

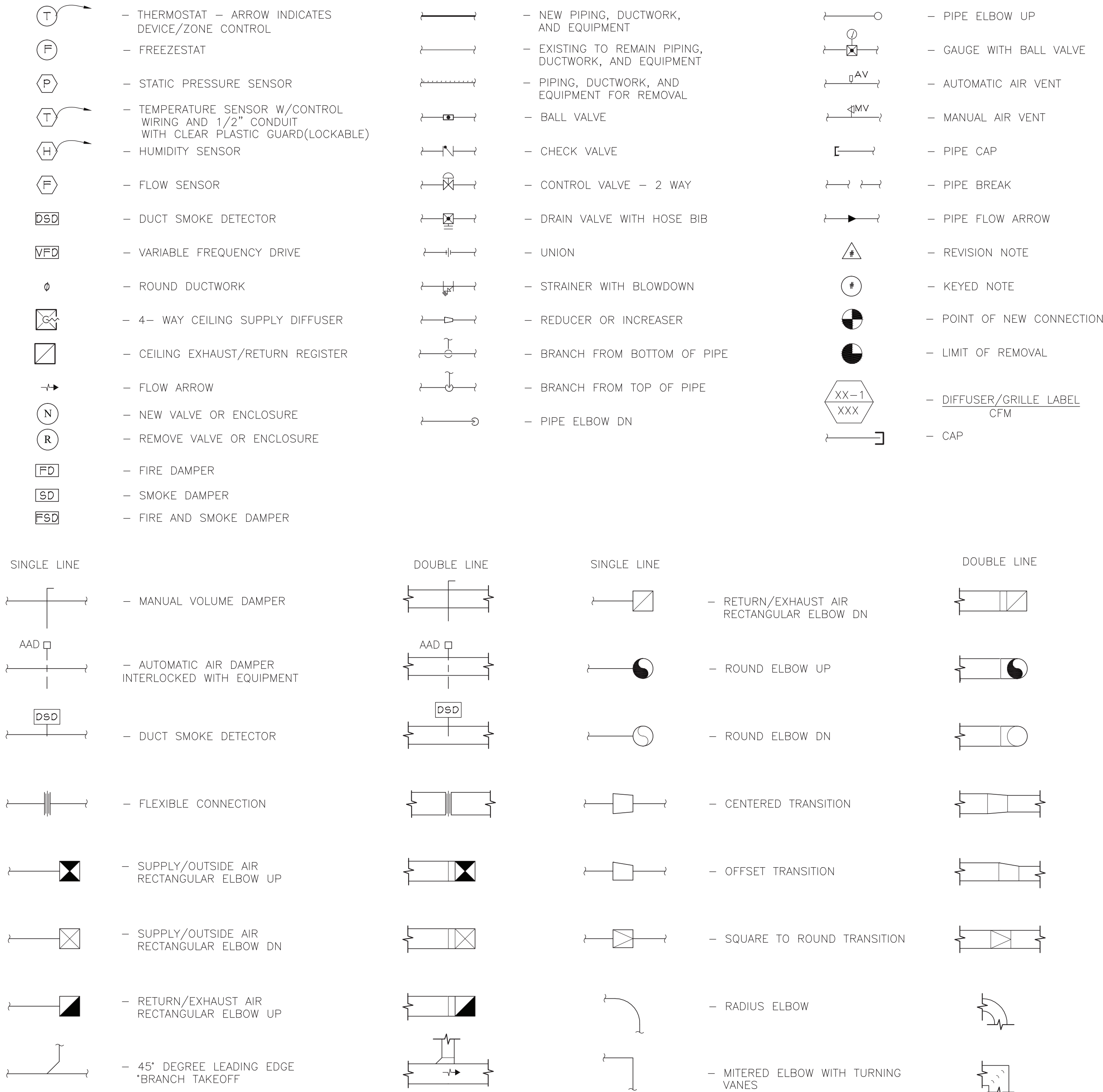
MECHANICAL GENERAL NOTES:

- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. IT IS NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, FITTING OR COMPONENT; HOWEVER, CONTRACT DOCUMENTS REQUIRE COMPONENTS AND MATERIALS WHETHER OR NOT INDICATED OR SPECIFICALLY SPECIFIED TO MAKE THE SYSTEMS BEING INSTALLED COMPLETE, CODE COMPLIANT, TESTED AND OPERATIONAL.
- CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.
- ALL MATERIALS, EQUIPMENT, METHODS OF INSTALLATION, REMOVALS AND DISPOSAL SHALL BE IN ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
- PERFORM WORK, PROVIDE MATERIALS AND EQUIPMENT FOR SYSTEMS SHOWN, SPECIFIED AND DESCRIBED ON DRAWINGS. COMPLETELY COORDINATE ALL TRADES OF THIS CONTRACT AND PROVIDE COMPLETE AND FULLY FUNCTIONAL INSTALLATION. ALL WORK IN THIS SET TO BE COMPLETED UNDER THIS CONTRACT, UNLESS OTHERWISE INDICATED.
- PROTECT ALL EXISTING AND NEW BUILDING ELEMENTS (INSTALLED BY OTHER CONTRACTS) FROM DAMAGE. CONTRACTOR SHALL RESTORE ALL DAMAGED ELEMENTS TO ORIGINAL OR BETTER CONDITION.
- WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEAD ROOM AT ALL TIMES. DO NOT RUN PIPES, DUCTS, AND CONDUIT EXPOSED UNLESS SHOWN AND NOTED TO BE EXPOSED ON DRAWINGS.
- MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. MAINTAIN MANUFACTURER'S EQUIPMENT CLEARANCES.
- CONTRACTOR IS RESPONSIBLE FOR ALL WORK RELATED TO ISOLATING, SHUTTING DOWN, DRAINING, FILLING AND TESTING SYSTEMS TO ALLOW FOR COMPLETION OF WORK. INTERRUPTIONS TO EXISTING SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED BY THE OWNER AND UTILITY AS APPLICABLE. INCLUDE ALL PREMIUM TIME ASSOCIATED WITH INTERRUPTIONS. ALL SYSTEM INTERRUPTIONS SHALL BE SCHEDULED WITH OWNER, UTILITY AND COORDINATED WITH OTHER TRADE WORK.
- ALL EQUIPMENT PIPING, WIRING, INSULATION ETC. INSTALLED IN HVAC AIR PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
- SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, PARTITIONS AND FLOORS WITH UL RATED MATERIALS/METHODS EQUIVALENT TO FIRE RATING OF ASSEMBLY.
- COORDINATE ALL WALL/FOUNDATION PENETRATIONS WITH GENERAL CONTRACT AND SEAL WEATERTIGHT. PROVIDE STAINLESS STEEL ESCUTCHEON PLATE/TRIM RING FOR EACH ABOVE GRADE PENETRATION (BOTH SIDES).
- PROVIDE PROPER ACCESS TO EQUIPMENT THAT REQUIRES INSPECTION, REPLACEMENT OR REPAIR. ACCESS PANELS/DOORS SHALL BE A MINIMUM OF 12"x12", UNLESS OTHERWISE NOTED.
- DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. ALL SUPPORT SHALL BE FROM BUILDING STRUCTURE OR FROM CEILING SUSPENSION SYSTEM WHICH HAS BEEN REINFORCED. SUPPORTS SHALL BE SELECTED AND INSTALLED TO PROVIDE A VIBRATION FREE INSTALLATION.
- CLEANING DURING MECHANICAL WORK: CLEAN THE MECHANICAL ROOM AND ROOMS WORK WILL BE DONE TO MINIMIZE DISTURBANCE IN THE BUILDINGS. WORKERS ARE TO USE PATHWAYS AND FACILITIES AGREED UPON WITH THE DISTRICT DESIGNEE IN WRITING. THE AREA OUTSIDE THE BUILDING WHERE CUTTING WELDING OR STORAGE IS ALLOWED IS TO BE FENCED AT ALL TIMES. THE CONTRACTOR WILL ON A DAILY BASIS CLEAN THE GROUNDS AND THE BUILDING OF ANY DEBRIS OR GARBAGE GENERATED BY THEIR WORK.
- MODIFICATIONS TO CONTROLS WILL BE PROVIDED BY EMF CONTROLS. 581 N STATE ROAD, STE 6, BRIARCLIFFE MANOR NY 10510-1556

