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#### **BID ADDENDUM NO. 2**

| Date of Addendum:    | January 9, 2024  |
|----------------------|--|
| Issued for Bid Date: | December 18, 2022  |
| Client Name:         | Eastchester Union Free School District                   |
| Project Name:        | 2022 Capital Bond Project, Phase 3                       |
| SED Project No.:     | Anne Hutchinson Elementary School: 66-03-01-03-0-001-023 |
|                      | Eastchester Middle / High School: 66-03-01-03-0-003-031  |
| MEMASI Project No.:  | 102-2301   |
| Contracts:           | Contract No. 1 – General Construction (GC)               |
|                      | Contract No. 2 – Mechanical Construction (MC)            |
|                      | Contract No. 3 – Electrical Construction (EC)            |
|                      | Contract No. 4 – Plumbing Construction (PC)              |

This Bid Addendum forms part of the Contract Documents and modifies the original Issued for Bid Documents dated December 18, 2023. Where provisions of the following supplementary information differ from those of the original Bid Documents, this Addendum shall govern and take precedence.

#### The Bid Documents are modified and clarified as follows:

#### Addenda to Specifications:

- 1. Section 230993 SEQUENCES OF OPERATION
  - a. Paragraph 1.7-B-6 shall be revised as follows: "Mixed air temperature sensor upstream of the hydronic coil. *This sensor shall be averaging capillary type.*"
  - b. Paragraph 1.9-B-4 shall be revised as follows: "Mixed air temperature sensor upstream of the hydronic coil. *This sensor shall be averaging capillary type.*"

#### Addenda to Drawings:

- 1. MSHS E001 ELECTRICAL COVER SHEET
  - a. Addition of a cutting and patching note for clarification.
  - b. Updated Drawing list to reflect the addition of drawing MSHS E-102C.
- 2. MSHS ED102C ELECTRICAL PART PLAN DEMOLITION 2<sup>ND</sup> FLOOR AREA C
  - a. Addition of this drawing.
- 3. MSHS E102-A ELECTRICAL PART PLAN 2<sup>ND</sup> FLOOR AREA A
  - a. Removed a redundant ceiling fire alarm strobe.
- MSHS E102-C ELECTRICAL PART PLAN 2<sup>ND</sup> FLOOR AREA C
   a. Clarification to existing panels MB-4 and PPMB3.
- 5. MSHS E501 ELECTRICAL ONE-LINE DIAGRAM (HIGH SCHOOL)
  - a. Updated name of Main switchboard to "MBD".
- 6. MSHS E602 ELECTRICAL PANEL SCHEDULES
  - a. Added schedule for panel PPMB3.
- 7. AH E001 ELECTRICAL COVER SHEET
  - a. Addition of a cutting and patching note for clarification.
- 8. HSMS MD102-C MECHANICAL DEMOLITION PART PLAN -SECOND FLOOR AREA C
  - a. Indicated demolition scope for HS Gym Mechanical room. Demolition of existing H&V units, Return Air fans, and Unit Heater.
- 9. HSMS M102-A MECHANICAL PART PLAN 2<sup>ND</sup> FLOOR AREA A

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- a. Chiller note revised to remove dunnage height. Height is indicated on Structural drawings.
- 10. HSMS M102-C MECHANICAL PART PLAN 2ND FLOOR AREA C
  - a. Updated RTU note to indicate roof curb in lieu of dunnage. Fixed note and designation for new unit heater.
- 11. HSMS M103-B MECHANICAL PART PLAN 3<sup>RD</sup> FLOOR AREA B
  - a. Chiller note revised to remove dunnage height. Height is indicated on Structural drawings.
- 12. HSMS M601 MECHANICAL SCHEDULES
  - a. Updated RTU schedule with roof curb note and operating weight with roof curb.
- 13. HSMS M602 MECHANICAL SCHEDULES
  - a. Added Hot Water Unit Heater Schedule.
- 14. MSHS M703 MECHANICAL DETAILS
- a. Updated Unit Ventilator Detail notes indicated sleeve gauge and reference to Structural Dwgs.
- 15. MSHS P100-A PLUMBING PART PLAN BASEMENT AREA A
  - a. Added size to new alarm check valve and sprinkler piping.
- 16. MSHS P501 PLUMBING RISER DIAGRAM
  - a. Revised fixture tags to indicate existing fixtures.
- 17. MSHS P601 PLUMBING SCHEDULES
  - a. Updated Water Heater Schedule & Plumbing Fixture Schedule.

#### 18. MSHS P701 - PLUMBING DETAILS

a. Updated Water Heater Detail, and Water Service Elevation Details.

#### Responses to RFI:

1. See attached RFI and responses.

#### Attachments:

#### Drawings:

| MSHS E001   | MSHS ED102-C | MSHS E102-A | MSHS E102-C  |
|-------------|--------------|-------------|--------------|
| MSHS E501   | MSHS E602    | AH E001     | MSHS MD102-C |
| MSHS M102-A | MSHS M102-C  | MSHS M103-B | MSHS M601    |
| MSHS M602   | MSHS M703    | MSHS P100-A | MSHS P501    |
| MSHS P601   | MSHS P701    |             |              |

#### Responses to RFI's:

All Bright RFI #1, 2, 3, and 4. Bertussi Contracting RFI #005, 006, and 008. Lombardo RFI #001 and 002 Milcon RFI #004

END OF BID ADDENDUM NO. 2

MECHANICAL DEMOLITION PART PLAN - SECOND FLOOR - AREA C 1/8" = 1'-0"



<u>GENERAL NOTES – PIPING:</u>

- A. UNLESS OTHERWISE NOTED, ALL HORIZONTAL STEAM AND CONDENSATE RETURN MAINS AND BRANCH PIPES WHICH ARE ACCESSIBLE AFTER GENERAL DEMOLITION SHALL BE REMOVED BACK TO EXISTING WALLS, PARTITIONS, SHAFTS, CHASES, AND SLABS. WHERE HORIZONTAL PIPING IS REMOVED ON BOTH SIDES OF A WALL, ALSO REMOVE THE PORTION PENETRATING THE WALL. WHERE HORIZONTAL PIPING ENTERS A SHAFT OR CHASE, CAP 3/4" BEHIND EXISTING SURFACE.
- B. UNLESS OTHERWISE NOTED, ALL VERTICAL STEAM AND CONDENSATE RETURN RISERS AND BRANCH PIPES WHICH ARE ACCESSIBLE AFTER GENERAL DEMOLITION SHALL BE REMOVED BACK TO EXISTING WALLS, SHAFTS, CHASES, AND SLABS. WHERE VERTICAL PIPING IS REMOVED ABOVE AND BELOW A FLOOR SLAB, ALSO REMOVE THE PORTION PENETRATING THE FLOOR SLAB. WHERE VERTICAL PIPING IS REMOVED ABOVE A PIPE TUNNEL OR BELOW AN ATTIC, CAP 3/4" BEHIND EXISTING SURFACE.
- C. UNLESS OTHERWISE NOTED, ALL HORIZONTAL AND VERTICAL STEAM AND CONDENSATE RETURN MAINS AND BRANCH PIPES WITHIN EXISTING-TO-REMAIN SHAFTS OR CHASES, WITHIN PIPE TUNNELS, ABOVE EXISTING-TO-REMAIN CEILINGS, AND IN ATTIC SPACES, SHALL BE ABANDONED IN PLACE.
- D. WHERE INSULATION WILL BE REMOVED FROM EXISTING-TO-REMAIN PIPING DURING ASBESTOS ABATEMENT, THE MECHANICAL CONTRACTOR SHALL RE-INSULATE EXISTING-TO-REMAIN PIPING AS PER THE SPECIFICATION, INCLUDING BUT NOT LIMITED TO STRAIGHT PIPE INSULATION, FITTINGS, ELBOWS, AND VALVE COVERS. REFER TO THE HAZMAT DRAWINGS FOR LOCATIONS AND QUANTITIES.

<u>GENERAL NOTES – CONTROLS:</u>

E. UNLESS OTHERWISE NOTED, CONTROLS FOR MECHANICAL EQUIPMENT TO BE REMOVED UNDER THIS PROJECT (INCLUDING BUT NOT LIMITED TO THERMOSTATS, WIREMOLD, CONDUITS, AND JUNCTION BOXES) WHICH ARE ACCESSIBLE AFTER GENERAL DEMOLITION SHALL BE REMOVED BACK TO EXISTING WALLS, PARTITIONS, SHAFTS, CHASES, AND SLABS. WHERE CONTROLS COMPONENTS ARE REMOVED ON BOTH SIDES OF A WALL OR SLAB, ALSO REMOVE THE PORTION PENETRATING THE WALL OR SLAB. WHERE CONTROLS COMPONENTS ENTER A SHAFT OR CHASE, CAP 3/4" BEHIND EXISTING SURFACE.

<u>GENERAL NOTES – CUTTING AND PATCHING:</u>

F. WHERE EXISTING EQUIPMENT, DUCTS, PIPES, LOUVERS, GRILLES, CONTROLS, WIRES, CONDUITS, AND PNEUMATIC TUBING THROUGH EXISTING WALLS, PARTITIONS, SHAFTS, CHASES, AND SLABS ARE REMOVED BY THE MECHANICAL CONTRACTOR, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR INFILLING AND REPAIRING OPENINGS TO MATCH EXISTING CONSTRUCTION, INCLUDING FIRE RATING, SMOKE RATING, INSULATION VALUE, MOISTURE BARRIER, PAINTING, AND GENERAL FINISH APPEARANCE. WHERE SURFACE-MOUNTED COMPONENTS ARE REMOVED, REPAIR SURFACE FINISHES TO MATCH EXISTING.



# EASTCHESTER **UNION FREE** SCHOOL DISTRICT 2022 CAPITAL PROJECT PHASE 3 MIDDLE SCHOOL / HIGH SCHOOL

ARCHITECT  $M \equiv M \wedge S$ 2 LYON PLACE

WHITE PLAINS, NY 10601 914.915.9519 MEMASIDESIGN.COM

STAMFORD, CT 06905

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STRUCTURAL CONSULTANT **REILLY TARANTINO ENGINEERING** 100 PARK BLVD, SUITE 209 MASSAPEQUA PARK, NY 11762

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400





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# EASTCHESTER UNION FREE SCHOOL DISTRICT 2022 CAPITAL PROJECT PHASE 3 MIDDLE SCHOOL **HIGH SCHOOL**

ARCHITECT  $M \equiv M \wedge S$ 2 LYON PLACE

WHITE PLAINS, NY 10601 914.915.9519 MEMASIDESIGN.COM

STRUCTURAL CONSULTANT **REILLY TARANTINO ENGINEERING** 100 PARK BLVD, SUITE 209 MASSAPEQUA PARK, NY 11762

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

![](_page_3_Figure_22.jpeg)

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MECHANICAL PART PLAN - 2ND FLOOR - AREA C 3/32" = 1'-0"

- ASBESTOS ABATEMENT (ROOFING & UV SLEEVES) - LAYOUT AND HOLE CUT - SUPPORT STEEL - CURBS, CURB ADAPTORS, RAILS, PITCH POCKETS, PIPE PENETRATIONS, ETC. - ROOF FLASHING AND PATCHING (BY ROOFING SUBCONTRACTOR WHO IS AUTHORIZED BY MANUFACTURER TO MAINTAIN WARRANTY)

STRUCTURE ABOVE. M. ALL WORK ASSOCIATED WITH ROOFTOP MECHANICAL UNITS, DUCTWORK COMPONENTS, ETC. IS BY MECHANICAL CONTRACTOR. INCLUDING:

NECESSARY TO ENABLE INSTALL OF HANGERS, PIPING, DUCTWORK TO

M. IN SOME LOCATIONS THERE ARE PLASTER CEILINGS WHICH REMAIN ABOVE THE ACOUSTIC TILE/GRID CEILING. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS. MECHANICAL CONTRACTOR WILL CUT ACCESS HOLES WHERE

MECHANICAL CONTRACTOR TO REMOVE AND REINSTALL CEILING TILES AS NEEDED TO FACILITATE THE MECHANICAL SCOPE OF WORK, EXCEPT IN AREAS WHERE CEILING REMOVAL/REPLACEMENT IS INDICATED AS GENERAL CONTRACTOR BASE SCOPE ON THE ÁRCHITECTURAL REFLECTED CEILING PLANS.

CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING NEW OPENINGS AND FIRESTOPPING. PROVIDE NEW FRAMING FOR NEW OPENINGS FOR DUCTWORK AND LOUVERS IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. PLEASE NOTE THAT PREFABRICATED STRUCTURAL SLEEVES SHALL BE UTILIZED INSTEAD OF LINTELS FOR NEW OPENINGS IN EXTERIOR WALLS.

METAL (PAINTED) PIPE CHASES FOR ANY EXPOSED PIPING. <u>GENERAL NOTES – CUTTING AND PATCHING:</u> K. WHERE NEW EQUIPMENT, DUCTS, PIPES, LOUVERS, GRILLES, WIRES, AND CONDUITS INSTALLED BY THE MECHANICAL CONTRACTOR PENETRATE EXISTING WALLS, PARTITIONS, SHAFTS, CHASES, AND SLABS, THE MECHANICAL

OR SOLDERED, WITH 1" INSULATION, UNLESS OTHERWISE NOTED ON DRAWINGS. J. MECHANICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL 14 GA.

STRUCTURAL MEMBERS. OFFSET IN ORDER TO ALLOW FUTURE DUCTWORK AND PIPING TO CROSS OVER IN BETWEEN STRUCTURAL MEMBERS. I. CONDENSATE DRAIN (CD) AND CONDENSATE PUMP DISCHARGE (PD) PIPING SHALL BE RIGID COPPER, TYPE L, MINIMUM 3/4" NOMINAL PIPE SIZE, BRAZED

UNLESS OTHERWISE NOTED OR ABSOLUTELY REQUIRED BY FIELD CONDITIONS. H. DO NOT INSTALL PIPING DIRECTLY UNDER AND PARALLEL TO THE WEB OF

<u>GENERAL NOTES – PIPING:</u> G. ALL PIPING SHALL BE INSTALLED TIGHT TO BOTTOM OF STRUCTURAL MEMBERS

F. UNLESS OTHERWISE NOTED, ALL EXPOSED DUCTWORK IN FINISHED SPACES SHALL BE SPIRAL ROUND OR FLAT OVAL TYPE, WITH SOLID OUTER WALL, PERFORATED INNER WALL, 1 INCH THICK INTERSTITIAL ACOUSTICAL LINING, AND FLAT SEAMS.

E. VOLUME DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS SHALL BE CABLE OPERATED TYPE, WITH CABLE OPERATORS LOCATED IN ACCESSIBLE LOCATIONS AND CLEARLY LABELED FOR DIFFUSER OR REGISTER SERVED.

D. BRANCH DUCTS TO INDIVIDUAL DIFFUSERS AND REGISTERS SHALL BE PROVIDED WITH VOLUME DAMPERS, WHETHER OR NOT THE VOLUME DAMPERS ARE SHOWN ON PLAN.

C. DO NOT INSTALL DUCTWORK DIRECTLY UNDER AND PARALLEL TO THE WEB OF STRUCTURAL MEMBERS. OFFSET IN ORDER TO ALLOW FUTURE DUCTWORK AND PIPING TO CROSS OVER IN BETWEEN STRUCTURAL MEMBERS.

SIZE AS THE DIFFUSER OR REGISTER NECK, UNLESS OTHERWISE NOTED. B. ALL DUCTWORK SHALL BE INSTALLED TIGHT TO BOTTOM OF STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED OR ABSOLUTELY REQUIRED BY FIELD CONDITIONS.

<u>GENERAL NOTES – DUCTWORK:</u> A. BRANCH DUCTS TO INDIVIDUAL DIFFUSERS AND REGISTERS SHALL BE THE SAME

> NEW ROOF WALK PADS -BY MECHANICAL CONTRACTOR. REFER TO ARCHITECTURAL SPECIFICATIONS FOR PRODUCT DATA.

![](_page_4_Figure_19.jpeg)

![](_page_4_Figure_20.jpeg)

EASTCHESTER **UNION FREE** SCHOOL DISTRICT 2022 CAPITAL PROJECT PHASE 3 MIDDLE SCHOOL / HIGH SCHOOL

ARCHITECT  $M \equiv M \wedge S$ 2 LYON PLACE

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STRUCTURAL CONSULTANT **REILLY TARANTINO ENGINEERING** 100 PARK BLVD, SUITE 209 MASSAPEQUA PARK, NY 11762

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT

GENERAL NOTES - DUCTWORK:

A. BRANCH DUCTS TO INDIVIDUAL DIFFUSERS AND REGISTERS SHALL BE THE SAME SIZE AS THE DIFFUSER OR REGISTER NECK, UNLESS OTHERWISE NOTED.

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6"GLS&R DN.-

- B. ALL DUCTWORK SHALL BE INSTALLED TIGHT TO BOTTOM OF STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED OR ABSOLUTELY REQUIRED BY FIELD CONDITIONS.
- C. DO NOT INSTALL DUCTWORK DIRECTLY UNDER AND PARALLEL TO THE WEB OF STRUCTURAL MEMBERS. OFFSET IN ORDER TO ALLOW FUTURE DUCTWORK AND PIPING TO CROSS OVER IN BETWEEN STRUCTURAL MEMBERS.
- D. BRANCH DUCTS TO INDIVIDUAL DIFFUSERS AND REGISTERS SHALL BE PROVIDED WITH VOLUME DAMPERS, WHETHER OR NOT THE VOLUME DAMPERS ARE SHOWN ON PLAN.
- E. VOLUME DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS SHALL BE CABLE OPERATED TYPE, WITH CABLE OPERATORS LOCATED IN ACCESSIBLE LOCATIONS AND CLEARLY LABELED FOR DIFFUSER OR REGISTER SERVED.
- F. UNLESS OTHERWISE NOTED, ALL EXPOSED DUCTWORK IN FINISHED SPACES SHALL BE SPIRAL ROUND OR FLAT OVAL TYPE, WITH SOLID OUTER WALL, PERFORATED INNER WALL, 1 INCH THICK INTERSTITIAL ACOUSTICAL LINING, AND FLAT SEAMS.

<u>GENERAL NOTES – PIPING:</u>

- G. ALL PIPING SHALL BE INSTALLED TIGHT TO BOTTOM OF STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED OR ABSOLUTELY REQUIRED BY FIELD CONDITIONS.
- H. DO NOT INSTALL PIPING DIRECTLY UNDER AND PARALLEL TO THE WEB OF STRUCTURAL MEMBERS. OFFSET IN ORDER TO ALLOW FUTURE DUCTWORK AND PIPING TO CROSS OVER IN BETWEEN STRUCTURAL MEMBERS.
- I. CONDENSATE DRAIN (CD) AND CONDENSATE PUMP DISCHARGE (PD) PIPING SHALL BE RIGID COPPER, TYPE L, MINIMUM 3/4" NOMINAL PIPE SIZE, BRAZED OR SOLDERED, WITH 1" INSULATION, UNLESS OTHERWISE NOTED ON DRAWINGS.
- J. MECHANICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL 14 GA. METAL (PAINTED) PIPE CHASES FOR ANY EXPOSED **PIPING.**

GENERAL NOTES - CUTTING AND PATCHING: K. WHERE NEW EQUIPMENT, DUCTS, PIPES, LOUVERS, GRILLES, WIRES, AND CONDUITS INSTALLED BY THE MECHANICAL CONTRACTOR PENETRATE EXISTING WALLS, PARTITIONS, SHAFTS, CHASES, AND SLABS, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING NEW OPENINGS AND FIRESTOPPING. PROVIDE NEW FRAMING FOR NEW OPENINGS FOR DUCTWORK AND LOUVERS IN ACCORDANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS. PLEASE NOTE THAT PREFABRICATED STRUCTURAL SLEEVES SHALL BE UTILIZED INSTEAD OF LINTELS FOR NEW OPENINGS IN EXTERIOR WALLS.

- L. MECHANICAL CONTRACTOR TO REMOVE AND REINSTALL CEILING TILES AS NEEDED TO FACILITATE THE MECHANICAL SCOPE OF WORK, EXCEPT IN AREAS WHERE CEILING REMOVAL/REPLACEMENT IS INDICATED AS GENERAL CONTRACTOR BASE SCOPE ON THE ARCHITECTURAL REFLECTED CEILING PLANS.
- M. IN SOME LOCATIONS THERE ARE PLASTER CEILINGS WHICH REMAIN ABOVE THE ACOUSTIC TILE/GRID CEILING. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS. MECHANICAL CONTRACTOR WILL CUT ACCESS HOLES WHERE NECESSARY TO ENABLE INSTALL OF HANGERS, PIPING, DUCTWORK TO STRUCTURE ABOVE.
- M. ALL WORK ASSOCIATED WITH ROOFTOP MECHANICAL UNITS, DUCTWORK COMPONENTS, ETC. IS BY MECHANICAL CONTRACTOR. INCLUDING:
- ASBESTOS ABATEMENT (ROOFING & UV SLEEVES) - LAYOUT AND HOLE CUT – SUPPORT STEEL
- CURBS, CURB ADAPTORS, RAILS, PITCH POCKETS, PIPE PENETRATIONS, ETC. - ROOF FLASHING AND PATCHING (BY ROOFING SUBCONTRACTOR WHO IS AUTHORIZED BY MANUFACTURER TO MAINTAIN WARRANTY)

EF-HS-3-3 (1000) <u>EF-HS-3-2</u> (1820)

<u>CH-HS-1</u>

MECHANICAL PART PLAN - 3RD FLOOR - AREA B 3/32" = 1'-0"

![](_page_5_Figure_21.jpeg)

![](_page_5_Picture_22.jpeg)

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MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400

STAMFORD, CT 06905 HAZARDOUS MATERIALS CONSULTANT WSP ONE PENN PLAZA

250 W 34TH ST., 4TH FLOOR NEW YORK, NY 10014

![](_page_5_Figure_28.jpeg)

| DESIGNATION    | LOCATIO |
|----------------|---------|
|                |         |
|                |         |
|                |         |
|                |         |
|                |         |
|                |         |
|                |         |
|                |         |
| CH-MS-1        | ROOF    |
|                |         |
|                | POOF    |
| 01-13-1        | ROOF    |
| NOTES:         |         |
| 1. PROVIDE THE | FOLLOW  |
|                |         |
|                |         |
| 1.2. BACNET    | OR BACK |
| 1.3. TRANE I   | ACTORY  |
| 2. PROVIDE THE | FOLLOW  |
| 2.1. TIF-IN T  |         |
|                |         |

| DESIGNATION | OCATION    |          |          |           |        |         |           | CONS        | STRUCTION | DATA     |        |         |              |             |        |         | APPROACH   | I HEAT  |                     | SOURCE SIE    | DE                 |                 |                  |       | LOAD S   | SIDE   |               |                  | DIMENSIONS     | OPERATINC | MANUFACTURER                                 | MODEL         | REM   |
|-------------|------------|----------|----------|-----------|--------|---------|-----------|-------------|-----------|----------|--------|---------|--------------|-------------|--------|---------|------------|---------|---------------------|---------------|--------------------|-----------------|------------------|-------|----------|--------|---------------|------------------|----------------|-----------|--|---------------|-------|
|             |            | PLATE    | PLATE    | SEAL      | SINGLE | POTABLE | MAX.      | MAX.        | MAX.      | MAX.     | ASME   | AHRI D  | ESIGN DESIGI | N SURFACE   | DESIG  | N SPACE | TEMP. (°F) | TRANSFE | RSERVICE            | FLUID INLE    | T OUTLET FLOW PRES | S. E.W.T. L.W   | I.T. SERVICE     | FLUID | INLET OU | TLET F | LOW PRESS. E. | W.T. L.W.T. LENG | TH WIDTH HEIGH | HT WEIGHT | ,  |               |       |
|             |            | MATERIAL | THICKNES | SMATERIAI | OR     | WATER   | OPERATING | DIFFERENTIA | L TEST    | OPERATIN | GRATED | RATED   | DUTY FOULIN  | G AREA WITH | NO. OF | FOR     |            | (MBH)   |                     | PIPE          | E PIPE (GPM) DRO   | P.   (°F)   (°I | =)               |       | PIPE P   | IPE (( | GPM) DROP. (  | °F) (°F) (IN     | ) (IN) (IN)    | , (LBS)   | ,  |               |       |
|             |            |          | (MM)     |           | DOUBLE | RATED   | PRESSURE  | PRESSURE    | PRESSURE  | TEMP.    | (Y/N)  | (Y/N) M | ARGIN FACTO  | R DUTY MARG |        | SFUTUR  | E          |         |                     | CONN          | N. CONN. (PSI      |                 |                  |       | CONN. CC | ONN.   | (PSI)         |                  |                |           | ,  |               |       |
|             |            |          |          |           | WALL   | (Y/N)   | (PSI)     | (PSI)       | (PSI)     | (°F)     |        |         | (%)          | (SQ.FT.)    |        | PLATES  | S          |         |                     | (IN)          | (IN)               |                 |                  |       | (IN) (I  | IN)    |               |                  |                |           | ,  |               |       |
|             | DLE SCHOOL | 204.00   | 0.4      | EDDM      |        | NO      | 150       | 150         | 105       | 220      | v      | v       | 10 0.0001    | 4 2552.7    | 467    | 110     | 2.0        | 2 4 4 0 | MIDDLE SCHOOL       | 35% PROPYLENE | 4 440 2.76         | 42.0 54         | MIDDLE SCHOOL    |       |          |        | 400 2.62 5    | 60 440 442       | e 20 72        | 4700      |  |               | SEE N |
| BOI         | ILER ROOM  | 304 33   | 0.4      | EPDIVI    | SINGLE |         | 150       | 150         | 195       | 320      | T T    | r       |              | 1 2552.7    | 407    | 110     | 2.0        | 2,410   | CHILLER GLYCOL LOOP | P GLYCOL 4    | 4 440 3.70         | 42.0 54         | .0 CHILLED WATER |       | 4        | 4      | 400 2.63 5    | 0.0 44.0 112     | .0 20 73       | 4790      | WESSELS                                      | AWP4/-100-40  | BEL   |
| HIG         | GH SCHOOL  | 204 66   | 0.4      | EDDM      | SINCLE | NO      | 150       | 150         | 105       | 220      | v      | v       | 10 0.0001    | 4 2552.7    | 467    | 110     | 2.0        | 2 4 4 0 | HIGH SCHOOL         | 35% PROPYLENE | 4 440 2.76         | 42.0 54         | HIGH SCHOOL      |       |          | 4      | 400 2.62 5    | 60 440 412       | e 20 72        | 4700      | MERCELO                                      | AMD47 409 46  | SEE N |
| BOI         | ILER ROOM  | 304 33   | 0.4      |           | SINGLE |         | 150       | 150         | 195       | 520      | T T    | r       |              | 1 2552.7    | 407    | 110     | 2.0        | 2,410   | CHILLER GLYCOL LOOP | P GLYCOL 4    | 4 440 5.70         | 42.0 54         | .0 CHILLED WATER |       | 4        | 4      | 400 2.65 5    | 0.0 44.0 112     | .0 20 73       | 4790      | WESSELS                                      | AVVP4/-100-40 | ' BEL |
| NOTES:      |            |          | -        |           | •      | •       | •         |             | •         |          |        |         |              |             | •      |         |            |         |                     | -             |                    |                 |                  |       | · ·      |        |               |                  |                | · · ·     | <u>.                                    </u> |               |       |

1. PROVIDE FRAME WITH FUTURE EXPANSION CAPACITY FOR 25% ADDITIONAL PLATES, UNLESS OTHERWISE NOTED. 2. ALL PIPE CONNECTIONS SHALL BE ON FRONT FACE. 3. PROVIDE CONCRETE PAD.

