

Transmittal

To: JOE LOMBARDO PLUMBING & HEATING OF ROCKLAND INC 321 SPOOK ROCK RD SUFFERN, NY- 10901-5319 US. PHONE: (845) 357-6537	Date: 12/7/2023	Our Job No. 44OP-366733
	Job Name NANUET BOND PHASE 3 HIGH SCHOOL	
	Your Order No.	

WE ARE SENDING YOU

- | | |
|--|---|
| <input checked="" type="checkbox"/> HEREWITH | |
| <input type="checkbox"/> UNDER SEPARATE COVER THE FOLLOWING ITEMS: | |
| <input type="checkbox"/> SUBMITTALS FOR REVIEW/APPROVAL | <input type="checkbox"/> ENGINEERING COMMENTS |
| <input type="checkbox"/> APPROVED SUBMITTALS | <input type="checkbox"/> ORIGINAL DRAWINGS |
| <input type="checkbox"/> SUBMITTALS FOR YOUR USE | <input type="checkbox"/> SHOP DRAWINGS |
| <input type="checkbox"/> MARKED PLANS & SPECIFICATIONS | <input type="checkbox"/> CHANGE ORDER(S) |
| <input checked="" type="checkbox"/> THERMOSTAT LOCATION SUBMITTAL | <input type="checkbox"/> |

THESE ARE SUBMITTED

- | | |
|--|--|
| <input checked="" type="checkbox"/> FOR APPROVAL | <input type="checkbox"/> FOR YOUR USE |
| <input type="checkbox"/> FOR CORRECTION | <input checked="" type="checkbox"/> PLEASE RETURN __1__ APPROVED COPY(S) FOR OUR USE |
| <input type="checkbox"/> FOR COMMENTS | |

DESCRIPTION

ONE ELECTRONIC COPY OF THERMOSTAT LOCATION SUBMITTAL FOR THE ABOVE MENTIONED PROJECT.

IN ORDER TO PREPARE THE SUBMITTAL, WE HAVE FOLLOWED THE INFORMATION AS CHECKED BELOW

- | | |
|--|--|
| <input type="checkbox"/> ARCHITECTURAL PLANS | <input type="checkbox"/> ELECTRICAL HEATING COIL WIRING |
| <input checked="" type="checkbox"/> MECHANICAL PLANS | <input type="checkbox"/> CHILLER WIRING |
| <input type="checkbox"/> ELECTRICAL PLANS | <input type="checkbox"/> TERMINAL UNIT CUT SHEETS |
| <input type="checkbox"/> MECHANICAL SPECIFICATIONS | <input type="checkbox"/> HUMIDIFIER CUT SHEETS |
| <input type="checkbox"/> ELECTRICAL SPECIFICATIONS | <input type="checkbox"/> DX COIL WIRING |
| <input type="checkbox"/> EXISTING AS BUILTS | <input type="checkbox"/> COMPLETE SET(S) OF PLANS & SPECS. |
| <input type="checkbox"/> CUTSHEETS | <input type="checkbox"/> |

PLEASE BE ADVISED THAT WE MUST HAVE THIS INFORMATION BEFORE WORK CAN BEGIN ON YOUR SUBMITTAL

REMARKS

PLEASE ADDRESS YOUR REMARKS TO: SIEMENS INDUSTRY, INC. SMART INFRASTRUCTURE 412 MT KEMBLE AVE. MORRISTOWN, NJ 07960, USA	ATTENTION: OLIVER WRIGHT (PROJECT MANAGER) TELEPHONE NO: (973) 575-6300
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SIEMENS

SIEMENS INDUSTRY, INC.
SMART INFRASTRUCTURE

412 MT KEMBLE AVE.
MORRISTOWN, NJ. 07960
USA

PHONE: (973) 575-6300
FAX: (973) 575-7968

12/7/23

FOR INFORMATION CONTACT
OLIVER WRIGHT (PROJECT MANAGER)