HVAC REMOVAL NOTES:

- THE SCOPE OF REMOVAL SHOWN ON "REMOVALS" DRAWING IS DIAGRAMMATIC ONLY AND INDICATES THE INTENT OF THE WORK TO BE PERFORMED AND NOT THE COMPLETE SCOPE OF DEMOLITION AND/OR REMOVAL WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ANY RELATED MECHANICAL DEVICES/ITEMS EVEN IF NOT SPECIFICALLY INDICATED TO BE REMOVED ON THESE DRAWINGS IN ORDER TO ACCOMMODATE NEW WORK.
- EQUIPMENT/ITEMS SHOWN CROSS HATCHED ON DRAWINGS ARE ITEMS TO BE REMOVED. ANY DEVICES/ITEMS REMOVED SHALL INCLUDE (BUT SHALL NOT BE LIMITED TO) THE REMOVAL OF ALL ASSOCIATED PIPING, CONTROLS, ETC. THAT ARE NOT INCORPORATED IN THE NEW LAYOUT. THE CONTRACTOR SHALL PERFORM ALL WORK REQUIRED TO INSURE CONTINUITY OF SERVICE TO EXISTING REMAINING EQUIPMENT. NO EXTRAS RELATING TO THE SCOPE OF WORK DESCRIBED WILL BE ALLOWED.
- EQUIPMENT, PIPING, ETC. REQUIRED TO RECONNECT SHALL BE INSTALLED CONCEALED WITHIN THE SUSPENDED CEILINGS, PARTITIONS AND/OR WALLS, FLOORS. NO SURFACE MOUNTED OR EXPOSED EQUIPMENT, PIPING, ETC., SHALL BE PERMITTED, UNLESS SPECIFICALLY INDICATED.
- ALL ITEMS TO BE REMOVED SHALL BE REVIEWED WITH THE OWNER PRIOR TO REMOVAL. OWNER SHALL HAVE FIRST SALVAGE RIGHTS. ITEMS THE OWNER WISHES TO KEEP SHALL BE REMOVED WITH CARE AND STORED AS DIRECTED BY OWNER. ITEMS THE OWNER DOES NOT WISH TO KEEP SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.

MECHANICAL SYMBOLS



COORDINATION NOTE:

1. COORDINATION- IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL AND MECHANICAL CONTRACTORS TO COORDINATE THEIR WORK. THE HVAC CONTRACTOR SHALL TAKE THE LEAD IN THE COORDINATION EFFORT AND PRODUCE THE COORDINATION DRAWINGS. COORDINATION DRAWINGS SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO STARTING ANY WORK. CEILING SPACE IS VERY LIMITED AND DUCTWORK/PIPING INSTALLATION AND LOCATION IS CRITIAL. THE PURPOSE OF THESE DRAWINGS IS TO COORDINATE THE LOCATIONS OF ALL PIPING, DUCTWORK, AND ASSOCIATED ELECTRICAL EQUIPMENT. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED AND LOCATED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC). MECHANICAL EQUIPMENT CANNOT INFILTRATE THE ELECTRICAL EQUIPMENTS WORKING CLEARANCE AND WORKING SPACE. NOR CAN IT BE INSTALLED DIRECTLY ABOVE OR BELOW TO THE STRUCTURE, AS IDENTIFIED WITHIN THE NEC, ARTICLE 410 - "REQUIREMENTS FOR ELECTRICAL INSTALLATION". THIS COORDINATION IS REQUIRED FOR ALL PHASES OF THIS PROJECT. FAILURE TO FOLLOW THIS PROCEDURE DOES NOT RELIEVE THE CONTRACTOR FROM THE DUTIES AND WILL NOT CONSTITUTE A REASON FOR A CHANGE ORDER.