DESIGNATION LOCATION HEAT DESIGN DESIGN TRANSFER DUTY FOULING (MBH) |MARGIN| FACTOR BAFFLE SHELL MATERIAL MATERIAL (%) STHX-MS-1A, MIDDLE SCHOOL 3,932 10 0.00011 CARBON STEEL CARBON STEEL STHX-MS-1B BOILER ROOM STHX-HS-1A, HIGH SCHOOL 5,250 10 0.00011 CARBON STEEL CARBON STEEL STHX-HS-1B BOILER ROOM

|                |                   |             |             |                |          |             |                                  |         |         |           |                         |        |                   |          |                    |          |           |          |           | ۲/        | ACNAG          |          | KUUF       |           |          |           | JULE     |          |            |            |        |        |            |          |           |         |           |          |          |            |             |              |        |              | 5           | • • •         | • • • •  |            |            |         |
|----------------|-------------------|-------------|-------------|----------------|----------|-------------|----------------------------------|---------|---------|-----------|-------------------------|--------|-------------------|----------|--------------------|----------|-----------|----------|-----------|-----------|----------------|----------|------------|-----------|----------|-----------|----------|----------|------------|------------|--------|--------|------------|----------|-----------|---------|-----------|----------|----------|------------|-------------|--------------|--------|--------------|-------------|---------------|----------|------------|------------|---------|
| DESIGNATION    | LOCATION          | AREA SERVED | D NOMINAL   | DUCT           |          |             |                                  |         | SUP     | PLY FAN C | ATA                     |        |                   |          |                    |          |           |          |           |           |                | DX       | COOLING    | DATA      |          |           |          |          |            |            |        |        |            |          | ELECTRIC  | AL DATA |           |          |          | FILTERS    | ,           | BASE         |        | <b>OVERA</b> | ALL (       | OPER.         | OPER.    | MANUF MOD  | JEL   REIV | Ň       |
|                |                   |             | COOLING     | CONNECTIONS    | SUPPL    | Y MIN.      | ESP                              | NO. N   | NO. H   | P BH      | P FAN                   | DRIVE  | STARTER           | STARTER  | SPEED              | REFRIG.  | LOW       | EER      | IEER DE   | SIGN N    | 10. OF   NO. ( | OF CAF   | PACITYNO   | . OF GROS | SS GROS  | S NET N   | ET E.A.T | . E.A.T. | COIL CO    | ILUNIT     |        | OLTS F | PH Hz MCA  | MOP      |           | DISCO   | NNECT     |          | EMER. P  | RE- MA     | N D         | IMENSIONS (I | (N)    | DIMENS!      | SIONS (     | WEIGHT        | WEIGHT   | <b>⋌</b>   |            |         |
|                |                   |             | CAPACITY    | SUPPLYRETUR    |          |             | E (IN W.C.)                      | OF C    | OF (PE  | ER   (PE  | r type                  | E TYPE | TYPE              | LOCATION | ONTROL             | TYPE     | AMBIENT   | AT       | AT AME    | BIENT     | OMPR. REFR     | RIG. COM | NTROLCO    | ND. TOT   | T. SENS  | . TOT. SE | NS. DB   | WB   I   | L.A.T. L.A | .T. L.A.T. | L.A.T. |        |            | В        | BY E.C LO | CATION  | TYPE      | ENCL.    | PWR. FII | _TER FILT  | rer W       | IDTH LENGT   | TH INC | LUDING H     | OODS AND    |               | OF UNIT  | <b>⋌</b>   |            |         |
|                |                   |             | (TONS)      |                | (CFM)    | ) AIRFLOW   | V   F                            | ans mot | TORSMOT | OR) MOT   | DR)                     |        |                   |          |                    |          | LIMIT FOR |          | AHRI TE   | EMP.      | СКТ            | rs.      | FA         | NS MBH    | н   мвн  | мвн м     | BH (•F)  | (°F)     | DB W       | B DB       | WB     |        |            |          | OR        |         |           | TYPE     | (Y/N)    |            |             | OR DEP       | ′ТН /  | ACCESSOF     | RIES (IN) 🕻 | (LBS) /       | AND ROOF | <b>∠</b>   |            |         |
|                |                   |             |             |                |          |             |                                  |         |         |           |                         |        |                   |          |                    |          | COOLING   | COND.    | COND. DB  | B (°F)    |                |          |            |           |          |           |          |          | (°F) (°F   | F)   (°F)  | (°F)   |        |            | M        | ANUF.     |         |           |          |          |            |             |              | HEIG   | HT WIDTH     | I LENGTH    | 1             | CURB     | 2          |            |         |
|                |                   |             |             |                |          |             |                                  |         |         |           |                         |        |                   |          |                    |          | DB (°F)   |          |           |           |                |          |            |           |          |           |          |          |            |            |        |        |            |          |           |         |           |          |          |            |             |              |        |              | OR DEPT     | 1             | (LBS)    | )          |            |         |
| RTU-HS-1       | ROOF              | GYMNASIUM   | I 50        | HORIZ. HORIZ   | . 16,600 | ) 3,300     | 1.50                             | 1       | 1 20    | 0 19.     | 6 FC                    | DIRECT | VFD               |          | SINGLE<br>ZONE VAV | , R-410A | 0         | 10.4     | 15.6      | 95        | 3 1            | 5-S      | STAGE 4    | 4 574     | 4 435    | 520 3     | 81 80    | 67       | 55 55      | 5 59       | 57     | 208    | 3 60 273.0 | 300 M    | ANUF. UN  | IT MTD. | NON-FUSED | D NEMA 3 | RNI      | 1/A 4" MEI | .RV-13      | 90 232       | 84     | 4 90         | 265         | 6,080         | 7,295    | RANE TCH6( | 00C SEE I  | N<br>EL |
| NOTES -        | $\overline{\sim}$ | $\sim$      | $\sim$      | $\sim$         | $\sim$   | $\sim$      | $\overline{\mathbf{\mathbf{v}}}$ | $\sim$  | $\sim$  | $\sim$    | $\overline{\mathbf{n}}$ | $\sim$ | $\overline{\sim}$ | $\sim$   | $\sim$             | $\sim$   | $\sim$    | $\sim$   | $\sim$    | $\sim$    | $\sim$         | $\sim$   | $\sim$     | $\sim$    | $\sim$   | $\sim$    | $\sim$   | $\sim$   | $\sim$     | $\sim$     | $\sim$ | $\sim$ | $\sim$     | $\sim$   | $\sim$    | $\sim$  | $\sim$    | $\sim$   | $\sim$   |            | · · · · · · |              |        |              |             | $\overline{}$ |          | /          |            | _       |
| 1. PROVIDE THE | E FOLLOWIN        | G FACTORY S | SUPPLIED FE | ATURES AND OPT | IONS FOR | REACH UNIT: | :                                |         |         |           |                         |        |                   |          | 1.4. VIBF          | RATIONIS | DLATION R | OOF CURE | B MINIMUM | M 20" HIG | HINCLUDING     | g spring | G VIBRATIO | NISOLATI  | ION RAIL | SAND CLIP | S, CONST | RUCTED   | AND INST   | ALLED TO   | WITHST | TAND A | WIND SPEE  | D OF 130 | MPH IN AC | CORDAN  | CE STANDA | ARD ASCE | 7. \     |            |             |              |        |              |             |               |          |            |            |         |

1.1. UNIT (INCLUDING HINGED ACCESS DOORS) SHALL BE CONSTRUCTED TO WITHSTAND WIND SPEED OF 130 MPH IN ACCORDANCE WITH STANDARD ASCE 7. 1.5. POWER EXHAUST. 1.2. DIGITAL PROGRAMMABLE CONTROLLER WITH BACKET COMMUNICATIONS INTERFACE FOR BMSTIE-IN. 1.8. REFRIGERANT HOT GAS REHEAT FOR DEHUMIDIFICATION. 1.3. DUAL ENTHALPY AIRSIDE ECONOMIZER WITH FULLY MODULATING OUTSIDE AIR / RETURN AIR DAMPERS, INTAKE HOOD, AND RELIEF AIR HOOD.

|             |                                   |                         |  |               |                |              |          |            |                    |                |                |           |             |         | U       | INIT \  | /ENTII     | _ATOR        | SCH       | EDU        | LE             |          |       |         |                 |             |                   |              |           |            |                  |           |             |         |           |       |          |          |                      |
|-------------|-----------------------------------|-------------------------|--|---------------|----------------|--------------|----------|------------|--------------------|----------------|----------------|-----------|-------------|---------|---------|---------|------------|--------------|-----------|------------|----------------|----------|-------|---------|-----------------|-------------|-------------------|--------------|-----------|------------|------------------|-----------|-------------|---------|-----------|-------|----------|----------|----------------------|
| DESIGNATION | CONFIGUR-                         | AIR                     | CONNECTIONS                            |               |                |              | SUPPLY   | ' FAN DATA | ۱.                 |                |                |           | COILS       |         |         | CHILI   | ED WATER   | (OR DUAL TE  | MP) COI   | L COOLIN   | NG DATA        |          | HC    | OT WATI | ER (OR DUAL TEM | P) COIL HEA | FING DAT          | ГА           | E         | LECTRICAL  | DATA             |           | FILTER      | UNI     | T OVERAI  | L WE  | GHT MANU | JFAC- MC | JDEL REM             |
|             | ATION                             | SUPPLY                  | RETURN OUTSID                          | E SUPPLY FAN  | MIN.           | ESP NO       | . NO.    | HP         | BHP FAN            | DRIVE STA      | RTER STARTER S | FEAM DX C | CHILLED HOT | DUAL    | FLUID R | ROWS TO | T. SENS. G | PM E.W.T. L. | W.T. E.A. | .T. E.A.T. | . L.A.T. L.A.T | . W.P.D. | FLUID | ROWS    | MBH GPM E.W.T.  | L.W.T. E.A. | Г. <b>L.A.T</b> . | W.P.D. VOLTS | PH Hz     | DISCO      | NNECT            | EME       | R. PRE-     | DI      | MENSION   | 3 (L  | .BS) TUF | RER      |                      |
|             |                                   |                         | AIR                                    | AIRFLOW SPEED |                | E (IN WC) OF | OF       | (PER       | (PER TYPE          | TYPE T         | PE LOCATION    |           | WATER WATE  | ER TEMP |         | МВ      | н мвн      | (°F)         | •F) DE    | B WB       | DB WB          | (FT-WC)  |       |         | (°F)            | (°F) (°F    | ) (°F)            | (FT-WC)      | BY E.     | C LOCATIC  | N TYPE           | ENCL. PWI | د.   FILTER | WIDTH F | IEIGHT L' | ENGTH |          |          |                      |
|             |                                   |                         |  | (CFM) SETTIN  |                | / FAN        | S MOTORS | MOTOR)     | NOTOR)             |                |                |           |             | HOT &   |         |         |            |              | (°F       | F) (°F)    | (°F) (°F)      |          |       |         |                 |             |                   |              | OR        |            |                  | TYPE (Y/N | <i>i</i> )  | (IN)    | (IN)      | OR    |          |          |                      |
|             |                                   |                         |  |               | (CFM)          |              |          |            |                    |                |                |           |             | CHILLED |         |         |            |              |           |            |                |          |       |         |                 |             |                   |              | MANU      | F.         |                  |           |             |         | r         | JEPTH |          |          |                      |
|             |                                   |                         |  |               |                |              |          |            |                    |                |                |           |             | WATER   |         |         |            |              |           |            |                |          |       |         |                 |             |                   |              |           |            |                  |           |             |         |           | (IN)  |          |          |                      |
| UV-A        | VERTICAL                          | TOP<br>GRILLE           | LOW REAR<br>FRONT DUCT<br>GRILLE COLLA | 1,150 MEDIU   | M RE:<br>PLANS | 0 1          | 1        | 1/4        | - CENTR<br>FUGAL   | I-<br>DIRECT E | CM AT MOTOR    |           |             | x       | WATER   | 4 48.   | 9 29.4 8   | 3.6 44       | 54 80     | 0 67       | 57 53          | 7.8      | WATER | 4       | 100.4 8.6 140   | 117 52      | 132               | 7.8 120      | 1 60 MANU | F. UNIT MT | D. NON-<br>FUSED | NEMA 1 N  | 1" MERV-    | 3 105   | 30        | 21 4  | .70 TR#  |          | -E-150 SEE N<br>BEI  |
| UV-B        | HORIZONTAL<br>CEILING<br>RECESSED | FRONT<br>DUCT<br>COLLAR | BOTTOM<br>GRILLE<br>COLLA              | 1,150 MEDIU   | M RE:<br>PLANS | 0.30 1       | 1        | 1/4        | - CENTR<br>- FUGAL | I-<br>DIRECT E | CM AT MOTOR    |           |             | x       | WATER   | 4 48    | 9 29.4 8   | 3.6 44       | 54 80     | 0 67       | 57 53          | 7.8      | WATER | 4       | 100.4 8.6 140   | 117 52      | 132               | 7.8 120      | 1 60 MANU | F. UNIT MT | D. NON-<br>FUSED | NEMA 1 N  | 1" MERV-    | 3 105   | 15        | 30 4  | .70 TR#  | ANE HUV  | /-E-150 SEE N<br>BEI |

NOTES:

1. PROVIDE THE FOLLOWING FACTORY SUPPLIED FEATURES AND OPTIONS FOR ALL UNITS:

1.1. COMBINATION OUTSIDE AIR AND RETURN AIR MOTORIZED DAMPER, SINGLE BLADE, NO LINKAGE, FULLY MODULATING. 2. PROVIDE THE FOLLOWING FACTORY SUPPLIED FEATURES AND OPTIONS FOR UV-A: 2.1. FULL HEIGHT "FALSE BACK" ASSEMBLY WITH OUTSIDE AIR INTAKE PLENUM AT BACK OF UNIT. MOUNT UNIT TIGHT TO EXTERIOR WALL WITH GASKET.

3. PROVIDE THE FOLLOWING FIELD SUPPLIED OPTIONS:

3.1. AUTOMATIC TEMPERATURE CONTROLS SUB-CONTRACTOR TO FURNISH AND FIELD-INSTALL BMS CONTROLS, DAMPER ACTUATORS, CONTROL VALVES, AND CONTROL WIRING. 4. FINISH COLOR SHALL BE "STONE GREY". SUBMIT COLOR CHART FOR APPROVAL.

5. MECHANICAL CONTRACTOR TO PROVIDE ALL LOUVERS AND COLLARS.

|             |                                  |                      |                          |                        |        |              |        |         |           |        |                  |        |         |          |       |         |                     |      |        |          |          |           | FA         | N CO                   | IL UN        | IT SC    | HEDI            | ILE    |             |           |             |           |           |         |               |                  |               |            |         |         |        |              |           |      |            |                    |            |              |                 |
|-------------|----------------------------------|----------------------|--------------------------|------------------------|--------|--------------|--------|---------|-----------|--------|------------------|--------|---------|----------|-------|---------|---------------------|------|--------|----------|----------|-----------|------------|------------------------|--------------|----------|-----------------|--------|-------------|-----------|-------------|-----------|-----------|---------|---------------|------------------|---------------|------------|---------|---------|--------|--------------|-----------|------|------------|--------------------|------------|--------------|-----------------|
| DESIGNATION | CONFIGUR-                        | AIR C                | ONNECTIC                 | NS                     |        |              |        |         | SUPPLY FA | N DATA |                  |        |         |          |       | CO      | ILS                 |      |        | CHILL    | ED WATI  | ER (OR DI | UAL TEMP   | P) COIL CO             | DOLING DA    | TA       |                 | HOT WA | ATER (OR DU | JAL TEMP) | COIL HEATIN | NG DATA   |           |         | ELECTRIC      | AL DATA          |               | FIL        | ER      | UNIT OV | /ERALL | WALL         | OR CEILI' | NG / | FACEPLATE  | WEIGHT             | ANUFAC-    | MODEL        | REM             |
|             | ATION                            | SUPPLY               | RETURN                   | OUTSIDE                | SUPPLY | MIN.         | ESP NC | D. NO.  | HP        | BHP    | FAN              | DRIVE  | STARTER | STARTER  | STEAM | CHILLED | НОТ                 | DUAL | FLUIDR | ROWS TOT | L. SENS. | GPM E.V   | W.T. L.W.T | Г. <mark>Е.А.Т.</mark> | E.A.T. L.A.T | . L.A.T. | W.P.D. F        |        | S MBH GPN   | ME.W.T.L  | W.T. E.A.T. | L.A.T. W  | I.P.D. VO |         | DIS           | CONNECT          |               | EMER. PR   | E-      | DIMENS  | 3IONS  | OPENINC      | JIMENS    |      | JIMENSIONS | (LBS)              | TURER      |              |                 |
|             |                                  |                      |                          |                        |        |              |        |         |           | (PER   |                  | TYPE   | TYPE    |          |       | WATER   | WATER               |      |        | MB       | н  мвн   | ) ('      | ºF)   (ºF) |                        | WB DB        | WB (I    | - <b>T-WC</b> ) |        |             | (°F)      | (°F)   (°F) | (°F)  (F1 | T-WC)     |         | BY E.C LOCA   |                  |               | PWR.   FIL |         |         |        |              |           |      |            |                    |            |              |                 |
|             |                                  |                      |                          |                        |        |              |        | NSMUTUR |           |        | <b>(</b> )       |        |         |          |       |         |                     |      |        |          |          |           |            | (°F)                   | (°F) (°F)    | (°F)     |                 |        |             |           |             |           |           |         |               |                  | ITPE          | (Y/N)      | (1)     | 1) (IN) |        | , (IN) (<br> |           |      |            |                    |            |              |                 |
|             |                                  |                      |                          |                        |        |              |        |         |           |        |                  |        |         |          |       |         |                     |      |        |          |          |           |            |                        |              |          |                 |        |             |           |             |           |           |         |               |                  |               |            |         |         | (IN)   |              | (IN)      |      |            | 1                  |            |              |                 |
| FCU-A       | VERTICAL<br>SLOPE TOP            | TOP<br>GRILLE        | LOW<br>FRONT<br>GRILLE   | REAR<br>DUCT<br>COLLAR | 600    | RE:<br>PLANS | 0 1    | 1       | 0.22      | 0.12   | CENTRI-<br>FUGAL | DIRECT | ECM     | AT MOTOR | -     | -       | -                   | x    | WATER  | 4 18.9   | 9 14.9   | 3.1 4     | 44 56      | 80                     | 67 57        | 56       | 4.7 W           | ATER 4 | 3.1         |           | 55          |           | 3.1 1     | 20 1 60 | MANUF. UNIT I | MTD. NON<br>FUSE | -<br>D NEMA 1 | N 1" ME    | RV-13 4 | 8 29    | 10     | -            | -         | -    |            | 155                | TRANE      | FC-J-B-060   | SEE N<br>BEL    |
| FCU-B       | HORIZONTAL<br>CONCEALED          | FRONT DUCT<br>COLLAR | T REAR<br>DUCT<br>COLLAR | TOP<br>DUCT<br>COLLAR  | 600    | RE:<br>PLANS | 0.30 1 | 1       | 0.22      | 0.21   | CENTRI-<br>FUGAL | DIRECT | ECM     | AT MOTOR | -     | -       | -                   | x    | WATER  | 4 18.9   | 9 14.9   | 3.1 4     | 44 56      | 80                     | 67 57        | 56       | 4.7 W           | ATER 4 | 3.1         |           | 55          |           | 3.1 1     | 20 1 60 | MANUF. UNIT I | NON<br>FUSE      | -<br>D        | N 1" ME    | RV-13 4 | 7 10    | 25     | -            |           | -    |            | 139                | TRANE      | FC-C-B-060   | SEE N<br>BEL    |
| FCU4W-A     | 4-WAY CEILING<br>CASSETTE        | G _                  | -                        | -                      | 380    | 0            | 0 1    | 1       | 1/30      | -      | CENTRI-<br>FUGAL | DIRECT | ECM     | AT MOTOR | -     | x       | X<br>(NOT<br>PIPED) | -    | WATER  | 2 7.9    | 7.0      | 1.4 4     | 44 56      | 75                     | 63 59        | 57       | 3.7             |        |             | -         |             | -         | - 2       | 08 1 60 | MANUF. UNIT I | NON FUSE         | -<br>D        | N 1" ME    | RV-13   | .   -   | -      | 24           | 24        | 16   | 27 27      | 51 MI              | JLTIAQUA   | MHCFC4W-04   | SEE N<br>BEL    |
| FCU4W-B     | 4-WAY CEILING<br>CASSETTE        | 3 -                  | -                        | -                      | 550    | 0            | 0 1    | 1       | 1/20      | -      | CENTRI-<br>FUGAL | DIRECT | ECM     | AT MOTOR | -     | х       | X<br>(NOT<br>PIPED) | -    | WATER  | 3 12.9   | 9 11.4   | 2.2 4     | 44 56      | 75                     | 63 57        | 55       | 2.4             |        |             | -         |             | -         | - 20      | 08 1 60 | MANUF. UNIT I | NON FUSE         | -<br>D        | N 1" ME    | RV-13   |         |        | 28           | 28        | 16   | 33 33      | 72 MI              | JLTIAQUA   | MHCFC4W-08   | , SEE N<br>BEL  |
| FCU4W-C     | 4-WAY CEILING<br>CASSETTE        | 3 -                  | -                        | -                      | 870    | 0            | 0 1    | 1       | 1/8       | -      | CENTRI-<br>FUGAL | DIRECT | ECM     | AT MOTOR | -     | х       | X<br>(NOT<br>PIPED) | -    | WATER  | 3 21.0   | 6 18.4   | 3.7 4     | 44 56      | 75                     | 63 57        | 55       | 7.7             |        |             | -         |             | -         | - 20      | 08 1 60 | MANUF. UNIT I | NON FUSE         | -<br>D        | N 1" ME    | RV-13   |         | -      | 33           | 33        | 17   | 39 39      | 88 MI              | JLTIAQUA   | MHCFC4W-12   | , SEE N<br>BEL  |
| FCU4W-D     | 4-WAY CEILING<br>CASSETTE        | G .                  | -                        | -                      | 1,200  | 0            | 0 1    | 1       | 1/4       | -      | CENTRI-<br>FUGAL | DIRECT | ECM     | AT MOTOR | -     | x       | X<br>(NOT<br>PIPED) | -    | WATER  | 3 31.    | 5 26.0   | 5.5 4     | 44 56      | 75                     | 63 56        | 55       | 11.7            |        |             | -         |             | -         | - 2       | 08 1 60 |               | NON FUSE         | -<br>D        | N 1" ME    | RV-13   |         | -      | 39           | 39        | 17   | 45 45      | 126 M <sup>r</sup> | JLTIAQUA   | MHCFC4W-16   | , SEE N<br>BEL  |
| FCUWC-A     | HIGH WALL<br>MOUNTED<br>CASSETTE | FRONT<br>GRILLE      | BOTTOM<br>GRILLE         | -                      | 850    | 0            | 0 1    | 1       | 1/12      | -      | CENTRI-<br>FUGAL | DIRECT | ECM     | AT MOTOR | -     | x       | X<br>(NOT<br>PIPED) | -    | WATER  | 3 33.3   | 3 23.3   | 5.6 4     | 44 56      | 75                     | 63 50        | 49       |                 |        |             | -         |             | -         | - 12      | 20 1 60 | MANUF. UNIT I | MTD. FUSE        | -<br>D NEMA 1 | N 1" ME    | RV-13 5 | 7 14    | 8      | -            | -         | -    |            | - M!               | JLTIAQUA N | /IHQWW-36-H- | .3 SEE N<br>BEL |

NOTES:

1. PROVIDE THE FOLLOWING FACTORY SUPPLIED FEATURES AND OPTIONS FOR ALL UNITS WITH OUTSIDE AIR INTAKE CONNECTIONS:

1.1. 2-POSITION OUTSIDE AIR MOTORIZED DAMPER AND ACTUATOR, "OPEN" POSITION FIELD ADJUSTIBLE FROM 0-50%. 2. PROVIDE THE FOLLOWING FACTORY SUPPLIED FEATURES AND OPTIONS FOR ALL FLOOR-MOUNTED UNITS:

2.1. SUB-BASE, 4" HIGH.

3. PROVIDE THE FOLLOWING FIELD SUPPLIED OPTIONS FOR ALL UNITS:

3.1. AUTOMATIC TEMPERATURE CONTROLS SUB-CONTRACTOR TO FURNISH AND FIELD-INSTALL BMS CONTROLS, CONTROL VALVES, AND CONTROL WIRING. 4. FINISH COLOR SHALL BE "STONE GREY" FOR FCU-A AND FCU-B. FINISH COLOR SHALL BE "WHITE" FOR FCU4W-A, FCU4W-B, FCU4W-C, FCU4W-D, AND FCUWC-A. SUBMIT COLOR CHART FOR APPROVAL. 5. MECHANICAL CONTRACTOR TO PROVIDE ALL LOUVERS AND COLLARS.