THERMOSTAT LOCATION SUBMITTAL FOR
NANUET BOND PHASE3 HIGH SCHOOL

103 CHURCH ST
NANUET, NY 10954-3030
USA

44OP-366733

KSQ DESIGN
ARCHITECT

SAGE ENGINEERING ASSOCIATES, LLP
ENGINEER

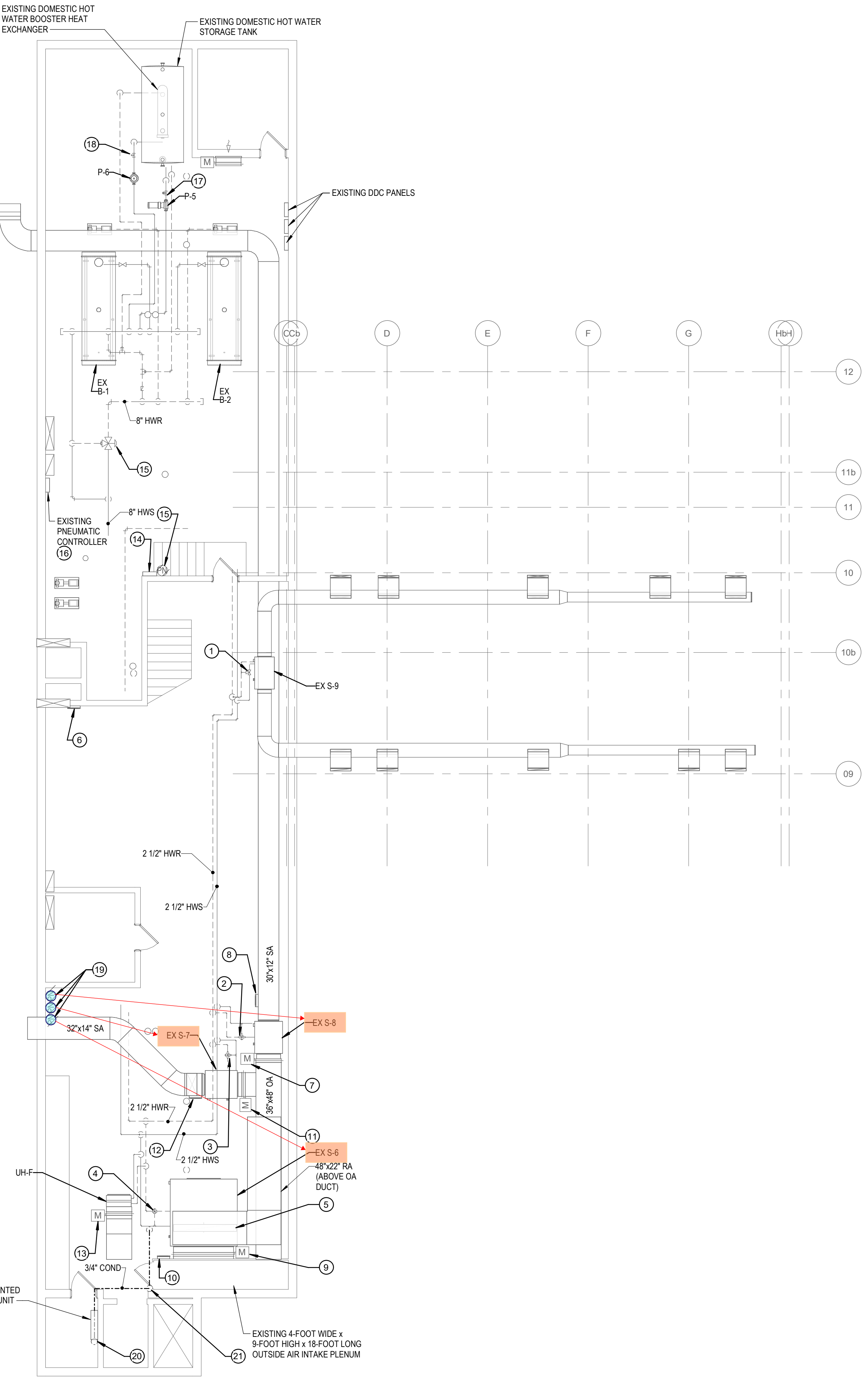
JOE LOMBARDO PLUMBING & HEATING, ROCKLAND
CONTRACTOR



Job Name: Nanuet Bond Phase 3 High School
JOB #: 44OP-366733
Siemens Industry Inc – Smart Infrastructure
Thermostat location Submittal

Submittal Notes
12/7/2023

1. BACnet thermostats are proposed for controlling the existing & new FTR's, Heating Radiation & Convector Units.
2. At the time of submission, as per DWG BM-M112, note-4 thermostat is connected to EX S-2. However, as per note-28 the same thermostat is mentioned as it will be controlling the 2-way valve for EX FTR. Thereby new BACnet thermostat will be provided for EX FTR and temperature reading will be shared with EX S-2.
3. At the time of submission, as per DWG BM-M111, UV-MS-3 and FT-MS-1 serving classroom 102A are sharing a single thermostat. Siemens proposes a new BACnet thermostat which will be controlling the FTR valve. Space temperature reading from this thermostat will be shared with UV-MS-3. New separate thermostat is not considered for UV units.
4. At the time of submission, as per DWG HS-M109, RTU-HS-5, R-2-3 and R-2-4 serving cafeteria are sharing a single thermostat. Siemens proposes a new BACnet thermostat (1 qty) for heating floor radiation units (R-2-3, R-2-4) which will be controlling radiation units' valves. RTU-HS-5 will be provided with manufacturer supplied thermostat.
5. At the time of submission, as per DWG HS-M109, RTU-HS-4, R-2-1 and R-2-2 serving dining room 2 are sharing a single thermostat. Siemens proposes a new BACnet thermostat (1 qty) for heating floor radiation units (R-2-1, R-2-2) which will be controlling radiation units' valves. RTU-HS-4 will be provided with manufacturer supplied thermostat.
6. At the time of submission, as per DWG HS-M109, thermostats are not shown for Convector units. Siemens is proposing new BACnet thermostat for these units to control the valves and to monitor space temperature. CV-HS-1 & CV-HS-2, CV-HS-4 & CV-HS-5 are serving same areas so single thermostat for each pair is considered.



A18 OVER
1/8" = 1'-0"

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5-9.3-WAY PNEUMATIC CONTROL VALVE. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC MAIN. PROVIDE ELECTRONIC 3-WAY CONTROL VALVE RATED AT 4.9 GPM. DISCONNECT AND REMOVE ALL 5.9 PNEUMATIC SENSORS AND CONTROL DEVICES AND CONVERT TO ELECTRONIC. THE ALL ELECTRONIC SENSORS FROM 5-9 INTO THE EXISTING 5-8 DDC SYSTEM CONTROLLER OUTLINED IN KEYED NOTE 6.

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5-8.3-WAY PNEUMATIC CONTROL VALVE. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC MAIN. PROVIDE ELECTRONIC 3-WAY CONTROL VALVE RATED AT 9.6 GPM. DISCONNECT AND REMOVE ALL 5.8 PNEUMATIC SENSORS AND CONTROL DEVICES AND CONVERT TO ELECTRONIC. THE ALL ELECTRONIC SENSORS FROM 5-8 INTO THE EXISTING 5-8 DDC SYSTEM CONTROLLER OUTLINED IN KEYED NOTE 9.