HVAC ABBREVIATIONS

AAD	AUTOMATIC AIR DAMPER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AHU	AIR HANDLING UNIT
AMP	AMPERAGE
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BMS	BUILDING MANAGEMENT SYSTEM
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
C	CONDENSATE
DB	DRYBULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROL (SYSTEM)
DEG	DEGREE
DIA	DIAMETER
DN	DOWN
DP	DEWPOINT TEMPERATURE
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST
F	FAHRENHEIT
FD	FIRE DAMPER
FF	FINAL FILTER
FLR	FLOOR
PFM	FEET PER MINUTE
FSTAT	FREEZESTAT
FT	FEET
FT HD	FEET OF HEAD
FT WG	FEET OF WATER GAUGE
FV	FACE VELOCITY
G	GAS
GAL	GALLON
GPM	GALLONS PER MINUTE
HD	HEAD
HP	HORSEPOWER
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MBH	1,000 BTU/HR
MCA	MINIMUM BRANCH CIRCUIT AMPACITY
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
PD	PRESSURE DROP
R	REMOVE
RA	RETURN AIR
RL	REFRIGERANT LIQUID
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
S	SATISFACTORY
SAT	SUPPLY AIR TEMPERATURE
SEN	SENSIBLE HEAT
SG	SPECIFIC GRAVITY
SP	STATIC PRESSURE
TAB	TESTING, ADJUSTING, BALANCE
TSTAT	THERMOSTAT
TYP	TYPICAL
VD	VOLUME DAMPER
WB	WETBULB
WG	WATER GAUGE
HP	HEAT PUMP
AT	TEMPERATURE DIFFERENCE

ENGINEER:



CONSULTANT(S):

STAMP



**YONKERS PUBLIC SCHOOLS  
BOILER SYSTEM RENOVATION AND  
ASBESTOS ABATEMENT AT  
SCHOOL 9**  
53 FAIRVIEW STREET, YONKERS N.Y. 10703  
S.E.D.# 06-25-00-01-0-009-009

FILE PATH --N:\1 - PROJECT DIRECTORIES\YONKERS PUBLIC SCHOOLS\9 School 9\170901 Boiler System Replacement YPS 10816\Additions\_Work\1\170901.m001.dwg

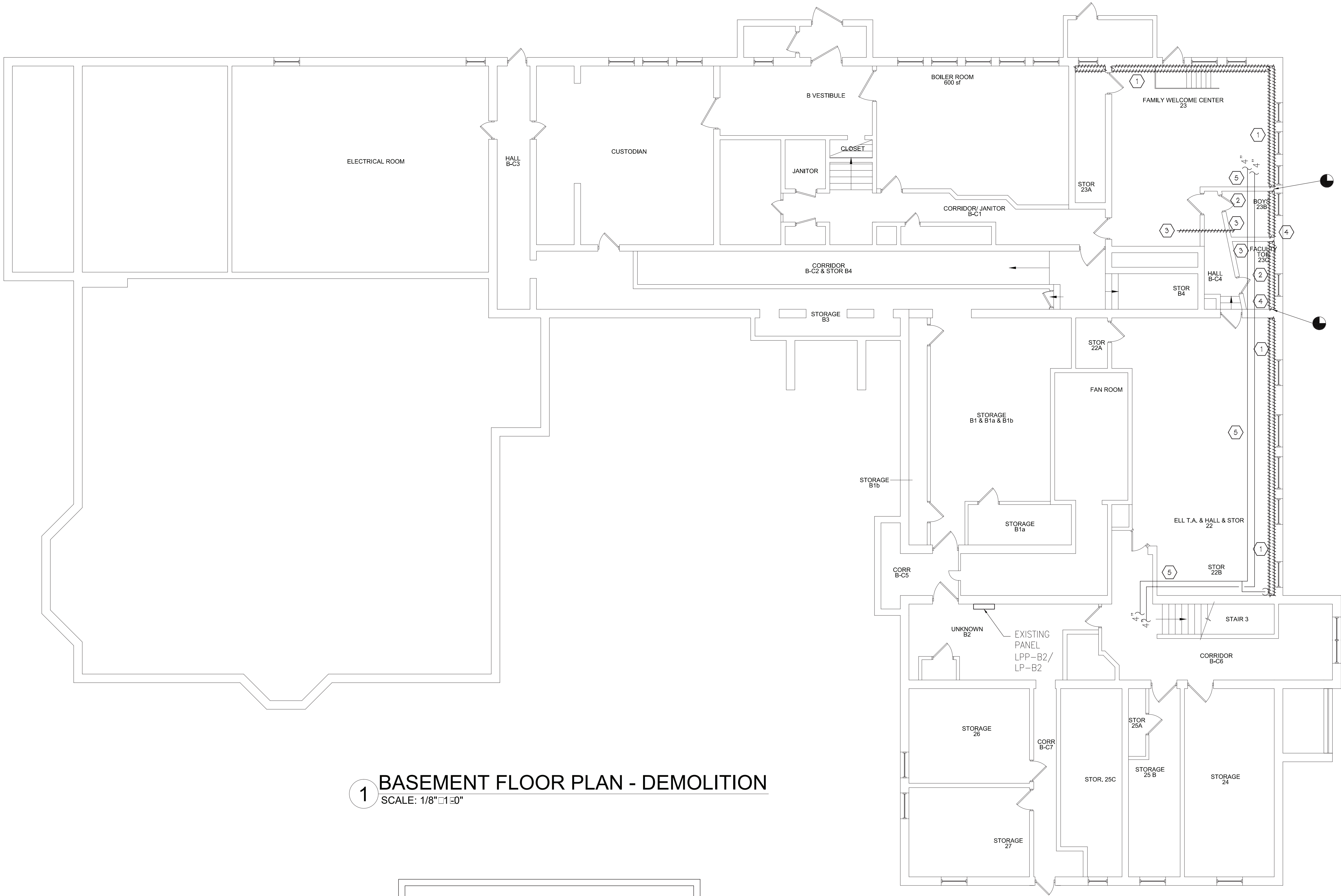
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YPS NO.	10816	
REVISION	DATE	BY
ISSUED FOR BID	10.20.2020	
DRAWN BY	JMJ	
CHECKED BY	JIE	
SHEET SIZE	ARCH E1 30" x 42"	
SCALE	AS NOTED	
SHEET TITLE		

ABBREVIATIONS  
AND SYMBOLS

SHEET NO.