## **AIR-COOLED CHILLER SCHEDULE**

| ١ | SERVICE           | CONFIGURATION | DESIGN  | NOMINAL  | COOLING    | TOTAL | EER    | EER IF    | PLV.IP NPLV.I              | P          | REFI   | RIGERATION SY | STEM DATA  |         |              | WATE     | RSIDE DATA |          |        |        | DI     | IMENSION | IS     | OPERATING |          |          | El       | LECTRICAL DAT | A         |          | !     | MANUF. M | JDEL F | REM/  |
|---|-------------------|---------------|---------|----------|------------|-------|--------|-----------|----------------------------|------------|--------|---------------|------------|---------|--------------|----------|------------|----------|--------|--------|--------|----------|--------|-----------|----------|----------|----------|---------------|-----------|----------|-------|----------|--------|-------|
|   |                   |               | AMBIENT | COOLING  | CAPACITY   | POWER | (BTU / | (BTU / (/ | ,BTU /   (BTU <sup>-</sup> | / REFRIG.  | COMPR. | NO.OF NO.O    | OF CAPACIT | Y NO.OF | FLUID        | MAX      | FLOW E.W.T | . L.W.T. | EVAP.  | STR.   | HEIGHT | WIDTH L  | .ENGTH | WEIGHT    | VOLTS PH | H Hz MCA | MOP      | DISC          | ONNECT    | ļ        | EMER. |          |        |       |
|   |                   |               | TEMP.   | CAPACITY | AT DESIGN  | (KW)  | W*H)   | י (W*H    | W*H) W*H)                  | TYPE       | TYPE   | COMPR. REFR   | IG. CONTRO |         | S. TYPE      | WORKING  | (GPM) (°F) | (°F)     | W.P.D. | W.P.D. | (IN)   | (IN)     | (IN)   | (LBS)     |          |          | BY '     | E.C LOCATION  | TYPE      | ENCL.    | PWR.  |          |        |       |
|   |                   |               | DB (°F) | (TONS)   | CONDITIONS |       |        |           |                            |            |        | скт           | S.         | FANS    |              | PRESSURE |            |          | (FT)   | (FT)   |        |          |        |           |          |          | O'       | R             |           | ļ        |       |          |        |       |
|   |                   |               |         |          | (TONS)     |       |        |           |                            |            |        |               |            |         |              | (PSIG)   |            |          |        |        |        |          |        |           |          |          |          | IUF.          |           | ļ ,      |       |          |        |       |
|   |                   |               |         |          |            |       |        |           |                            |            |        |               |            |         |              |          |            |          |        |        |        |          |        |           |          |          | 1        |               |           | ļ ,      |       |          |        |       |
|   |                   |               |         |          |            |       |        |           |                            |            |        |               |            |         |              |          |            |          |        |        |        |          |        |           |          |          | 1        |               |           | ļ        |       |          |        |       |
|   | CHILLED WATER FOR | OUTDOOR       |         |          |            |       |        |           |                            |            |        |               |            |         | 35% PROPYLEN | E        |            |          |        |        |        |          |        |           |          |          |          |               |           |          |       |          | s      | SEE N |
|   | MIDDLE SCHOOL     | AIR-COOLED    | 95      | 230      | 198.7      | 240.4 | 10.418 | 9.915 1   | .7.301   16.623            | 3   R-454B | SCROLL | 6 2           | 6-STAGE    | E   12  | GLYCOL       | 150      | 440 42     | 54       | 14.4   | 2.1    | 98     | 88       | 334    | 10,701    | 208 3    | 60 1013  | 1200 E.C | C. UNIT MTD.  | NON-FUSED |          | NO    |          | ACS    | BEl   |
|   | CHILLED WATER FOR | OUTDOOR       |         |          |            |       |        |           |                            |            |        |               |            |         | 35% PROPYLEN | E        |            | +        |        |        |        |          |        |           |          |          |          |               |           | <b> </b> |       |          | s      | SEE N |
|   | HIGH SCHOOL       | AIR-COOLED    | 95      | 230      | 198.7      | 240.4 | 10.418 | 9.915 1   | 7.301   16.623             | 3   R-454B |        | 6 2           | 6-STAGE    | E   12  | GLYCOL       | 150      | 440   42   | 54       | 14.4   | 2.1    | 98     | 88       | 334    | 10,701    | 208 3    | 60 1013  | 1200 E.C | C. UNIT MTD.  | NON-FUSED | NEMA 3R  | NO    | TRANE    | ACS    | BEL   |
|   |                   |               | 1 1     |          |            |       |        | 1 1       |                            |            | 1      | 1             |            |         |              |          |            |          |        |        |        | 1 1      |        |           |          |          | 1 I      |               |           | ·   ·    | 1     |          |        |       |

WING MANUFACTURER FEATURES AND OPTIONS:

SOR CONTROLS. CNET IP COMMUNICATIONS ACCESSORY, OPTION PROVIDED TO BE COORDINATED WITH BMS VENDOR DURING SUBMITTALS.

Y SUPPLIED "SUPERIOR" NOISE REDUCTION PACKAGE, OR EQUIVALENT PERFORMANCE.

WING FIELD ACCESSORIES: ING BASE-BUILDING BMS.

# PLATE AND FRAME HEAT EXCHANGER SCHEDULE

|        |       |       |           | SHELL SIDE   |          |           |               |             |          |           |            |          |             |                  |               | TUBE SIDE |           |         |       |         |          |          |         | DI     | MENSION | IS     | DRY    | MANUFACTURER | МО            | DEL           | REMA         | RKS   |
|--------|-------|-------|-----------|--------------|----------|-----------|---------------|-------------|----------|-----------|------------|----------|-------------|------------------|---------------|-----------|-----------|---------|-------|---------|----------|----------|---------|--------|---------|--------|--------|--------------|---------------|---------------|--------------|-------|
|        | CO    | NSTR  | UCTION    |              |          |           | PERF          | ORMANC      | E        |           |            |          | CON         | STRUCTION        |               |           |           |         |       | PERF    | ORMANCE  |          |         | LENGTH | WIDTH   | HEIGHT | WEIGHT |              |               |               |              |       |
| SURFAC | CE NO | ). OF | MAX.      | MAX.         | MAX.     | MAX.      | FLUID         | FLOW        | PRESSURE | TUBE      | TUBESHEETS | HEADER   | NO.OF       | MAX.             | MAX.          | MAX.      | MAX.      | SERVICE | FLUID | FLOW    | TUBE     | PRESSURE | EWT LW  | Г (IN) | (IN)    | (IN)   | (LBS)  |              |               |               |              |       |
| AREA   |       | SSES  | OPERATING | DIFFERENTIAL | TEST     | OPERATING |               | (LBS/HR)    | (PSIG)   | MATERIAL  | MATERIAL   | MATERIAL | PASSES      | OPERATING        | DIFFERENTIAL  | TEST      | OPERATING |         |       | (GPM)   | VELOCITY | DROP     | (F) (F) | 1      |         |        |        |              |               |               |              |       |
| (SQFT) | )     |       | PRESSURE  | PRESSURE     | PRESSURE | TEMP.     |               |             |          |           |            |          |             | PRESSURE         | PRESSURE      | PRESSURE  | TEMP.     |         |       |         | (FT/SEC) | (PSI)    |         |        |         |        |        |              |               |               |              |       |
|        |       |       | (PSI)     | (PSI)        | (PSI)    | (°F)      |               |             |          |           |            |          |             | (PSI)            | (PSI)         | (PSI)     | (°F)      |         |       |         |          |          |         |        |         |        |        |              |               |               |              |       |
| 109 9  |       | 1     | 150       | 150          | 105      | 375       | LOW PRESSURE  | 4 069       | 2        |           | CARBON     |          | 1           | 125              | 125           | 105       | 375       |         |       | 2 200   | 75       | 11       | 1/0 180 | 55     | 18      | 18     | 815    | APMSTRONG    | NS-104-400-1  | -05555010-2   |              | SHALL |
|        |       | ·     | 150       | 150          | 155      | 515       | STEAM         | 4,003       | L L      |           | STEEL      |          | '  <b>*</b> | 125              | 125           | 195       | 375       |         |       |         | 1.5      |          |         |        |         | 10     | 015    | ARMOTRONO    | 10-10-4-400-1 | -00000000-2   | EXCEED 4FT I | N LEN |
| 137.2  |       | 1     | 150       | 150          | 105      | 375       | LOW PRESSURE  | 5 3 2 6     | 2        |           | CARBON     |          | 1           | 125              | 125           | 105       | 375       |         |       | 2 350   | 75       | 17       | 150 180 | 57     | 24      | 24     | 1500   |              | VS-2004-400-  | 1-00000001-0  | TUBE BUNDLE  | SHALI |
|        |       | •     | 150       | 150          | 195      | 515       | STEAM         | 5,520       | 2        | COFFER    | STEEL      |          | 4           | IZJ              | 125           | 190       | 575       |         |       | 1 330   | 7.5      | 1.7      |         | 5 51   | 24      | 24     | 1300   |              | \$3-2004-400- | 1-033331414-2 | EXCEED 4FT I | NLEN  |
|        |       |       |           |              |          |           | PAC           | <b>KAGE</b> | D ROO    | FTOP      |            | CHEDU    | LE          |                  |               |           |           |         |       |         |          |          |         |        |         |        |        |              | $\sim$        | $\sim$        | <b>`</b>     |       |
|        |       |       |           |              |          |           |               |             | DX COOL  | ING DATA  |            |          |             |                  |               |           |           | ELECTR  |       | ATA     |          |          | F       | ILTERS |         | BASE   |        | OVERALL      | OPER.         | OPER.         | ANUF MODEL   | REM   |
|        |       | START |           | REFRIG.      | LOW E    | ER IEER   | DESIGN NO. OF | NO.OF       | CAPACITY | NO. OF GR |            | NET NET  | E.A.T. E.A  | A.T.   COIL   CO | DIL UNIT UNIT | VOLTS PH  | Hz MCA MC | )P      | DIS   | SCONNEC | СТ       | EME      | R. PRE- | MAIN   |         | NSIONS | , (IN) | DIMENSIONS   | WEIGHT        | WEIGHT        | < ∣ ∣        |       |

![](_page_6_Figure_34.jpeg)

|             |                           |               |        |            | EXI         | PANSIC   | DN TA     | ANK S  | SCHE    | DULE     |          |       |          |        |           |              |       |                 |
|-------------|---------------------------|---------------|--------|------------|-------------|----------|-----------|--------|---------|----------|----------|-------|----------|--------|-----------|--------------|-------|-----------------|
| DESIGNATION | LOCATION                  | CONFIGURATION | TANK   | ACCEPTANCE | MAX.        | MAX.     | ASME      | SYSTEM | SYSTEM  | CHARGING | CHARGING | DRAIN | DIMENS   | SIONS  | OPERATING | MANUFACTURER | MODEL | REMARKS         |
|             |                           |               | VOLUME | VOLUME     | WORKING     | WORKING  | SEC. VIII | CONN.  | CONN.   | VALVE    | VALVE    | PLUG  | DIAMETER | HEIGHT | WEIGHT    |              |       |                 |
|             |                           |               | (GAL)  | (GAL)      | TEMPERATURE | PRESSURE | DIV.1     | SIZE   | CONFIG. | CONN.    | CONN.    | SIZE  | (IN)     | (IN)   | (LBS)     |              |       |                 |
|             |                           |               |        |            | (°F)        | (PSI)    | RATED     | (IN)   |         | SIZE     | CONFIG.  | (IN)  |          |        |           |              |       |                 |
|             |                           |               |        |            |             |          | (Y/N)     |        |         | (IN)     |          |       |          |        |           |              |       |                 |
| ET-MS-GL-1  | MIDDLE SCHOOL BOILER ROOM | FLOOR MOUNTED | 53     | 48         | 240         | 125      | Y         | 1/2    | NPTF    | 1/2      | NPTF     | 1/2   | 24       | 38     | 204       | ARMSTRONG    | 200L  | SEE NOTES BELOW |
| ET-MS-DTW-1 | MIDDLE SCHOOL BOILER ROOM | FLOOR MOUNTED | 211    | 190        | 240         | 125      | Y         | 1/2    | NPTF    | 1/2      | NPTF     | 1/2   | 30       | 83     | 680       | ARMSTRONG    | 800L  | SEE NOTES BELOW |
| ET-HS-GL-1  | HIGH SCHOOL BOILER ROOM   | FLOOR MOUNTED | 53     | 48         | 240         | 125      | Y         | 1/2    | NPTF    | 1/2      | NPTF     | 1/2   | 24       | 38     | 204       | ARMSTRONG    | 200L  | SEE NOTES BELOW |
| ET-HS-DTW-1 | HIGH SCHOOL BOILER ROOM   | FLOOR MOUNTED | 211    | 190        | 240         | 125      | Y         | 1/2    | NPTF    | 1/2      | NPTF     | 1/2   | 30       | 83     | 680       | ARMSTRONG    | 800L  | SEE NOTES BELOW |
| NOTES:      |                           |               | •      |            |             | 1        | •         |        | •       | •        | •        |       | 1        | •      |           | •            | •     |                 |
|             |                           |               |        |            |             |          |           |        |         |          |          |       |          |        |           |              |       |                 |

1. EACH UNIT SHALL BE FACTORY PRE-CHARGED TO 12 PSIG. CALCULATE, ADJUST, AND INCREASE CHARGE IN FIELD TO MAINTAIN SYSTEM PRESSURE OF 5 PSIG AT HIGHEST POINT OF ASSOCIATED HYDRONIC SYSTEM. 2. PROVIDE CONCRETE PAD

|             |                           |               |     |                      | AIR SEP     | ARATO    | DR SO    | CHEDL    | ILE     |             |        |         |       |         |              |       |                 |
|-------------|---------------------------|---------------|-----|----------------------|-------------|----------|----------|----------|---------|-------------|--------|---------|-------|---------|--------------|-------|-----------------|
| DESIGNATION | LOCATION                  | CONFIGURATION | GPM | FLUID                | MAX.        | MAX.     | ASME     | INTERNAL | FLUID   | FLUID       | AIR    | AIR     | DRAIN | DRAIN   | MANUFACTURER | MODEL | REMARKS         |
|             |                           |               |     | TYPE                 | WORKING     | WORKING  | SEC. VII | STRAINER | INLET & | INLET &     | OUTLET | OUTLET  | SIZE  | CONFIG. |              |       |                 |
|             |                           |               |     |                      | TEMPERATURE | PRESSURE | DIV. 1   | (Y/N)    | OUTLET  | OUTLET      | SIZE   | CONFIG. | (IN)  |         |              |       |                 |
|             |                           |               |     |                      | (°F)        | (PSI)    | RATED    |          | SIZE    | CONFIG.     | (IN)   |         |       |         |              |       |                 |
|             |                           |               |     |                      |             |          | (Y/N)    |          | (IN)    |             |        |         |       |         |              |       |                 |
| AS-MS-HW-1  | MIDDLE SCHOOL BOILER ROOM | VORTEX        | 200 | WATER                | 375         | 165      | Y        | N        | 4       | 150# FLANGE | 1-1/2  | NPT     | 1     | NPT     | ARMSTRONG    | VA-4  | SEE NOTES BELOW |
| AS-MS-DTW-1 | MIDDLE SCHOOL BOILER ROOM | VORTEX        | 400 | WATER                | 375         | 165      | Y        | N        | 6       | 150# FLANGE | 1-1/2  | NPT     | 1     | NPT     | ARMSTRONG    | VA-6  | SEE NOTES BELOW |
| AS-MS-GL-1  | MIDDLE SCHOOL BOILER ROOM | VORTEX        | 440 | 35% PROPYLENE GLYCOL | 375         | 165      | Y        | N        | 6       | 150# FLANGE | 1-1/2  | NPT     | 1     | NPT     | ARMSTRONG    | VA-6  | SEE NOTES BELOW |
| AS-HS-HW-1  | HIGH SCHOOL BOILER ROOM   | VORTEX        | 350 | WATER                | 375         | 165      | Y        | N        | 5       | 150# FLANGE | 1-1/2  | NPT     | 1     | NPT     | ARMSTRONG    | VA-5  | SEE NOTES BELOW |
| AS-HS-DTW-1 | HIGH SCHOOL BOILER ROOM   | VORTEX        | 400 | WATER                | 375         | 165      | Y        | N        | 6       | 150# FLANGE | 1-1/2  | NPT     | 1     | NPT     | ARMSTRONG    | VA-6  | SEE NOTES BELOW |
| AS-HS-GL-1  | HIGH SCHOOL BOILER ROOM   | VORTEX        | 440 | 35% PROPYLENE GLYCOL | 375         | 165      | Y        | N        | 6       | 150# FLANGE | 1-1/2  | NPT     | 1     | NPT     | ARMSTRONG    | VA-6  | SEE NOTES BELOW |
| NOTES:      |                           | •             | •   | •                    |             |          | •        | •        | -       | •           | •      |         | •     | •       | · · · · · ·  |       |                 |

1. PROVIDE AN AUTOMATIC AIR EMIMINATOR FOR EACH AIR SEPARATOR, ARMSTRONG MODEL AAE-750, WITH 250°F MAXIMUM OPERATING TEMPERATURE, 2-133 PSIG AIR PRESSURE OPERATING RANGE, 100% SPRING ACTION POSITIVE SHUTOFF, 3/4" NPT SYSTEM CONNECTION.

| DESIGNATION  | DISCHRAGE  | HEAD AT  | SHUT-OFF                     | RESERVOIR               | WEIGHT      | MAX.  | MOTOR |   |  | ELEC  | RICAL D   | ΑΤΑ                               |                           | MANUFACTURER        | MODEL     | REMARKS         |
|--|--|--|------------------------------|-------------------------|-------------|-------|-------|---|--|---|---|-----------------------------------|---------------------------|---------------------|-----------|-----------------|
|  | FLOWRATE   | DESIGN   | HEAD                         | CAPACITY                | (LBS)       | FLUID | HP    | VOLTS   | PH   | Hz FLA  | DISCO   | NNECT                             | EMER.                     |                     |           |                 |
|  | (GPH)  | FLOWRATE   | (FT-WC)                      | (GAL)                   |             | TEMP. |       |   |  |   | BY E.C.   | ENCL.                             | PWR.                      |                     |           |                 |
|  |  | (FT-WC)  |                              |                         |             | (•F)  |       |   |  |   | OR  | TYPE                              | (Y/N)                     |                     |           |                 |
|  |  |  |                              |                         |             |       |       |   |  |   | MANUF.  |                                   |                           |                     |           |                 |
| CP-A   | 80   | 18   | 20                           | 1.0                     | 15          | 140   | 1/30  | 120   | 1  | 60 1.5  | E.C.  | NEMA 1                            | N                         | LITTLE GIANT        | VCCA-20-P | SEE NOTES BELOV |
| . PROVIDE THI<br>1.1. UL 2043<br>1.2. CAST AL<br>1.3. STAINLE<br>1.4. AUXILAF<br>1.5. THERMA | E FOLLOWING<br>PLENUM RAT<br>UMINUM RES<br>SS STEEL SH<br>RY SWITCH.<br>L OVERLOAD | G FACTORY F<br>ED, NON-COM<br>ERVOIR.<br>AFT.<br>PROTECTOF | EATURES A<br>IBUSTIBLE<br>R. | ND OPTIONS<br>CONSTRUCT | S:<br>TION. |       |       | 1.6. H<br>1.7. F<br>2. PRO<br>2.1. (<br>2.2. E<br>3. REFE | HARI<br>FILT<br>VIDE<br>CHEC<br>BALI<br>ER T | D-WIRE<br>ER SCR<br>THE FC<br>CK VAL<br>VALVE<br>O PLAN | D, NO COP<br>EEN.<br>DLLOWING<br>Æ.<br>S FOR QU | RD OR PL<br>G FIELD /<br>JANTITIE | .UG.<br>ACCESS<br>S AND L | ORIES:<br>OCATIONS. |           |                 |
|  | HOT W  | /ATER  | UNIT H                       |                         | R SCI       | HED   | ULE   | <b>~~</b>   |  |   | <u> </u>  |                                   |                           |                     |           |                 |

|            |                 |            |         |        |       |         |            | HO     |            | R UN  | IIT F | IEA  | TER S    | CHI             | EDU      | LE     |          |         |        |         |       |        |             |       |              |
|------------|-----------------|------------|---------|--------|-------|---------|------------|--------|------------|-------|-------|------|----------|-----------------|----------|--------|----------|---------|--------|---------|-------|--------|-------------|-------|--------------|
| ESIGNATION | LOCATION        | VERTICAL/  |         |        |       | FAN DAT | Γ <b>Α</b> |        |            |       |       |      | HW HEAT  | NG CO           | IL DAT   | 4      |          |         | DI     | MENSION | IS    | WEIGHT | MANUFACTURE |       | REMARKS      |
|            |                 | HORIZONTAL | AIRFLOW | DRIVE  | MOTOR | MOTOR   | El         | ECTRIC | AL DATA    | FLUID | NO.   | FINS | HEATING  | EAT L           | AT EW    | TLV    | VT FLOW  | WATER   | HEIGHT | LENGTH  | WIDTH | (LBS)  |             |       |              |
|            |                 | DISCHARGE  | (CFM)   | TYPE   | TYPE  | HP      | VOLTS      | PH Hz  | DISCONNECT | TYPE  | OF    | PER  | CAPACITY | DB              | )B   (°F | )   (° | F) (GPM) | P.D.    | (IN)   | OR      | (FT)  |        |             |       |              |
|            |                 |            |         |        |       |         |            |        | BY E.C. OR |       | ROWS  | INCH | (MBH)    | (°F) (          | °F)      |        |          | (FT WC) |        | DEPTH   |       |        |             |       |              |
|            |                 |            |         |        |       |         |            |        | MANUF.     |       |       |      |          |                 |          |        |          |         |        | (IN)    |       |        |             |       |              |
|            | MECHANICAL ROOM | VERTICAL   | 630     | DIRECT | PSC   | 1/15    | 120        | 1 60   | MANUF.     | WATER | 1     | 12   | 12.3     | 60 <sup>·</sup> | 78 14    | ) 12   | 20 1.2   | 0.1     | 19     | 13      | 20    | 48     | RITTLING    | RH-33 | SEE NOTES BE |

## EQUIPMENT NOTES

PERIMETER FIN TUBE RADIATION (FTR):

ENCLOSURES SHALL BE VULCAN DURAVANE II MODEL JDV3-14, WALL-MOUNTED TYPE, TOP EXTRUDED ALUMINUM BAR GRILLE OUTLET, OPEN BOTTOM INLET, 14-3/16" HIGH x 4-5/8" DEEP, MOUNTED 4" ABOVE FINISHED FLOOR, 14 GAUGE STEEL. FINNED ELEMENTS SHALL BE VULCAN DURAVANE II MODEL VC3/4-35, 3/4" COPPER TUBE WITH 3-1/4" DEEP x 3-1/4" HIGH ALUMINUM FINS, 0.020" FIN THICKNESS, 50 FINS/FOOT, 840 BTU/HR PER LINEAR FOOT @ 170°F AVERAGE WATER TEMPERATURE. FINNED ELEMENTS SHALL RUN CONTINUOUSLY WALL-TO-WALL UNLESS OTHERWISE NOTED ON PLANS. FLOW SHALL BE 3.0 GPM UNLESS OTHERWISE NOTED ON

PLANS. FURNISH ALL REQUIRED PIPE AND ENCLOSURE SUPPORTS, BRACKETS, AND FASTENERS, ETC. FURNISH ACCESS DOORS - FIELD COORDINATE LOCATIONS PRIOR TO ORDERING. FURNISH END CAPS AND CORNER ANGLES. RUN ENCLOSURES CONTINUOUSLY WALL-TO-WALL UNLESS OTHERWISE NOTED ON PLANS. CABINET FINISH SHALL BE "SILVER ALUMINUM". SUBMIT COLOR CHART FOR APPROVAL.

GLYCOL AUTO-FILL UNITS (GLF-MS-1 AND GLF-HS-1):

SHALL BE ARMSTRONG MODEL GLA-U-HP-2, WITH 53 GALLON TANK CAPACITY, ADJUSTABLE 2-90 PSI FILL PRESSURE, 150 PSI MAXIMUM WORKING PRESSURE, DUAL 3/4 HP PUMPS (1 DUTY, 1 STANDBY) WITH CHANGE OVER UPON PUMP TRIP, 120V/1¢/60 Hz ELECTRICAL CONNECTION. PROVIDE THE FOLLOWING FEATURES & OPTIONS:

- LOW LEVEL CUT-OUT FLOAT SWITCH. • PUMP SUCTION ISOLATION VALVE.
- PUMP SUCTION STRAINER.
- POWER ON LAMP. • SYSTEM PRESSURE GAUGE.
- AUTO MIX VALVE.
- PUMP DISCHARGE ISOLATION VALVE. • HIGH LEVEL WARNING FLOAT SWITCH.
- LOW LEVEL WARNING FLOAT SWITCH.
- CONTACTS FOR REMOTE ANNUNCIATION OF HIGH LEVEL, LOW LEVEL, & PUMP RUN. AUTO ALTERNATING PUMP CONTROLLER.
- PUMP H-O-A SWITCHES. • STARTER & DISCONNECT SWITCH FOR EACH PUMP, TO BE FURNISHED BY MECHANICAL CONTRACTOR & INSTALLED BY ELECTRICAL CONTRACTOR.

LOUVERS - FOR UNIT VENTILATORS AND FAN COIL UNITS:

INTAKE AND EXHAUST LOUVERS SHALL BE GREENHECK MODEL ESD-202 OR APPROVED EQUAL, STATIONARY DRAINABLE BLADE TYPE. FRAME SHALL BE EXTRUDED 6063-T5 ALUMINUM, 2 INCH DEEP X 0.063 INCH THICK. BLADES SHALL BE EXTRUDED 6063-T5 ALUMINUM, 0.063 INCH THICK, POSITIONED AT 45 DEGREE ANGLE ON APPROXIMATELY 3 INCH CENTERS. BIRDSCREEN SHALL BE 3/4 INCH X 0.051 INCH FLATTENED ALUMINUM. MINIMUM SIZE SHALL BE 6" WIDE BY 6" HIGH. MAXIMUM SIZE FOR A SINGE SECTION SHALL BE 120" WIDE X 120" HIGH, WITH MULTIPLE SECTIONS PROVIDED WHERE LARGER DIMENSIONS ARE INDICATED ON THE DRAWINGS. FINISH SHALL BE MILL. FINISH COLOR SHALL BE INTEGRAL COLOR ANODIZED, WITH COLOR CHART SUBMITTED TO THE ARCHITECT FOR COLOR SELECTION PRIOR TO FABRICATION. FOR LOUVER TEST SECTION SIZE 48" WIDE X 48" HIGH, NET FREE AREA SHALL BE AT LEAST 38% OF GROSS AREA, POINT OF WATER PENETRATION SHALL BE AT LEAST 1,058 FEET PER MINUTE THROUGH THE NET FREE AREA PER AMCA TEST PROCEDURE, AND STATIC PRESSURE DROP SHALL NOT TO EXCEED 0.10 INCHES OF WATER COLUMN AT AN AIR VELOCITY OF 825 FEET PER MINUTE THROUGH THE NET FREE AREA. LOUVERS SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR - REFER TO SPEC SECTION 089000 FOR ADDITIONAL INFORMATION AND INSTALLATION INSTRUCTIONS.