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5-7.3-WAY PNEUMATIC CONTROL VALVE. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC MAIN. PROVIDE ELECTRONIC 3-WAY CONTROL VALVE RATED AT 8.6 GPM. DISCONNECT AND REMOVE ALL 5.7 PNEUMATIC SENSORS AND CONTROL DEVICES AND CONVERT TO ELECTRONIC. THE ALL ELECTRONIC SENSORS FROM 5-7 INTO THE EXISTING 5-8 DDC SYSTEM CONTROLLER OUTLINED IN KEYED NOTE 12.

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5-6.3-WAY PNEUMATIC CONTROL VALVE. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC MAIN. PROVIDE ELECTRONIC 3-WAY CONTROL VALVE RATED AT 28.6 GPM. DISCONNECT AND REMOVE ALL 5.6 PNEUMATIC SENSORS AND CONTROL DEVICES AND CONVERT TO ELECTRONIC. THE ALL ELECTRONIC SENSORS FROM 5-6 INTO THE EXISTING 5-8 DDC SYSTEM CONTROLLER OUTLINED IN KEYED NOTE 10.

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5.6 PNEUMATIC MOTORIZED RETURN AIR DAMPER ACTUATOR AT LOCATION SHOWN AND REPLACE WITH ELECTRONIC MOTORIZED DAMPER ACTUATOR. THE CONTROL OF DAMPER INTO EXISTING DDC SYSTEM CONTROLLER SERVING 5.3. REMOVE PNEUMATIC TUBING FROM REMOVED DAMPER BACK TO PNEUMATIC PIPING MAIN.

LOCATION OF EXISTING AIR HANDLING UNIT 5-9 DDC SYSTEM CONTROLLER. DISCONNECT AND REMOVE 3-WAY CONTROL VALVE ELECTRIC-TO-PNEUMATIC TRANSDUCER INCLUDING ASSOCIATED PNEUMATIC TUBING AND PNEUMATIC DIAL OPERATOR. REMOVE PNEUMATIC TUBING BACK TO PNEUMATIC PIPING MAIN AND CAP. THE ELECTRONIC CONTROL VALVE AND ELECTRONIC MOTORIZED DAMPERS OUTLINED IN KEYED NOTE 1. INTO THE 5-9 DDC CONTROLLER AS REQUIRED.

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5.8 PNEUMATIC MOTORIZED OUTSIDE AIR DAMPER ACTUATOR AT LOCATION SHOWN AND REPLACE WITH ELECTRONIC MOTORIZED DAMPER ACTUATOR. THE CONTROL OF DAMPER INTO EXISTING DDC SYSTEM CONTROLLER SERVING 5.8. REMOVE PNEUMATIC TUBING FROM REMOVED DAMPER BACK TO PNEUMATIC PIPING MAIN.

LOCATION OF EXISTING AIR HANDLING UNIT 5-8 DDC SYSTEM CONTROLLER. DISCONNECT AND REMOVE DAMPER ELECTRIC-TO-PNEUMATIC TRANSDUCER AND 3-WAY CONTROL VALVE ELECTRIC-TO-PNEUMATIC TRANSDUCER INCLUDING ASSOCIATED PNEUMATIC TUBING AND PNEUMATIC DIAL OPERATORS. REMOVE PNEUMATIC TUBING BACK TO PNEUMATIC PIPING MAIN AND CAP. THE ELECTRONIC CONTROL VALVE AND ELECTRONIC MOTORIZED DAMPER OUTLINED IN KEYED NOTES 2 AND 7 INTO THE 5-8 DDC CONTROLLER AS REQUIRED.

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5.6 PNEUMATIC MOTORIZED OUTSIDE AIR DAMPER ACTUATOR AT LOCATION SHOWN AND REPLACE WITH ELECTRONIC MOTORIZED DAMPER ACTUATOR. THE CONTROL OF DAMPER INTO EXISTING DDC SYSTEM CONTROLLER SERVING 5.6. REMOVE PNEUMATIC TUBING FROM REMOVED DAMPER BACK TO PNEUMATIC PIPING MAIN.

LOCATION OF EXISTING AIR HANDLING UNIT 5-6 DDC SYSTEM CONTROLLER. DISCONNECT AND REMOVE DAMPER ELECTRIC-TO-PNEUMATIC TRANSDUCER AND 3-WAY CONTROL VALVE ELECTRIC-TO-PNEUMATIC TRANSDUCER INCLUDING ASSOCIATED PNEUMATIC TUBING AND PNEUMATIC DIAL OPERATORS. REMOVE PNEUMATIC TUBING BACK TO PNEUMATIC PIPING MAIN AND CAP. THE ELECTRONIC CONTROL VALVE AND ELECTRONIC MOTORIZED DAMPERS OUTLINED IN KEYED NOTES 4, 5 AND 9 INTO THE 5-6 DDC CONTROLLER AS REQUIRED.

DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT 5.7 PNEUMATIC MOTORIZED OUTSIDE AIR DAMPER ACTUATOR AT LOCATION SHOWN AND REPLACE WITH ELECTRONIC MOTORIZED DAMPER ACTUATOR. THE CONTROL OF DAMPER INTO EXISTING DDC SYSTEM CONTROLLER SERVING 5.7. REMOVE PNEUMATIC TUBING FROM REMOVED DAMPER BACK TO PNEUMATIC PIPING MAIN.

LOCATION OF EXISTING AIR HANDLING UNIT 5-7 DDC SYSTEM CONTROLLER. DISCONNECT AND REMOVE DAMPER ELECTRIC-TO-PNEUMATIC TRANSDUCER AND 3-WAY CONTROL VALVE ELECTRIC-TO-PNEUMATIC TRANSDUCER INCLUDING ASSOCIATED PNEUMATIC TUBING AND PNEUMATIC DIAL OPERATORS. REMOVE PNEUMATIC TUBING BACK TO PNEUMATIC PIPING MAIN AND CAP. THE ELECTRONIC CONTROL VALVE AND ELECTRONIC MOTORIZED DAMPER OUTLINED IN KEYED NOTES 3 AND 11 INTO THE 5-7 DDC CONTROLLER AS REQUIRED.

