD 2205 | DATE: OCTOBER 2023 | SCALE:

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL GROUND FLOOR PLAN PART B

DRAWING No.

M101.00

GENERAL NOTES:

1. REFRIGERANT PIPING IS SCHEMATIC FINAL PIPE LAYOUT AND SIZING TO BE PROVIDED AND VERIFIED THROUGH MANUFACTURER SOFTWARE AND SUBMITTED FOR ENGINEER APPROVAL.
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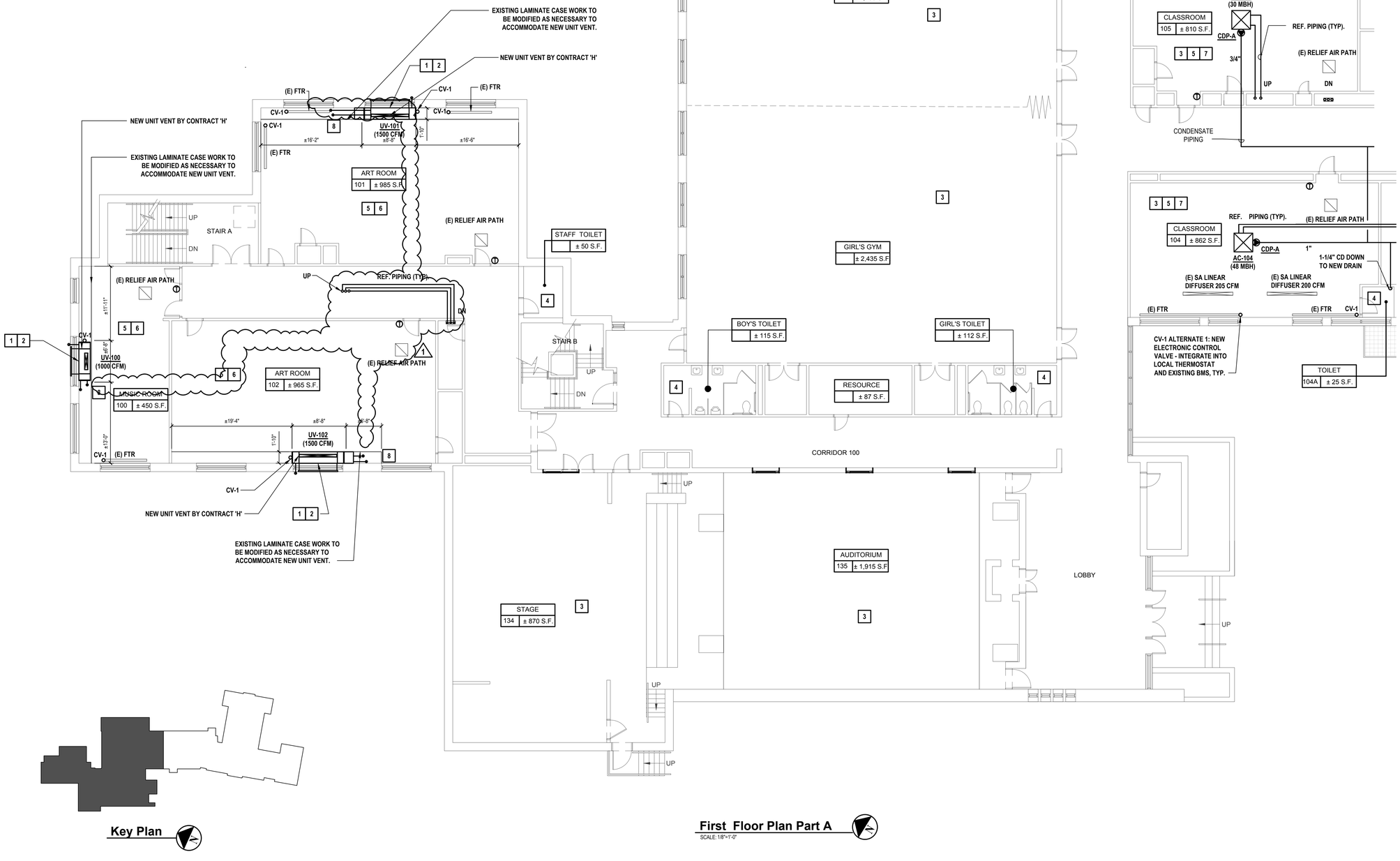
8. REFRIGERANT PIPING FROM FLOOR BELOW TO UV



Key Plan

First Floor Plan Part A
SCALE: 1/8"=1'-0"

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WPSD 2205	OCTOBER 2023	

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

White Plains Public Schools · WP · REAL LIFE LEARNING

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White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL FIRST FLOOR PLAN PART A

DRAWING No.

M110.00

GENERAL NOTES:

1. REFRIGERANT PIPING IS SCHEMATIC FINAL PIPE LAYOUT AND SIZING TO BE PROVIDED AND VERIFIED THROUGH MANUFACTURER SOFTWARE AND SUBMITTED FOR ENGINEER APPROVAL.
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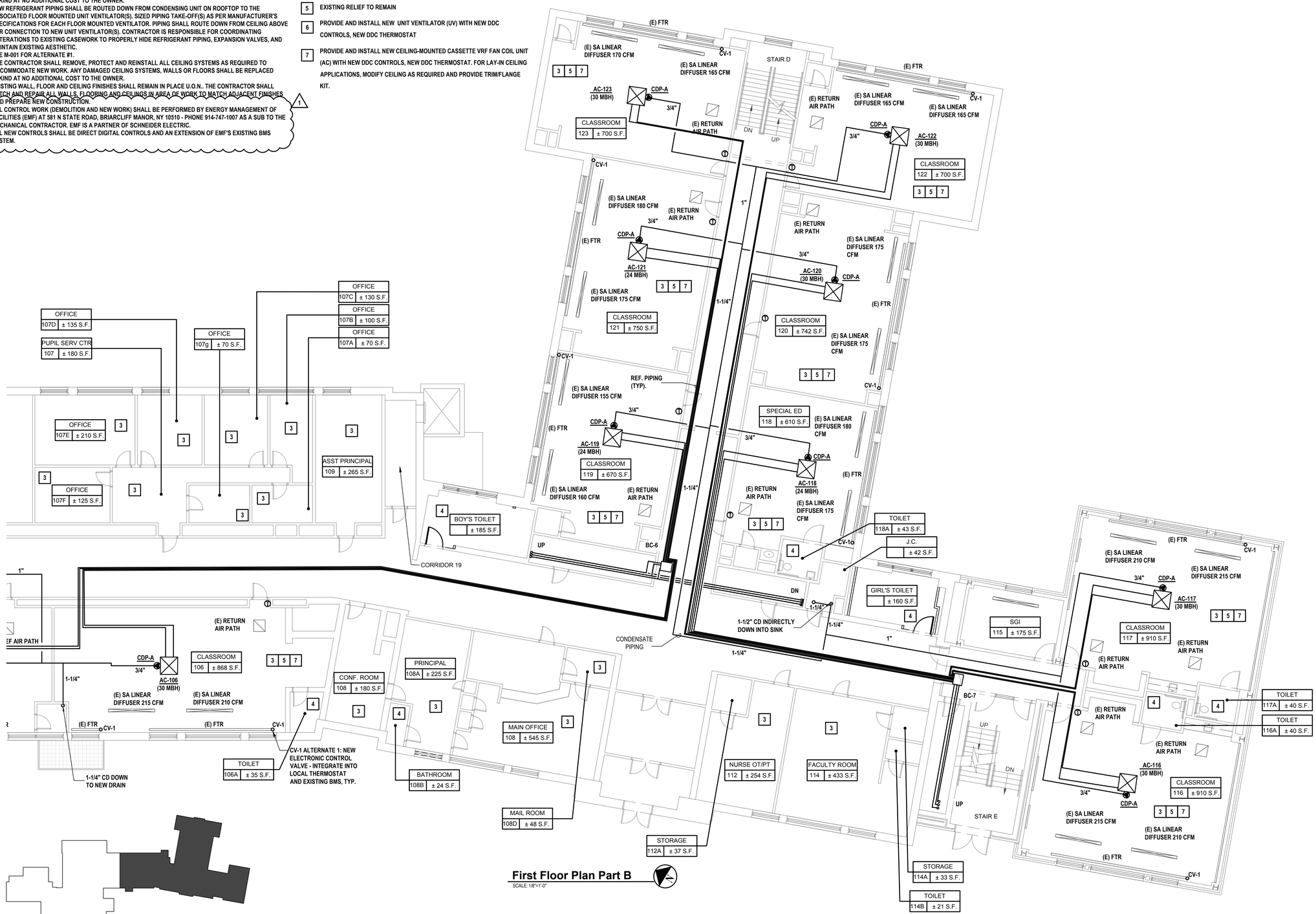

First Floor Plan Part B
SCALE: 1/8"=1'-0"

Key Plan

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CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL FIRST FLOOR PLAN PART B

DRAWING No.