M-001

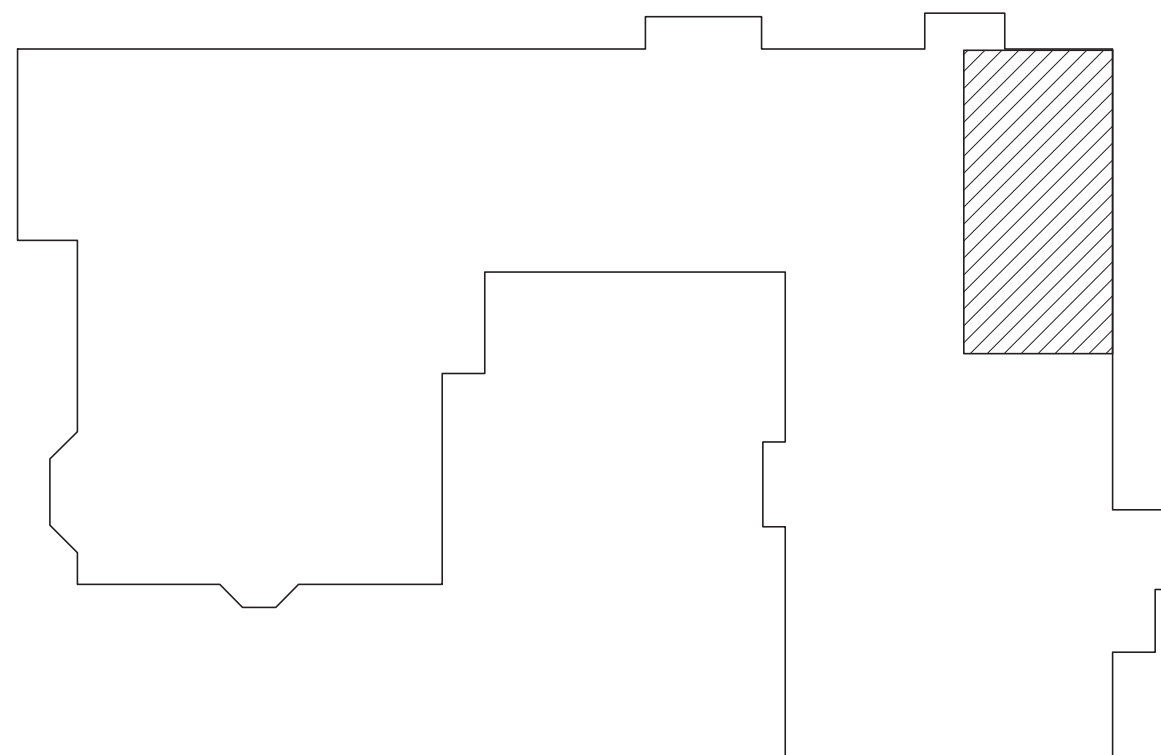




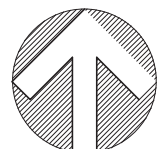
1 BASEMENT FLOOR PLAN - DEMOLITION  
SCALE: 1/8"=1'-0"

KEYED NOTES -- DEMOLITION

- 1 REMOVE FIN TUBE COVERS AND DISCARD. VACUUM, CLEAN AND WIRE BRUSH EXISTING FIN-TUBE. MECHANICAL CONTRACTOR TO ISOLATE EXISTING SYSTEM IN THIS AREA AND REMOVE EXISTING FIN TUBE FOR BRICK REPAIR. COORDINATE WITH GC FOR THIS WORK.
- 2 REMOVE FIN-TUBE ELEMENT AND COVER. PREPARE FOR NEW WORK.
- 3 REMOVE EXHAUST GRILLES AND 10X6 DUCT AND CAP AT WALL.
- 4 REMOVE 2 ZONE CONTROLLERS AND REUSE 1 AND TURN 1 OVER TO OWNER.
- 5 REMOVE PIPE INSULATION. PREPARE FOR NEW WORK.



KEY-PLAN  
SCALE: NONE



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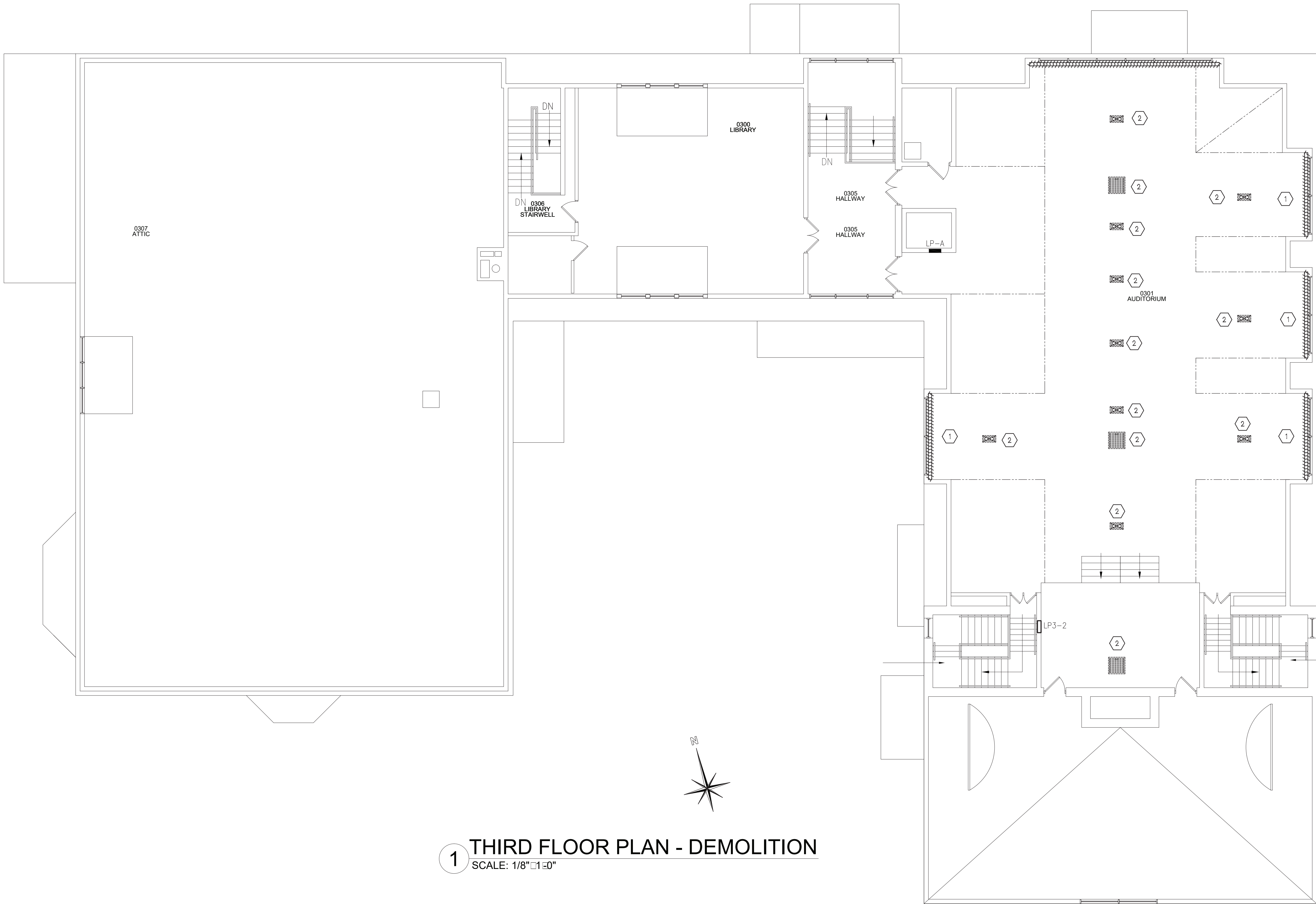
ENGINEER:  
  