DISCONNECT AND REMOVE EXISTING HYDRONIC UNIT HEATER UHF-DUAL PNEUMATIC FACE AND BYPASS DAMPER AT LOCATION SHOWN AND REPLACE WITH MANUAL DAMPER OPERATOR LOCKED IN OPEN POSITION. REMOVE PNEUMATIC TUBING FROM REMOVED DAMPER BACK TO PNEUMATIC PIPING MAIN.

LOCATION OF EXISTING BUILDING HEATING PLANT DDC SYSTEM CONTROLLER.

DISCONNECT AND REMOVE MAIN BUILDING HEATING LOOP 3-WAY PNEUMATIC MIXING CONTROL VALVE. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC MAIN. DISCONNECT AND REMOVE 3-WAY CONTROL VALVE ELECTRIC-TO-PNEUMATIC TRANSDUCER INCLUDING ASSOCIATED PNEUMATIC TUBING AND PNEUMATIC DIAL OPERATOR LOCATED ADJACENT TO BUILDING HEATING PLANT DDC SYSTEM CONTROLLER. REMOVE ASSOCIATED WIRING BACK TO CONTROL PANEL AS REQUIRED. AT LOCATION OF REMOVED PNEUMATIC 3-WAY MIXING VALVE PROVIDE AN ELECTRONIC 3-WAY MIXING CONTROL VALVE RATED AT 50 GPM. THE OPERATION OF MIXING VALVE INTO EXISTING BUILDING HEATING PLANT DDC SYSTEM CONTROLLER OUTLINED IN KEYED NOTE 14.

DISCONNECT AND REMOVE PNEUMATIC PIPING AND ASSOCIATED PRESSURE DIAL WITHIN THE PNEUMATIC CONTROL PANEL RELATED TO THE CONTROL PNEUMATIC MAIN. THE MAIN HOT WATER SUPPLY 3-WAY VALVE OUTLINED IN KEYED NOTE 15. REMOVE PNEUMATIC PIPING BACK TO ASSOCIATED PIPING MAIN AND CAP.

DISCONNECT AND REMOVE EXISTING DOMESTIC HOT WATER STORAGE TANK 2-WAY PNEUMATIC CONTROL VALVE. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC MAIN. PROVIDE ELECTRONIC 2-WAY CONTROL VALVE RATED AT 18 GPM. DISCONNECT AND REMOVE ALL STORAGE TANK PNEUMATIC SENSORS AND CONTROL DEVICES AND CONVERT TO ELECTRONIC. THE ALL ELECTRONIC SENSORS FROM THE STORAGE TANK INTO THE EXISTING DDC SYSTEM CONTROLLER OUTLINED IN KEYED NOTE 14.

DISCONNECT AND REMOVE EXISTING DOMESTIC HOT WATER BOOSTER HEAT EXCHANGER 2-WAY PNEUMATIC CONTROL VALVE. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC MAIN. PROVIDE ELECTRONIC 2-WAY CONTROL VALVE RATED AT 20 GPM. DISCONNECT AND REMOVE ALL PNEUMATIC PIPING FROM EXISTING HOT WATER BOOSTER HEAT EXCHANGER AND CONVERT TO ELECTRONIC. THE ALL ELECTRONIC SENSORS FROM THE HEAT EXCHANGER INTO THE EXISTING DDC SYSTEM CONTROLLER OUTLINED IN KEYED NOTE 14.

DISCONNECT AND REMOVE ALL EXISTING AIR HANDLING UNITS 5.6, 5.7 AND 5.8 PNEUMATIC CONTROL FAN OPERATORS, SENSORS AND RELAY DEVICES. DISCONNECT AND REMOVE ALL PNEUMATIC TUBING BACK TO PNEUMATIC PIPING MAIN AND CAP. CONVERT ALL PNEUMATIC CONTROL DEVICES SERVING 5.6, 5.7 AND 5.8 TO ELECTRONIC AND PROVIDE RELAYS FROM FAN START/STOP MOTOR STARTER TO EXISTING DDC CONTROL PANEL SERVING EACH CONTROL PANEL. PROVIDE RELAYS FROM FAN START/STOP MOTOR STARTER AND CONVERT TO ELECTRONIC. THE ALL ELECTRONIC SENSORS FROM THE EXISTING 5.6, 5.7 AND 5.8 SPACE SENSORS. PROVIDE RELAYS FROM EXISTING 5.6, 5.7 AND 5.8 SPACE SENSORS TO EXISTING DDC CONTROL PANELS SERVING EACH UNIT TO ALLOW FOR ELECTRONIC ANALOG INPUT OF EACH SPACE TEMPERATURE TO THE DDC SYSTEM.

DISCONNECT AND REMOVE OPEN-ENDED PVC HOSE FROM CONDENSATE DRAIN OUTLET CONNECTION ON EXISTING ELEVATOR MACHINE ROOM FAN COIL. UNIT AND PROVIDE A 3/4" HARD PIPE CONNECTION TO THE CONDENSATE OUTLET. PROVIDE A P-TRAP BELOW FAN COIL UNIT, TO ROUTE 3/4" CONDENSATE PIPING THROUGH ELEVATOR MACHINE ROOM TO MECHANICAL AREA OF BASEMENT AS SHOWN.

