



18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

P  
N  
M  
L  
K  
J  
H  
G  
F  
E  
D  
C  
B  
A

- KEYED NOTES:**
1. ROUTE 1-1/4" CONDENSATE DRAIN PIPING INTO JANITOR CLOSET AND TERMINATE DRAIN PIPING OPEN-ENDED WITH MITER CUT OUTLET 6" ABOVE RIM OF EXISTING UTILITY SINK.
  2. TYPICAL REFRIGERANT LIQUID BRANCH CONNECTOR "Y" FITTING JOINT.
  3. TYPICAL REFRIGERANT SUCTION BRANCH CONNECTOR "Y" FITTING JOINT.
  4. PROVIDE CONDENSATE CLEANOUT PLUG AT LOCATIONS SHOWN.
  5. PROVIDE 1-1/4" CONDENSATE DRAIN PIPING THROUGH EXTERIOR WALL AT LOCATION SHOWN. TERMINATE WITH MITER CUT ELBOW FACING DOWN AND OPEN-ENDED.
  6. ROUTE 1-1/4" CONDENSATE DRAIN PIPING EXPOSED THROUGH CLASSROOM BELOW EXISTING CEILING SYSTEM AND PROVIDE 1-1/4" CONDENSATE DRAIN PIPING THROUGH EXTERIOR WALL AT LOCATION SHOWN. TERMINATE WITH MITER CUT ELBOW FACING DOWN AND OPEN-ENDED. PROVIDE PVC JACKING COVER EXPOSED, INSULATED PIPING WHERE ROUTED BELOW CEILING SYSTEMS IN CLASSROOMS.
  7. PROVIDE UL-207 LISTED EXPANSION LOOP FOR THE 3/8" REFRIGERANT LIQUID AND 5/8" REFRIGERANT SUCTION LINES AT LOCATION SHOWN. THE 3/8" LOOP SHALL BE 28" LONG x 17-1/2" HIGH WITH +4" MOVEMENT. THE 5/8" LOOP SHALL BE 28-1/2" LONG x 19-3/4" WIDE WITH +4" MOVEMENT. PROVIDE PIPE GUIDES ON EITHER SIDE OF LOOP AND PIPE ANCHORS AT END OF PIPING RUNS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL REFRIGERANT MAINS AT DIFFERENT ELEVATIONS TO ALLOW LOOPS TO AVOID CONFLICT ABOVE THE CEILING.
  8. PROVIDE DAIKIN MODEL DGM14A51 BACNET INTERFACE AT LOCATION SHOWN CAPABLE OF INTEGRATION WITH THE BUILDING'S EXISTING DIRECT DIGITAL CONTROL (DDC) SYSTEM. THE DDC SHALL PROVIDE A LOW VOLTAGE CONNECTION FROM THE NEAREST DDC CONTROL PANEL TO THE BACNET INTERFACE AS REQUIRED. THE BACNET INTERFACE DEVICE SHALL ALLOW THE DDC SYSTEM PROVIDER TO MONITOR AND CONTROL THE VARIABLE REFRIGERANT VOLUME INDOOR AND OUTDOOR UNITS INSTALLED. TWISTED PAIR COMMUNICATION WIRING SHALL BE PROVIDED FROM EACH ROOFTOP HEAT PUMP UNIT TO THE BACNET INTERFACE DEVICE, AND TWISTED PAIR COMMUNICATION WIRING SHALL BE PROVIDED FROM EACH HEAT PUMP UNIT TO EACH INDOOR FAN COIL UNIT AND FAN COIL UNIT REMOTE CONTROLLER.
  9. ROUTE 1-1/4" CONDENSATE PIPING BELOW EXISTING ELECTRICAL RACEWAY INSTALLED TIGHT TO CLASSROOM 105 CEILING SYSTEM.
  10. ROUTE BRANCH REFRIGERANT SUCTION AND REFRIGERANT LIQUID SERVING FCU-100A BELOW FAN COIL UNIT FCU-100B. THEN ELBOW UP TO FCU ELEVATION AND CONNECT TO REFRIGERANT PORTS ON FCU-100A AS REQUIRED. FOR FCU-100A, LOCATE THE UNIT'S CONDENSATE PUMP CP-100A BELOW THE ELEVATION OF THE FCU. ROUTE THE CONDENSATE FROM THE DRAIN OUTLET PORT ON FCU-100A, THEN ROUTE THE CONDENSATE PIPING FROM THE OUTLET OF CP-100A BELOW FCU-100A. THEN ELBOW UP TO TIGHT TO THE CLASSROOM 100 CEILING AND ROUTE OUT THROUGH THE EXTERIOR WALL AS SHOWN.