Eisenbach & Ruhke Engineering, P.C.  
291 Coxsack Street - Union, NY 10801  
(212) 352-7500 / (914) 666-3345-4346  
www.erenapp.com

CONSULTANT(S):

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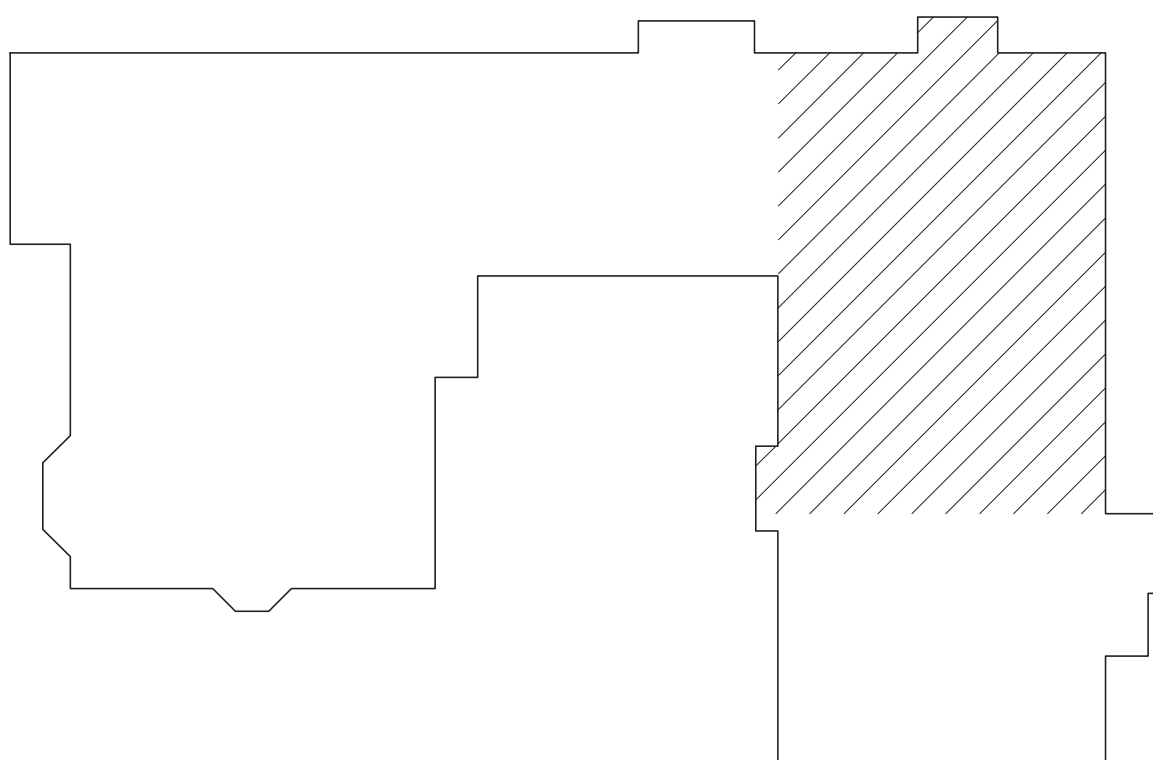
YONKERS PUBLIC SCHOOLS  
BUILDING RENOVATIONS AND  
SITEWORK AT  
SCHOOL 9  
53 FAIRVIEW STREET, YONKERS N.Y. 10703  
S.E.D.# 86-23-00-01-0-009-009

E&R PROJECT NO.	Y170901	
YPS NO.	10816	
REVISION	DATE	BY
ISSUED FOR BID	10.20.2020	
DRAWN BY	JMI	
CHECKED BY	JIE	
SHEET SIZE	A0H E1 30" x 42"	
SCALE	AS NOTED	
SHEET TITLE BASEMENT FLOOR PLAN - DEMOLITION		
SHEET NO. MD-100		



1 THIRD FLOOR PLAN - DEMOLITION  
SCALE: 1/8"=1'-0"

- KEYED NOTES - DEMOLITION
- 1 REMOVE FIN TUBE COVERS AND DISCARD. VACUUM AND CLEAN, WIRE BRUSH, EXISTING FIN-TUBE. PREPARE FOR NEW WORK
  - 2 REMOVE EXISTING GRILLES AND DIFFUSERS AS SHOWN AND DISCARD. PREPARE FOR NEW WORK. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.