ROUTATE 3/4" CONDENSATE PIPING DOWN AT LOCATION SHOWN TO FLOOR LEVEL. THEN ROUTE 3/4" CONDENSATE PIPING BELOW BOTTOM OF DOOR OPENING TO DW/ATE RE-PLUMB. THEN ROUTE 3/4" CONDENSATE PIPING TO FLOOR LEVEL. THEN FLOOR DRAIN BEING PROVIDED ON PLUMBING DRAWINGS.

TERMINATE CONDENSATE PIPING OPEN-ENDED ABOVE NEW FLOOR DRAIN.

SIEMENS WALL SENSOR LOCATION DRAWING

BM-M110

ISSUE FOR BID SET



NEW YORK OKLAHOMA

Structural Engineer

Glanner Structural Engineering

MEP Engineer

Environmental Engineer

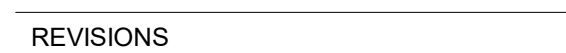
Construction Manager



☐ SED#50-01-08-03-0-003-035 (HIGH SCHOOL)
☒ SED#50-01-08-03-0-004-020 (BARR MIDDLE SCHOOL)

D. MILLER, JR.

KEY PLAN



ISSUED: BID SET ISSUANCE

DATE: 06/06/2023

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

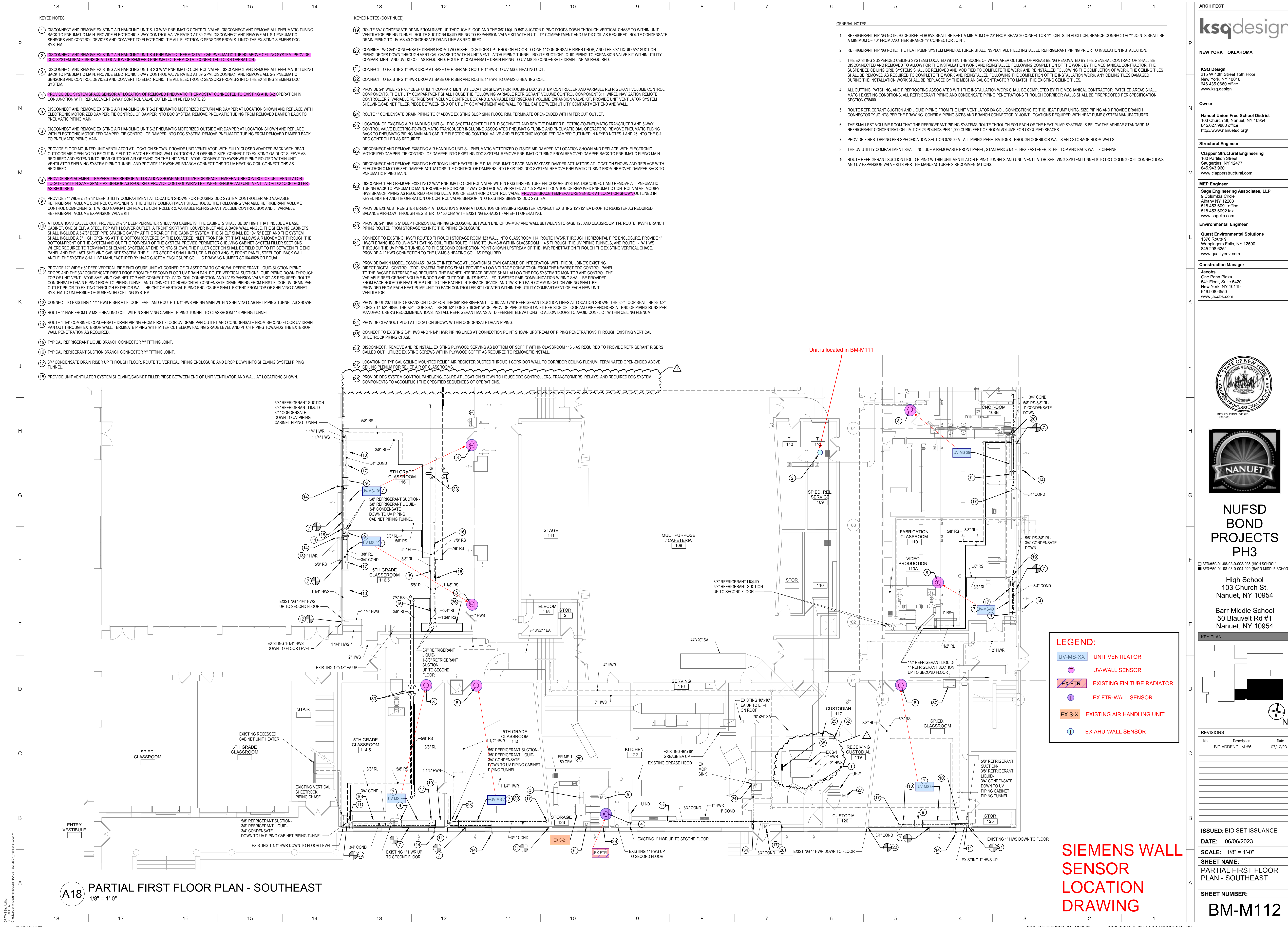
SHEET NAME:

PARTIAL FIRST FLOOR
PLAN - NORTHEAST

SHEET NUMBER: _____

RM M111

DIV-MTH



ARCHITECT

ksqdesign

NEW YORK OKLAHOMA

KSQ Design
215 W 40th Street 15th Floor
New York, NY 10018
646.435.0660 office
www.ksqdesign.com

Owner

Nanuet Union Free School District
103 Church St. Nanuet, NY 10954
645.627.9880 office
http://www.nanuetusd.org/

Structural Engineer

Clapper Structural Engineering
160 Partition Street
Saugerties, NY 12477
845.943.9801
www.clappersstructural.com

MEP Engineer

Sage Engineering Associates, LLP
9 Columbia Circle
Albany NY 12203
518.453.6951 office
518.453.6992 fax
www.sageellp.com