M111.00

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3. ALL CONDENSATE PIPES TO BE PITCHED 1/8" PER FOOT. DRAIN INDIRECTLY IN LOCATIONS SHOWN
4. COORDINATE WITH STRUCTURE AND EXISTING DUCTWORK, OFFSET AS REQUIRED.
5. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. REFER TO SPECIFICATIONS FOR ALL DUCT CONSTRUCTION REQUIREMENTS.
6. THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
7. NEW REFRIGERANT PIPING SHALL BE ROUTED DOWN FROM CONDENSING UNIT ON ROOFTOP TO THE ASSOCIATED FLOOR MOUNTED UNIT VENTILATOR(S). SIZED PIPING TAKE-OFF(S) AS PER MANUFACTURER'S SPECIFICATIONS FOR EACH FLOOR MOUNTED VENTILATOR. PIPING SHALL ROUTE DOWN FROM CEILING ABOVE FOR CONNECTION TO NEW UNIT VENTILATOR(S). CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALTERATIONS TO EXISTING CASEWORK TO PROPERLY HIDE REFRIGERANT PIPING, EXPANSION VALVES, AND MAINTAIN EXISTING AESTHETIC.
8. SEE M-001 FOR ALTERNATE #1.
9. THE CONTRACTOR SHALL REMOVE, PROTECT AND REINSTALL ALL CEILING SYSTEMS AS REQUIRED TO ACCOMMODATE NEW WORK. ANY DAMAGED CEILING SYSTEMS, WALLS OR FLOORS SHALL BE REPLACED IN-KIND AT NO ADDITIONAL COST TO THE OWNER.
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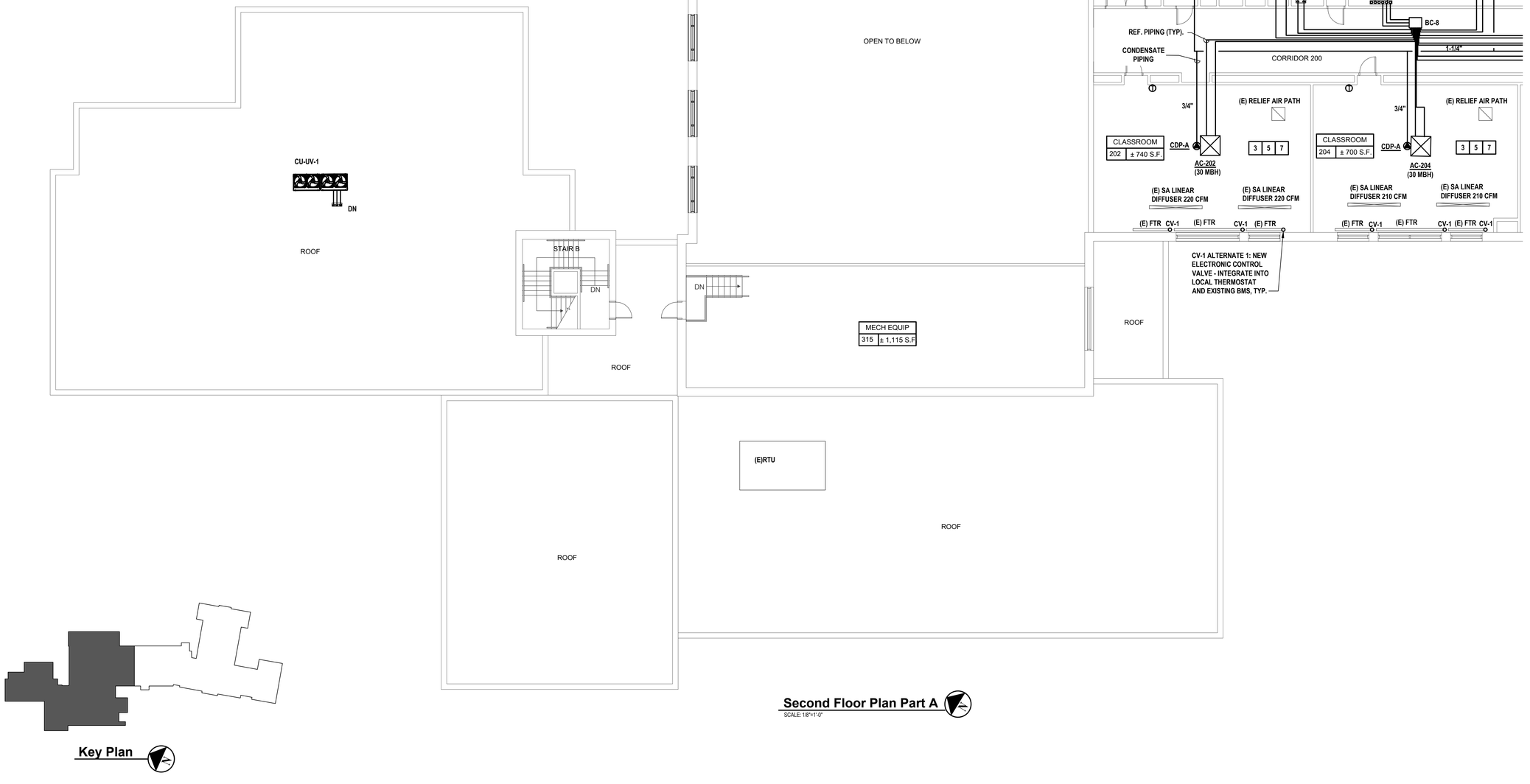
11. ALL CONTROL WORK (DEMOLITION AND NEW WORK) SHALL BE PERFORMED BY ENERGY MANAGEMENT OF FACILITIES (EMF) AT 581 N STATE ROAD, BRIARCLIFF MANOR, NY 10510 - PHONE 914-747-1007 AS A SUB TO THE MECHANICAL CONTRACTOR. EMF IS A PARTNER OF SCHNEIDER ELECTRIC.
12. ALL NEW CONTROLS SHALL BE DIRECT DIGITAL CONTROLS AND AN EXTENSION OF EMF'S EXISTING BMS SYSTEM.

1

KEYED NOTES:

1. PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR
2. UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN. TERMINATE +/- 24" ABOVE FINISHED GRADE
3. EXISTING VENTILATION TO REMAIN
4. EXISTING EXHAUST TO REMAIN
5. EXISTING RELIEF TO REMAIN
6. PROVIDE AND INSTALL NEW UNIT VENTILATOR (UV) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT
7. PROVIDE AND INSTALL NEW CEILING-MOUNTED CASSETTE VRF FAN COIL UNIT (AC) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT. FOR LAY-IN CEILING APPLICATIONS, MODIFY CEILING AS REQUIRED AND PROVIDE TRIM/FLANGE KIT.