- GENERAL NOTES:**
1. REFRIGERANT PIPING NOTE: 90 DEGREE ELBOWS SHALL BE KEPT A MINIMUM OF 20" FROM CEILING UV DX COILS AND 20" FROM BRANCH CONNECTOR "Y" JOINTS. IN ADDITION, BRANCH CONNECTOR "Y" JOINTS SHALL BE A MINIMUM OF 40" FROM ANOTHER BRANCH "Y" CONNECTOR JOINT.
  2. REFRIGERANT PIPING NOTE: THE HEAT PUMP SYSTEM MANUFACTURER SHALL INSPECT ALL FIELD INSTALLED REFRIGERANT PIPING PRIOR TO INSULATION INSTALLATION.
  3. THE EXISTING SUSPENDED CEILING SYSTEMS LOCATED WITHIN THE SCOPE OF WORK AREA OUTSIDE OF AREAS BEING RENOVATED BY THE GENERAL CONTRACTOR SHALL BE DISCONNECTED AND REMOVED TO ALLOW FOR THE INSTALLATION WORK AND REINSTALLED FOLLOWING COMPLETION OF THE WORK BY THE MECHANICAL CONTRACTOR. THE SUSPENDED CEILING GRID SYSTEMS SHALL BE REMOVED AND MODIFIED TO COMPLETE THE WORK AND REINSTALLED FOLLOWING THE COMPLETION OF WORK. THE CEILING TILES SHALL BE REMOVED AS REQUIRED TO COMPLETE THE WORK AND REINSTALLED FOLLOWING THE COMPLETION OF THE INSTALLATION WORK. ANY CEILING TILES DAMAGED DURING THE INSTALLATION WORK SHALL BE REPLACED BY THE MECHANICAL CONTRACTOR TO MATCH THE EXISTING CEILING TILES.
  4. ALL CUTTING, PATCHING, AND FIREPROOFING ASSOCIATED WITH THE INSTALLATION WORK SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR. PATCHED AREAS SHALL MATCH EXISTING CONDITIONS. ALL REFRIGERANT PIPING AND CONDENSATE PIPING PENETRATIONS THROUGH CORRIDOR WALLS SHALL BE FIREPROOFED PER SPECIFICATION SECTION 078400.
  5. ROUTE REFRIGERANT SUCTION AND LIQUID PIPING FROM THE UNIT VENTILATOR DX COIL CONNECTIONS TO THE HEAT PUMP UNITS. SIZE PIPING AND PROVIDE BRANCH CONNECTOR "Y" JOINTS PER THE DRAWING. CONFIRM PIPING SIZES AND BRANCH CONNECTOR "Y" JOINT LOCATIONS REQUIRED WITH HEAT PUMP SYSTEM MANUFACTURER.
  6. THE SMALLEST VOLUME ROOM THAT THE REFRIGERANT PIPING SYSTEMS ROUTE THROUGH FOR EACH OF THE HEAT PUMP SYSTEMS IS BELOW THE ASHRAE STANDARD 15 REFRIGERANT CONCENTRATION LIMIT OF 26 POUNDS PER 1,000 CUBIC FEET OF ROOM VOLUME FOR OCCUPIED SPACES.
  7. PROVIDE FIRESTOPPING PER SPECIFICATION SECTION 078400 AT ALL PIPING PENETRATIONS THROUGH CORRIDOR WALLS AND STORAGE ROOM WALLS.
  8. PROVIDE A DAIKIN MODEL MADOKA WIRED REMOTE CONTROLLER FOR EACH INDOOR FAN COIL UNIT. ROUTE CONTROLLER WIRING DOWN WALL FRAMING SYSTEMS AS REQUIRED FROM FAN COIL UNIT TO CONTROLLER. CUT AND PATCH EXISTING WALL SYSTEMS AS REQUIRED TO INSTALL CONTROLLER WIRING TO MATCH EXISTING CONDITIONS.

**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  
101 Church Street  
Nanuet, NY 10954  
845.627.9880  
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  
518.453.6091  
www.sagegrp.com  
REGISTRATION NUMBER 00000000000000000000

**Environmental Engineer**  
Quest Environmental Solutions  
1376 Route 9  
Wappingers Falls, NY 12590  
845.298.6251  
www.qualityenv.com

**Construction Manager**  
Jacobs  
One Penn Plaza  
24th Floor, Suite 2400  
New York, NY 10119  
646.906.6550  
www.jacobs.com

STATE OF NEW YORK  
JULIUS ROESSIG  
REGISTERED PROFESSIONAL ENGINEER  
REGISTRATION EXPIRES 11/30/2020

**NANUET**

**NUFSD BOND PROJECTS PHASE 5 - MILLER ES**

SED#50-01-08-03-0-002-020 (HIGHVIEW ES)  
 SED#50-01-08-03-0-003-002 (Maintenance)  
 SED#50-01-08-03-0-012-004 (OEC)  
 SED#50-01-08-03-0-001-028 (MILLER ES)  
 SED#50-01-08-03-0-004-022 (BARR MS)

**Highview Elementary School**  
24 Highway Ave  
Nanuet, NY 10954

**OEC Building**  
135 Convent Rd  
Nanuet, NY 10954

**Maintenance Building**  
103 Church St  
Nanuet, NY 10954

**Miller Elementary School**  
50 Blauevelt Rd Unit 1  
Nanuet, NY 10954

**A MacArthur Barr Middle School**  
143 Church St  
Nanuet, NY 10954

**KEY PLAN**

**REVISIONS**

No.	Description	Date
1	BID ADDENDUM #4	02/05/25

**ISSUED: BID SET**

**DATE:** 06/21/2024

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

**SHEET NAME:**  
PARTIAL FIRST FLOOR PLAN - KINDERGARTEN WING

**SHEET NUMBER:**  
ME-M103

**PARTIAL FIRST FLOOR PLAN - KINDERGARTEN WING**  
1/8" = 1'-0" **A2**