Environmental Engineer

Quest Environmental Solutions
1376 Route 9
Wappingers Falls, NY 12590
845.296.6501
www.qualityenv.com

Construction Manager

Jacobs
One Penn Plaza
54th Floor, Suite 5420
New York, NY 10119
646.906.6550
www.jacobs.com

NUFSD BOND PROJECTS PH3

SED#50-01-08-03-0-003-035 (HIGH SCHOOL)
SED#50-01-08-03-0-004-020 (BARR MIDDLE SCHOOL)

High School
103 Church St.
Nanuet, NY 10954

Barr Middle School
50 Blauvelt Rd #1
Nanuet, NY 10954

KEY PLAN

REVISIONS

No.	Description	Date
1	BID ADDENDUM #6	07/12/23

ISSUED: BID SET ISSUANCE

DATE: 06/06/2023

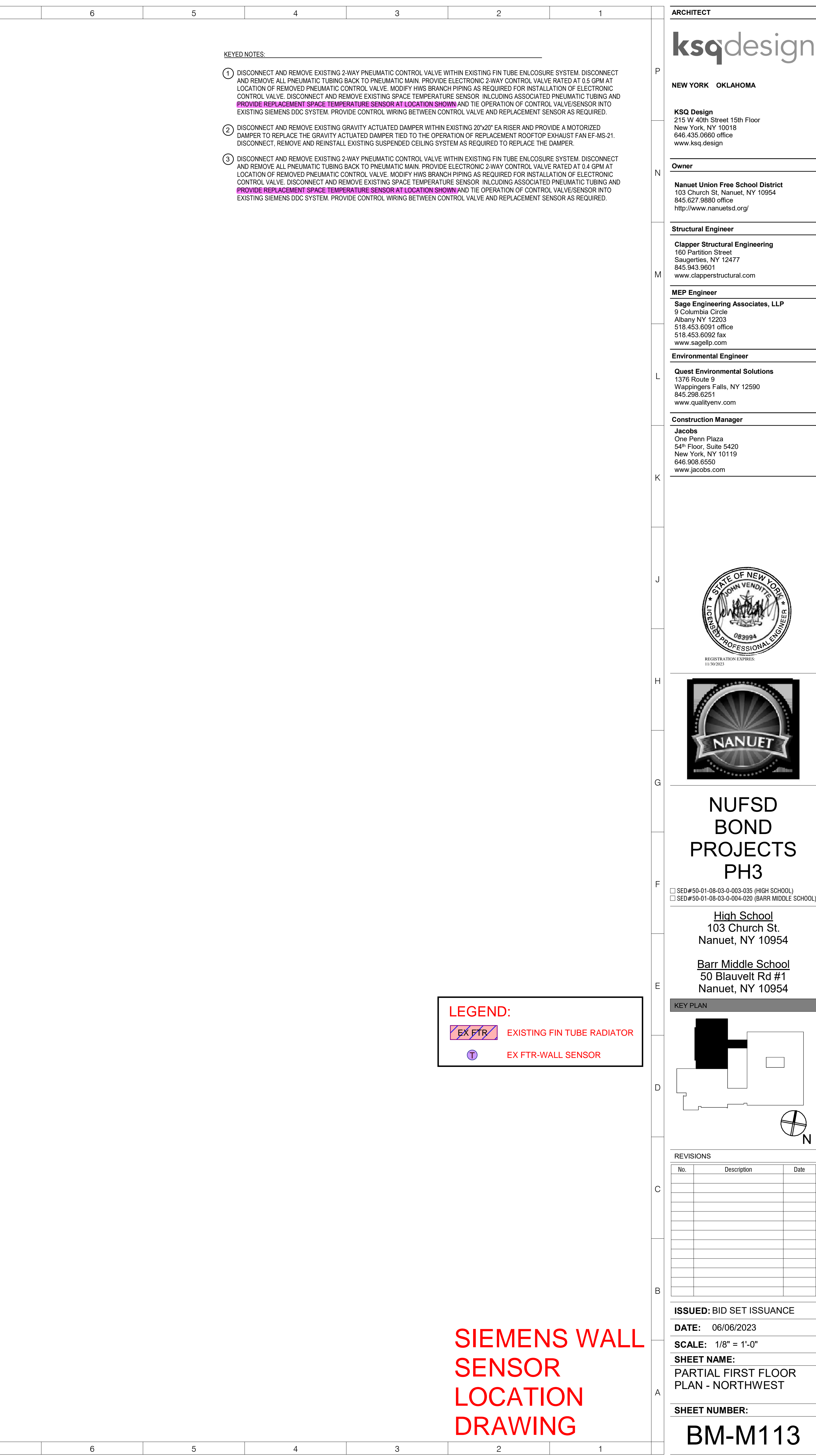
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SHEET NAME:
PARTIAL FIRST FLOOR
PLAN - SOUTHEAST

SHEET NUMBER:

BM-M112

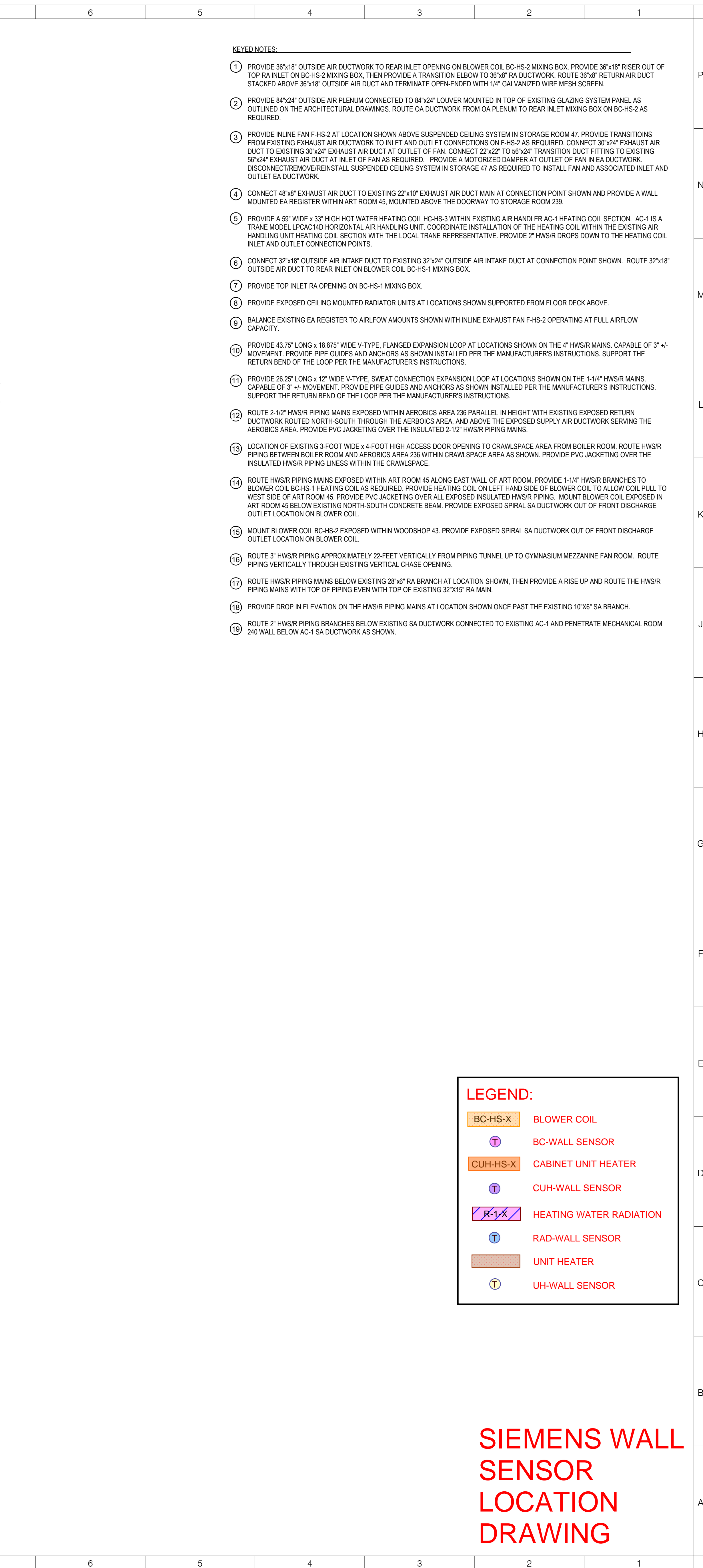
ISSUE FOR BID SET





SIEMENS WALL SENSOR LOCATION DRAWING





PROVIDE 36"x18" OUTSIDE AIR DUCTWORK TO REAR INLET OPENING ON BLOWER COIL. BC-HS-2 MIXING BOX. PROVIDE 36"x18" RISER OUT TO PROVIDE INLET ON BC-HS-2 MIXING BOX. THEN PROVIDE A TRANSITION BLOWER OUT TO 36"x18" RA DUCTWORK. ROUTE 36"x18" RETURN AIR DUCT STACKED ABOVE 36"x18" OUTSIDE AIR DUCT AND TERMINATE OPENING WITH 14" GALVANIZED WIRE MESH SCREEN.

2 PROVIDE 84"x24" OUTSIDE AIR PLENUM CONNECTED TO 84"x24" LOUVER MOUNTED WITH INLET OF PORT EXISTING GLAZING GLASS PANEL AS OUTLINED ON THE ARCHITECTURAL DRAWINGS. ROUTE SA DUCTWORK FROM SA PLENUM TO REAR INLET MIXING BOX ON BC-HS-2 AS REQUIRED.

3 PROVIDE INLINE FAN F-HS-2 AT LOCATION SHOWN ABOVE SUSPENDED CEILING SYSTEM IN STORAGE ROOM 47. PROVIDE TRANSITIONS FROM EXISTING EXHAUST AIR DUCTWORK TO INLET AND OUTLET CONNECTIONS ON F-HS-2 AS REQUIRED. CONNECT 30"x24" EXHAUST AIR DUCT TO EXISTING 30"x24" EXHAUST AIR DUCT AT OUTLET OF FAN. CONNECT 22"x22" TO 56"x24" TRANSITION DUCT FITTING TO EXISTING EXHAUST AIR DUCT. PROVIDE 1" FAN AS REQUIRED. PROVIDE A MOTORIZED DAMPER AT OUTLET OF FAN IN EA DUCTWORK. DISCONNECT/REMOVE/INSTALL SUSPENDED CEILING SYSTEM IN STORAGE 47 AS REQUIRED TO INSTALL FAN AND ASSOCIATED INLET AND OUTLET AIR DUCTWORK.

4 CONNECT 48"x6" EXHAUST AIR DUCT TO EXISTING 22"x22" EXHAUST AIR DUCT MAIN AT CONNECTION POINT SHOWN AND PROVIDE A WALL MOUNTED EA REGISTER WITHIN ART ROOM 45, MOUNTED ABOVE THE DOORWAY TO STORAGE ROOM 239.