Second Floor Plan Part A
SCALE: 1/8"=1'-0"

Key Plan

H 2 M architects + engineers

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Purchase, NY 10577
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CONSULTANTS:

MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT
1	11-01-23	ADDENDUM #1

STATE OF NEW YORK JOHN LAMEY 101303 LICENSED PROFESSIONAL ENGINEER

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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
MJV	KCM	MJV	QAQC

PROJECT No.: WPSD 2205 | DATE: OCTOBER 2023 | SCALE:

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

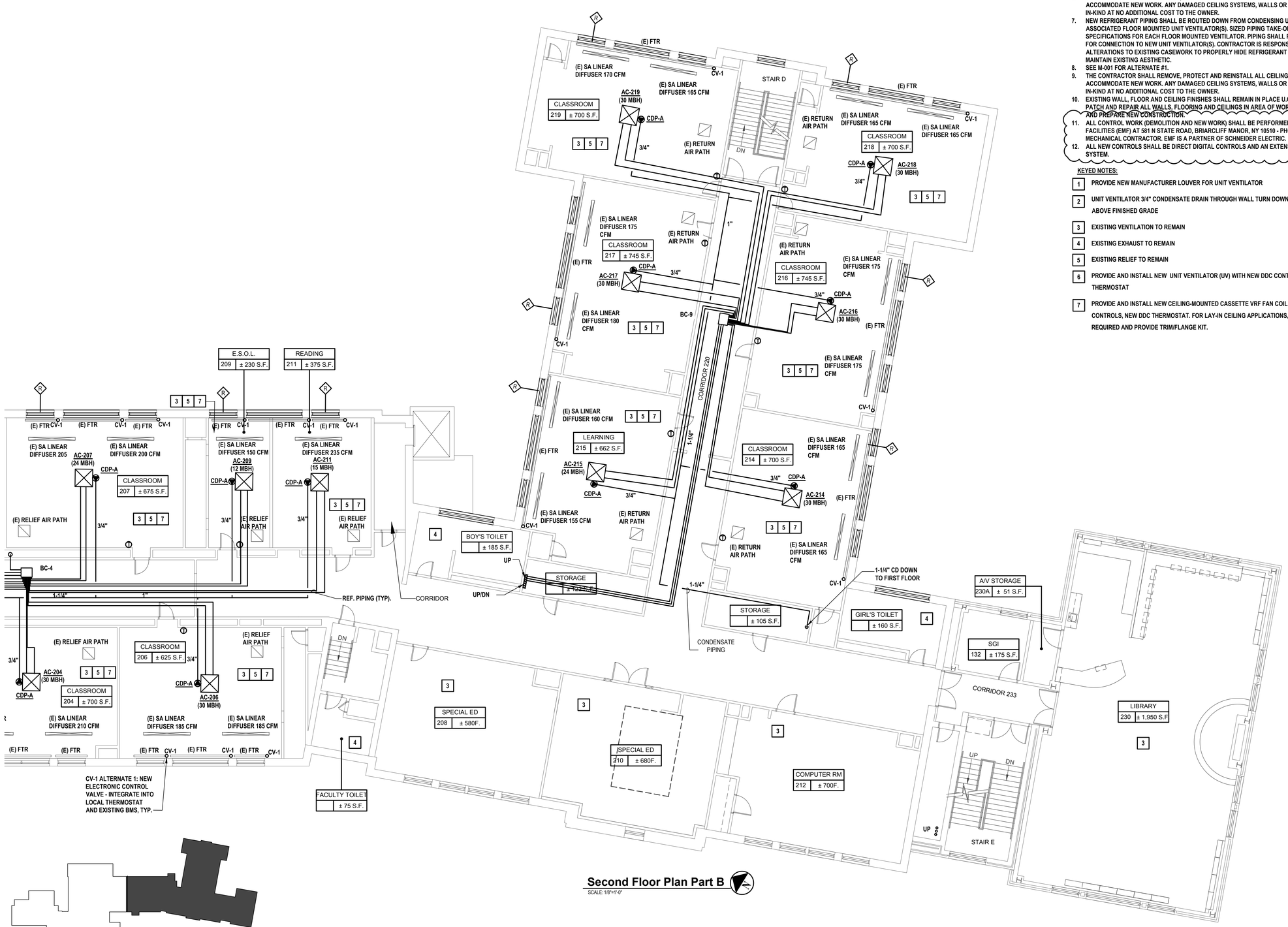
FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL SECOND FLOOR PART A

DRAWING No.

M120.00



Second Floor Plan Part B
SCALE: 1/8"=1'-0"

Key Plan

GENERAL NOTES:

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12. ALL NEW CONTROLS SHALL BE DIRECT DIGITAL CONTROLS AND AN EXTENSION OF EMF'S EXISTING BMS SYSTEM.

KEYED NOTES:

1. PROVIDE NEW MANUFACTURER LOUVER FOR UNIT VENTILATOR
2. UNIT VENTILATOR 3/4" CONDENSATE DRAIN THROUGH WALL TURN DOWN. TERMINATE +/- 24" ABOVE FINISHED GRADE
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MJV	KCM	MJV	QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

White Plains Public Schools · WP · REAL LIFE LEARNING

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL SECOND FLOOR PLAN PART B

DRAWING No.

M121.00

GENERAL NOTES:

1. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. REFER TO SPECIFICATIONS FOR ALL DUCT CONSTRUCTION REQUIREMENTS.
2. ALL SUPPLY, RETURN AND EXHAUST BRANCH DUCTWORK SHALL BE PROVIDED WITH VOLUME DAMPERS.
3. COORDINATE WITH STRUCTURE AND EXISTING DUCTWORK, OFFSET AS REQUIRED.
4. PROVIDE NEW THERMOSTAT LINKED TO RTUS IN ASSOCIATED SPACE.
5. DOAS UNITS SHALL BE PROVIDED WITH DISCHARGE AIR TEMP SENSORS.
6. ALL CONDENSATE PIPES TO BE PITCHED 1/8" PER FOOT. DRAIN INDIRECTLY TO ROOF DRAINS.
7. CONTRACTOR TO PROVIDE SEISMIC/WIND RATED ROOF CURB MANUFACTURED THYBAR OR APPROVED EQUAL.
8. CONTRACTOR TO PROVIDE PROJECT SPECIFIC ROOF CURB DESIGNED IN ACCORDANCE WITH WIND LOADS PROVIDED ON DRAWINGS, SIGNED AND SEAL BY A LICENSED PROFESSIONAL ENGINEER REPRESENTING THE ROOF CURB MANUFACTURER.
9. ALL CONTROL WORK (DEMOLITION AND NEW WORK) SHALL BE PERFORMED BY ENERGY MANAGEMENT OF FACILITIES (EMF) AT 581 N STATE ROAD, BRIARCLIFF MANOR, NY 10510 - PHONE 914-747-1007 AS A SUB TO THE MECHANICAL CONTRACTOR. EMF IS A PARTNER OF SCHNEIDER ELECTRIC.
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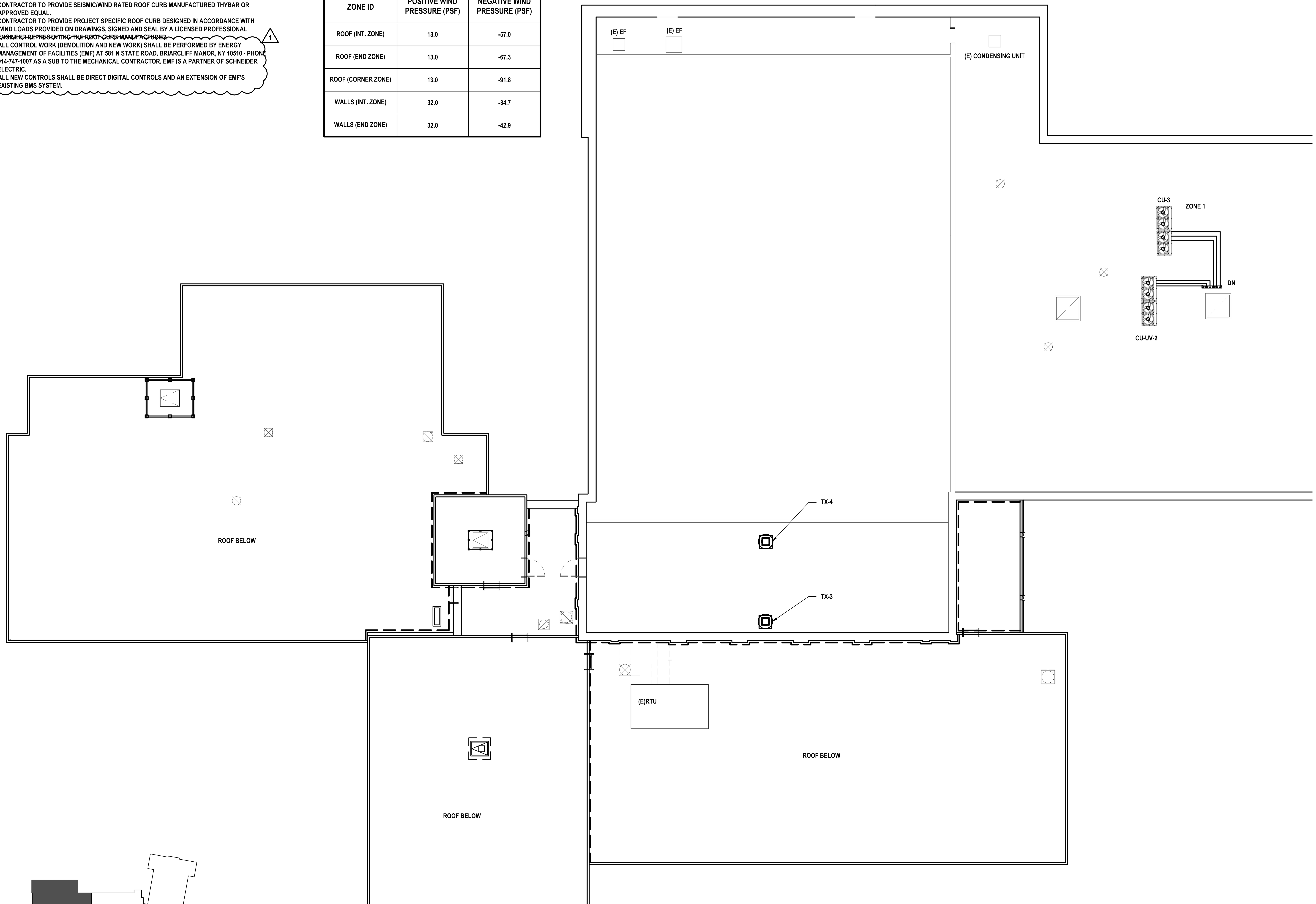
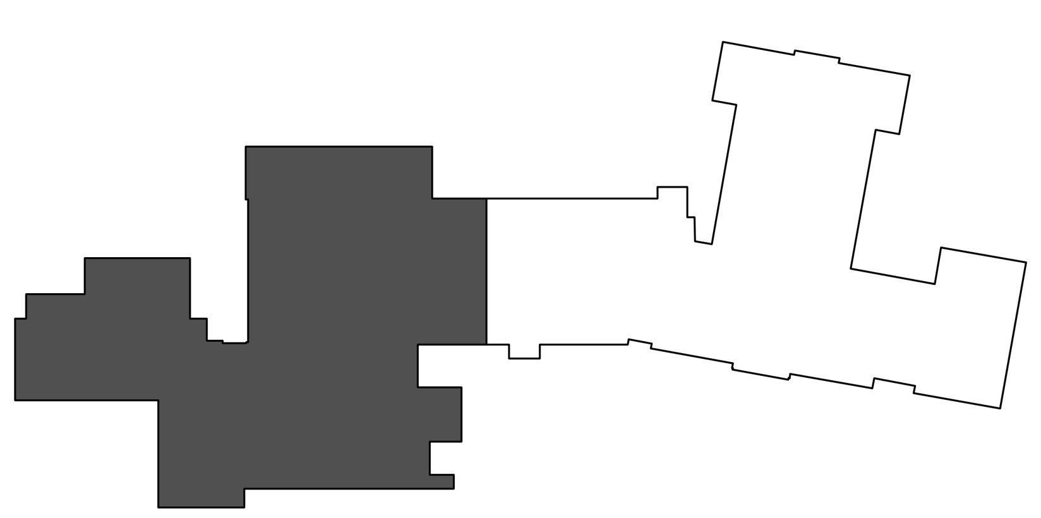
1

WIND LOADS (MC 301.15 & BC 1609)

ZONE ID	POSITIVE WIND PRESSURE (PSF)	NEGATIVE WIND PRESSURE (PSF)
ROOF (INT. ZONE)	13.0	-57.0
ROOF (END ZONE)	13.0	-67.3
ROOF (CORNER ZONE)	13.0	-91.8
WALLS (INT. ZONE)	32.0	-34.7
WALLS (END ZONE)	32.0	-42.9



Roof Plan Part A
SCALE: 1/8"=1'-0"



Key Plan

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White Plains City School District

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White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT
CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS
FINAL BID DOCUMENT

SHEET TITLE
MECHANICAL ROOF PLAN PART A

DRAWING No.
M140.00

GENERAL NOTES:

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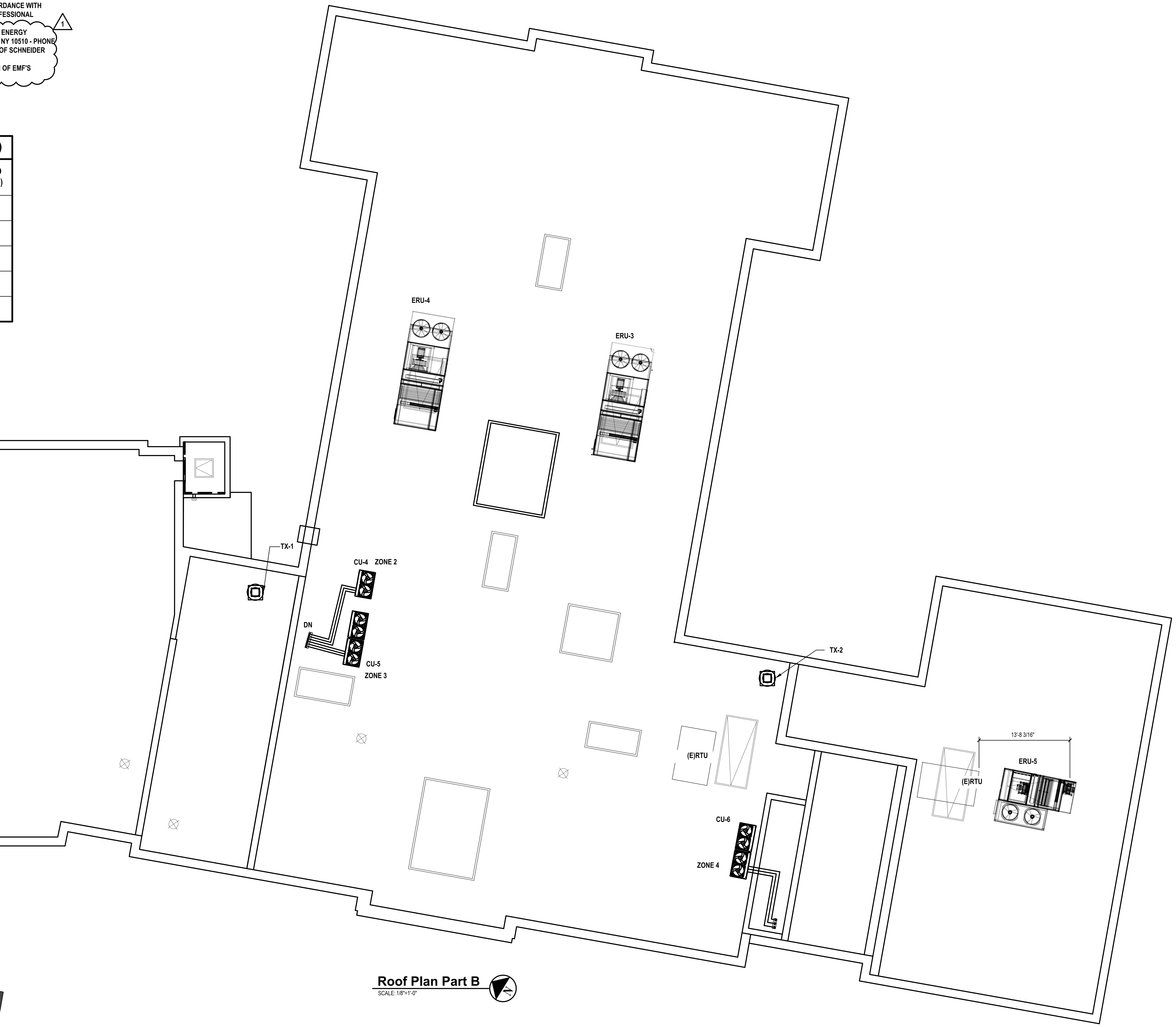
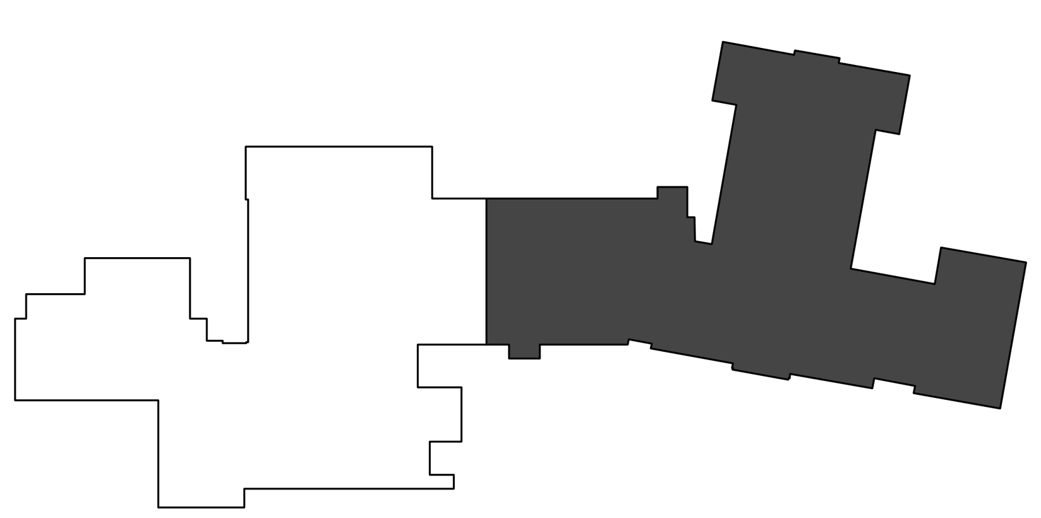