## LOUVERS - FOR EXHAUST FANS:

INTAKE AND EXHAUST LOUVERS SHALL BE GREENHECK MODEL ESD-435 OR APPROVED EQUAL, STATIONARY DRAINABLE BLADE TYPE. FRAME SHALL BE EXTRUDED 6063-T5 ALUMINUM, 4 INCH DEEP X 0.081 INCH THICK. BLADES SHALL BE EXTRUDED 6063-T5 ALUMINUM, 0.081 INCH THICK, POSITIONED AT 37.5 DEGREE ANGLE ON APPROXIMATELY 3-1/4 INCH CENTERS. BIRDSCREEN SHALL BE 3/4 INCH X 0.051 INCH FLATTENED ALUMINUM. MINIMUM SIZE SHALL BE 12" WIDE BY 9" HIGH. MAXIMUM SIZE FOR A SINGE SECTION SHALL BE 120" WIDE X 120" HIGH, WITH MULTIPLE SECTIONS PROVIDED WHERE LARGER DIMENSIONS ARE INDICATED ON THE DRAWINGS. FINISH SHALL BE MILL. FINISH COLOR SHALL BE INTEGRAL COLOR ANODIZED, WITH COLOR CHART SUBMITTED TO THE ARCHITECT FOR COLOR SELECTION PRIOR TO FABRICATION. FOR LOUVER TEST SECTION SIZE 48" WIDE X 48" HIGH, NET FREE AREA SHALL BE AT LEAST 56% OF GROSS AREA, POINT OF WATER PENETRATION SHALL BE AT LEAST 989 FEET PER MINUTE THROUGH THE NET FREE AREA PER AMCA TEST PROCEDURE, AND STATIC PRESSURE DROP SHALL NOT TO EXCEED 0.10 INCHES OF WATER COLUMN AT AN AIR VELOCITY OF 790 FEET PER MINUTE THROUGH THE NET FREE AREA. LOUVERS SHALL BE FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR - REFER TO SPEC SECTION 089000 FOR ADDITIONAL INFORMATION AND INSTALLATION INSTRUCTIONS.

| DESIGNATION    |     |
|----------------|-----|
|                |     |
|                |     |
|                |     |
| HWP-MS-1A,     | MIC |
| HWP-MS-1B      | BC  |
| DTWP-MS-1A,    | MIC |
| DTWP-MS-1B     | ВС  |
| GLWP-MS-1A,    | MIC |
| GLWP-MS-1B     | BC  |
| HWP-HS-1A,     | HI  |
| HWP-HS-1B      | BC  |
| DTWP-HS-1A,    | HI  |
| DTWP-HS-1B     | BC  |
| GLWP-HS-1A,    | HI  |
| GLWP-HS-1B     | BC  |
| NOTES:         | -   |
| 1. PROVIDE COI | NCR |

|               |           |                |                |                  | I            | VENT           | LATIC       | <u>on sc</u> | HEDU    | ILE          | [             |                              |                 |                                |                     |
|---------------|-----------|----------------|----------------|------------------|--------------|----------------|-------------|--------------|---------|--------------|---------------|------------------------------|-----------------|--------------------------------|---------------------|
| BUILDING      | LEVEL     | AIR HAND       | LING SYST      | EM DATA          | ROOM         | ROOM           |             | A<br>NUMBER  |         | DESIGN       |               | OUTSIDE VEN<br>2020 NEW YORK | TILATION AIRFLO | W REQUIRED P<br>CAL CODE - SEC | ER THE<br>CTION 403 |
|               |           | HANDLING       | SUPPLY         | OUTSIDE          | NUMBER       | NAME           | AREA        | OF           | SUPPLY  | MINIMUM      | OUTSIDE       | OUTSIDE                      | ZONEAIR         | ROOM                           | ROOM DESIGN OUTSIDE |
|               |           | SYSTEM         | AIRFLOW        | VENTILATION      |              |                | (SQ.FT.)    | OCC.         | AIRFLOW | OUTSIDE      | VENTILATION   | VENTILATION                  | DISTRIBUTION    | OUTSIDE                        | VENTILATION AIRFLOW |
|               |           | DESIGNATION    | (CFM)          | AIRFLOW<br>(CEM) |              |                |             |              | (CFM)   |              |               | AIRFLOW PER                  | EFFECTIVENESS   |                                | MEETS OR EXCEEDS    |
|               |           |                |                | (CFW)            |              |                |             |              |         | (CFM)        | (CFM / PERSON | (CFM / SF)                   |                 | (CFM)                          | (YES / NO)          |
| HIGH SCHOOL   | BASEMENT  | UV-A           | 1,150          | 485              | 013          | ART ROOM       | 957         | 31           | 1,150   | 485          | 10            | 0.18                         | 1.0             | 482                            | YES                 |
| HIGH SCHOOL   | BASEMENT  | UV-A           | 1,150          | 495              | 015          | ART ROOM       | 1,008       | 31           | 1,150   | 495          | 10            | 0.18                         | 1.0             | 491                            | YES                 |
| HIGH SCHOOL   | BASEMENT  |                | 1,150          | 540              | 017          |                | 1,258       | 31<br>59     | 1,150   | 540<br>3 200 | 10            | 0.18                         | 1.0             | 536                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | FCU-A          | 600            | 140              | -            | CORRIDOR       | 2,315       | 0            | 600     | 140          | 0             | 0.18                         | 1.0             | 139                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | FCU-B          | 600            | 70               | -            | CORRIDOR       | 913         | 0            | 600     | 70           | 0             | 0.06                         | 0.8             | 68                             | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | FCU-B          | 600            | 180              | -            | CORRIDOR       | 2,337       | 0            | 600     | 180          | 0             | 0.06                         | 0.8             | 175                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | FCU-B          | 600            | 135              | -            | CORRIDOR       | 1,772       | 0            | 600     | 135          | 0             | 0.06                         | 0.8             | 133                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | FCU-A<br>FCU-A | 600            | 30               | 103          |                | 301         | 2            | 600     | 30           | 5             | 0.06                         | 1.0             | 28                             | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | FCU-A          | 600            | 15               | 105A         | OFFICE         | 145         | 1            | 600     | 15           | 5             | 0.06                         | 1.0             | 14                             | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | UV-A           | 1,150          | 395              | 107          | CLASSROOM      | 692         | 31           | 1,150   | 395          | 10            | 0.12                         | 1.0             | 393                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | UV-A           | 1,150          | 395              | 109          | CLASSROOM      | 669         | 31           | 1,150   | 395          | 10            | 0.12                         | 1.0             | 390                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | UV-A           | 1,150          | 410              | 125          |                | 808         | 31           | 1,150   | 410          | 10            | 0.12                         | 1.0             | 407                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | FCU-A          | 600            | 85               | 127<br>127A  |                | 335         | 2            | 600     | 85           | 10            | 0.18                         | 1.0             | 496<br>80                      | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | UV-A           | 1,150          | 405              | 128          | CLASSROOM      | 788         | 31           | 1,150   | 405          | 10            | 0.12                         | 1.0             | 405                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | UV-A           | 1,150          | 500              | 129          | SCIENCE LAB    | 1,031       | 31           | 1,150   | 500          | 10            | 0.18                         | 1.0             | 496                            | YES                 |
| HIGH SCHOOL   | 1ST FLOOR | UV-A           | 1,150          | 405              | 130          | CLASSROOM      | 776         | 31           | 1,150   | 405          | 10            | 0.12                         | 1.0             | 403                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | FCU-A          | 600<br>600     | 95<br>20         | 200          |                | 1,526       | 0            | 600     | 95<br>20     | 0             | 0.06                         | 1.0             | 92                             | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | FCU-B          | 600            | 125              | 200A<br>200B | CORRIDOR       | 1.656       | 0            | 600     | 125          | 0             | 0.06                         | 0.8             | 124                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | FCU-B          | 600            | 70               | 200E         | CORRIDOR       | 881         | 0            | 600     | 70           | 0             | 0.06                         | 0.8             | 66                             | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | FCU-B          | 600            | 150              | 200D         | CORRIDOR       | 1,934       | 0            | 600     | 150          | 0             | 0.06                         | 0.8             | 145                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | UV-A           | 1,150          | 55               | 208C         | OFFICE         | 611         | 3            | 1,150   | 55           | 5             | 0.06                         | 1.0             | 52                             | YES                 |
| HIGH SCHOOL   |           | υν-Α<br>UV-Δ   | 1,150          | 50<br>395        | 208A<br>207  |                | 1 dC<br>699 | 3<br>31      | 1,150   | 50<br>395    | 5<br>10       | 0.06                         | 1.U<br>1.0      | 49<br><u>39</u> 4              | YES<br>YES          |
| HIGH SCHOOL   | 2ND FLOOR | UV-A           | 1,150          | 390              | 209          | CLASSROOM      | 661         | 31           | 1,150   | 390          | 10            | 0.12                         | 1.0             | 389                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | UV-A           | 1,150          | 385              | 211          | CLASSROOM      | 618         | 31           | 1,150   | 385          | 10            | 0.12                         | 1.0             | 384                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | UV-A           | 1,150          | 395              | 213          | CLASSROOM      | 670         | 31           | 1,150   | 395          | 10            | 0.12                         | 1.0             | 390                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | FCU-A          | 1,150          | 30               | 213A         | SGI            | 276         | 2            | 1,150   | 30           | 5             | 0.06                         | 1.0             | 27                             | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | UV-A           | 1,150          | 410              | 231          | CLASSROOM      | 787         | 31           | 1,150   | 410          | 10            | 0.12                         | 1.0             | 400                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | UV-A           | 1,150          | 495              | 233          | SCIENCE LAB    | 1,014       | 31           | 1,150   | 495          | 10            | 0.18                         | 1.0             | 493                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | UV-A           | 1,150          | 400              | 234          | DIGITIAL LAB   | 728         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 397                            | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | FCU-A          | 600            | 85               | 235A         | PREP           | 338         | 2            | 600     | 85           | 10            | 0.18                         | 1.0             | 81                             | YES                 |
| HIGH SCHOOL   | 2ND FLOOR | UV-A<br>ECII-B | 1,150          | 495              | 235          |                | 1,009       | 31           | 1,150   | 495<br>125   | 10            | 0.18                         | 1.0             | 492<br>123                     | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | FCU-B          | 600            | 110              | 300B         | CORRIDOR       | 1,000       | 0            | 600     | 110          | 0             | 0.06                         | 0.8             | 108                            | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | FCU-A          | 600            | 25               | 301          | FAC            | 245         | 2            | 600     | 25           | 5             | 0.06                         | 1.0             | 25                             | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | UV-A           | 1,150          | 455              | 302          | SCIENCE LAB    | 787         | 31           | 1,150   | 455          | 10            | 0.18                         | 1.0             | 452                            | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | UV-A           | 1,150          | 250              | 304          | SCIENCE LAB    | 1,016       | 31           | 2,300   | 500          | 10            | 0.18                         | 1.0             | 493                            | YES                 |
|               |           | UV-A<br>UV-A   | 1,150          | 250              |              |                |             |              |         |              |               |                              |                 |                                |                     |
| HIGH SCHOOL   | 3RD FLOOR | UV-A           | 1,150          | 265              | 305          | SCIENCE LAB    | 1,194       | 31           | 2,300   | 530          | 10            | 0.18                         | 1.0             | 525                            | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | FCU-A          | 600            | 45               | 305A         | STORAGE        | 234         | 2            | 600     | 45           | 0             | 0.18                         | 1.0             | 42                             | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | UV-A           | 1,150          | 270              | 306          | SCIENCE LAB    | 1,272       | 31           | 2,300   | 540          | 10            | 0.18                         | 1.0             | 539                            | YES                 |
|               | 3RD ELOOR | UV-A<br>ECU-A  | 1,150          | 270              | 307          | PREP           | 434         | 2            | 600     | 100          | 10            | 0.18                         | 10              | 98                             | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | FCU-A          | 600            | 25               | 309          | FAC            | 221         | 2            | 600     | 25           | 5             | 0.06                         | 1.0             | 23                             | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | UV-A           | 1,150          | 395              | 311          | CLASSROOM      | 685         | 31           | 1,150   | 395          | 10            | 0.12                         | 1.0             | 392                            | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | UV-A           | 1,150          | 390              | 313          | CLASSROOM      | 654         | 31           | 1,150   | 390          | 10            | 0.12                         | 1.0             | 388                            | YES                 |
| HIGH SCHOOL   | 3RD FLOOR |                | 1,150          | 385              | 315          | CLASSROOM      | 611         | 31           | 1,150   | 385          | 10            | 0.12                         | 1.0             | 383                            | YES                 |
| HIGH SCHOOL   | 3RD FLOOR | UV-A           | 600            | 390              | 315A<br>317  | CLASSROOM      | 629         | 2<br>31      | 600     | 390          | ວ<br>10       | 0.00                         | 1.0             | 29<br>385                      | YES                 |
| MIDDLE SCHOOL | 1ST FLOOR | FCU-B          | 600            | 35               | 01           | LOBBY          | 409         | 0            | 600     | 35           | 0             | 0.06                         | 0.8             | 31                             | YES                 |
| MIDDLE SCHOOL | 1ST FLOOR | FCU-B          | 600            | 285              | M100         | CORRIDOR       | 3,762       | 0            | 600     | 285          | 0             | 0.06                         | 0.8             | 282                            | YES                 |
| MIDDLE SCHOOL | 1ST FLOOR | UV-A           | 1,150          | 410              | M101         | CLASSROOM      | 818         | 31           | 1,150   | 410          | 10            | 0.12                         | 1.0             | 408                            | YES                 |
|               |           | UV-A           | 1,150<br>1 150 | 445<br>400       | M102         |                | 1,121       | 31<br>21     | 1,150   | 445<br>400   | 10            | U.12                         | 1.0             | 445<br>207                     | YES                 |
| MIDDLE SCHOOL | 1ST FLOOR | UV-A           | 1,150          | 400              | M109         | CLASSROOM      | 725         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 397                            | YES                 |
| MIDDLE SCHOOL | 1ST FLOOR | UV-A           | 1,150          | 405              | M110         | CLASSROOM      | 755         | 31           | 1,150   | 405          | 10            | 0.12                         | 1.0             | 401                            | YES                 |
| MIDDLE SCHOOL | 1ST FLOOR | FCU-A          | 600            | 25               | M112         | COPY           | 229         | 2            | 600     | 25           | 5             | 0.06                         | 1.0             | 24                             | YES                 |
| MIDDLE SCHOOL | 1ST FLOOR | UV-A           | 1,150          | 385              | M111         | CHORUS         | 1,247       | 31           | 1,150   | 385          | 10            | 0.06                         | 1.0             | 385                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | ECU-B          | 1,150<br>600   | 395<br>160       | M200A        |                | 1,371       | 31<br>0      | 600     | 395<br>160   | 10            | 0.06                         | 1.0             | 392<br>158                     | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | FCU-B          | 600            | 160              | M200B        | CORRIDOR       | 2,100       | 0            | 600     | 160          | 0             | 0.06                         | 0.8             | 158                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 445              | M203         | CLASSROOM      | 1,118       | 31           | 1,150   | 445          | 10            | 0.12                         | 1.0             | 444                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 370              | M206         | CLASSROOM      | 467         | 31           | 1,150   | 370          | 10            | 0.12                         | 1.0             | 366                            | YES                 |
|               |           | UV-A           | 1,150          | 400              | M211         | CLASSROOM      | 732         | 31<br>21     | 1,150   | 400          | 10            | 0.12                         | 1.0             | 398<br>207                     | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 400              | M212         | CLASSROOM      | 732         | 31           | 1.150   | 400          | 10            | 0.12                         | 1.0             | 398                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 400              | M214         | CLASSROOM      | 748         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 400                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 400              | M215         | CLASSROOM      | 748         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 400                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | FCU-A          | 600            | 20               | M216         | OFFICE         | 241         | 1            | 600     | 20           | 5             | 0.06                         | 1.0             | 19                             | YES                 |
|               |           | FCU-A<br>FCU-A | 600<br>600     | 20               | M216<br>M216 | OFFICE         | 187         | 1            | 600     | 20<br>20     | 5             | 0.06                         | 1.U<br>1 0      | 16<br>14                       | YES<br>VFQ          |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 420              | M222         | CLASSROOM      | 916         | 31           | 1,150   | 420          | 10            | 0.12                         | 1.0             | 420                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 400              | M223         | CLASSROOM      | 746         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 400                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 400              | M224         | CLASSROOM      | 736         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 398                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 55               | M225         | TEACHER CENTER | 377         | 6            | 1,150   | 55           | 5             | 0.06                         | 1.0             | 53                             | YES                 |
| MIDDLE SCHOOL |           | υν-Α<br>UV-Δ   | 1,150          | 400              | M230         | CLASSROOM      | 307<br>747  | 13<br>31     | 1,150   | 175<br>400   | 10            | 0.12                         | 1.U<br>1.0      | 400                            | YES<br>YES          |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 400              | M231         | CLASSROOM      | 745         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 399                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | UV-A           | 1,150          | 400              | M232         | CLASSROOM      | 744         | 31           | 1,150   | 400          | 10            | 0.12                         | 1.0             | 399                            | YES                 |
| MIDDLE SCHOOL | 2ND FLOOR | FCU-A          | 600            | 20               | M233         | OFFICE         | 180         | 1            | 600     | 20           | 5             | 0.06                         | 1.0             | 16                             | YES                 |
|               |           |                |                |                  |              |                |             |              |         |              |               |                              |                 |                                |                     |

| PUMP SCHEDULE |                     |         |          |      |       |        |            |          |           |               |       |         |       |        |         |           |       |       |         |           |       |          |          |          |      |       |       |        |         |        |        |              |       |            |
|---------------|---------------------|---------|----------|------|-------|--------|------------|----------|-----------|---------------|-------|---------|-------|--------|---------|-----------|-------|-------|---------|-----------|-------|----------|----------|----------|------|-------|-------|--------|---------|--------|--------|--------------|-------|------------|
| OCATION       | SERVICE             | STAGING | FLOW     |      |       | CONS   | STUCTION D | ATA      |           |               | FLUI  | D DATA  |       |        | MOT     | FOR DATA  |       |       |         |           |       | ELECTRIC | CAL DATA |          |      |       |       | DI     | IENSION | S      | WEIGHT | MANUFACTURER | MODEL | REMA       |
|               |                     |         | CONTROL  | TYPE | INLET | OUTLET | IMPELLER   | PRESSURE | TEMP. FOR | FLUID TYPE    | FLUID | GPM TDH | NPSHR | EFF.   | RPM E   | 3HP MOTOR | VOLTS | PH Hz |         | DISCO     | NNECT |          |          | STA      | RTER |       | EMER. | LENGTH | WIDTH   | HEIGHT | (LBS)  |              |       | 1          |
|               |                     |         |          |      | SIZE  | SIZE   | DIA        | RATING   | PRESSURE  |               | TEMP  | (FT)    | (FT)  | AT     |         | HP        |       |       | BY E.C. | LOCATION  | TYPE  | ENCL.    | BY M.C., | LOCATION | TYPE | ENCL. | PWR.  | OR     | (IN)    | (IN)   |        |              |       | 1          |
|               |                     |         |          |      | (IN)  | (IN)   | (IN)       | (PSI)    | RATING    |               | (°F)  |         |       | DESIGN |         |           |       |       | OR      |           |       | TYPE     | E.C., OR |          |      | TYPE  | (Y/N) | DEPTH  |         |        |        |              |       | 1          |
|               |                     |         |          |      |       |        |            |          | (°F)      |               |       |         |       | (%)    |         |           |       |       | MANUF   |           |       |          | MANUF.   |          |      |       |       | (IN)   |         |        |        |              |       | 1          |
| DLE SCHOOL    | MIDDLE SCHOOL       | DUTY /  | CONSTANT |      | 2     | 2      | 4.0        | 175      | 250       |               | 190   | 200 20  | 0.6   | 70     | 2 265   | 2 2       | 202   | 3 60  | мс      |           |       |          | мс       |          |      |       | N     | Q      | 17      | 22     | 20     |              | 1380  | ı <u> </u> |
| ILER ROOM     | HOT WATER LOOP      | STANDBY | FLOW     |      | 3     | 3      | 4.0        | 175      | 200       | WAIER         | 100   | 200 30  | 9.0   | 10     | 2,305   | Z J       | 200   |       | WI.C.   | ATSTARTER |       |          | IVI.C.   |          |      |       | IN    | 0      | 17      | 23     | 09     | ARMSTRONG    | 4300  | 1          |
| DLE SCHOOL    | MIDDLE SCHOOL       | DUTY /  | VARIABLE |      | 2     | 3      | 6.2        | 175      | 250       |               | 12    | 400 70  | 15.5  | 70     | 2 600 0 | 2 00 15   | 208   | 3 60  | мс      |           |       |          | мс       |          |      |       | N     | 26     | 20      | 40     | 318    |              | 1380  | 1          |
| ILER ROOM     | DUAL TEMP LOOP      | STANDBY | FLOW     |      | 5     | 5      | 0.2        | 175      | 230       | WAILN         | 42    | 400 70  | 13.5  | 15     | 2,000   | 9.90 13   | 200   |       | WI.C.   | ATSTARTER |       |          | IVI.C.   |          |      |       |       | 20     | 20      | 40     | 510    | ARMSTRONG    | 4300  | 1          |
| DLE SCHOOL    | MIDDLE SCHOOL       | DUTY /  | CONSTANT |      | 2     | 3      | 6.2        | 175      | 250       | 35% PROPYLENE | 12    | 440 70  | 15.5  | 70     | 2 600 0 | 00 15     | 208   | 3 60  | мс      |           |       |          | мс       |          |      |       | N     | 26     | 20      | 40     | 318    |              | 1380  | 1          |
| ILER ROOM     | CHILLER GLYCOL LOOP | STANDBY | FLOW     |      | 5     | 5      | 0.2        | 175      | 230       | GLYCOL        | 42    | 440 70  | 13.5  | 19     | 2,000   | 9.90 13   | 200   |       | WI.C.   | ATSTARTER |       |          | IVI.C.   |          |      |       |       | 20     | 20      | 40     | 510    | ARMSTRONG    | 4300  | 1          |
| SH SCHOOL     | HIGH SCHOOL         | DUTY/   | VARIABLE |      | 2     | 2      | 5.0        | 175      | 250       |               | 190   | 350 70  | 16.0  | 92     | 2 246 3 | 7 20 10   | 200   | 3 60  | мс      |           |       |          | мс       |          |      |       | N     | 14     | 17      | 27     | 121    |              | 1380  | 1          |
| ILER ROOM     | HOT WATER LOOP      | STANDBY | FLOW     |      | 5     | 5      | 5.0        | 175      | 230       | WATER         |       | 330 70  | 10.9  | 02     | 3,340   | 1.20 10   | 200   |       | WI.C.   | ATSTARTER |       |          | IVI.C.   |          |      |       |       | 14     | 17      | 21     | 131    | ARMSTRONG    | 4300  | 1          |
| SH SCHOOL     | HIGH SCHOOL         | DUTY /  | VARIABLE |      | 2     | 3      | 6.2        | 175      | 250       |               | 12    | 400 70  | 15.5  | 70     | 2 600 0 | 00 15     | 208   | 3 60  | мс      |           |       |          | мс       |          |      |       | N     | 26     | 20      | 40     | 319    |              | 1380  | ı <u> </u> |
| ILER ROOM     | DUAL TEMP LOOP      | STANDBY | FLOW     |      | 3     | 5      | 0.2        | 175      | 230       | WATER         | 42    | 400 70  | 15.5  | 19     | 2,000   | 9.90 15   | 200   |       | WI.C.   | ATSTARTER |       |          | IVI.C.   |          |      |       |       | 20     | 20      | 40     | 510    | ARMSTRONG    | 4300  | 1          |
| SH SCHOOL     | HIGH SCHOOL         | DUTY /  | CONSTANT |      | 2     | 3      | 6.2        | 175      | 250       | 35% PROPYLENE | 12    | 440 70  | 15.5  | 70     | 2 600 0 | 00 15     | 208   | 3 60  | мс      |           |       |          | мс       |          |      |       | N     | 26     | 20      | 40     | 318    |              | 1380  | ı <u> </u> |
| ILER ROOM     | CHILLER GLYCOL LOOP | STANDBY | FLOW     |      | 5     | 5      | 0.2        | 175      | 200       | GLYCOL        | 42    |         | 13.3  | 13     | 2,000   | 10 10     | 200   |       | WI.C.   |           |       |          |          |          |      |       |       | 20     | 20      | 40     | 310    |              | 4300  | 1          |

RETE PAD

![](_page_7_Picture_32.jpeg)

ARCHITECT  $M \equiv M \wedge S I$ 

2 LYON PLACE WHITE PLAINS, NY 10601 914.915.9519 MEMASIDESIGN.COM

STRUCTURAL CONSULTANT REILLY TARANTINO ENGINEERING 100 PARK BLVD, SUITE 209 MASSAPEQUA PARK, NY 11762

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

HAZARDOUS MATERIALS CONSULTANT WSP ONE PENN PLAZA 250 W 34TH ST., 4TH FLOOR NEW YORK, NY 10014

![](_page_7_Figure_38.jpeg)

| GATE VALVE  |
|---|
| 1/3, 1/3 AUTOMATIC<br>CONTROL VALVES  |
| STRAINER WITH<br>BLOW-OFF VALVE   |
|   |
|   |
| LOW PRESSURE TRAP RIG   |
| ½" VACUUM       BREAKER   |
| FULL SIZE CONVERTER<br>OUTLET<br>6"   |
| FLOOR LINE  |
| 2" X 2" X 1/4" ANGLE<br>IRON FRAME<br>6"X6"¥2" STEEL PLATE<br>INVERTED BUCKET TRAP<br>CHECK VALVE |
|   |

![](_page_8_Figure_1.jpeg)

![](_page_8_Figure_2.jpeg)

## FLOOR-MOUNTED UNIT VENTILATOR OR FAN COIL UNIT INSTALLATION DETAIL EXISTING INTAKE WALL OPENING REUSED N.T.S.

![](_page_8_Figure_4.jpeg)

![](_page_8_Figure_5.jpeg)

![](_page_8_Figure_6.jpeg)

## STEAM TRAP PIPING DETAIL N.T.S.

## PIPING SUPPORT AT ROOF DETAIL N.T.S.

![](_page_8_Figure_11.jpeg)

# UPBLAST ROOF EXHAUST FAN DETAIL

N.T.S.

![](_page_8_Figure_14.jpeg)

## CHILLER PIPING DETAIL

![](_page_8_Figure_16.jpeg)

- AT EACH CHANGE IN DIRECTION (BOTH ENDS OF HORIZONTAL
- ELBOW, HORIZONTAL END OF HORIZONTAL-TO-VERTICAL ELBOW). • PER "SMACNA HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE", LATEST EDITION.

![](_page_8_Figure_19.jpeg)

## DUCTWORK SUPPORT AT ROOF DETAIL

- ALL WORK ASSOCIATED WITH ROOFTOP MECHANICAL UNITS, DUCTWORK COMPONENTS, ETC. IS BY MECHANICAL CONTRACTOR. INCLUDING:
- A. LAYOUT AND HOLE CUT B. SUPPORT STEEL

N.T.S.

C. CURBS, CURB ADAPTORS, RAILS, PITCH POCKETS, PIPE PENETRATIONS, ETC. D. ROOF FLASHING AND PATCHING (BY ROOFING SUBCONTRACTOR WHO IS AUTHORIZED BY MANUFACTURER TO MAINTAIN WARRANTY).