KEY-PLAN  
SCALE: NONE

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**Eisenbach & Ruhke Engineering, P.C.**  
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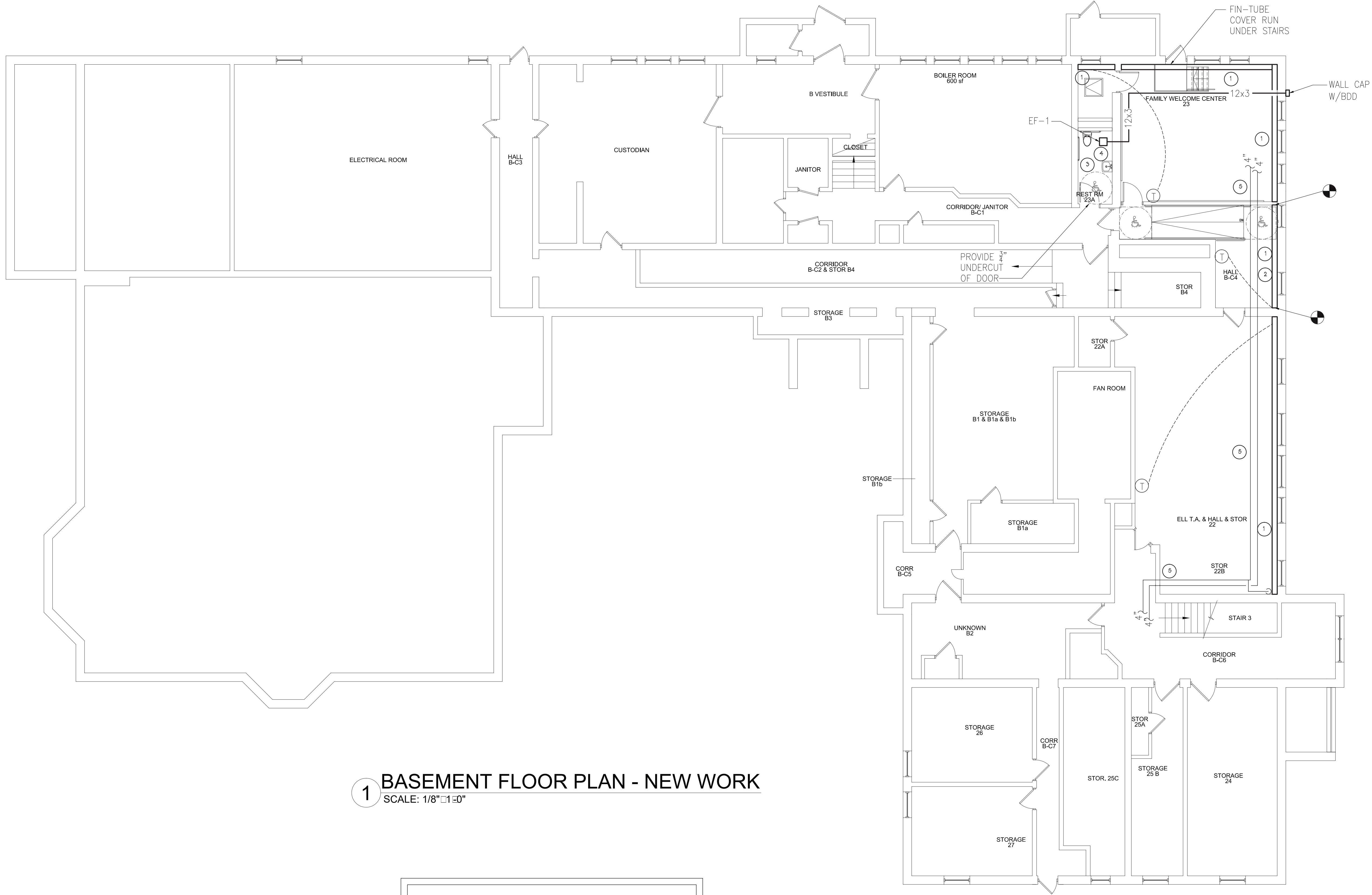
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STATE OF NEW YORK  
EISENBACH & RUHKE  
REGISTERED PROFESSIONAL ENGINEER  
NO. 0177500

**YONKERS PUBLIC SCHOOLS  
BOILER SYSTEM RENOVATION AND  
ASBESTOS ABATEMENT AT  
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53 FAIRVIEW STREET, YONKERS N.Y. 10703  
S.E.D.# 86-23-00-01-009-009

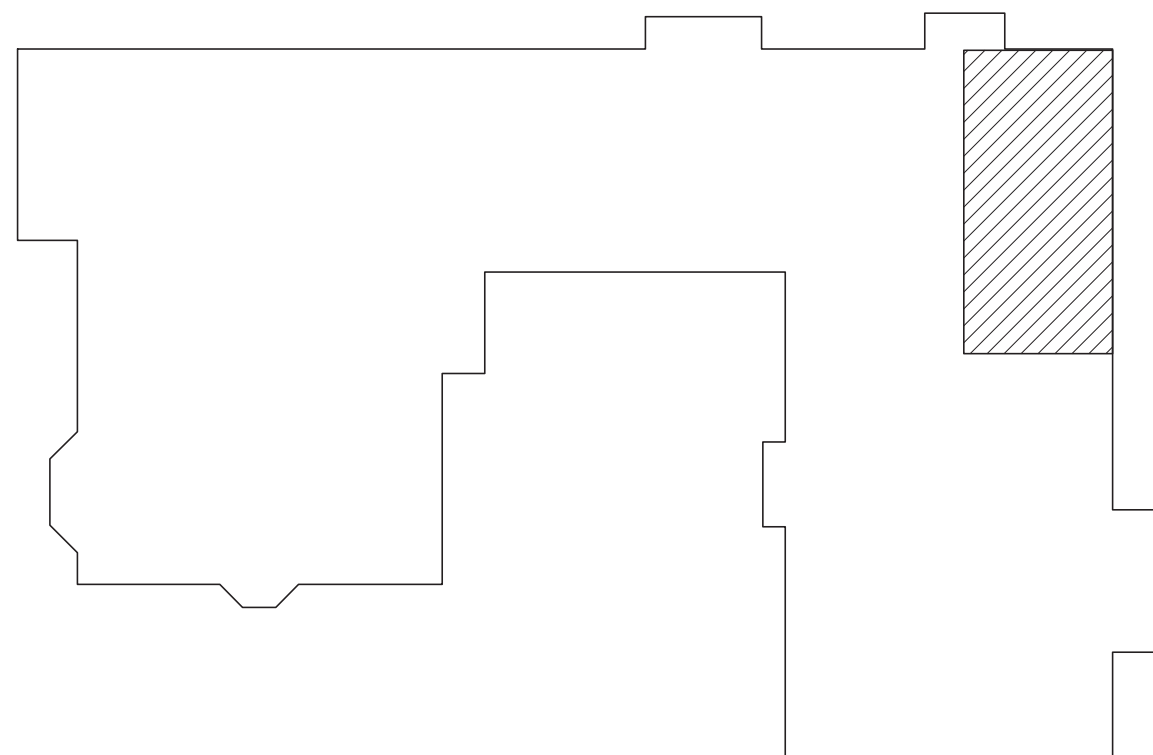
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YPS NO.	10816	
REVISION	DATE	BY
ISSUED FOR BID 10.20.2020		
DRAWN BY		
CHECKED BY		
SHEET SIZE	A0H E1 30" x 42"	
SCALE	AS NOTED	
SHEET TITLE		
THIRD FLOOR PLAN - DEMOLITION		
SHEET NO.		
MD-101		