Roof Plan Part B
SCALE: 1/8"=1'-0"



Key Plan

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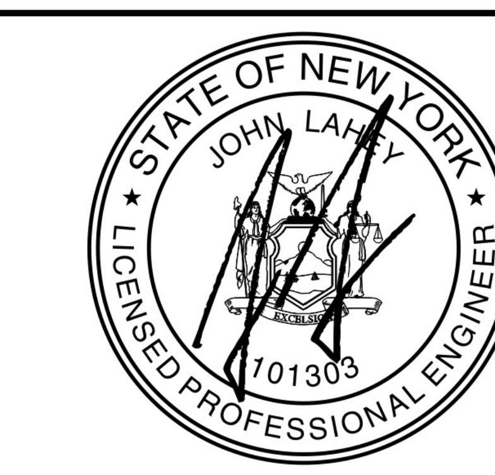

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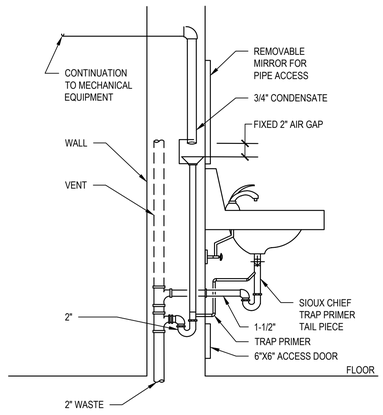
CONTRACT
CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS
FINAL BID DOCUMENT

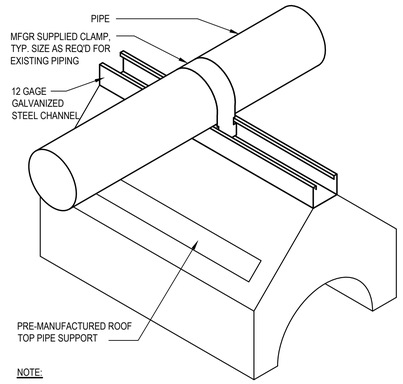
SHEET TITLE
MECHANICAL ROOF PLAN PART B

DRAWING No.
M141.00



1 Condensate Indirect Waste

SCALE: NTS

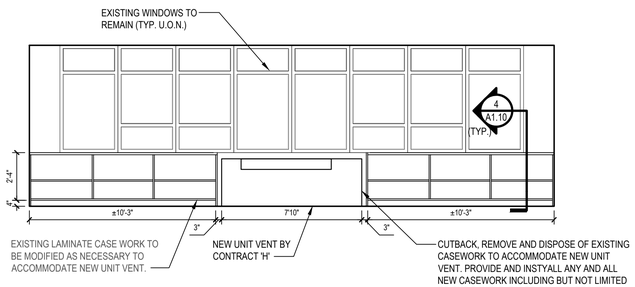


NOTE:

1. PIPE SUPPORTS SHALL BE INSTALLED A MINIMUM OF 6'-0" O.C. & AT EACH CHANGE OF DIRECTION OF PIPING.
2. PROVIDE PIPE SUPPORTS IN SERIES (WIDTHS) AS REQUIRED TO SUPPORT ALL NEW PIPING.
3. HEIGHT OF PIPE SUPPORT TO VARY AS REQUIRED BASED ON HEIGHT OF EXISTING PIPING & ROOF PITCH.

2 Typical Pipe Blocking Detail

SCALE: NTS



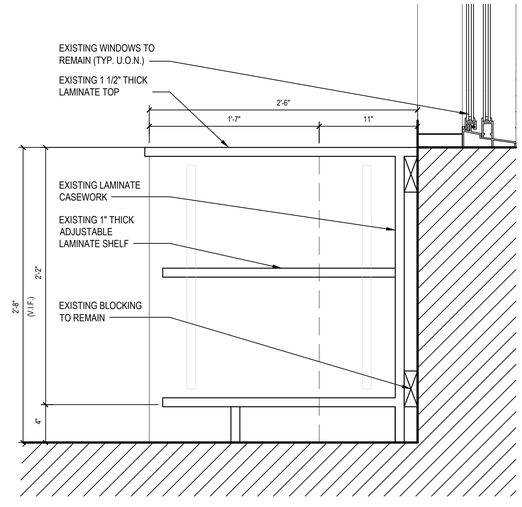
3 Typical Case Work Elevation

SCALE: 1/4"=1'-0"

KEYED CONSTRUCTION NOTES:

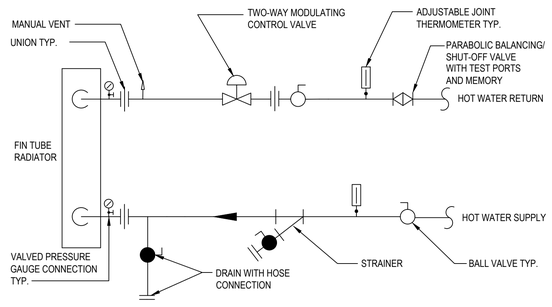
1 PROVIDE AND INSTALL NEW VERTICAL FLOOR-MOUNTED UNIT VENTILATOR (UV) WITH NEW DDC CONTROLS, NEW DDC THERMOSTAT, LOUVER, AND WALL SLEEVE. RECONNECT WITH NEW PIPING (SEE UNIT VENTILATOR PIPING DETAIL) INCLUDING NEW DDC CONTROL VALVE, ETC. RECONNECT ANY FIN-TUBE RADIATION (FT) PIPING BRANCHES OR CONTROL INTERLOCKS (FT CONTROL VALVE AND SHARED UV THERMOSTAT). SEE DETAIL 3 AND 4 ON THIS SHEET FOR ADDITIONAL INFORMATION.