![](_page_8_Figure_24.jpeg)

![](_page_8_Picture_26.jpeg)

ARCHITECT  $M \equiv M \wedge S$ 2 LYON PLACE

WHITE PLAINS, NY 10601 914.915.9519 MEMASIDESIGN.COM

STRUCTURAL CONSULTANT **REILLY TARANTINO ENGINEERING** 100 PARK BLVD, SUITE 209 MASSAPEQUA PARK, NY 11762

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

![](_page_8_Figure_32.jpeg)

|   | ELECTRICAL SYMBOL LIST   |
|---|--|
|   | (NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)   |
| SYMBOL  | DESCRIPTION  |
| Φ   | 20A, 125V DECORA STYLE DUPLEX RECEPTACLE - FLUSH WALL MOUNTED  |
| ₩   | 20A, 125V DECORA STYLE QUADRUPLEX RECEPTACLE – FLUSH WALL MOUNTED  |
| P   | 20A, 125V DECORA STYLE GFCI TYPE DUPLEX RECEPTACLE – FLUSH WALL MOUNTED  |
| ₩₽₩   | 20A, 125V GFCI TYPE WEATHER RESISTANT DUPLEX RECEPTACLE IN WEATHER PROOF ENCLOSURE   |
| θ   | 20A, 125V DECORA STYLE DUPLEX RECEPTACLE – CEILING MOUNTED   |
| Ŷ   | SPECIAL PURPOSE RECEPTACLE - FLUSH WALL MOUNTED  |
| $\blacktriangledown \bigtriangledown \lor \lor$ | DATA OUTLET WITH 1 1/4"E.C. UP TO CEILING. TURN 90° AND STUB AND BUSH 6" INTO ACCESSIBLE CEILING   |
| 0   | CEILING MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION   |
| Q   | FLUSH WALL MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION  |
| J   | FLUSH FLOOR MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION   |
| ļ   | UNFUSED DISCONNECT SWITCH  |
| $\square^{100A}_{60A}$                          | FUSED DISCONNECT SWITCH – 100 AMP SWITCH, 60 AMP FUSE, UNFUSED (EXCEPT WHERE FUSE SIZE IS INDICATED) 3–POLE (EXCEPT WHERE NOTED)                       |
| Д   | COMBINATION MOTOR CONTROLLER AND DISCONNECT SWITCH FURNISHED BY MECHANICAL CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR. COOR. LOCATION W/MECH. CONT. |
| CB <u>100A</u><br>60A                           | CIRCUIT BREAKER 100A FRAME/60A TRIP, 3 POLE, U.O.N. ST – SHUNT TRIP  |
| VFD   | VARIABLE FREQUENCY DRIVE (VFD), FURNISHED BY MECHANICAL CONTRACTOR INSTALLED<br>BY ELECTRICAL CONTRACTOR. COORD. LOCATION WITH MECH. CONTRACTOR        |
|   | MOTOR  |
| $\bigotimes$                                    | PULLBOX, SIZED PER NEC   |
| Г   | DRY TYPE 480–208V TRANSFORMER DELTA-WYE<br>WITH GROUNDED SECONDARY SIDE, UON.  |
|   | FLUSH MOUNTED PANELBOARD   |
|   | SURFACE MOUNTED PANELBOARD   |
| GND   | GROUND BAR   |
|   | 2#12+1#12G-3/4"C FOR ONE CKT. HOMERUN, U.O.N.  |
|   | 4#12+1#12G-3/4"C FOR TWO CKT. HOMERUN, U.O.N.  |
|   | 6#12+1#12G-3/4"C FOR THREE CKT. HOMERUN, U.O.N.  |
|   | 3#12+1#12G-3/4"C HOMERUN, U.O.N.   |
|   | CONCEALED CONDUIT  |
|   | CONDUIT TURNING UP   |
|   | CAPPED CONDUIT   |
|   | FLEXIBLE EQUIPMENT CONNECTION  |
| Ţ   | GROUND CONNECTION  |
| \$ <sub>T</sub>                                 | MANUAL STARTER – TOGGLE TYPE WITH THERMAL ELEMENT – 250V HP RATED, FURNISHED BY ELEC CONTRACTOR  |
| RP  | SECURITY DEVICE REPEATER   |

|                    | LIGHTING CONTROL SYMBOL LIST   |
|--------------------|--|
|                    | (NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)   |
| SYMBOL             | DESCRIPTION  |
| \$                 | SINGLE POLE LINE VOLTAGE SWITCH  |
| \$ <sup>K</sup>    | KEY ACTIVATED LINE VOLTAGE SWITCH  |
| ŌŜ                 | DUAL TECHNOLOGY OCCUPANCY SENSOR, WALL MTD.  |
| VS                 | DUAL TECHNOLOGY VACANCY SENSOR, CEILING MTD.   |
| ws                 | LOW VOLTAGE LIGHTING CONTROL MASTER LIGHTING CONTROL WALL STATION  |
| ws <sub>K,OR</sub> | LOW VOLTAGE LIGHTING CONTROL LOCAL LIGHTING CONTROL WALL STATION<br>("OR" DENOTES VACANCY SENSOR OVERRIDE, "K" DENOTES KEY SWITCH) |
| PC                 | EXTERIOR LIGHTING PHOTOCELL  |
| DS                 | INTERIOR DAYLIGHT ZONE SENSOR  |
| RC <sub>a,b</sub>  | ROOM CONTROLLER (LOWER CASE LETTER DENOTES CONTROL ZONES). REFER TO LIGHTING CONTROL DETAILS                                       |
| ws <sub>D</sub>    | LOW VOLTAGE LIGHTING CONTROL LOCAL LIGHTING CONTROL WALL STATION<br>WITH VACANCY SENSOR OVERRIDE AND ZONE DIMMING                  |
| 05                 | DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MTD.   |
|                    |  |

|                  | FIRE ALARM SYMBOL LIST   |
|------------------|--|
|                  | (NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)   |
| SYMBOL           | DESCRIPTION  |
| S                | CEILING MOUNTED ADDRESSABLE SMOKE DETECTOR   |
| D                | DUCT SMOKE DETECTOR  |
| F                | COMBINATION FIRE ALARM BELL/STROBE LIGHT UNIT - FLUSH WALL<br>MOUNTED (WITH ADJUSTABLE CANDELA RATING) |
| F                | FIRE ALARM PULL STATION  |
| R                | FIRE ALARM RELAY   |
| RAN              | FIRE ALARM REMOTE ANNUNCIATOR PANEL  |
| ST <sub>75</sub> | FIRE ALARM STROBE LIGHT - "75" INDICATES CANDELA SET POINT   |
| Ô                | CARBON MONOXIDE DETECTOR   |
| <b>ST</b> 75     | FIRE ALARM STROBE LIGHT (CEILING MOUNTED) - "75" INDICATES CANDELA SET POINT                           |
|                  |  |

# ADD ALTERNATE No

- ELECTRICAL CONTRACTOR TO PROVIDE TO PERFORM WORK WHERE INDICATED
- . THE REMOVAL OF EXISTING LIGHTIN 2. TO FURNISH AND INSTALL LIGHTING CONTROLS AS INDICATED ON PLAN
- 3. TO MOVE/RELOCATE EXISTING WIRE CEILING. EXTEND/MODIFY EXISTING CONCEALED ABOVÉ ACOUSTICAL CEI REPEATER AT CEILING.
- 4. TO RELOCATE/MODIFY EXISTING SM SUPPORTS TO ALLOW FOR THE AC DATA WIRE AND ASSOCIATED CONI
- 5. TO RELOCATE EXISTING CLOCK IN CEILING. EXTEND/MODIFY EXISTING WALL. ELECTRICAL CONTRACTOR SH EXISTING FINISH AS REQUIRE.
- 6. TO TEMPORARILY SUPPORT EXISTIN AT NEW CEILING IN SIMILAR LOCAT
- 7. TO TEMPORARILY SUPPORT EXISTIN AND RETURN TO EXISTING LOCATIO 8. TEST AND CONFIRM PROPER OPER
- REPLACE WHERE REQUIRED. 9. REMOVE ANY EXISTING RECEP ACCOMMODATE MECHANICAL U CONTRACTOR SHALL ALSO MOD AT THESE LOCATIONS TO ALLC MAINTAINING EXISTING CIRCUIT

|         | ADD ALTERNATE No.3 (HIGH SCHOOL)   |
|---------|--|
| _E<br>D | ECTRICAL CONTRACTOR TO PROVIDE AN ADD ALTERNATE PRICE CALLED ADD ALTERNATE No.3<br>PERFORM WORK WHERE INDICATED ON PLANS. PRICING SHALL INCLUDE:       |
|         | THE REMOVAL OF EXISTING LIGHTING AND ASSOCIATED CIRCUIT WIRING, CONDUIT, CONTROLS  |
| •       | TO FURNISH AND INSTALL LIGHTING, CIRCUIT WIRING/CONDUIT, AND ASSOCIATED LIGHTING CONTROLS AS INDICATED ON PLAN.  |
| ,       | TO TEMPORARILY SUPPORT EXISTING CEILING MOUNTED FIRE ALARM DEVICES AND REINSTAL AT NEW CEILING IN SIMILAR LOCATION WITH NEW DEVICES.                   |
| ,       | TO TEMPORARILY SUPPORT EXISTING WIRELESS ACCESS POINTS, CAMERAS, AND SPEAKERS AND RETURN TO EXISTING LOCATION UPON COMPLETION OF GENERAL CONSTRUCTION. |
|         | TEST AND CONFIRM PROPER OPERATION OF ALL RELOCATED EQUIPMENT. REPAIR AND REPLACE WHERE REQUIRED.   |
|         |  |

| 3RD FLOOR |                |    |
|-----------|----------------|----|
|           |                |    |
|           | <b>I</b>       |    |
|           | CLASSROOM M254 | CL |
|           | S              |    |
| 2ND FLOOR | CLASSROOM M201 | CL |
|           | (ST)           |    |
| 1ST FLOOR | CLASSROOM M101 | CL |
|           | Ø              |    |
| BASEMENT  | BOILER ROOM    |    |
|           |                |    |

![](_page_9_Figure_14.jpeg)

# FIRE ALARM GENERAL NOTES:

1. PROVIDE ALL EQUIPMENT, PROGRAMMING & WIRING REQUIRED FOR A COMPLETE CODE COMPLIANT SYSTEM. 2. PROVIDE ALL FILING, PERMIT & FIRE DEPARTMENT INSPECTION FEES. 3. ALL NOTIFICATION AND SIGNAL LINE CIRCUITS SHALL BE CLASS B WIRING WITHOUT T-TAPPING OF CIRCUITS. 4. COORDINATE WITH THE LOCAL AUTHORITY HAVING JURISDICTION FOR THE EXACT SEQUENCE

OF OPERATIONS.

INSULATING BUSHING FOR ALL WALL MOUNTED FIRE ALARM DEVICES.

|   | _   |  | -                 |  |
|---|-----|--|-------------------|--|
| o.1 (MIDDLE SCHOOL)   |     | ADD ALTERNATE No.2 (HIGH SCHOOL)   |                   | 1  |
| AN ADD ALTERNATE PRICE CALLED ADD ALTERNATE No.1<br>ON PLANS. PRICING SHALL INCLUDE:  |     | ELECTRICAL CONTRACTOR TO PROVIDE AN ADD ALTERNATE PRICE CALLED ADD ALTERNATE No.2 TO PERFORM WORK WHERE INDICATED ON PLANS. PRICING SHALL INCLUDE:   |                   | <ul><li>2020 BUIL</li><li>2020 FIRE</li></ul>                      |
| NG AND ASSOCIATED CIRCUIT WIRING, CONDUIT, CONTROLS.  |     | 1. THE REMOVAL OF EXISTING LIGHTING AND ASSOCIATED CIRCUIT WIRING, CONDUIT, CONTROLS.  |                   | <ul> <li>2020 PLUI</li> <li>2020 MEC</li> </ul>                    |
| G, CIRCUIT WIRING/CONDUIT, AND ASSOCIATED LIGHTING<br>I.  |     | 2. TO FURNISH AND INSTALL LIGHTING, CIRCUIT WIRING/CONDUIT, AND ASSOCIATED LIGHTING CONTROLS AS INDICATED ON PLAN.   |                   | <ul> <li>2020 FUEI</li> <li>2020 NYS</li> <li>NYS EDUCA</li> </ul> |
| ELESS REPEATERS IN EACH CLASSROOM TO ACOUSTICAL<br>G POWER AND DATA WIRE AND ASSOCIATED CONDUIT<br>EILING AS REQUIRED. PROVIDE SUPPORT FOR WIRELESS   |     | 3. TO MOVE/RELOCATE EXISTING WIRELESS REPEATERS IN EACH CLASSROOM TO ACOUSTICAL<br>CEILING. EXTEND/MODIFY EXISTING POWER AND DATA WIRE AND ASSOCIATED CONDUIT<br>CONCEALED ABOVE ACOUSTICAL CEILING AS REQUIRED. PROVIDE SUPPORT FOR WIRELESS<br>REPEATER AT CEILING.  |                   |  |
| MART BOARD PROJECTOR IN EACH CLASSROOM AND<br>COUSTICAL CEILING. EXTEND/MODIFY ALL POWER AND<br>IDUIT CONCEALED BY ACOUSTICAL CEILING AS REQUIRED.  |     | 4. TO RELOCATE/MODIFY EXISTING SMART BOARD PROJECTOR IN EACH CLASSROOM AND SUPPORTS TO ALLOW FOR THE ACOUSTICAL CEILING. EXTEND/MODIFY ALL POWER AND DATA WIRE AND ASSOCIATED CONDUIT CONCEALED BY ACOUSTICAL CEILING AS REQUIRED.   |                   | <ul> <li>2020 ENEI</li> <li>2016 ASHI</li> </ul>                   |
| EACH CLASSROOM BELOW PROPOSED ACOUSTICAL<br>G WIRING AND ASSOCIATED RACEWAYS CONCEALED WITHIN<br>HALL CHOP EXISTING WALL AND PATCH TO MATCH   |     | 5. TO RELOCATE EXISTING CLOCK IN EACH CLASSROOM BELOW PROPOSED ACOUSTICAL<br>CEILING. EXTEND/MODIFY EXISTING WIRING AND ASSOCIATED RACEWAYS CONCEALED WITHIN<br>WALL. ELECTRICAL CONTRACTOR SHALL CHOP EXISTING WALL AND PATCH TO MATCH<br>EXISTING FINISH AS REQUIRE.   |                   |  |
| NG CEILING MOUNTED FIRE ALARM DEVICES AND REINSTALL TION WITH NEW DEVICES.  |     | 6. TO TEMPORARILY SUPPORT EXISTING CEILING MOUNTED FIRE ALARM DEVICES AND REINSTALL AT NEW CEILING IN SIMILAR LOCATION WITH NEW DEVICES.   |                   | APPLICABLE REFE<br>LIST BELOW IS FO<br>STANDARDS.                  |
| NG WIRELESS ACCESS POINTS, CAMERAS, AND SPEAKERS<br>ON UPON COMPLETION OF GENERAL CONSTRUCTION.   |     | 7. TO TEMPORARILY SUPPORT EXISTING WIRELESS ACCESS POINTS, CAMERAS, AND SPEAKERS<br>AND RETURN TO EXISTING LOCATION UPON COMPLETION OF GENERAL CONSTRUCTION.   |                   | <ul> <li>2016 NPI</li> <li>2016 NFI</li> <li>2016 NFI</li> </ul>   |
| RATION OF ALL RELOCATED EQUIPMENT. REPAIR AND   |     | 8. TEST AND CONFIRM PROPER OPERATION OF ALL RELOCATED EQUIPMENT. REPAIR AND REPLACE WHERE REQUIRED.  |                   | <ul> <li>2016 NFF</li> <li>2017 NFF</li> <li>2016 NFF</li> </ul>   |
| PTACLES AT AFFECTED COUNTER TO<br>JNIT VENTILATORS OR FCU'S. ELECTRICAL<br>DDIFY ALL ELECTRICAL CONDUIT INFRASTRUCTURE<br>OW FOR MECHANICAL INSTALLATIONS WHILE<br>I INTEGRITY TO OTHER LOADS SERVED. |     | 9. REMOVE ANY EXISTING RECEPTACLES AT AFFECTED COUNTER TO<br>ACCOMMODATE MECHANICAL UNIT VENTILATORS OR FCU'S. ELECTRICAL<br>CONTRACTOR SHALL ALSO MODIFY ALL ELECTRICAL CONDUIT INFRASTRUCTURE<br>AT THESE LOCATIONS TO ALLOW FOR MECHANICAL INSTALLATIONS WHILE<br>MAINTAINING EXISTING CIRCUIT INTEGRITY TO OTHER LOADS SERVED. | L                 |  |
|   |     | ······   |                   |  |
| ATE No.3 (HIGH SCHOOL)  | ]   | CUTTING AND PATCHING GENERAL NOTES   | $\left\{ \right.$ |  |
| AN ADD ALTERNATE PRICE CALLED ADD ALTERNATE No.3<br>ON PLANS. PRICING SHALL INCLUDE:  | 1 / | ELECTRICAL CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING OF EXISTING<br>CONSTRUCTION AS REQUIRED TO PROPERLY INSTALL AND CONCEAL ALL RACEWAYS, BOXES,  | Ş                 |  |
| NG AND ASSOCIATED CIRCUIT WIRING, CONDUIT, CONTROLS.  |     | ACCOMPLISHED IN A CLEAN AND NEAT FASHION WITH PURPOSE TO MINIMIZE ANY DISRUPTION   | $\langle$         |  |
| G, CIRCUIT WIRING/CONDUIT, AND ASSOCIATED LIGHTING<br>I.  |     | TO AS FOUND. ELECTRICAL CONTRACTOR SHALL MATCH ALL REQUIRED FINISHES SUCH AS TILE/GROUT, PAINT, PLASTER, BRICK, ECT. WITH EXISTING SURROUNDINGS.   | $\left\{ \right.$ |  |
| NG CEILING MOUNTED FIRE ALARM DEVICES AND REINSTALL<br>TION WITH NEW DEVICES.   |     |  | >                 |  |
| NG WIRELESS ACCESS POINTS CAMERAS AND SPEAKERS  |     |  | -                 |  |

| <b>(I1)</b> | (ST)              | (ST)       | ST             | SI             | ST             | S              | (ST)           | <b>(</b> 57 <b>)</b> |                |                |                        |                |                |                |                |                |                |                |                        |                     |                |
|-------------|-------------------|------------|----------------|----------------|----------------|----------------|----------------|----------------------|----------------|----------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------|---------------------|----------------|
| SROOM M255  | CLASSROOM M256    | GIRLS M257 | BOYS M258      | SGI M262       | CLASSROOM M263 | PREP M263A     | CLASSROOM M264 | CLASSROOM M265       |                |                |                        | 1              |                |                |                |                |                |                |                        |                     |                |
| SROOM M203  | IST)<br>BOYS M205 | GIRLS M208 | CLASSROOM M211 | CLASSROOM M212 | CLASSROOM M213 | CLASSROOM M214 | CLASSROOM M215 | GT<br>CLASSROOM M222 | CLASSROOM M223 | CLASSROOM M224 | TEACHER<br>CENTER M225 | CLASSROOM M226 | CLASSROOM M227 | CLASSROOM M228 | CLASSROOM M229 | CLASSROOM M230 | CLASSROOM M231 | CLASSROOM M232 | CLASSROOM M251         | CLASSROOM M252      | CLASSROOM M253 |
|             |                   | (ST)       | S              | (II)           | S              | S              | (ST)           | (ST)                 | S              | 5              | (ST)                   | (ET)           | S              | S              | 5              | S              | 5              | 5              | (57) (57)<br>(57) (57) | (51)<br>(51) (51)   |                |
| SROOM M102  | BOYS M104         | GIRLS M105 | CLASSROOM M108 | CLASSROOM M109 | CLASSROOM M110 | CLASSROOM M111 | BAND ROOM M113 | CLASSROOM M119       | CLASSROOM M126 | CLASSROOM M127 | CLASSROOM M154         | CLASSROOM M155 | CLASSROOM M156 | SGI M161       | CLASSROOM M162 | PREP M162A     | CLASSROOM M163 | CLASSROOM M164 | GIRLS LOCKER<br>M132   | BOYS LOCKER<br>M133 |                |

| PARTIAL FIRE ALARM RISER | (MIDD |
|--------------------------|-------|
| N.T.S.                   |       |

| CO<br>ST                | ©)<br>(51)               | 60)<br>(T               | S                      | <b>(II) (II)</b>     | ST                   | ST               | S                    | 5             | S              | (ST)            | <b>(II) (II)</b> | Ø               | ©>            | Ô               | 63             | Ô                 | Ô               |           | D<br>[<br>RTU- | ि<br>र]<br>HS–1 |               |  |
|-------------------------|--------------------------|-------------------------|------------------------|----------------------|----------------------|------------------|----------------------|---------------|----------------|-----------------|------------------|-----------------|---------------|-----------------|----------------|-------------------|-----------------|-----------|----------------|-----------------|---------------|--|
| ENCE LAB 304            | SCIENCE LAB 305          | 5 SCIENCE LAB 306       | PREP ROOM 307          | BOYS 310             | CLASSROOM 311        | CLASSROOM 313    | CLASSROOM 314        | CLASSROOM 315 | WORK ROOM 315A | CLASSROOM 317   | GIRLS 318        | CHEMISTRY 319   | PREP 319A     | CHEMISTRY 321   | PREP 321A      | CHEMISTRY 325     | PREP 325A       |           | RC             | OF              |               |  |
| (II)                    | (ST)                     | (ST)                    | Ø                      | Ø                    | Ø                    | Ô                | Ô                    | Ø             |                |                 |                  |                 |               |                 |                |                   |                 |           |                |                 |               |  |
| ASSROOM 240             | CLASSROOM 242            | SCIENCE LAB 246         | BIOLOGY LAB 219        | PREP 219A            | BIOLOGY LAB 221      | PREP 221A        | BIOLOGY LAB 225      | PREP 225A     |                |                 |                  |                 |               |                 |                |                   |                 |           |                |                 |               |  |
|                         | (ST)                     | (ST)                    | (ST)                   | (ST)                 | (ST)                 | (IT)             | <b>(T) (T)</b>       | (II)          | (ST)           | (ST)            | (ST)             | <b>(T)</b>      | S             | (ST)            |                | (ST)              |                 |           | (ST)           |                 | (ST)          |  |
| ASSROOM 202             | CLASSROOM 203            | CLASSROOM 204           | CLASSROOM 205          | SCIENCE LAB 206      | CLASSROOM 207        | CLASSROOM 209    | BOYS 210             | CLASSROOM 211 | CLASSROOM 213  | SGI 213A        | CLASSROOM 214    | GIRLS 218       | CLASSROOM 231 | CLASSROOM 232   | SCIENCE LAB 23 | 3 DIGITAL LAB 234 | SCIENCE LAB 235 | PREP 235A | CLASSROOM 236  | GIRLS 237       | CLASSROOM 238 |  |
| (II) (II)               | (ST)<br>(ST) (ST)        |                         | 5                      | S                    |                      |                  | <u></u>              |               |                |                 |                  |                 |               |                 |                |                   |                 |           |                |                 |               |  |
| NESS CENTER             | GIRLS LOCKER<br>ROOM 005 | BOYS LOCKER<br>ROOM 006 | TEAM ROOM 007          | TEAM ROOM 008        |                      |                  |                      |               |                |                 |                  |                 |               |                 |                |                   |                 |           |                |                 |               |  |
| (III)                   | <b>(II) (II)</b>         | 5                       | S                      | <b>(II)</b>          | <b>(i) (i)</b>       | <b>(II) (II)</b> | (ST)                 | ST            | S              | (III)           | (ST)             | 5               | (ST)          | (ST)            | 5              | (III)             | ST              | G         |                | \$ \$ \$        |               |  |
| ASSROOM 107             | MENS 108                 | CLASSROOM 109           | CLASSROOM 111          | EARTH<br>SCIENCE 113 | EARTH<br>SCIENCE 115 | WOMENS 116       | EARTH<br>SCIENCE 117 | KITCHEN 118   | CLASSROOM 125  | SCIENCE LAB 127 | CLASSROOM 128    | SCIENCE LAB 129 | CLASSROOM 130 | DIGITAL LAB 132 | CLASSROOM 13   | 6 CLASSROOM 138   | BOYS 143        | GIRLS 144 |                | LOBBY           |               |  |
| ST                      | T                        | 5                       | (II) (II)<br>(II) (II) | S                    | 5                    | <b>(II)</b>      | <b>(I)</b>           | 5             | 5              |                 | (5)              | <b>S</b>        |               |                 |                |                   |                 |           |                |                 |               |  |
| BOYS LOCKER<br>ROOM 006 | MEN 010                  | WOMEN 011               | LOCKER<br>ROOM 012I    | ART ROOM 013         | ART ROOM 015         | ART ROOM 017     | DARK ROOM 018        | ART ROOM 019  | PHOTO LAB 020  | BOILER ROOM     | ELECTRICAL ROOM  | ELECTRICAL ROOM | BOILER ROOM   |                 |                |                   |                 |           |                |                 |               |  |
|                         | 20.                      |                         |                        | 1                    | •                    |                  |                      | PARTIAL       | FIRE ALA       | RM RISER        | (HIGH SCI        | HOOL)           | 1             |                 |                |                   |                 |           |                |                 |               |  |

5. SMOKE DETECTORS SHALL BE A MINIMUM OF 3 FEET FROM ALL SUPPLY DIFFUSERS. 6. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT WHEN RUN EXPOSED IN MECHANICAL ROOMS. PROVIDE CONDUIT CONCEALED IN WALLS UP TO ACCESSIBLE CEILING WITH PLANS FOR DEVICE QUANTITY AND LOCATIONS. 9. ALL FIRE ALARM CABLING SHALL BE PLENUM RATED AND MEET PATHWAY SURVIVABILITY LEVEL 2.

7. ALL FIRE ALARM EQUIPMENT SHALL BE APPROVED BY LOCAL AHJ PRIOR TO ORDERING.

8. FIRE ALARM RISER IS A DIAGRAMMATIC REPRESENTATION OF THE SYSTEM. REFER TO FLOOR

10. ALL FIRE ALARM ANNUNCIATING DEVICES SHALL BE "RED".

11. PROVIDE A CONTROL MODULE AND RELAY FOR ALL FIRE SMOKE DAMPERS. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND QUANTITIES. PROVIDE DUCT SMOKE DETECTORS TO ACTIVATE FIRE SMOKE DAMPERS AS REQUIRED.

12. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS THAT INCLUDE MANUFACTURER'S CUT SHEETS

| NEW YORK STATE CODES & STANDARDS   |
|--|
| UILDING CODE OF NEW YORK STATE<br>IRE CODE OF NEW YORK STATE<br>ILUMBING CODE OF NEW YORK STATE<br>IECHANICAL CODE OF NEW YORK STATE<br>UEL GAS CODE OF NEW YORK STATE<br>IYS UNIFORM CODE SUPPLEMENT<br>UCATION DEPARTMENT 2022 MANUAL OF PLANNING STANDARDS  |
| NEW YORK STATE ENERGY CODES  |
| NERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE<br>SHRAE 90.1   |
| REFERENCED STANDARDS   |
| EFERENCE STANDARDS SHALL BE AS REFERENCED BY ALL STATE CODES. THE<br>FOR QUICK REFERENCE AND DOES NOT INCLUDE ALL APPLICABLE REFERENC  |
| NPFA 13 — STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS<br>NFPA 14 — STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS<br>NFPA 20 — STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION<br>NFPA 70 — NATIONAL ELECTRICAL CODE<br>NFPA 72 — NATIONAL FIRE ALARM AND SIGNALING CODE |

|              | CTRICAL DRAWING LIST                                   |
|--------------|--|
| Sheet Number | Sheet Title  |
| MSHS E001    | ELECTRICAL COVER SHEET                                 |
| MSHS E002    | ELECTRICAL GENERAL NOTES                               |
| MSHS ED100-A | ELECTRICAL PART PLAN - DEMOLITION - BASEMENT - AREA A  |
| MSHS ED100-B | ELECTRICAL PART PLAN - DEMOLITION - BASEMENT - AREA B  |
| MSHS ED101-A | ELECTRICAL PART PLAN - DEMOLITION - 1ST FLOOR - AREA A |
| MSHS ED101-B | ELECTRICAL PART PLAN - DEMOLITION - 1ST FLOOR - AREA B |
| MSHS ED101-C | ELECTRICAL PART PLAN - DEMOLITION - 1ST FLOOR - AREA C |
| MSHS ED102-A | ELECTRICAL PART PLAN - DEMOLITION - 2ND FLOOR - AREA A |
| MSHS ED102-B | ELECTRICAL PART PLAN - DEMOLITION - 2ND FLOOR - AREA B |
| MSHS ED102-C | ELECTRICAL PART PLAN - DEMOLITION - 2ND FLOOR - AREA C |
| MSHS ED103-B | ELECTRICAL PART PLAN - DEMOLITION - 3RD FLOOR - AREA B |
| MSHS E100-A  | ELECTRICAL PART PLAN - POWER - BASEMENT - AREA A       |
| MSHS E100-B  | ELECTRICAL PART PLAN - POWER - BASEMENT - AREA B       |
| MSHS E100-C  | ELECTRICAL PART PLAN - POWER - BASEMENT - AREA C       |
| MSHS E101-A  | ELECTRICAL PART PLAN - POWER - 1ST FLOOR - AREA A      |
| MSHS E101-B  | ELECTRICAL PART PLAN - POWER - 1ST FLOOR - AREA B      |
| MSHS E101-C  | ELECTRICAL PART PLAN - POWER - 1ST FLOOR - AREA C      |
| MSHS E102-A  | ELECTRICAL PART PLAN - POWER - 2ND FLOOR - AREA A      |
| MSHS E102-B  | ELECTRICAL PART PLAN - POWER - 2ND FLOOR - AREA B      |
| MSHS E102-C  | ELECTRICAL PART PLAN - POWER - 2ND FLOOR - AREA C      |
| MSHS E103-B  | ELECTRICAL PART PLAN - POWER - 3RD FLOOR - AREA B      |
| MSHS E103-A  | ELECTRICAL PART PLAN - ROOF - AREA A                   |
| MSHS E104-B  | ELECTRICAL PART PLAN - POWER - ROOF - AREA B           |
| MSHS E200-A  | ELECTRICAL PART PLAN - LIGHTING - BASEMENT - AREA A    |
| MSHS E200-B  | ELECTRICAL PART PLAN - LIGHTING - BASEMENT - AREA B    |
| MSHS E201-A  | ELECTRICAL PART PLAN - LIGHTING - 1ST FLOOR - AREA A   |
| MSHS E201-B  | ELECTRICAL PART PLAN - LIGHTING - 1ST FLOOR - AREA B   |
| MSHS E201-C  | ELECTRICAL PART PLAN - LIGHTING - 1ST FLOOR - AREA C   |
| MSHS E202-A  | ELECTRICAL PART PLAN - LIGHTING - 2ND FLOOR - AREA A   |
| MSHS E202-B  | ELECTRICAL PART PLAN - LIGHTING - 2ND FLOOR - AREA B   |
| MSHS E202-C  | ELECTRICAL PART PLAN - LIGHTING - 2ND FLOOR - AREA C   |
| MSHS E203-B  | ELECTRICAL PART PLAN - LIGHTING - 3RD FLOOR - AREA B   |
| MSHS E501    | ELECTRICAL ONE-LINE DIAGRAM (HIGH SCHOOL)              |
| MSHS E502    | ELECTRICAL ONE-LINE DIAGRAM (MIDDLE SCHOOL)            |
| MSHS E503    | ELECTRICAL LIGHTING CONTROLS (HIGH SCHOOL)             |
| MSHS E504    | ELECTRICAL LIGHTING CONTROLS (MIDDLE SCHOOL)           |
| MSHS E601    | ELECTRICAL PANEL SCHEDULES                             |
| MSHS E602    | ELECTRICAL PANEL SCHEDULES                             |
| MSHS E603    | ELECTRICAL PANEL SCHEDULES                             |
| MSHS E701    | ELECTRICAL DETAILS                                     |
| MSHS E702    | ELECTRICAL DETAILS                                     |

## DLE SCHOOL)

N.T.S.

ARE INDICATED.

CONDUIT AS REQUIRED.

WITH EQUIPMENT MODEL NUMBERS, BATTERY CALCULATIONS, CONDUCTOR TYPE AND SIZES, AND VOLTAGE DROP CALCULATIONS.

13. REMOVE EXISTING FIRE ALARM DEVICES IN SCOPE OF WORK AREA WHERE NEW DEVICES

14. ALL NEW FIRE ALARM DEVICES SHALL BE TIED INTO EXISTING ADDRESSABLE FIRE ALARM LOOPS. PROVIDE ADDITIONAL ADDRESSABLE CARDS/AMPLIFIER/POWER SUPPLY/WIRING AND

![](_page_9_Picture_36.jpeg)

 $M \equiv M \land S \mid$ 2 LYON PLACE

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STRUCTURAL CONSULTANT REILLY TARANTINO ENGINEERING 100 PARK BLVD, SUITE 209 MASSAPEQUA PARK, NY 11762

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

![](_page_9_Figure_42.jpeg)

ELECTRICAL PART PLAN - DEMOLITION - 2ND FLOOR - AREA C 3/32" = 1'-0"

![](_page_10_Figure_1.jpeg)

ELECTRICAL DEMOLITION PLAN NOTES:

- 1. WHERE INDICATED DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES AND ASSOCIATED CONDUIT BACK TO SOURCE. IF CIRCUIT WIRING IS SHARED WITH ELECTRICAL EQUIPMENT THAT IS EXISTING TO REMAIN THEN REMOVE WIRE AND CONDUIT BACK TO POINT OF SPLICE.
- 2. WHERE INDICATED REMO∨E EXISTING LIGHTING CONTROLS ASSOCIATED WITH DEMOLISHED LIGHTING AND PATCH WALLS TO MATCH EXISTING FINISHES.
- 3. DISCONNECT AND REMO∨E ALL ASSOCIATED SAFETY SWITCHES, CONDUIT AND WIRE TO ALL DEMOLISHED MECHANICAL EQUIPMENT BACK TO SOURCE. REMO∨E ALL CONTROL WIRING AS REQUIRED.
- 4. WHERE CEILINGS ARE AFFECTED BY SCOPE OF WORK REMOVE EXISTING SMOKE DETECTOR, SPEAKER, AND/OR WIRELESS ACCESS POINT AND TEMPORARILY SUPPORT, MAINTAIN, AND PROTECT DURING CONSTRUCTION.

EASTCHESTER **UNION FREE** SCHOOL DISTRICT 2022 CAPITAL PROJECT PHASE 3 MIDDLE SCHOOL / HIGH SCHOOL

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![](_page_10_Figure_16.jpeg)

![](_page_11_Figure_0.jpeg)

![](_page_11_Picture_14.jpeg)

ARCHITECT  $M \equiv M \wedge S$ 2 LYON PLACE

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MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

HAZARDOUS MATERIALS CONSULTANT WSP ONE PENN PLAZA 250 W 34TH ST., 4TH FLOOR

NEW YORK, NY 10014

![](_page_11_Figure_20.jpeg)

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ELECTRICAL PART PLAN - POWER - 2ND FLOOR - AREA C 3/32" = 1'-0"

![](_page_12_Figure_1.jpeg)

- 1. ELECTRICAL CONTRACTOR TO TRACE ALL EXISTING CIRCUIT WIRING FOR EXISTING PANELS INDICATED TO BE REPLACED AND CREATE AN AS-BUILT DRAWING FOR ENGINEER TO REVIEW. AS-BUILT DRAWING SHALL INDICATE SOURCE PANEL, CIRCUIT NUMBER, CIRCUIT LOAD AND CIRCUIT WIRE TYPE. ENGINEER REVIEW IS TO DETERMINE THE NEED/REQUIREMENTS FOR EXISTING PANELBOARDS AFTER DEMOLITION OF EXISTING LIGHTING IN THE EFFORT TO REPLACE/REBUILD EXISTING PANELBOARDS.
- 2. ELECTRICAL CONTRACTOR TO REMOVE AND REPLACE ALL CIRCUIT AND FEEDER WIRING FOUND TO BE FABRIC COATED RHW WITH THHN/THWN WIRING AS INDICATED ON THE AS-BUILT SURVEY DRAWINGS.
- ELECTRICAL CONTRACTOR TO PROVIDE TYPE WRITTEN ACCURATE PANEL CIRCUIT DIRECTORIES BASED ON THE RESULTS OF THE AS-BUILT SURVEY AND ENGINEER AFTER REVIEW.
- 4. REFER TO DRAWING MSHS E100-B FOR LOCATION OF SWITCHBOARD

EASTCHESTER **UNION FREE** SCHOOL DISTRICT 2022 CAPITAL PROJECT PHASE 3 MIDDLE SCHOOL / HIGH SCHOOL

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![](_page_12_Figure_16.jpeg)

| LEGEND |   |
|--------|---|
|        | EXISTING ELECTRICAL EQUIPMENT TO REMAIN |
|        | NEW WORK                                |

- COMPONENTS, AND ACCESSORIES AS REQUIRED.
- CONTRACTOR TO PROVIDE UPDATED ONE-LINE DIAGRAM INDICATING THESE PANELS IN

![](_page_13_Figure_5.jpeg)

![](_page_13_Picture_6.jpeg)

 $M \equiv M \wedge S$ 2 LYON PLACE

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MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

![](_page_13_Figure_12.jpeg)

| PANEL DESIGNATION :       RP-HSB-1         VOLTAGE       208Y/120 V       NEUTRAL       100%       QUANTITY OF POLES       24         PHASE       3Ø       SCC RATING (SYM)       22 K.A.I.C.       MAIN LUGS ONLY       100 A         WIRE       4 W + G       NEMA 1 ENCLOSURE       X       GROUND BUS       X  | PANEL DESIGNATION :       RP-HS1-2         VOLTAGE       120/208 V       NEUT         PHASE       1Ø       SCC RATING (S         WIRE       3 W + G       SURFACE MOUNTED       X  | TRAL 100% QUANTITY OF POLES 24<br>SYM) 42 K.A.I.C. MAIN CIRCUIT BREAKER 100 A<br>MAIN BUS 100 A<br>NEMA 1 ENCLOSURE X GROUND BUS X  | PANEL DESIGNATION : RP-HSB-3 (U         VOLTAGE       208Y/120 V         PHASE       3 Ø         WIRE       4 W + G         EXISTING PANEL       X   |
|--|--|---|--|
| FEED THROUGH LUGS       SURFACE (S) / RECESSED (R)       R         REMARKS :       REPLACE EXISTIG PANEL AT EXISTING LOCATION. FIELD VEFY EXISTING FUSES FOR EXACT RATINGS   | FEED THROUGH LUGS SURFA  | ACE (S) / RECESSED (R) S  | REMARKS : REPLACE EXIS   |
| CKT     TRIP     LOAD DESCRIPTION     ØA     ØB     ØC     LOAD DESCRIPTION     TRIP     CKT   |  | ØA ØB LOAD DESCRIPTION TRIP CKT   | CKT TRIP LOAD DESC   |
| #     ITM     Lond blocktil Hold     ITM     #       1     20A     EXISTING     0     EXISTING     20A     2   | #     Image: the second s | (VA)         (VA)         #           0         EXISTING LOAD         20A         2   |  |
| 320AEXISTING0EXISTING20A4520AEXISTING00EXISTING20A6  | 3 20A EXISTING LOAD<br>5 20A EXISTING LOAD   | 0   EXISTING LOAD   20A   4     0   EXISTING LOAD   20A   6   | 3         20A         SPACE           5         20A         SPACE  |
| 7         20A         EXISTING         0         0         EXISTING         20A         8           9         20A         EXISTING         0         0         10  | 7 20A EXISTING LOAD<br>9 20A EXISTING LOAD   | 0     EXISTING LOAD     20A     8       0     EXISTING LOAD     20A     10  | 20A EXISTING LOAD  |
| 11     20A     EXISTING     0     EXISTING     20A     12       13     20A     EXISTING     0     EXISTING     20A     14  | 11         20A         SPARE           13         20A         SPARE  | 0         SPARE         20A         12           0         SPARE         20A         14   | - 11 20A SPACE   |
| 10     201     201     201     201       15     20A     EXISTING     0     EXISTING     20A     16       17     20A     EXISTING     0     SPARE     20A     18  | 15 20A SPARE   | 0         SPARE         20A         16           0         SPARE         20A         18   | PANEL DESIGNATION : RP-HS1-4   |
| 19     20A     SPARE     0     SPARE     20A     20A       21     20A     SPARE     0     SPARE     20A     22   | 19         20A         SPARE           21         20A         SPARE  | 0         SPARE         20A         20           0         SPARE         20A         20   | - VOLTAGE <b>208Y/120 V</b><br>- PHASE <b>3 Ø</b>  |
| 23     20A     SPARE     0     SPARE     20A     24  | 23         20A         SPARE   | 0         SPARE         20A         24  | EXISTING PANEL   |
| PANEL DESIGNATION : RP-HS2-2   | PANEL DESIGNATION : <b>RP-HS1-5</b>  |   | FEED THROUGH LUGS  |
| VOLTAGE 208Y/120 V NEUTRAL 100% QUANTITY OF POLES 24   | VOLTAGE 208Y/120 V   | NEUTRAL 100% QUANTITY OF POLES 18   |  |
| PHASE     3 Ø     SCC RATING (SYM)     22 K.A.I.C.     MAIN LUGS ONLY     N/A       WIRE     4 W + G     MAIN BUS     100 A  | WIRE 4W+G  | MAIN EUGS ONLT 100 A<br>MAIN BUS 100 A  | CKT TRIP LOAD DESC   |
| EXISTING PANEL     NEMA 1 ENCLOSURE     X     GROUND BUS     X       FEED THROUGH LUGS     SURFACE (S) / RECESSED (R)     R     Image: Comparison of the second   | EXISTING PANEL<br>FEED THROUGH LUGS  | NEMA 1 ENCLOSURE     X     GROUND BUS     X       RECESSED PANEL     X  | 1 20A EXISTING<br>3 20A EXISTING   |
| REMARKS : REPLACE EXISTIG PANEL AT EXISTING LOCATION. FIELD VEFY EXISTING FUSES FOR EXACT RATINGS  | REMARKS : REPLACE EXISTIG PANEL AT EX  | KISTING LOCATION. FIELD VEFY EXISTNG CIRCUIT BREAKERS FOR EXACT RATINGS   | 5 20A EXISTING<br>7 20A EXISTING   |
| CKT<br>#     TRIP     LOAD DESCRIPTION     ØA<br>(VA)     ØB<br>(VA)     ØC<br>(VA)     LOAD DESCRIPTION     TRIP     CKT<br>#   | CKT<br># TRIP LOAD DESCRIPTION   | ØA     ØB     ØC       (VA)     (VA)     (VA)   | CKT         9         20A         EXISTING           #         11  |
| 1     20A     EXISTING     20A     2   | 1 20A SPACE  | 0 SPACE 20A   |  |
| 3         20A         EXISTING         0         EXISTING         20A         4           5         20A         EXISTING         0         0         EXISTING         20A         6  | 3 20A SPACE<br>5 20A SPACE   | 0     SPACE     20A       0     0     SPACE     20A   | 4     FANEL DESIGNATION :     PPMB3       6     VOLTAGE     208Y/120 V   |
| 7         20A         EXISTING         0         EXISTING         20A         8           9         20A         EXISTING         0         0         EXISTING         20A         10   | 7     20A     EXISTING       9     20A     EXISTING  | 0   EXISTING   20A     0   EXISTING   20A   | 8         PHASE         3Ø           10         WIRE         4 W + G   |
| 11       20A       EXISTING       0       0       EXISTING       20A       12         13       20A       EXISTING       0       0       EXISTING       20A       14  | 11         20A         EXISTING           13         20A         EXISTING  | 0   EXISTING   20A     0   EXISTING   20A   |  |
| 15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       0       SPARE       20A       18   | 1520AEXISTING1720AEXISTING   | 0     EXISTING     20A       0     EXISTING     20A   | 16  Image: Second condition of the second condition of t |
| 19         20A         SPARE         0         SPARE         20A         20           21         20A         SPARE         0         0         SPARE         20A         22  |  |   |  |
| 23 20A <b>SPARE</b> 0 <b>SPARE</b> 20A 24  | PANEL DESIGNATION : RP-HS1-6<br>VOLTAGE 208Y/120 V   | NEUTRAL 100% QUANTITY OF POLES 30   | ]         /         #           ]         /         1         20A         EXISTING LOAD  |
| PANEL DESIGNATION . RP-HS3-1   | PHASE3 ØSCC RATIONWIRE4 W + G  | TING (SYM)         22 K.A.I.C.         MAIN LUGS ONLY         200 A           MAIN BUS         225 A  | 3 20A EXISTING LOAD<br>5 20A EXISTING LOAD   |
| VOLTAGE     208Y/120 V     NEUTRAL     100%     QUANTITY OF POLES     24   | EXISTING PANEL   | NEMA 1 ENCLOSURE X GROUND BUS X<br>RECESSED PANEL X   | 7         20A         EXISTING LOAD           9         20A         EXISTING LOAD  |
| PHASE     3Ø     SCC RATING (SYM)     22 K.A.I.C.     MAIN LUGS ONLY     N/A       WIRE     4W+G     MAIN BUS     100 A  | REMARKS : REPLACE EXISTIG PANEL AT EX  | ASTING LOCATION. FIELD VEFY EXISTING CIRCUIT BREAKERS FOR EXACT RATINGS   | Image: 1     20A     EXISTING LOAD       Image: 1     13   |
| EXISTING PANEL     NEMA 1 ENCLOSURE     X     GROUND BUS     X       FEED THROUGH LUGS     SURFACE (S) / RECESSED (R)     R     Image: Comparison of the second   | CKT<br># TRIP LOAD DESCRIPTION   | ØA     ØB     ØC       (VA)     (VA)     (VA)   | CKT         15         20A         EXISTING           #         17         10         10         10  |
| REMARKS : REPLACE EXISTIG PANEL AT EXISTING LOCATION. FIELD VEFY EXISTING FUSES FOR EXACT RATINGS  | 1 20A EXISTING   | 0 EXISTING 20A  | $\begin{array}{c c} \hline \\ \hline $   |
| CKT<br>#     TRIP     LOAD DESCRIPTION     ØA<br>(VA)     ØB<br>(VA)     ØC<br>(VA)     LOAD DESCRIPTION     TRIP     CKT<br>#   | 3     20A     EXISTING       5     20A     EXISTING  | 0         EXISTING         20A           0         0         EXISTING         20A   | 4     25     20A     EXISTING LOAD       6     27     20A     EXISTING LOAD  |
|  | 7 20A EXISTING   |   |  |
| 1 20A EXISTING 0 EXISTING 20A 2  | 9 20A EXISTING   | 0         EXISTING         20A           0         EXISTING         20A   | 10     29     20A     EXISTING LOAD  |
| 120AEXISTING0EXISTING20A2320AEXISTING00SPARE20A4520AEXISTING00EXISTING20A6   | 9         20A         EXISTING           11         20A         EXISTING           13         20A         EXISTING           15         20A         EXISTING   | 0EXISTING20A00EXISTING20A00EXISTING20A00EXISTING20A00EXISTING20A  | 0         29         20A         EXISTING LOAD           10         12         14         16         16  |
| 120AEXISTING00EXISTING20A2320AEXISTING000SPARE20A4520AEXISTING000EXISTING20A6720AEXISTING000EXISTING20A8920AEXISTING0000000  | 9         20A         EXISTING           11         20A         EXISTING           13         20A         EXISTING           15         20A         EXISTING           17         20A         EXISTING           19         20A         EXISTING   | 0Image: Constraint of the constraint of t | 10     10       12     14       16     18       20     20  |
| 120AEXISTING00EXISTING20A2320AEXISTING000SPARE20A4520AEXISTING000EXISTING20A6720AEXISTING000EXISTING20A8920AEXISTING000EXISTING20A101120AEXISTING000EXISTING20A121320AEXISTING00EXISTING20A14  | 920AEXISTING1120AEXISTING1320AEXISTING1520AEXISTING1720AEXISTING1920AEXISTING2120AEXISTING2320AEXISTING  | 0Image: Section of the sec | 10     10       12     14       16     18       20     22       24   |
| 120AEXISTING000EXISTING20A2320AEXISTING000SPARE20A4520AEXISTING000EXISTING20A6720AEXISTING000EXISTING20A8920AEXISTING000EXISTING20A101120AEXISTING000EXISTING20A121320AEXISTING000EXISTING20A141520AEXISTING000EXISTING20A161720AEXISTING000EXISTING20A18  | 920AEXISTING1120AEXISTING1320AEXISTING1520AEXISTING1720AEXISTING1920AEXISTING2120AEXISTING2320AEXISTING2520AEXISTING2720AEXISTING  | 0EXISTING20A100EXISTING20A1000EXISTING20A10EXISTING20A101010  | 29     20A     EXISTING LOAD       10     12       14       16       18       20       22       24       26       28   |
| 1       20A       EXISTING       0       EXISTING       20A       2         3       20A       EXISTING       0       SPARE       20A       4         5       20A       EXISTING       0       EXISTING       20A       6         7       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       10         11       20A       EXISTING       0       EXISTING       20A       12         13       20A       EXISTING       0       EXISTING       20A       14         15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       EXISTING       20A       18  | 9         20A         EXISTING           11         20A         EXISTING           13         20A         EXISTING           15         20A         EXISTING           17         20A         EXISTING           19         20A         EXISTING           21         20A         EXISTING           23         20A         EXISTING           25         20A         EXISTING           27         20A         EXISTING           29         20A         EXISTING   | 0120A00EXISTING20A100EXISTING20A010EXISTING20A011EXISTING20A101EXISTING20A101EXISTING20A1011EXISTING20A1010EXISTING20A1010EXISTING20A101EXISTING20A101EXISTING20A101EXISTING20A101EXISTING20A101EXISTING20A1101EXISTING20A1101EXISTING20A1101EXISTING20A1101EXISTING20A1111EXISTING20A1111120A1111120A1111120A1111120A111111111111111111111111111111 <t< td=""><td>10     10       12     14       16     18       20     22       24     26       28     30</td></t<>  | 10     10       12     14       16     18       20     22       24     26       28     30  |
| 1       20A       EXISTING       0       EXISTING       20A       2         3       20A       EXISTING       0       0       SPARE       20A       4         5       20A       EXISTING       0       0       EXISTING       20A       6         7       20A       EXISTING       0       0       EXISTING       20A       8         9       20A       EXISTING       0       0       EXISTING       20A       10         11       20A       EXISTING       0       0       EXISTING       20A       12         13       20A       EXISTING       0       0       EXISTING       20A       14         15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       EXISTING       20A       18  | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION :   | 01120A000EXISTING20A100EXISTING20A000EXISTING20A1011EXISTING20A1011EXISTING20A1011EXISTING20A1011EXISTING20A1101EXISTING20A1101EXISTING20A1011EXISTING20A1101EXISTING20A1101120A1101120A1101120A1101120A1101120A1101120A1111120A1111120A1111120A1111120A1111120A111112111111111111111111111111111 <td>10     10       12     14       16     18       20     22       24     26       28     30</td>  | 10     10       12     14       16     18       20     22       24     26       28     30  |
| 1       20A       EXISTING       0       EXISTING       20A       2         3       20A       EXISTING       0       SPARE       20A       4         5       20A       EXISTING       0       EXISTING       20A       4         5       20A       EXISTING       0       EXISTING       20A       6         7       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       10         11       20A       EXISTING       0       EXISTING       20A       12         13       20A       EXISTING       0       EXISTING       20A       14         15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       EXISTING       20A       18         PANEL DESIGNATION :         RP-HSB-2         VOLTAGE       208/120 V       NEUTRAL       100%       QUANTITY OF POLES       24         VAIRE   | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION : RP-HS3-2         VOLTAGE       208Y/120 V         PHASE       3 Ø       SCC RATE  | 0         0         0         EXISTING         20A   | 10       10         12       14         16       18         20       22         24       26         28       30  |
| 1       20A       EXISTING       0       EXISTING       20A       2         3       20A       EXISTING       0       SPARE       20A       4         5       20A       EXISTING       0       EXISTING       20A       4         5       20A       EXISTING       0       EXISTING       20A       6         7       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       10         11       20A       EXISTING       0       EXISTING       20A       12         13       20A       EXISTING       0       EXISTING       20A       14         15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       EXISTING       20A       18         VOLTAGE       208/1/120 V         PHASE       3 Ø       SCC RATING (SYM)       22 K.A.I.C.       MAIN LUGS ONLY       N/A         MIRE       4 W + G       SU  | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION :         RP-HS3-2       VOLTAGE         208Y/120 V       SCC RATION :         WIRE       3 Ø         VIRE       4 W + G  | 0         0         EXISTING         20A           0         0         EXISTING<  | 10       10         12       14         16       18         20       22         24       26         28       30  |
| 1       20A       EXISTING       0       EXISTING       20A       2         3       20A       EXISTING       0       SPARE       20A       4         5       20A       EXISTING       0       0       EXISTING       20A       4         5       20A       EXISTING       0       0       EXISTING       20A       6         7       20A       EXISTING       0       0       EXISTING       20A       8         9       20A       EXISTING       0       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       10         11       20A       EXISTING       0       EXISTING       20A       12         13       20A       EXISTING       0       EXISTING       20A       14         15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       EXISTING       20A       18         PANEL DESIGNATION :       RP-HSB-2           NA         WIRE       300       SCC RATING (SYM)  | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION : RP-HS3-2         VOLTAGE         208Y/120 V       SCC RATION : KIRE         WIRE       3Ø       SCC RATION : KIRE   | 0       Image: Statisting of the statis the statistex of the statistic of the st                | 29       20A       EXISTING LOAD         12       14         16       18         20       22         24       26         28       30   |
| 1       20A       EXISTING       0       EXISTING       20A       2         3       20A       EXISTING       0       SPARE       20A       4         5       20A       EXISTING       0       EXISTING       20A       4         5       20A       EXISTING       0       EXISTING       20A       4         5       20A       EXISTING       0       EXISTING       20A       6         7       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       10         11       20A       EXISTING       0       EXISTING       20A       12         13       20A       EXISTING       0       EXISTING       20A       14         15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       EXISTING       20A       18         PANEL DESIGNATION :       RP-HSE2       QUANTITY OF POLES       24       N/A   | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         20       PHASE       30         SCC RATE       EXISTING PANEL         FEED THROUGH LUGS       EXISTIG PANEL AT EXISTIG PANEL AT EXISTIG PANEL AT EXISTIG PANEL AT EXISTING P  | 0       0       EXISTING       20A         0       EXISTING       20A       20A         0       EXISTING       20A       20A         100       0       EXISTING       20A         100       QUANTITY OF POLES       18         MAIN LUGS ONLY       N/A       100 A         NEMA 1<  | 29       20A       EXISTING LOAD         10       12         14       16         18       20         22       24         26       28         30       30   |
| 1       20A       EXISTING       0       ENISTING       20A       2         3       20A       EXISTING       0       SPARE       20A       4         5       20A       EXISTING       0       EXISTING       20A       4         5       20A       EXISTING       0       EXISTING       20A       6         7       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       8         9       20A       EXISTING       0       EXISTING       20A       12         13       20A       EXISTING       0       EXISTING       20A       14         15       20A       EXISTING       0       EXISTING       20A       16         17       20A       EXISTING       0       EXISTING       20A       18         PANEL DESIGNATION:       RP-HSB2       0       EXISTING       20A       18         VOLTAGE       209Y120 V       NEUTRAL       100%       QUANTITY OF POLES       24         WIRE       3Ø       SCC RATING (SYM)       ZI KALIC.       MAIN BUS       100 A </td <td>9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION : RP-HS3-2         VOLTAGE       208Y/120 V         PHASE       30         SCC RATE       EXISTING PANEL         EXISTING PANEL       EXISTING PANEL         FEED THROUGH LUGS       REMARKS : REPLACE EXISTIG PANEL AT EXISTIG PANEL AT EXIST         CKT       TRIP       LOAD DESCRIPTION</td> <td>0         0         EXISTING         20A           0         0         EXISTING         20A           EXISTING         0         EXISTING         20A           ING (SYM)         0         QUANTITY OF POLES         N/A           MAIN LUGS ONLY         N/A         100 A         100 A           NEMA 1 ENCLOSURE         X         GROUND BUS         X           KING LOCATION. FIELD VEFY EXISTING FUSES FOR EXACT RATINGS         X  <td>29       20A       EXISTING LOAD         12       14         16       18         20       22         24       26         28       30</td></td> | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION : RP-HS3-2         VOLTAGE       208Y/120 V         PHASE       30         SCC RATE       EXISTING PANEL         EXISTING PANEL       EXISTING PANEL         FEED THROUGH LUGS       REMARKS : REPLACE EXISTIG PANEL AT EXISTIG PANEL AT EXIST         CKT       TRIP       LOAD DESCRIPTION  | 0         0         EXISTING         20A           EXISTING         0         EXISTING         20A           ING (SYM)         0         QUANTITY OF POLES         N/A           MAIN LUGS ONLY         N/A         100 A         100 A           NEMA 1 ENCLOSURE         X         GROUND BUS         X           KING LOCATION. FIELD VEFY EXISTING FUSES FOR EXACT RATINGS         X <td>29       20A       EXISTING LOAD         12       14         16       18         20       22         24       26         28       30</td>   | 29       20A       EXISTING LOAD         12       14         16       18         20       22         24       26         28       30   |
| 1       20A       EXISTING       0       EXISTING       20A       2         3       20A       EXISTING       0       SPARE       20A       4         5       20A       EXISTING       0       EXISTING       20A       6         7       20A       EXISTING       0       EXISTING       20A       6         7       20A       EXISTING       0       EXISTING       20A       6         9       20A       EXISTING       0       EXISTING       20A       12         10A       EXISTING       0       EXISTING       20A       12         13       20A       EXISTING       20A       14         15       20A       EXISTING       20A       14         15       20A       EXISTING       20A       16         17       20A       EXISTING       20A       18         PAREL DESIGNATION:       RPHSB2       QUANTITY OF POLES       24         VOLTAGE       208/1/20 V       NEUTRAL       100%       QUANTITY OF POLES       24         VIRE       307       SCC RATING (SYM)       22 K K A L C.       MAIN LUGS ONLY       NA         REMARKS :   | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION :         RP-HS3-2       VOLTAGE         208Y/120 V       PHASE         30       SCC RATE         WIRE       30         SCC RATE       SCC RATE         EXISTING PANEL       SCC RATE         EXISTING PANEL       SCC RATE         VOLTAGE       100         REMARKS :       REPLACE EXISTIG PANEL AT EXISTING         1       20A       EXISTING         1       20A       EXISTING         3       20A       EXISTING  | 0         0         0         EXISTING         20A           0         EXISTING         20A         EXISTING         20A           0         Image: Comparison of the existing of the exis   | 29       20A       EXISTING LOAD         12       14         16       18         20       22         24       26         28       30   |
| 120AEXISTING0EXISTING20A2320AEXISTING00SPARE20A4520AEXISTING00EXISTING20A6720AEXISTING00EXISTING20A6720AEXISTING00EXISTING20A101120AEXISTING00EXISTING20A101120AEXISTING00EXISTING20A111320AEXISTING00EXISTING20A141520AEXISTING00EXISTING20A161720AEXISTING0EXISTING20A161720AEXISTING20A10EXISTING20A161720AEXISTING20A10EXISTING20A161720AEXISTING20A10EXISTING20A18120AEXISTING20AINInInInIn120AEXISTING20AINInInInInIn120AEXISTING0InInInInInIn120AEXISTING0InInInInInInIn120AEXISTING0InInInInInInInIn </td <td>9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION : RP-HS3-2         VOLTAGE       208Y/120 V         PHASE       3 Ø         SCC RATION :       EXISTING PANEL         FEED THROUGH LUGS       SCC RATION RATION REMARKS :         REMARKS :       REPLACE EXISTIG PANEL AT EXISTING PANEL AT EXISTING PANEL AT EXISTING PANEL AT EXISTING         1       20A       EXISTING         3       20A       EXISTING         1       20A       EXISTING         5       20A       EXISTING         7       20A       EXISTING</td> <td>0         0         0         EXISTING         20A           0         EXISTING         20A         EXISTING           0         EXISTING         20A         EXISTING           0         EXISTING         QUANTITY OF POLES         INA           100 A         Into A         Into A         Into A</td> <td>29       20A       EXISTING LOAD         12       14         16       18         20       22         24       26         28       30         ]      </td>   | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         PANEL DESIGNATION : RP-HS3-2         VOLTAGE       208Y/120 V         PHASE       3 Ø         SCC RATION :       EXISTING PANEL         FEED THROUGH LUGS       SCC RATION RATION REMARKS :         REMARKS :       REPLACE EXISTIG PANEL AT EXISTING PANEL AT EXISTING PANEL AT EXISTING PANEL AT EXISTING         1       20A       EXISTING         3       20A       EXISTING         1       20A       EXISTING         5       20A       EXISTING         7       20A       EXISTING  | 0         0         0         EXISTING         20A           0         EXISTING         20A         EXISTING           0         EXISTING         20A         EXISTING           0         EXISTING         QUANTITY OF POLES         INA           100 A         Into A         Into A         Into A  | 29       20A       EXISTING LOAD         12       14         16       18         20       22         24       26         28       30         ]   |
| 1       20A       EXSTING       0       ENSTING       20A       2         3       20A       EXSTING       0       0       SPARE       20A       4         5       20A       EXSTING       0       EXSTING       20A       4         7       20A       EXSTING       0       EXSTING       20A       8         9       20A       EXSTING       0       EXSTING       20A       8         9       20A       EXSTING       0       EXSTING       20A       8         9       20A       EXSTING       0       EXSTING       20A       12         13       20A       EXSTING       0       EXSTING       20A       14         15       20A       EXSTING       0       EXSTING       20A       16         17       20A       EXSTING       0       EXSTING       20A       16         17       20A       EXSTING       0       EXSTING       20A       16         17       20A       EXSTING       100       Image: Secon Exiting in a secon   | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         23       20A       EXISTING         24       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         20A       EXISTING         21       VOLTAGE       208Y/120 V         PHASE       3 Ø       SCC RATE         WIRE       4 W + G       SCC RATE         EXISTING PANEL  | 0         0         EXISTING         20A           0         ID0%         IN/A </td <td>10         12         14         16         18         20         22         24         26         28         30</td>   | 10         12         14         16         18         20         22         24         26         28         30   |
| 1       20A       EXSTING       0       EXSTING       20A       2         3       20A       EXSTING       0       SPARE       20A       4         5       20A       EXSTING       0       EXSTING       20A       4         5       20A       EXSTING       0       EXSTING       20A       6         7       20A       EXSTING       0       EXSTING       20A       6         7       20A       EXSTING       20A       6       EXSTING       20A       10         11       20A       EXSTING       0       EXSTING       20A       12         13       20A       EXSTING       20A       14       15       20A       14         15       20A       EXSTING       0       EXSTING       20A       16         17       20A       EXSTING       20A       16       17       20A       18         PANEL       DOS       EXSTING       20A       16       18       100%       20A       18         VOLTAGE       20871/20 V       NEUTRAL       100%       QUANTITY OF POLES       24       NA         VA       4 W + 6       SCC  | 9       20A       EXISTING         11       20A       EXISTING         13       20A       EXISTING         15       20A       EXISTING         17       20A       EXISTING         19       20A       EXISTING         21       20A       EXISTING         23       20A       EXISTING         24       20A       EXISTING         25       20A       EXISTING         27       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         29       20A       EXISTING         20A       EXISTING       SCC RATION :         PHASE       30       SCC RATION :         VOLTAGE       208Y/120 V       PHASE         YOLTAGE       208Y/120 V       SCC RATION :         WRE       4 W + G       SCC RATION :         EXISTING PANEL  | 0         EXISTING         20A           0         0         EXISTING         20A           NEMA 1 ENCLOSURE         X         MAIN LUGS ONLY         NA           100 A         X         Image: String Control image: S  | 10         12         14         16         18         20         22         24         26         28         30   |