1 BASEMENT FLOOR PLAN - NEW WORK  
SCALE: 1/8"=1'-0"


KEYED NOTES -- NEW WORK

- 1 PROVIDE NEW FIN-TUBE COVERS AS SHOWN. SEE DETAILS ON M-500. (COLOR BY OWNER)
- 2 PROVIDE NEW FIN-TUBE STERLING MODEL JVB-S C3/4-434 40 FINS PER FT, 24B. PROVIDE NEW SUPPORTS AND FASTENERS AS REQUIRED.
- 3 OWNER TO PROVIDE TOILET PAPER DISPENSER, PAPER TOWEL DISPENSER, SOAP DISH, WASTE RECEPTOR AND SANITARY NAPKIN DISPENSOR. MECHANICAL CONTRACTOR TO MOUNT AND INSTALL. MOUNT PER ADA STANDARDS. (ROOM 23A) MIRROR PROVIDED BY GC. 12"x16" NON BREAKABLE GLASS.
- 4 BROOM SWEEP EXISTING CONCRETE FLOOR. WASH FLOOR AND DEGREASE TO THE SATISFACTION OF THE EPOXY FLOOR MANUFACTURER. REMOVE ALL LOOSE CONCRETE AND PATCH WITH APPROVED PATCHING MATERIALS. PROVIDE EPOXY PAINT ENTIRE (SPECKLED ON FLOOR) AND WALL (SOLID) SURFACES.
- 5 PROVIDE NEW PIPE INSULATION. SEE SCHEDULE ON M500 SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.



KEY-PLAN  
SCALE: NONE


ENGINEER:



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CONSULTANT(S):

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E&R PROJECT NO.	Y170901	
YPS NO.	10816	
REVISION	DATE	BY
ISSUED FOR BID	10.20.2020	JMU
DRAWN BY	JMU	
CHECKED BY	JIE	
SHEET SIZE	A0H E1 30" x 42"	
SCALE	AS NOTED	

SHEET TITLE

BASEMENT  
FLOOR PLAN -  
NEW WORK

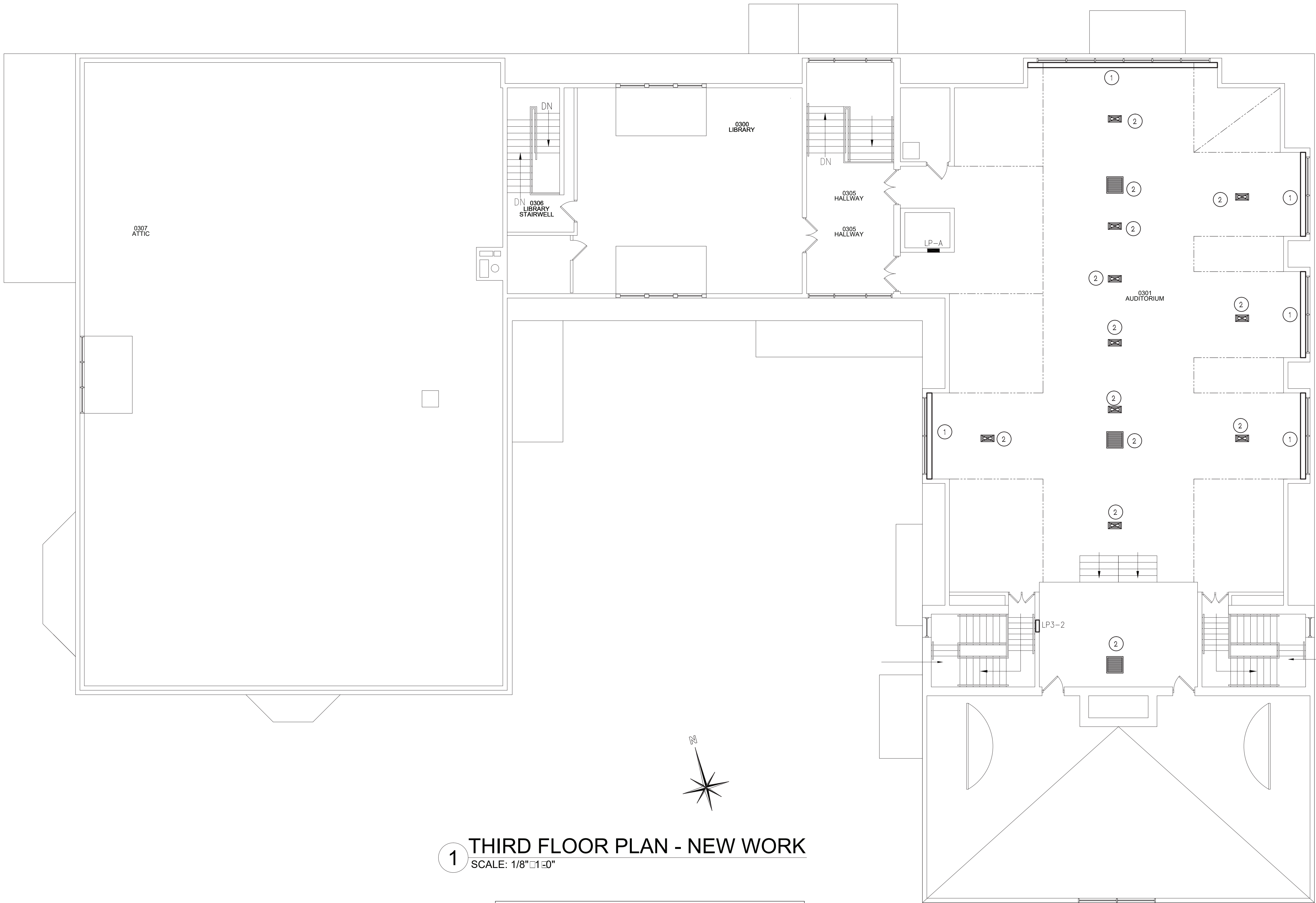
SHEET NO.