2 PROVIDE AND INSTALL NEW MANUFACTURER SPECIFIED LOW VOLTAGE THERMOSTAT/CONTROLLER.



4 Typical Case Work Detail

SCALE: 1 1/2"=1'-0"

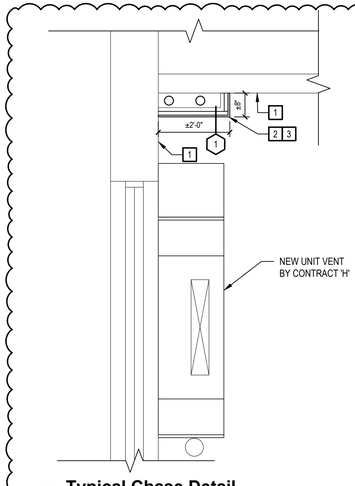


NOTES:

1. ARRANGE PIPING TO ALLOW FOR FIN TUBE RADIATOR REMOVAL.
2. USE THIS DETAIL WHEN COIL FIN TUBE RADIATOR IS NOT AN ISSUE.

5 Fin Tube Radiator Piping Diagram - Two Way Control Valve

SCALE:NTS (DETAIL #)



6 Typical Chase Detail

SCALE: NTS

GENERAL NOTES:

1. ALL DEMOLITION WORK SHALL BE IN COMPLIANCE WITH ALL FEDERAL AND NEW YORK STATE APPLICABLE BUILDING AND LIFE AND SAFETY REGULATIONS.
2. THE CONTRACTOR SHALL PROTECT ALL PORTIONS OF THE EXISTING BUILDING WHERE NEW WORK IS TO BE COMPLETED FROM DUST, WEATHER INCLEMENCY AND FREEZING. PROVIDE DUST FREE BARRIER PARTITIONS DURING DEMOLITION TO PREVENT DEBRIS FROM ENTERING NON-WORK AREAS. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING STRUCTURE OR BUILDING CONTENTS.
3. THE CONTRACTOR ACCESS SHALL BE AS CALLED OUT ON SHEET G0.0. THE CONTRACTOR SHALL ADEQUATELY PROTECT ALL EXISTING FINISHES SCHEDULED TO REMAIN ALONG THE ACCESS ROUTE AND ADJOINING SURFACES OUTSIDE THE CONTRACT AREA OR SCOPE OF WORK FROM DAMAGE DURING THE PROJECT DURATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE EXISTING CONDITIONS AND/OR FINISHES DAMAGED DURING CONSTRUCTION INCLUDING PATCHING AND PAINTING AS REQUIRED AND DEEMED NECESSARY BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CONSTRUCTION DEBRIS AND UNWANTED MATERIAL OFF SITE IN ACCORDANCE WITH ALL FEDERAL AND NEW YORK STATE APPLICABLE BUILDING AND LIFE AND SAFETY REGULATIONS.
5. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE ADJOINING SURFACES AND FINISHES DURING DEMOLITION. THE CONTRACTOR SHALL PATCH AND REPAIR ALL ADJACENT SURFACES DAMAGED DURING DEMOLITION . CONTRACTOR SHALL MATCH ALL ADJACENT FINISHES.
6. OVER-DEMOLITION SHALL BE ALLOWED PROVIDED THAT ALL SURFACES SHALL BE REBUILT TO MATCH MATERIALS, STRUCTURAL INTEGRITY AND APPEARANCE OF THOSE WHICH WERE REMOVED AND IN CONFORMANCE WITH CONTRACT DOCUMENTS AND AT NO ADDITIONAL COST TO THE OWNER.
7. REMOVE ALL ITEMS THAT WILL BE ABANDONED AS A RESULT OF THE WORK BEING PERFORMED.
8. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND QUANTITIES OF ALL ITEMS PRIOR TO BID.
9. COORDINATE THE WORK OF THE DEMOLITION DRAWING WITH ALL CONSTRUCTION DRAWINGS AND DOCUMENTS.
10. THIS DRAWING IS A GENERAL LIST OF DEMOLITION ITEMS AND IS NOT EVERY ITEM REQUIRED FOR DEMOLITION. CONTRACTOR SHALL PROVIDE ALL DEMOLITION REQUIRED TO PERFORM ALL WORK INDICATED WITHIN THE PROJECT DRAWINGS AND SPECIFICATIONS AND TO PREPARE ALL AREAS FOR THE CONSTRUCTION WORK.

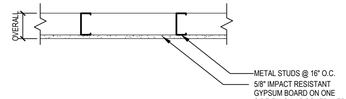
WALL CHASE KEY NOTES:

1 EXISTING WALL FINISHES SHALL REMAIN IN PLACE U.N.O.. THE CONTRACTOR SHALL PATCH AND REPAIR ALL WALLS, FLOORING AND CEILINGS IN AREA OF WORK TO MATCH ADJACENT FINISHES AND PREPARE NEW CONSTRUCTION.

2 EXISTING FLOORING SHALL REMAIN IN PLACE U.N.O.. EXISTING WALL BASE SHALL BE REMOVED AND LEGALLY DISPOSED OF. PATCH AND PREPARE EXISTING SURFACES FOR NEW CONSTRUCTION AND FINISHES.

3 THE CONTRACTOR SHALL PROVIDE AND INSTALL ⅝" IMPACT RESISTANT GYPSUM WALL BOARD ON 3-5/8" GALVANIZED METAL STUD FRAMING @ 16" O.C. TO UNDERSIDE OF DECK TO FINISHED FLOOR PER PARTITION TYPE 1 ON THIS SHEET. THE CONTRACTOR SHALL ALIGN AND PREPARE NEW AND EXISTING WALL TO PLUMB AS REQUIRED FOR COMPLETE AND PROPER INSTALLATION OF NEW TILE AND FINISHES.

NOTES:
- CONTRACTOR SHALL COORDINATE WITH 'E' DRAWINGS REGARDING INSTALLATION OF NEW ITEMS THROUGHOUT SPACE.
- CONTRACTOR SHALL PATCH AND PREPARE EXISTING AND NEW SLAB/FLOORING, WALL AND CEILING OPENINGS.
- SEE THIS SHEET FOR DETAILS



WALL TYPE	OVERALL DIMENSIONS	STUD SIZE	FIRE RATING	UL No.	STC RATING	COMMENTS
1	4 1/4"	3 5/8"	-	-	-	GYPSUM BOARD ON ONE SIDE. FLOOR TO CEILING

1 Metal Stud Partition

Interior Partition

H2M Ref #MI-131

H 2 M architects + engineers

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Purchase, NY 10577
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CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

HVAC DETAILS (3 of 3)

DRAWING No.

M502.00

UNIT VENTILATORS - STEAM HEAT

EQUIPMENT NO.	QUANTITY	PERFORMANCE/ CONSTRUCTION REQUIREMENTS												BASIS OF DESIGN INFORMATION							MECHANICAL NOTES	ELECTRICAL NOTES
		SUPPLY FAN		OUTSIDE AIRFLOW (CFM)	COOLING COIL					HEATING COIL								ELECTRICAL DATA				
		AIRFLOW (CFM)	HP		REFRIGERANT TYPE	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	AIR DATA		TOTAL CAPACITY (MBH)	AIR DATA		STEAM COIL DATA	MNF	MODEL NO.	NOMINAL DIMENSIONS L" x W" x H" (EXCLUDING LEV KIT)	NOMINAL OPERATING WEIGHT (LBS.)	VOLTS/PHASE	MCA	MOCP		
								ENT. DB/WB (°F)	LVG. DB/WB (°F)		ENT. DB (°F)	LVG. DB (°F)	PRESSURE (PSIG)									
UV-15B	1	999	1 / 3	221	R-410A	33.2	24.9	80 / 67	57.1 / 56.3	58.5	51	105	3.0	DAIKIN	UAVS9H10	74"x16.63"x30.13"	425	115 / 1	6.3	15	1-18	6,7,10,12,14
UV-17	1	1474	1 / 3	401	R-410A	53.7	40.3	80 / 67	54.8 / 54.8	85.5	51	104.4	3.0	DAIKIN	UAVS9H15	98"x16.63"x30.13"	570	115 / 1	6.3	15	1-18	6,7,10,12,14
UV-19	1	1474	1 / 3	441	R-410A	53.7	40.3	80 / 67	54.8 / 54.8	85.5	51	104.4	3.0	DAIKIN	UAVS9H15	98"x16.63"x30.13"	570	115 / 1	6.3	15	1-18	6,7,10,12,14
UV-21	1	999	1 / 3	205	R-410A	33.2	24.9	80 / 67	57.1 / 56.3	58.5	51	105	3.0	DAIKIN	UAVS9H10	74"x16.63"x30.13"	425	115 / 1	6.3	15	1-18	6,7,10,12,14