5 PROVIDE A 59" wide x 33" HIGH HOT WATER HEATING COIL BC-HS-3 WITHIN EXISTING AIR HANDLER AC-1 HEATING COIL SECTION. AC-1 IS A TRANE MODEL LPC43H-04H HORIZONTAL AIR HANDLING UNIT. COORDINATE INSTALLATION OF THE HEATING COIL WITHIN THE EXISTING AIR HANDLING UNIT HEATING COIL SECTION WITH THE LOCAL TRANE REPRESENTATIVE. PROVIDE 2" HWSR DROPS DOWN TO THE HEATING COIL INLET AND OUTLET CONNECTION POINTS.

6 CONNECT 32"x18" HEATING AIR INTAKE DUCT TO EXISTING 32"x24" HEATING AIR INTAKE DUCT AT CONNECTION POINT SHOWN. ROUTE 32"x18" OUTSIDE AIR DUCT TO REAR INLET ON BLOWER COIL. BC-HS-1 MIXING BOX.

7 PROVIDE 10" INLET RA OPENING ON BC-HS-1 MIXING BOX.

8 PROVIDE EXPOSED CEILING MOUNTED RADIATOR UNITS AT LOCATIONS SHOWN FROM FLOOR DECK ABOVE.

9 BALANCE EXISTING EA REGISTER TO AIRFLOW AMOUNTS SHOWN WITH INLINE EXHAUST FAN F-HS-2 OPERATING AT FULL AIRFLOW CAPACITY.

10 PROVIDE 43"x75" LONG X 18"x75" WIDE V-TYPE, FLANGED EXPANSION LOOP AT LOCATIONS SHOWN ON THE 4" HWSR MAINS. CAPABLE OF 3" +/- MOVEMENT. PROVIDE PIPE GUIDES AND ANCHORS AS SHOWN INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. SUPPORT THE RETURN BEND OF THE LOOP PER THE MANUFACTURER'S INSTRUCTIONS.

11 PROVIDE 26"x25" LONG X 12" WIDE V-TYPE, SWEAT CONNECTION EXPANSION LOOP AT LOCATIONS SHOWN ON THE 1-1/4" HWSR MAINS. CAPABLE OF 3" +/- MOVEMENT. PROVIDE PIPE GUIDES AND ANCHORS AS SHOWN INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. SUPPORT THE RETURN BEND OF THE LOOP PER THE MANUFACTURER'S INSTRUCTIONS.

12 ROUTE 2-1/2" HWSR PIPING EXPOSED WITHIN AEROBICS AREA 236 PARALLEL, IN HEIGHT WITH EXISTING AIR EXHAUST RETURN DUCTWORK BOLD AND NEXT TO SOUTH TOWARD THE AEROBICS AREA, AND ABOVE THE SUSPENDED CEILING DUCTWORK SERVING THE AEROBICS AREA. PROVIDE PVC PCKETING OVER THE INSULATED 2-1/2" HWSR PIPING MAINS.

13 LOCATION OF EXISTING 3' FOOT WIDE X 4' FOOT HIGH ACCESS DOOR OPENING TO CRAWLSPACE AREA FROM BOLER ROOM. ROUTE HWSR PIPING BETWEEN BOLER ROOM AND AEROBICS AREA 236 THROUGH CRAWLSPACE AREA AS SHOWN. PROVIDE PVC PCKETING OVER THE INSULATED HWSR PIPING LINES WITHIN THE CRAWLSPACE.

14 ROUTE HWSR PIPING MAINS EXPOSED WITHIN ART ROOM 45 ALONG EAST WALL OF ART ROOM. PROVIDE 1-1/4" HWSR BRANCHES TO BLOWER COIL BC-HS-1 HEATING COIL AS REQUIRED. PROVIDE HEATING COIL ON LEFT HAND SIDE OF BLOWER COIL TO ALLOW COIL FILL TO WEST SIDE OF BLOWER COIL. PVC PCKETING OVER ALL EXPOSED INSULATED HWSR PIPING. MOUNT BLOWER COIL EXPOSED IN ROOM 45 BELOW EXISTING NORTH-SOUTH CONCRETE BENCH. PROVIDE EXPOSED SPIRAL SA DUCTWORK OUT TO FRONT DISCHARGE OUTLET LOCATION ON BLOWER COIL.

15 MOUNT BLOWER COIL BC-HS-2 EXPOSED WITHIN WOODSHOP 43. PROVIDE EXPOSED SPIRAL SA DUCTWORK OUT OF FRONT DISCHARGE OUTLET LOCATION ON BLOWER COIL.









16 ROUTE 3" HWSR PIPING APPROXIMATELY 22 FEET VERTICALLY FROM PIPING TUNNEL, UP TO GYMNASIUM MEZZANINE FAN ROOM. ROUTE PIPING VERTICALLY THROUGH EXISTING VERTICAL CHASE OPENING.

17 ROUTE HWSR PIPING MAINS BEHIND EXISTING 26"x6" RA BRANCHING. THEN PROVIDE A RISE UP AND ROUTE THE HWSR PIPING MAINS WITH TOP OF PIPING VENT WITH TOP OF EXISTING 32"x15" RA MAIN.

18 PROVIDE DROP IN ELEVATION ON THE HWSR PIPING MAINS AT LOCATION SHOWN ONCE PAST THE EXISTING 10"x6" SA BRANCH.

19 ROUTE 2" HWSR PIPING BRANCHES BELOW EXISTING SA DUCTWORK CONNECTED TO EXISTING AC-1 AND PENETRATE MECHANICAL ROOM 240 WALL BELOW EXISTING AC-1 SA DUCTWORK AS SHOWN.

LEGEND:

	BLOWER COIL
	BC-WALL SENSOR
	CABINET UNIT HEATER
	CUH-WALL SENSOR
	HEATING WATER RADIATION
	RAD-WALL SENSOR
	UNIT HEATER
	UH-WALL SENSOR

SIEMENS WALL SENSOR LOCATION DRAWING

HS-M107

SSUE FOR BID SET