| KM-HSB-3          |                           |            |            |            |                |                             |        |            |         |
|-------------------|---------------------------|------------|------------|------------|----------------|-----------------------------|--------|------------|---------|
| 120 V             | NEUTF                     | RAL        |            | 10         | 0%             | QUANTITY OF POLES           | 1      | 2          |         |
| Ø                 | SCC RATING (S)            | (M)        |            | 22 K.      | A.I.C.         | MAIN LUGS ONLY              | 10     | D A        |         |
| + G               |                           |            |            |            |                | MAIN BUS                    | 10     | ) A        |         |
| L X               | SURFAC                    | NEN        |            | NCLOS      |                | GROUND                      | BUS    | X          |         |
|                   | XISTIG PANEL AT EXISTING  | LOC        | TION.      | FIELD      |                | NG CIRCUIT BREAKERS FOR EX  | ACT R4 | TINGS      |         |
|                   |                           |            | 1          | T          |                |                             |        |            |         |
| LOAD DES          | SCRIPTION                 | ØA<br>(VA) | ØB<br>(VA) | ØC<br>(VA) |                | LOAD DESCRIPTION            |        | TRIP       | CK<br># |
|                   |                           | 0          |            |            |                | EXISTING LO                 | DAC    | 20A        | 2       |
|                   |                           |            | 0          |            |                | EXISTING LO                 | DAD    | 20A        | 4       |
|                   |                           |            | ļ          | 0          |                | EXISTING L                  | DAD    | 20A        | 6       |
| D                 |                           | 0          |            |            |                | EXISTING L                  | DAD    | 20A        | 8       |
|                   |                           |            | 0          |            |                | EXISTING L                  | DAC    | 20A        | 10      |
|                   |                           |            |            | 0          |                | SP                          | ACE    | 20A        | 12      |
| ۲ <b>P-HS1-</b> 4 |                           |            |            |            |                |                             |        |            |         |
| 120 V             | NEUTF                     | RAL        |            | 10         | 0%             | QUANTITY OF POLES           | 1      | 2          |         |
| Ø                 | SCC RATING (S)            | (M)        |            | 22 K.      | A.I.C.         | MAIN LUGS ONLY              | 10     | 0 A 0      |         |
| + G               |                           |            |            |            | ]              | MAIN BUS                    | 10     | 0 A        |         |
|                   | ]                         |            |            |            |                |                             |        |            |         |
| L                 | -                         |            |            |            |                | GROUND                      | 805    | ^          |         |
|                   |                           | R          | ECESS      | DEDFA      |                |                             |        |            |         |
| PLACE EX          | XISTING PANEL AT EXISTING | g loo      |            | I. FIEL    | D VERIFY EXI   | STING FUSES FOR EXACT RATIN | VGS    |            |         |
| LOAD DES          | SCRIPTION                 | ØA<br>(VA) | ØB<br>(VA) | ØC<br>(VA) |                | LOAD DESCRIPTION            |        | TRIP       | CK<br># |
|                   |                           | (,         |            | (,         |                |                             |        |            |         |
|                   |                           | 0          |            |            |                | EXIST                       | [ING   | 20A        | 2       |
|                   |                           |            | 0          |            |                | EXIST                       | ring   | 20A        | 4       |
|                   |                           |            |            | 0          |                | EXIS                        | TING   | 20A        | 6       |
|                   |                           | 0          | 0          |            |                | EXIS                        |        | 20A        | 8       |
|                   |                           |            | U          | 0          |                | EXIS                        |        | 20A        | 12      |
|                   |                           | ~~         |            |            |                |                             |        |            | $\sim$  |
|                   |                           | • •        |            | • •        | ••••           |                             | •<br>  | <u>•</u> • | v       |
|                   | 1                         |            | r          |            | 1              |                             |        | ]          |         |
| 120 V             | NEUTF                     | RAL        |            | 10         | 0%             | QUANTITY OF POLES           | 3      | 0          |         |
| Ø                 | SCC RATING (S)            | (M)        |            | 22 K.      | A.I.C.         | MAIN LUGS ONLY              | 22     | 5 A        |         |
| + G               | _                         |            |            |            |                | MAIN BUS                    | 22     | 5 A        |         |
| X                 |                           | NEM        | 1A 1 EI    | NCLOS      | URE X          | GROUND                      | BUS    | X          |         |
| S                 | SURFAC                    | CE (S      | ) / REC    | ESSE       | D (R) <b>S</b> |                             |        |            |         |
|                   |                           |            |            |            |                |                             |        |            |         |
|                   |                           |            | 1          |            |                |                             |        |            |         |
| LOAD DES          | SCRIPTION                 | ØA<br>(VA) | ØB<br>(VA) | ØC<br>(VA) |                | LOAD DESCRIPTION            |        | TRIP       | CK<br># |
| D                 |                           | 0          |            |            |                | EXISTING LO                 | DAC    | 20A        | 2       |
| D                 |                           |            | 0          |            |                | EXISTING LO                 | DAC    | 20A        | 4       |
| D                 |                           |            |            | 0          |                | EXISTING LO                 | DAC    | 20A        | 6       |
| D                 |                           | 0          |            |            |                | EXISTING LO                 | DAC    | 20A        | 8       |
| .D                |                           |            | 0          |            |                | EXISTING LO                 | DAD    | 20A        | 10      |
| D                 |                           | -          |            | 0          |                | EXISTING LO                 | DAD    | 20A        | 12      |
|                   |                           | 0          |            |            |                |                             |        |            | 14      |
| EXISTIN           |                           |            | 0          |            |                | EXISTING LOAD               |        | 40A        | 16      |
|                   |                           | ~          |            | 0          |                |                             |        | 0.00       | 18      |
| EVE               |                           | 0          | -          |            |                | EXISTING L                  | JAD    | 20A        | 20      |
| EXISTIN           |                           |            |            | ~          |                | EXISTING LOAD               |        | 30A        | 22      |
| D                 |                           | ~          | <b> </b>   | 0          |                |                             |        | 2004       | 24      |
| <u>ח</u>          |                           | U          |            |            |                | ا<br>حت                     |        | 20A        | 26      |
| ח<br>ח            |                           |            |            | 0          |                |                             |        | 20A        | 28      |
|                   |                           |            |            | 0          |                | ROOF RECEPTACLE AND LIGHT   | ING    | 20A        | 30      |

![](_page_14_Picture_3.jpeg)

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STRUCTURAL CONSULTANT REILLY TARANTINO ENGINEERING 100 PARK BLVD, SUITE 209 MASSAPEQUA PARK, NY 11762

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

![](_page_14_Figure_9.jpeg)

![](_page_15_Figure_3.jpeg)

### GENERAL PLUMBING NOTES: 1. PLUMBING CONTRACTOR WILL RE-INSULATE ANY EXISTING DOMESTIC WATER ELBOWS AND PIPE RUNS WHICH WERE REMOVED BY THE ABATEMENT. SEE H-DRAWINGS FOR LOCATIONS AND SCOPE. ALL COSTS TO BE INCLUDED IN THE PLUMBING CONTRACTORS BASE BID.

- 2. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL WORK ASSOCIATED WITH THE PLUMBING WORK. THIS INCLUDES: a. CUTTING TO GAIN ACCESS TO ROUGHING UNITS
- b. PATCHING TO MATCH WITH LIKE MATERIALS/COLORS ANY SURFACES IMPACTED c. PVC JACKET SHALL BE INSTALLED ON ANY
- EXPOSED PLUMBING PIPING. d. EXISTING CEILING REMOVAL/REPLACE WHERE NEEDED FOR PLUMBING WORK, EXCEPT IN AREAS WHERE CEILING REMOVAL/REPLACEMENT IS INDICATED AS GENERAL CONTRACTOR BASE
- SCOPE ON THE ARCHITECTURAL REFLECTIVE CEILING PLANS. e. REMOVAL AND REINSTALLATION/REPLACEMENT OF EXISTING CASEWORK IN CLASSROOMS AND
- LABS. f. IN SOME LOCATION THERE ARE PLASTER CEILINGS WHICH REMAIN ABOVE THE ACOUSTIC TILE/GRID CEILING. PLUMBING CONTRACTOR WILL CUT ACCESS HOLES WHERE NECESSARY TO ENABLE INSTALL OF HANGERS AND PIPING TO
- STRUCTURE ABOVE. g. CONTRACTOR SHALL REPAIR AND REPAINT ALL WALLS IMPACTED BY PLUMBING WORK. CASEWORK SHALL BE REMOVED AND STORE IN A SAFE LOCATION TO PREVENT DAMAGE DURING CONSTRUCTION, THEN REINSTALL UPON COMPLETION OF CONSTRUCTION.

![](_page_15_Picture_11.jpeg)

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HAZARDOUS MATERIALS CONSULTANT WSP

ONE PENN PLAZA 250 W 34TH ST., 4TH FLOOR NEW YORK, NY 10014

![](_page_15_Figure_17.jpeg)

![](_page_16_Figure_0.jpeg)

MS-HS-SANITARY RISER DIAGRAM SCALE: NTS

**MSHS P501** 

|             |     |              |              | WATE                              | R HEA                           | TER S         | CHED                     | ULE                       |                   |                           |   |
|-------------|-----|--------------|--------------|-----------------------------------|---------------------------------|---------------|--------------------------|---------------------------|-------------------|---------------------------|---|
|             |     |              |              |                                   |                                 |               |                          |                           | GAS DATA          |                           |   |
| DESIGNATION | QTY | MANUFACTURER | MODEL NUMBER | WATER STORAGE<br>TEMPERATURE (°F) | WATER STORAGE<br>CAPACITY (GAL) | RECOVERY RATE | temperature<br>Rise (°F) | THERMAL<br>EFFICIENCY (%) | BTU/HOUR<br>INPUT | LOCATION                  | COMMENTS  |
| HTR-1       | 1   | LOCHINVAR    | CFN402PM     | -                                 | _                               | _             | 100                      | 85                        | 399,000           | MIDDLE SCHOOL BOILER ROOM | GAS FIRE WATER HEATER<br>LAWLER THERMOSTATIC MIXER<br>MODEL 802 TO BE INSTALLED |
| ST-1        | 1   | AOSMITH      | HDVJ*30-250A | 145                               | 257                             | _             | -                        | _                         | _                 | MIDDLE SCHOOL BOILER ROOM | ASME RATED STORAGE TANK   |

|             |              |              |        |           |            |                 |                 |                 |               |                        | [                      | DRA    | ٨IN       | SCI        | HE            | DUI             | E             |                 |              |                    |                 |            |            |             |               |            |            |      |           |            |                     |
|-------------|--------------|--------------|--------|-----------|------------|-----------------|-----------------|-----------------|---------------|------------------------|------------------------|--------|-----------|------------|---------------|-----------------|---------------|-----------------|--------------|--------------------|-----------------|------------|------------|-------------|---------------|------------|------------|------|-----------|------------|---------------------|
|             |              |              |        |           | DRAIN      | BOD             | y spe           |                 | ATION         | 1                      | 1                      |        |           |            | 1             |                 | 1             |                 | STR          | AINER              | SPEC            | CIFICAT    | TION       |             |               |            |            | 1    |           | 1          |                     |
| DESIGNATION | MANUFACTURER | MODEL NUMBER | BRONZE | CAST IRON | GALVANIZED | STAINLESS STEEL | CLAMPING DEVICE | SECONDARY CLAMP | SUMP RECEIVER | ACID RESISTANT COATING | TRAP PRIMER CONNECTION | BRONZE | CAST IRON | GALVANIZED | NICKEL BRONZE | STAINLESS STEEL | CHROME PLATED | POLISHED FINISH | SATIN FINISH | SECONDARY STRAINER | SEDIMENT BUCKET | LESS GRATE | HALF GRATE | FLUSH GRATE | TRACTOR GRATE | SQUARE TOP | FUNNEL TOP | DOME | EXTENSION | ADJUSTABLE | APPLICABLE AREAS    |
| 4"FD        | JAY R. SMITH | 2010         |        | •         |            |                 |                 |                 |               | •                      | •                      |        |           |            | •             |                 |               |                 |              |                    | •               |            | •          |             |               |            |            |      |           | •          | WATER SERVICE ROOMS |
|             |              |              |        |           |            |                 |                 |                 |               |                        |                        |        |           |            |               |                 |               |                 |              |                    |                 |            |            |             |               |            |            |      |           |            |                     |
|             |              |              |        |           |            |                 |                 |                 |               |                        |                        |        |           |            |               |                 |               |                 |              |                    |                 |            |            |             |               |            |            |      |           |            |                     |

NOTES:

1. ALL FLOOR DRAINS IN FINISHED AREAS SHALL BE LOCATED AS PER THE ARCHITECTURAL DRAWINGS. 2. ALL FLOOR DRAINS IN MECHANICAL EQUIPMENT ROOMS, BOILER ROOMS, FAN ROOMS ETC., SHALL BE LOCATED IN COORDINATION WITH THE MECHANICAL CONTRACTOR.

3. THE CONTRACTOR SHALL VERIFY THE COMPATIBILITY OF THE DRAINS WITH THE APPROVED ROOFING AND/OR WATER PROOFING SYSTEMS PRIOR TO SUBMITTING SHOP DRAWINGS. 4. THE TOP OF ALL FLOOR DRAINS SHALL BE FLUSH WITH THE ADJACENT FINISHED FLOOR. 5. PROVIDE MECHANICAL SEAL TRAP GUARDS ON ALL FLOOR DRAINS UNLESS OTHERWISE NOTED.

|  |                 |             | PIPE, FITTING, AND JOINT MATE    | ERIAL SCHEDULE                   |  |
|--|-----------------|-------------|----------------------------------|----------------------------------|--|
| PIPING SYSTEM                                  | PIPING LOCATION | PIPING SIZE | PIPING SPECIFICATION             | FITTING SPECIFICATION            | JOINT SPECIFICATION  |
| SANITARY/WASTE/<br>VENT/STORM                  | ABOVE GROUND    | ALL         | SERVICE WEIGHT HUBLESS CAST IRON | SERVICE WEIGHT HUBLESS CAST IRON | NEOPRENE RUBBER SEALING SLEEVE AND HEAVY<br>DUTY STAINLESS STEEL CORRUGATED SHIELDS<br>WITH A MINIMUM OF FOUR HEAVY DUTY BANDS |
| INDIRECT WASTE                                 | ABOVE GROUND    | ALL         | TYPE DWV COPPER TUBING           | WROUGHT COPPER WITH SOLDER ENDS  | 95.5 TIN / 4.0 COPPER / 0.5 SILVER SOLDER  |
| COLD WATER/HOT WATER/<br>HOT WATER CIRCULATION | DISTRIBUTION    | ALL         | TYPE L HARD DRAWN COPPER TUBING  | WROUGHT COPPER WITH SOLDER ENDS  | 95.5 TIN / 4.0 COPPER / 0.5 SILVER SOLDER  |

|                           |             |                              |               |                |              |           | PUM | P SCHI     | EDUL     | Ξ        |    |                |               |   |
|---------------------------|-------------|------------------------------|---------------|----------------|--------------|-----------|-----|------------|----------|----------|----|----------------|---------------|---|
|                           |             | MPLEX SYSTEM<br>JPLEX SYSTEM | RIPLEX SYSTEM | AERGENCY POWER | CAPACITY (E/ | ACH PUMP) |     | ELECTRICAL | DATA (EA | СН РИМР) | )  | PUMP SYSTEM    | SPECIFICATION |   |
| SERVICE                   | DESIGNATION |                              |               | <b>D</b>       | FLOW RATE    | HEAD      | HP  | RPM        | V        | PH       | HZ | MANUFACTURER   | MODEL NUMBER  | REMARKS   |
| HOT WATER CIRCULATOR PUMP | RP-1        | •                            |               |                | 2 GPM        | 17 FT     | 1/6 | 1725       | 115      | 1        | 60 | BELL & GOSSETT | SERIES PR     | INSTALL TWO IN MIDDLE SCHOOL BOILER ROOM                            |
| SEWAGE EJECTOR PUMP       | EJ-1        | •                            |               |                | 400 GPM      | 25 FT     | 7.4 | 1740       | 208      | 3        | 60 | WILO           | 6101T         | EXISTING PIT SHALL BE INCREASE TO<br>4'x4'x5' WITH AIR TIGHT COVER. |
| 10750                     |             |                              |               |                |              |           |     |            |          |          |    |                |               |   |

NOTES:

1. PLUMBING CONTRACTOR SHALL PERFORM CAMERA INVESTIGATION FOR EXISTING PIPING CONNECTING TO EJECTOR PUMP AND PIPING EXISTING THE BUILDING. REPORT SHALL BE SUBMITTED TO ENGINEER. 

|           |                       |                   | PL | UMBI   | NG FI    | XTUR     | E SCI | HEDU | LE  |   |
|-----------|-----------------------|-------------------|----|--------|----------|----------|-------|------|-----|---|
|           | FIXTURE SPECIFICATION |                   |    | SI     | ERVICE C | ONNECTIO | ١S    |      |     |   |
| COMPONENT | MANUFACTURER          | MODEL NUMBER      | S  | w      | IW       | V        | CW    | HW   | G   | ADDITIONAL COMMENTS   |
| SINK      | WATTS                 | ARLS-14-ADA       |    |        |          |          |       |      |     |   |
| FAUCET    | CHICAGO               | LCF2-A-A11        |    | 4 1/ " |          | 4 1/ 22  | 1/"   |      | 1/" | <ul> <li>ADA COMPLIANT, CORROSION RESISTANT LABBRATORY UNDERMOUNT SINK.</li> <li>PROVIDE FAUCET DRAIN ASSEMBLY TAILPIECE, SUPPLUES, STOPS ESCUTCHEON</li> </ul> |
| P-TRAP    | MCGUIRE MANUFACTURING | PW8912            |    | 1/2    | -        | 1/2      | 1/2   | _    | 12  | <ul> <li>PROVIDE GAS/WATER COMBINATION FAUCET WITH VACUUM BREAKER AND 2.2 GPM</li> <li>AFRATOR</li> </ul>   |
| SUPPLY    | MCGUIRE MANUFACTURING | H170–LK           |    |        |          |          |       |      |     | ALKATUR.  |
| URINAL    | AMERICAN STANDARD     | WASHBROOK FLOWISE | 3" | -      | _        | 1½"      | 3⁄4"  | _    | _   | - TOP SPUD URINAL WITH 0.125GPF MANUAL FLUSH VALVE.   |

2. INSTALL PRE-FORMED INSULATION COVER FOR ALL EXPOSED SUPPLY AND DRAINAGE PIPING SERVING ADA COMPLIANT SINKS MANUFACTURED BY TRUEBRO, PLUMBEREX, HANDYSHIELD.