MECHANICAL NOTES:

1. PROVIDE PNEUMATIC CONTROLS TO TIE INTO EXISTING
2. GALVANIZED DRAIN PAN
3. COLD WEATHER DAMPER ASSEMBLY
4. REAR OUTSIDE AIR, BOTTOM RETURN AIR
5. HIGH EFFICIENCY ECM MOTOR
6. STEAM 2 WAY MODULATING VALVE/ACTUATOR
7. 2" MERV 13 FILTER
8. TOP DISCHARGE BAR STOCK STEEL GRILLE
9. FALSE BACK
10. SINGLE ROW STEAM COIL
11. PROVIDE WITH FREEZE STAT
12. CONTRACTOR RESPONSIBILITY TO CONFIRM QUANTITIES
13. PROVIDE NEW WALL MOUNTED PNEUMATIC THERMOSTAT
14. PROVIDE ECONOMIZER
15. REUSE EXISTING PNEUMATIC LINES
16. PROVIDE SUBBASE, MATCH HEIGHT OF EXISTING CASEWORK.
17. OUTSIDE AIR VALUES IN THIS SCHEDULE ARE MAXIMUM VALUES. BALANCER TO BALANCE UNIT VENTILATOR OUTSIDE AIR TO VALUES ON PLAN/VENTILATION SCHEDULE.
18. FACE AND BYPASS CONTROL

ELECTRICAL NOTES:

1. INTEGRAL DISCONNECT SWITCH [FIELD WIRED]
2. INTEGRAL DISCONNECT SWITCH [FACTORY WIRED]
3. INTEGRAL UNPOWERED RECEPTACLES [FIELD WIRED]
4. INTEGRAL POWERED RECEPTACLES [FACTORY WIRED]
5. INTEGRAL CONDENSATE PUMP [UNPOWERED]
6. INTEGRAL CONDENSATE PUMP [POWERED]
7. LOW VOLTAGE CONTROLS
8. LINE VOLTAGE CONTROLS
9. INTEGRAL STARTERS
10. MOTORIZED DAMPERS [24VAC]
11. MOTORIZED DAMPERS [120VAC]
12. SINGLE POINT POWER FEED
13. INDOOR UNIT POWERED FROM OUTDOOR UNIT
14. ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH
15. ON SAME POWER FEED AS ASSOCIATED INDOOR UNIT

UNIT VENTILATORS - HOT WATER HEAT

EQUIPMENT NO.	QUANTITY	PERFORMANCE/ CONSTRUCTION REQUIREMENTS															BASIS OF DESIGN INFORMATION							MECHANICAL NOTES	ELECTRICAL NOTES
		SUPPLY FAN		OUTSIDE AIRFLOW (CFM)	COOLING COIL					HEATING COIL									ELECTRICAL DATA					
		AIRFLOW (CFM)	HP		REFRIGERANT TYPE	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	AIR DATA		TOTAL CAPACITY (MBH)	AIR DATA		HOT WATER				MNF	MODEL NO.	NOMINAL DIMENSIONS L" x W" x H" (EXCLUDING LEV KIT)	NOMINAL OPERATING WEIGHT (LBS.)	VOLTS/PHASE	MCA	MOCP		
								ENT. DB/WB (°F)	LVG. DB/WB (°F)		ENT. DB (°F)	LVG. DB (°F)	ENT. TEMP (°F)	LVG. TEMP (°F)	FLOW RATE (GPM)	PRESSURE DROP (FT H2O)								
UV-10	1	979	1 / 3	342	R-410A	33.2	24.9	80 / 67	56.6 / 56	46	70	113.4	180	133.9	2.0	.85	DAIKIN	UAVS9H10	74"x16.63"x30.13"	425	115 / 1	6.3	15	1-17	6,7,10,12,14
UV-12	1	979	1 / 3	387	R-410A	33.2	24.9	80 / 67	56.6 / 56	46	70	113.4	180	133.9	2.0	.85	DAIKIN	UAVS9H10	74"x16.63"x30.13"	425	115 / 1	6.3	15	1-17	6,7,10,12,14
UV-13A	1	979	1 / 3	281	R-410A	33.2	24.9	80 / 67	56.6 / 56	46	70	113.4	180	133.9	2.0	.85	DAIKIN	UAVS9H10	74"x16.63"x30.13"	425	115 / 1	6.3	15	1-17	6,7,10,12,14
UV-13B	1	979	1 / 3	281	R-410A	33.2	24.9	80 / 67	56.6 / 56	46	70	113.4	180	133.9	2.0	.85	DAIKIN	UAVS9H10	74"x16.63"x30.13"	425	115 / 1	6.3	15	1-17	6,7,10,12,14
UV-100	1	979	1 / 3	220	R-410A	33.2	24.9	80 / 67	56	46	70	113.4	180	133.9	2.0	.85	DAIKIN	UAVS9H10	74"x16.63"x30.13"	425	115 / 1	6.3	15	1-17	6,7,10,12,14
UV-101	1	1444	1 / 3	434	R-410A	53.7	40.3	80 / 67	54.3 / 54.3	62.9	70	110.1	180	117.1	2.0	.65	DAIKIN	UAVS9H15	98"x16.63"x30.13"	570	115 / 1	6.3	15	1-17	6,7,10,12,14
UV-102	1	1444	1 / 3	415	R-410A	53.7	40.3	80 / 67	54.3 / 54.3	62.9	70	110.1	180	117.1	2.0	.65	DAIKIN	UAVS9H15	98"x16.63"x30.13"	570	115 / 1	6.3	15	1-17	6,7,10,12,14

MECHANICAL NOTES:

1. PROVIDE PNEUMATIC CONTROLS TO TIE INTO EXISTING
2. GALVANIZED DRAIN PAN
3. COLD WEATHER DAMPER ASSEMBLY
4. REAR OUTSIDE AIR, BOTTOM RETURN AIR
5. HIGH EFFICIENCY ECM MOTOR
6. 2" MERV 13 FILTER
7. TOP DISCHARGE BAR STOCK STEEL GRILLE
8. FALSE BACK
9. SINGLE ROW HOT WATER COIL
10. PROVIDE WITH FREEZE STAT
11. CONTRACTOR RESPONSIBILITY TO CONFIRM QUANTITIES
12. PROVIDE WALL MOUNTED PNEUMATIC THERMOSTAT
13. PROVIDE ECONOMIZER
14. REUSE EXISTING PNEUMATICS
15. PROVIDE SUBBASE, MATCH HEIGHT OF EXISTING CASEWORK.
16. OUTSIDE AIR VALUES IN SCHEDULE ARE MAXIMUM VALUES. BALANCER TO BALANCE UNIT VENTILATOR OUTSIDE AIR TO VALUES ON PLAN/VENTILATION SCHEDULE.
17. FACE AND BYPASS CONTROL

ELECTRICAL NOTES:

1. INTEGRAL DISCONNECT SWITCH [FIELD WIRED]
2. INTEGRAL DISCONNECT SWITCH [FACTORY WIRED]
3. INTEGRAL UNPOWERED RECEPTACLES [FIELD WIRED]
4. INTEGRAL POWERED RECEPTACLES [FACTORY WIRED]
5. INTEGRAL CONDENSATE PUMP [UNPOWERED]
6. INTEGRAL CONDENSATE PUMP [POWERED]
7. LOW VOLTAGE CONTROLS
8. LINE VOLTAGE CONTROLS
9. INTEGRAL STARTERS
10. MOTORIZED DAMPERS [120VAC]
11. MOTORIZED DAMPERS [24VAC]
12. SINGLE POINT POWER FEED
13. INDOOR UNIT POWERED FROM OUTDOOR UNIT
14. ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH
15. ON SAME POWER FEED AS ASSOCIATED INDOOR UNIT

PACKAGED ROOFTOP SYSTEM WITH ENERGY RECOVERY WHEEL

EQUIPMENT NO.	LOCATION	PERFORMANCE/ CONSTRUCTION REQUIREMENTS																												BASIS OF DESIGN INFORMATION								MECHANICAL NOTES	ELECTRICAL NOTES
		SUPPLY FAN				EXHAUST FAN				ERV	OUTSIDE AIR FLOW (CFM)	NOMINAL TONNAGE	COOLING COIL								HEATING																			
		SUPPLY AIR (CFM)	BHP	MOTOR HP	EXT. S.P. (IN W.G)	EXHAUST AIR (CFM) [ECONOMIZER]	BHP	MOTOR HP	EXT. S.P. (IN W.G)	MOTOR HP			REFR. TYPE	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EER	SEER / IEER	AIR DATA						UNIT LVG TEMP (°F)	HEAT PUMP												UNIT LVG TEMP (°F)	MNF	MODEL NO.	NOMINAL DIMENSIONS LxWxH (IN.)	NOMINAL OPERATION WEIGHT (LBS)	ELECTRICAL DATA						
																		QA DB/WB (°F)	RA DB/WB (°F)	ENT. DB/WB (°F)	LVG. DB/WB (°F)	HGRH DB/WB (°F)		HEAT PUMP CAPACITY (MBH)	OA DB/WB (°F)	RA DB/WB (°F)	ENT. DB (°F)	LVG. DB (°F)	COP @47 F	ELECTRIC COIL																VOLTS/ PHASE	FLA	MCA	MOCP		
																														ELECTRIC HEAT COIL SIZE (KW)	HEAT CAPACITY (MBH)	COIL ΔT (°F)																		
ERU-1	SEE PLANS	2200	2.08	4	2	1482	.91	4	1.5	0.17	2200	7	R-410A	86.1	63.8	12.6	18.8	88 / 72	75 / 62	79.7/66.1	53.2/53.1	70 / 59.5	53.2	44.8	10 / 70	70 / 50	46.7	65.4	3.58	18	61.4	25.8	72.5	DAIKIN	DPS007A	111x96.5x56.8	2424	208 / 3	94.6	110.1	125	1-9, 11-17, 19	2,4,7,10,11
ERU-2	SEE PLANS	1800	1.76	4	2	1404	.81	4	1.5	0.17	1800	7	R-410A	81.0	56.7	12.6	18.8	88 / 72	75 / 62	78.7/65.3	49.8/49.8	70/57.8	49.8	43.8	10 / 70	70 / 50	51.7	73.9	3.58	18	61.4	31.4	83.1	DAIKIN	DPS007A	111x96.5x56.8	2424	208 / 3	94.6	110.1	125	1-9, 11-17, 19	2,4,7,10,11
ERU-3	SEE PLANS	3200	4.12	5	2	3000	1.95	4	1.5	0.17	3200	16	R-410A	162	108.5	11.5	20.5	88 / 72	75 / 62	79.3/65.8	48.3/48.2	70/57.1	48.3	95.7	10 / 70	70 / 50	48.7	76.1	3.55	30	102.4	29.5	78.2	DAIKIN	DPS016A	182.3x76.5x82.5	4139	208 / 3	167.7	200.3	225	1-9, 11-17, 19	2,4,7,10,11
ERU-4	SEE PLANS	3200	4.13	5	2	2496	1.47	4	1.5	0.17	3200	16	R-410A	167.2	106.3	11.5	20.5	88 / 72	75 / 62	80.4/67.5	50.0/50.0	70/58.0	50	95.7	10 / 70	70 / 50	47.0	74.4	3.55	30	102.4	29.5	76.5	DAIKIN	DPS016A	182.3x76.5x82.5	4139	208 / 3	167.7	200.3	225	1-9, 11-17, 19	2,4,7,10,11
ERU-5	SEE PLANS	1900	1.83	4	2	1482	.86	4	1.5	0.17	1900	7	R-410A	82.1	58.4	12.6	18.8	88 / 72	75 / 62	78.7/65.4	50.6/50.6	70/58.2	50.6	44.0	10 / 70	70 / 50	51.2	72.4	3.58	18	61.4	29.8	81.0	DAIKIN	DPS007A	111x96.5x56.8	2424	208 / 3	94.6	110.1	125	1-10, 12-18	2,4,7,10,11

MECHANICAL NOTES:

1. 4" PLEATED MERV-8 FILTERS.
2. HINGED ACCESS DOORS
3. DIRTY FILTER INDICATOR SWITCH.
4. SUPPLY FAN STATUS SWITCH
5. HOT GAS REHEAT COIL.
6. PROVIDE NEW PROGRAMMABLE THERMOSTAT.
7. MANUFACTURER TO PROVIDE BACNET INTERFACE CARD
8. STAINLESS STEEL DRAIN PAN AND CONDENSATE OVERFLOW SWITCH, INTERLOCK TO TURN OFF UNIT.
9. PHASE LOSS PROTECTION
10. VERTICAL SUPPLY/RETURN DUCTWORK CONFIGURATION.
11. HORIZONTAL SUPPLY/RETURN DUCTWORK CONFIGURATION.
12. CONDENSER HAIL GUARD
13. ENERGY RECOVERY WHEEL
14. SCROLL COMPRESSOR FOR ALL CIRCUITS
15. MANUFACTURER TO PROVIDE FACTORY INSTALLED UNIT CONTROLLER
16. SUPPLY AIR FLOW MONITORING
17. SUPPLY AND EXHAUST FAN VFD
18. PROVIDE CURB ADAPTER
19. MOUNT ON EXISTING DUNNAGE.

ELECTRICAL NOTES:

1. INTEGRAL DISCONNECT SWITCH [FIELD WIRED]
2. INTEGRAL DISCONNECT SWITCH [FACTORY WIRED]
3. INTEGRAL UNPOWERED RECEPTACLES [FIELD WIRED]
4. INTEGRAL POWERED RECEPTACLES [FACTORY WIRED]
5. INTEGRAL CONDENSATE PUMP [UNPOWERED]
6. INTEGRAL CONDENSATE PUMP [POWERED]
7. LOW VOLTAGE CONTROLS
8. LINE VOLTAGE CONTROLS
9. INTEGRAL STARTERS
10. MOTORIZED DAMPERS [120VAC]
11. SINGLE POINT POWER FEED
12. INDOOR UNIT POWERED FROM OUTDOOR UNIT
13. ELECTRICAL CONTRACTOR TO PROVIDE DISCONNECT SWITCH
14. ON SAME POWER FEED AS ASSOCIATED INDOOR UNIT

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Purchase, NY 10577
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CONSULTANTS:

MARK	DATE	DESCRIPTION
	10-16-23	FINAL BID DOCUMENT
1	11-01-23	ADDENDUM #1

STATE OF NEW YORK · JOHN LAMEY · 101303 · LICENSED PROFESSIONAL ENGINEER

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JML	BFB/DKR	JML	QAQC

PROJECT No.:	DATE:	SCALE:
WPSD 2205	OCTOBER 2023	

CLIENT

White Plains City School District

AC and Ventilation Upgrades at Mamaroneck Elementary School

7 Nosband Ave.
White Plains, NY 10605

SED PROJECT CONTROL NO. 66-22-00-01-0-010-017

CONTRACT

CONTRACT H
HEATING VENTILATION AND AIR CONDITIONING

STATUS

FINAL BID DOCUMENT

SHEET TITLE

MECHANICAL SCHEDULES [3 of 4]

DRAWING No.

M602.00