M-100

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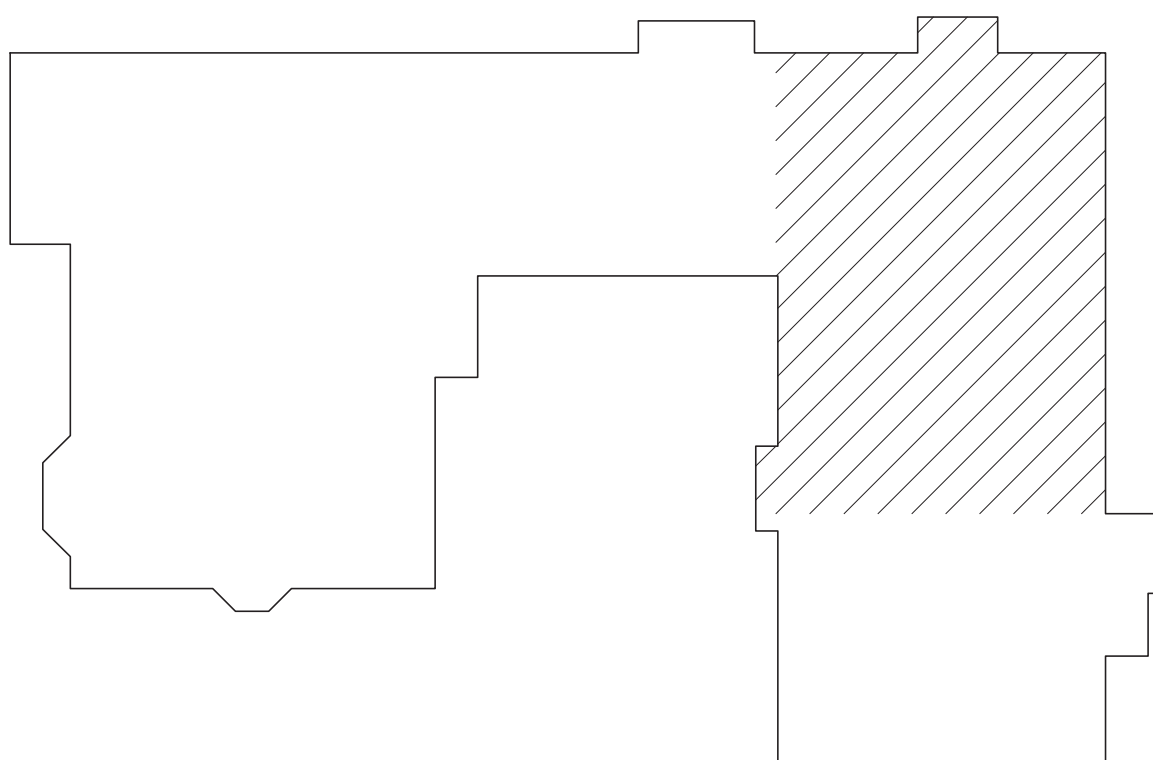




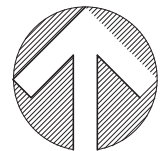
1 THIRD FLOOR PLAN - NEW WORK  
SCALE: 1/8"=1'-0"

KEYED NOTES - NEW WORK


- 1 PROVIDE NEW FIN TUBE COVERS AS SHOWN. SEE DETAILS ON M-500. (COLOR BY OWNER)
- 2 PROVIDE NEW GRILLES AND DIFFUSERS AS SHOWN. MATCH EXISTING SIZES. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.




KEY-PLAN  
SCALE: NONE



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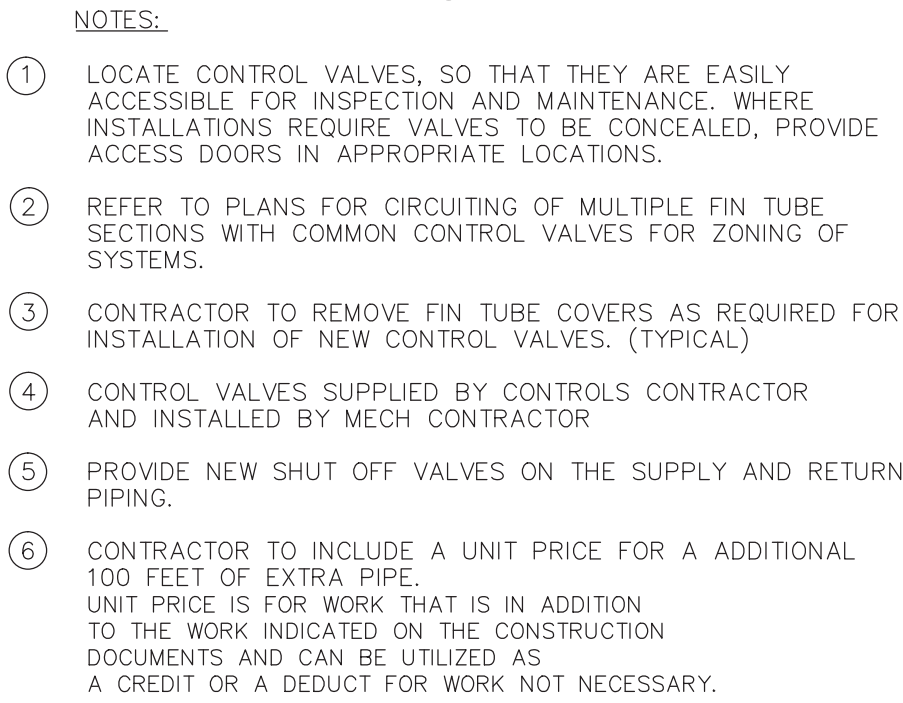
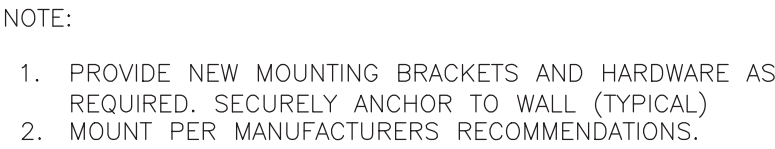
CONSULTANT(S):

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S.E.D.# 86-23-00-01-0-009-009

E&R PROJECT NO.	Y170901	
YPS NO.	10816	
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ISSUED FOR BID: 10.20.2020		
DRAWN BY		
CHECKED BY		
SHEET SIZE	A0H E1 30" x 42"	
SCALE	AS NOTED	
SHEET TITLE		
THIRD FLOOR PLAN - NEW WORK		
SHEET NO.		
M101		

ALL INSULATION TO COMPLY WITH 2015 NYS ENERGY CONSERVATION CONSTRUCTION CODE



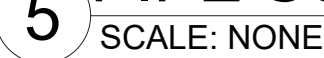
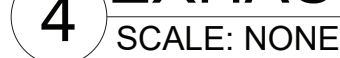
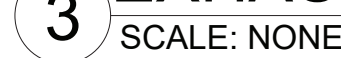
2 SCALE: NONE

# 1 PIPING

SCALE: NONE

REMARKS:

1. PROVIDE VIBRATION ISOLATORS. PROVIDE ANGLE SUPPORTS AND SUSPENSION RODS AS REQUIRED
2. PROVIDE GREENHECK WALL CAP MODEL WC-6 (OR APPROVED EQUAL) SEAL WATERTIGHT
3. PROVIDE "VARI-SPEED" CONTROLS. MOUNT INTERNALLY



NOTE:  
1. FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.