3. PLUMBING FIXTURE SHALL HAVE CHROME PLATED BRASS SUPPLIES, STOPS, ESCUTCHEON COVERS, P-TRAP, GRID DRAIN, POP-UP DRAINS W/ PUSH ROD, OFFSET DRAIN, CONTINUOUS DRAINS CONNECTION, (IN LOCATIONS WHERE PIPING IS TO BE COVERED W/ INSULATION, BRASS FINISHES ONLY SHOULD ONLY BE SUBSTITUTED.)

4. SCIENCE LAB SINK FAUCETS SHALL HAVE VACUUM BREAKER & CHECK VALVES ON CW & GAS SUPPLIES EITHER INTEGRAL TO FAUCET OR PROVIDE ON CW & GAS PIPES FEEDING THE FAUCET.

| _                  |   |   | _ |
|--------------------|---|---|---|
| n                  |   | L |   |
| $\boldsymbol{\nu}$ | U | ᄂ |   |
|                    |   |   |   |

![](_page_17_Picture_19.jpeg)

ARCHITECT  $M \equiv M \land S \mid$ 2 LYON PLACE

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![](_page_17_Figure_25.jpeg)

![](_page_18_Figure_0.jpeg)

![](_page_18_Figure_1.jpeg)

![](_page_18_Picture_3.jpeg)

ARCHITECT  $M \equiv M \wedge S I$ 2 LYON PLACE

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MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

HAZARDOUS MATERIALS CONSULTANT WSP ONE PENN PLAZA 250 W 34TH ST., 4TH FLOOR NEW YORK, NY 10014

![](_page_18_Figure_10.jpeg)

| ELECTRICAL SYMBOL LIST                                       |  |  |  |
|--|--|--|--|
| (NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT) |  |  |  |
| SYMBOL   | DESCRIPTION  |  |  |
| Φ  | 20A, 125V DECORA STYLE DUPLEX RECEPTACLE - FLUSH WALL MOUNTED  |  |  |
| ₩  | 20A, 125V DECORA STYLE QUADRUPLEX RECEPTACLE – FLUSH WALL MOUNTED  |  |  |
| Φ  | 20A, 125V DECORA STYLE GFCI TYPE DUPLEX RECEPTACLE – FLUSH WALL MOUNTED  |  |  |
| wp   | 20A, 125V GFCI TYPE WEATHER RESISTANT DUPLEX RECEPTACLE IN WEATHER PROOF ENCLOSURE   |  |  |
| $\Phi$   | 20A, 125V DECORA STYLE DUPLEX RECEPTACLE – CEILING MOUNTED   |  |  |
| <b></b>  | SPECIAL PURPOSE RECEPTACLE – FLUSH WALL MOUNTED  |  |  |
| $\blacksquare \bigtriangledown \blacksquare \blacksquare$    | DATA OUTLET WITH 1 1/4"E.C. UP TO CEILING. TURN 90° AND STUB AND BUSH 6" INTO ACCESSIBLE CEILING   |  |  |
| J  | CEILING MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION   |  |  |
| Q  | FLUSH WALL MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION  |  |  |
| J  | FLUSH FLOOR MOUNTED JUNCTION BOX WITH FINAL EQUIPMENT CONNECTION   |  |  |
|  | UNFUSED DISCONNECT SWITCH  |  |  |
| $\square \frac{100A}{60A}$                                   | FUSED DISCONNECT SWITCH – 100 AMP SWITCH, 60 AMP FUSE, UNFUSED (EXCEPT WHERE FUSE SIZE IS INDICATED) 3-POLE (EXCEPT WHERE NOTED)                       |  |  |
| R  | COMBINATION MOTOR CONTROLLER AND DISCONNECT SWITCH FURNISHED BY MECHANICAL CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR. COOR. LOCATION W/MECH. CONT. |  |  |
| CB <u>100A</u><br>60A  | CIRCUIT BREAKER 100A FRAME/60A TRIP, 3 POLE, U.O.N. ST - SHUNT TRIP  |  |  |
| [VFD]  | VARIABLE FREQUENCY DRIVE (VFD), FURNISHED BY MECHANICAL CONTRACTOR INSTALLED<br>BY ELECTRICAL CONTRACTOR. COORD. LOCATION WITH MECH. CONTRACTOR        |  |  |
| M  | MOTOR  |  |  |
|  | PULLBOX, SIZED PER NEC   |  |  |
| Т  | DRY TYPE 480–208V TRANSFORMER DELTA–WYE<br>WITH GROUNDED SECONDARY SIDE, UON.  |  |  |
|  | FLUSH MOUNTED PANELBOARD   |  |  |
|  | SURFACE MOUNTED PANELBOARD   |  |  |
| GND  | GROUND BAR   |  |  |
|  | 2#12+1#12G-3/4"C FOR ONE CKT. HOMERUN, U.O.N.  |  |  |
|  | 4#12+1#12G-3/4"C FOR TWO CKT. HOMERUN, U.O.N.  |  |  |
|  | 6#12+1#12G-3/4"C FOR THREE CKT. HOMERUN, U.O.N.  |  |  |
|  | 3#12+1#12G-3/4"C HOMERUN, U.O.N.   |  |  |
|  | CONCEALED CONDUIT  |  |  |
| <b>—</b> •   | CONDUIT TURNING UP   |  |  |
|  | CAPPED CONDUIT   |  |  |
|  | FLEXIBLE EQUIPMENT CONNECTION  |  |  |
| Ţ  | GROUND CONNECTION  |  |  |
| <b>\$</b> ⊤  | MANUAL STARTER – TOGGLE TYPE WITH THERMAL ELEMENT – 250V HP RATED,<br>FURNISHED BY ELEC CONTRACTOR   |  |  |
| RP   | SECURITY DEVICE REPEATER   |  |  |

| ELECTRICAL ABBREVIATIONS                                     |   |         |                        |  |  |
|--|---|---------|------------------------|--|--|
| (NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT) |   |         |                        |  |  |
| A  | AMPERE                                  | KCM     | THOUSAND CIRCULAR MILS |  |  |
| AC   | ABOVE COUNTER                           | KV      | KILOVOLT               |  |  |
| AFF  | ABOVE FINISHED FLOOR                    | KVA     | KILOVOLT AMPERE        |  |  |
| AHJ  | AUTHORITY HAVING JURISDICTION           | ĸw      | KILOWATT               |  |  |
| AIC  | AMP INTERRUPTING CAPACITY               | кwн     | KILOWATT HOUR          |  |  |
| ATS  | AUTOMATIC TRANSFER SWITCH               | LTG     | LIGHTING               |  |  |
| AUTO   | AUTOMATIC                               | MAX     | MAXIMUM                |  |  |
| AWG  | AMERICAN WIRE GAUGE                     | MCB     | MAIN CIRCUIT BREAKER   |  |  |
| BLDG   | BUILDING                                | мсс     | MOTOR CONTROL CENTER   |  |  |
| С  | CONDUIT                                 | MIN     | MINIMUM                |  |  |
| СВ   | CIRCUIT BREAKER                         | MTD     | MOUNTED                |  |  |
| CCTV   | CLOSED CIRCUIT TELEVISION               | N       | NEUTRAL                |  |  |
| СКТ  | CIRCUIT                                 | NIC     | NOT IN CONTRACT        |  |  |
| CO   | CARBON MONOXIDE                         | NTS     | NOT TO SCALE           |  |  |
| COMM   | COMMUNICATION                           | OC      | ON CENTER              |  |  |
| СТ   | CURRENT TRANSFORMER                     | Р       | POLE                   |  |  |
| CU   | COPPER                                  | ø or PH | PHASE                  |  |  |
| DEG  | DEGREE                                  | PNL     | PANEL                  |  |  |
| DGP  | DATA GATHERING PANEL                    | PWR     | POWER                  |  |  |
| DISC   | DISCONNECT                              | R       | RELOCATED              |  |  |
| DN   | DOWN                                    | RECEPT  | RECEPTACLE             |  |  |
| DWG  | DRAWING                                 | TEL     | TELEPHONE              |  |  |
| E/EX   | EXISITNG TO REMAIN                      | TOS     | TOP OF SHAFT           |  |  |
| EC   | ELECTRICAL CONTRACTOR                   | TV      | TELEVISION             |  |  |
| EM   | EMERGENCY                               | TYP     | TYPICAL                |  |  |
| ER   | EXISTING TO BE REMOVED                  | UON     | UNLESS OTHERWISE NOTED |  |  |
| ERR  | EXISTING TO BE REMOVED AND<br>RELOCATED | V       | VOLT OR VOLTAGE        |  |  |
| FA   | FIRE ALARM                              | VA      | VOLT AMPERE            |  |  |
| FACP   | FIRE ALARM CONTROL PANEL                | VIF     | VERIFY IN FIELD        |  |  |
| FL   | FLOOR                                   | w       | WATT                   |  |  |
| FT   | FEET OR FOOT                            | WP      | WEATHERPROOF           |  |  |
| GRD  | GROUND                                  | WT      | WATERTIGHT             |  |  |
| GFI  | GROUND FAULT INTERRUPTER                | XP      | EXPLOSION PROOF        |  |  |
| HID  | HIGH INTENSITY DISCHARGE                |         |                        |  |  |
| HP   | HORSE POWER                             |         |                        |  |  |
| HZ   | HERTZ                                   |         |                        |  |  |
| JB   | JUNCTION BOX                            |         |                        |  |  |

| LIGHTING CONTROL SYMBOL LIST |  |  |  |  |
|------------------------------|--|--|--|--|
|                              | (NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)   |  |  |  |
| SYMBOL                       | DESCRIPTION  |  |  |  |
| \$                           | SINGLE POLE LINE VOLTAGE SWITCH  |  |  |  |
| \$ <sup>K</sup>              | KEY ACTIVATED LINE VOLTAGE SWITCH  |  |  |  |
| ত্র                          | DUAL TECHNOLOGY OCCUPANCY SENSOR, WALL MTD.  |  |  |  |
| VS                           | DUAL TECHNOLOGY VACANCY SENSOR, CEILING MTD.   |  |  |  |
| ws                           | LOW VOLTAGE LIGHTING CONTROL MASTER LIGHTING CONTROL WALL STATION  |  |  |  |
| WS K,OR                      | LOW VOLTAGE LIGHTING CONTROL LOCAL LIGHTING CONTROL WALL STATION<br>("OR" DENOTES VACANCY SENSOR OVERRIDE, "K" DENOTES KEY SWITCH) |  |  |  |
| 09                           | EXTERIOR LIGHTING PHOTOCELL  |  |  |  |
| 05                           | INTERIOR DAYLIGHT ZONE SENSOR  |  |  |  |
| RC <sub>a,b</sub>            | ROOM CONTROLLER (LOWER CASE LETTER DENOTES CONTROL ZONES). REFER TO LIGHTING CONTROL DETAILS                                       |  |  |  |
| WS D                         | LOW VOLTAGE LIGHTING CONTROL LOCAL LIGHTING CONTROL WALL STATION<br>WITH VACANCY VACANCY SENSOR OVERRIDE AND ZONE DIMMING          |  |  |  |
|                              |  |  |  |  |
|                              |  |  |  |  |

| FIRE ALARM SYMBOL LIST |  |  |  |  |
|------------------------|--|--|--|--|
|                        | (NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THIS PROJECT)   |  |  |  |
| SYMBOL                 | DESCRIPTION  |  |  |  |
| \$                     | CEILING MOUNTED ADDRESSABLE SMOKE DETECTOR   |  |  |  |
| D                      | DUCT SMOKE DETECTOR  |  |  |  |
| F                      | COMBINATION FIRE ALARM BELL/STROBE LIGHT UNIT - FLUSH WALL<br>MOUNTED (WITH ADJUSTABLE CANDELA RATING) |  |  |  |
| F                      | FIRE ALARM PULL STATION  |  |  |  |
| R                      | FIRE ALARM RELAY   |  |  |  |
| RAN                    | FIRE ALARM REMOTE ANNUNCIATOR PANEL  |  |  |  |
| ST                     | FIRE ALARM STROBE LIGHT  |  |  |  |

|      |                           |              |  |                              |       | -  |  |
|------|---------------------------|--------------|--|------------------------------|-------|--|--|
|      | LIGHTING FIXTURE SCHEDULE |              |  |                              |       |  |  |
| TYPE | DESCRIPTION               | MANUFACTURER | CATALOG NUMBER                               | WATTAGE / CCT / LUMENS / CRI | VOLTS | NOTES  |  |
| F1   | 2X4 FLAT PANEL            | METALUX      | 24FP4735C                                    | 41 / 3500K / 4591 / 80       | UNV   | EL14W EM PACK WHERE INDICATED                                |  |
| F2   | 2X2 FLAT PANEL            | METALUX      | 22FP3235C                                    | 29 / 3500K / 3307 / 80       | UNV   | EL14W EM PACK WHERE INDICATED                                |  |
| F3   | 2X4 TROFFER               | LITHONIA     | ENVX 2X4 HRG 6000LM 80CRI 35K MIN1 EZT MVOLT | 50 / 3500K / 6000 / 80       | UNV   | EL15WLCP EM PACK WHERE INDICATED                             |  |
| X1   | LED EDGE-LIT EXIT SIGN    | LITHONIA     | LRP 1/2 RC/RMR 120/277 EL N                  | 2W                           | UNV   | SHIP WITH ALL MOUNTING OPTIONS<br>AND DIRECTIONAL INDICATORS |  |
|      |                           |              |  |                              | -1.   |  |  |

| _                                       |   |
|---|---|
|   | NEW YORK STATE CODES & STANDARDS  |
|   | <ul> <li>2020 BUILDING CODE OF NEW YORK STATE</li> <li>2020 FIRE CODE OF NEW YORK STATE</li> <li>2020 PLUMBING CODE OF NEW YORK STATE</li> <li>2020 MECHANICAL CODE OF NEW YORK STATE</li> <li>2020 FUEL GAS CODE OF NEW YORK STATE</li> <li>2020 NYS UNIFORM CODE SUPPLEMENT</li> <li>NYS EDUCATION DEPARTMENT 2022 MANUAL OF PLANNING STANDARDS</li> </ul>                            |
|   | NEW YORK STATE ENERGY CODES   |
|   | <ul> <li>2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE</li> <li>2016 ASHRAE 90.1</li> </ul>  |
|   | REFERENCED STANDARDS  |
|   | APPLICABLE REFERENCE STANDARDS SHALL BE AS REFERENCED BY ALL STATE CODES. THE<br>LIST BELOW IS FOR QUICK REFERENCE AND DOES NOT INCLUDE ALL APPLICABLE REFERENCE<br>STANDARDS.  |
|   | <ul> <li>2016 NPFA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS</li> <li>2016 NFPA 14 - STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS</li> <li>2016 NFPA 20 - STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION</li> <li>2017 NFPA 70 - NATIONAL ELECTRICAL CODE</li> <li>2016 NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE</li> </ul> |
| $\Lambda$                               | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~   |
| $\overline{\left\langle \right\rangle}$ | CUTTING AND PATCHING GENERAL NOTES  |
| $\left\langle \right\rangle$            | ELECTRICAL CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING OF EXISTING<br>CONSTRUCTION AS REQUIRED TO PROPERLY INSTALL AND CONCEAL ALL RACEWAYS, BOXES,<br>DEVICES, AND EQUIPMENT. ALL WORK ASSOCIATED WITH CUTTING OF CONSTRUCTION SHALL BE<br>ACCOMPLISHED IN A CLEAN AND NEAT FASHION WITH PURPOSE TO MINIMIZE ANY DISRUPTION  |

OF EXISTING SYSTEMS. ELECTRICAL CONTRACTOR SHALL RETURN ANY AFFECTED CONSTRUCTION TO AS FOUND. ELECTRICAL CONTRACTOR SHALL MATCH ALL REQUIRED FINISHES SUCH AS

TILE/GROUT, PAINT, PLASTER, BRICK, ECT. WITH EXISTING SURROUNDINGS.

| ELECTRICAL DRAWING LIST |   |  |  |
|-------------------------|---|--|--|
| Sheet                   | Sheet Title                               |  |  |
| AH E001                 | ELECTRICAL COVER SHEET                    |  |  |
| AH E002                 | ELECTRICAL GENERAL NOTES                  |  |  |
| AH ED100                | ELECTRICAL DEMOLITION PLAN - GROUND FLOOR |  |  |
| AH ED101                | ELECTRICAL DEMOLITION PLAN - FIRST FLOOR  |  |  |
| AH E200                 | ELECTRICAL LIGHTING PLAN - GROUND FLOOR   |  |  |
| AH E201                 | ELECTRICAL LIGHTING PLAN - FIRST FLOOR    |  |  |
| AH E501                 | ELECTRICAL LIGHTING CONTROLS              |  |  |
| AH E601                 | ELECTRICAL PANEL SCHEDULES                |  |  |

![](_page_19_Picture_7.jpeg)

MECHANICAL/ELECTRICAL/PLUMBING CONSULTANT STANTEC 30 OAK STREET, SUITE 400 STAMFORD, CT 06905

![](_page_19_Figure_10.jpeg)

# $\mathbf{W} AIA^{\circ}$ Document G716<sup>°</sup> – 2004

## Request for Information ("RFI")

TO: **MEMASI** 2 Lyon Place White Plains, NY 10601

**PROJECT:** 2022 Capital Bond Project, Phase 3 Eastchester Union Free School District FROM:

All Bright Electric 100 Snake Hill Road West Nyack, NY 10994

**ISSUE DATE:** 12/27/23 RFI No. 1

PROJECT NUMBERS: MEMASI / 102-2301

**REQUESTED REPLY DATE:** COPIES TO:

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.)

Panel PP-MS2-2 shown on drawing MSHS-E102A has no associated panel schedule with this panel. Please provide a panel schedule and the intended scope for this panel.

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: DRAWINGS: OTHER:

**SENDER'S RECOMMENDATION:** (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

Please omit this panel

**RECEIVER'S REPLY:** (Provide answer to RFI, including cost and/or schedule considerations.)

| Joseph Bastone, St | antec Consulting Inc. | 01-04-2024 |           |  |
|--------------------|-----------------------|------------|-----------|--|
| BY                 | DATE                  |            | COPIES TO |  |

**Note:** This reply is not an authorization to proceed with work involving additional cost, time or both. If any reply requires a change to the Contract Documents, a Change Order, Construction Change Directive or a Minor Change in the work must be executed in accordance with the Contract Documents.

# $\mathbf{W} AIA^{\circ}$ Document G716<sup>°</sup> – 2004

## Request for Information ("RFI")

TO: MEMASI 2 Lyon Place White Plains, NY 10601

All Bright Electric 100 Snake Hill Road West Nyack, NY 10994

FROM:

**ISSUE DATE: 12/27/23** RFI No. 2

**PROJECT:** 2022 Capital Bond Project, Phase 3 Eastchester Union Free School District

PROJECT NUMBERS: MEMASI / 102-2301

**REQUESTED REPLY DATE:** COPIES TO:

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.) Panels MB-4 & PPMB3 shown on drawing MSHS-E102C have no associated panel schedule with these panels. Please provide a panel schedules and the intended scope for this panels such as where they will be fed from, and the feeder size information.

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: DRAWINGS: OTHER:

**SENDER'S RECOMMENDATION:** (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

Please refer to addendum #2 for panel PPMB3 schedule. This panel is existing to remain. Please provide circuit breakers indicated in panel schedule. Panel MB-4 is a mechanical control panel and is shown for reference only. No work is required under the electrical contract

RECEIVER'S REPLY: (Provide answer to RFI, including cost and/or schedule considerations.)

| Joseph Bastone, Sta | intec Consulting Inc. | 01-04-2024 |           |  |
|---------------------|-----------------------|------------|-----------|--|
| ВҮ                  | DATE                  |            | COPIES TO |  |

**Note:** This reply is not an authorization to proceed with work involving additional cost, time or both. If any reply requires a change to the Contract Documents, a Change Order, Construction Change Directive or a Minor Change in the work must be executed in accordance with the Contract Documents.

# $\mathbf{W} AIA^{\circ}$ Document G716<sup>°</sup> – 2004

## Request for Information ("RFI")

TO: MEMASI 2 Lyon Place White Plains, NY 10601

**PROJECT:** 2022 Capital Bond Project, Phase 3 Eastchester Union Free School District FROM:

All Bright Electric 100 Snake Hill Road West Nyack, NY 10994

**ISSUE DATE: 12/27/23** RFI No. 3

PROJECT NUMBERS: MEMASI / 102-2301

**REQUESTED REPLY DATE:** COPIES TO:

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.) The existing switchboard shown on the riser diagram on MSHS-E501 is named MSB. However, the floor plan on the High School side shows what looks like the existing main switchboard on MSHS-E100B but it is named MBD on this drawing. Should this be labeled MSB instead?

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: DRAWINGS: OTHER:

**SENDER'S RECOMMENDATION:** (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

Please use the name MBD

RECEIVER'S REPLY: (Provide answer to RFI, including cost and/or schedule considerations.)

| Joseph Bastone, Sta | antec Consulting Inc. | 01-04-2024 |           |
|---------------------|-----------------------|------------|-----------|
| BY                  | DATE                  |            | COPIES TO |

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# ${}^{\textcircled{\sc w}}AIA^{"}$ Document G716" – 2004

### Request for Information ("RFI")

TO: MEMASI 2 Lyon Place White Plains, NY 10601

**PROJECT:** 2022 Capital Bond Project, Phase 3 Eastchester Union Free School District FROM: All Bright Electric 100 Snake Hill Road West Nyack, NY 10994

**ISSUE DATE:** 1/5/24

RFI No. 4

PROJECT NUMBERS: MEMASI / 102-2301

**REQUESTED REPLY DATE:** COPIES TO:

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.) Based on the floor plans, there are some rooms that have existing wall mounted strobes that show new ceiling mounted strobes to be installed. Are any removals of the existing fire alarm devices required?

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: DRAWINGS: OTHER:

**SENDER'S RECOMMENDATION:** (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

Please omit new ceiling mounted strobes in rooms with existing wall mounted strobes **RECEIVER'S REPLY:** (Provide answer to RFI, including cost and/or schedule considerations.)

Joseph Bastone, Stantec Consulting Inc. 01-08-2024 BY DATE COPIES TO

**Note:** This reply is not an authorization to proceed with work involving additional cost, time or both. If any reply requires a change to the Contract Documents, a Change Order, Construction Change Directive or a Minor Change in the work must be executed in accordance with the Contract Documents.

# $\mathbf{W}AIA^{\circ}$ Document G716<sup>°</sup> – 2004

## Request for Information ("RFI")

TO: Memasi 2 Lyon Place White Plains, NY 10601 PROJECT: 2022 Capital Bond Project Phase 3 FROM: Bertussi Contracting 60-70 Dexter Plaza Pearl River, NY 10965 **ISSUE DATE:** 1/2/24

RFI No. 005

PROJECT NUMBERS: 102-2301 /

**REQUESTED REPLY DATE: ASAP COPIES TO:** sweber@bertussis.com

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.)

The riser diagram on the plumbing drawing P501 does not conform to the other plumbing drawings. For example there are 38 WC, 37 Lavs, and 13 urinals, 4 janitor sinks, 4 emergency showers and 1 shower. These fixtures are not shown on any other plans. Are the fixtures for informational purposes for replacing associated piping? Please advise

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: DRAWINGS: OTHER:

**SENDER'S RECOMMENDATION:** (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

These fixtures are existing to remain and shown for reference. The fixture tags have been update to show them as existing, please refer to drawing P-501.

**RECEIVER'S REPLY:** (Provide answer to RFI, including cost and/or schedule considerations.)

Kassady Peters - Stantec 1/9/2024 DATE ΒY **COPIES TO** 

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# ${}^{\textcircled{\sc w}}AIA^{"}$ Document G716" – 2004

## Request for Information ("RFI")

TO: Memasi 2 Lyon Place White Plains, NY 10601 PROJECT: 2022 Capital Bond Project Phase 3 FROM: Bertussi Contracting 60-70 Dexter Plaza Pearl River, NY 10965 **ISSUE DATE:** 1/2/24

RFI No. 006

PROJECT NUMBERS: 102-2301 /

**REQUESTED REPLY DATE: ASAP COPIES TO:** sweber@bertussis.com

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.)

The allowances on GC bid form (Unit Price 1-3) do not match the Allowance spec section 012100. The same occurs on the MC bid form (Unit Price 1-2) and the PC bid form Unit Price (1-3). Please advise.

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) **SPECIFICATIONS:** DRAWINGS: OTHER:

SENDER'S RECOMMENDATION: (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

**RECEIVER'S REPLY:** (Provide answer to RFI, including cost and/or schedule considerations.)

Bid forms are correct. Please provide Unit Prices reflecting the numbering in the spec.

| Pancaldi   MEMASI | 01.09.24 | Arris Contracting |
|-------------------|----------|-------------------|
| BY                | DATE     | COPIES TO         |

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## Request for Information ("RFI")

TO: Memasi 2 Lyon Place White Plains, NY 10601 PROJECT: 2022 Capital Bond Project Phase 3 FROM: Bertussi Contracting 60-70 Dexter Plaza Pearl River, NY 10965 **ISSUE DATE:** 1/8/2024

RFI No. 008

PROJECT NUMBERS: 102-2301 /

**REQUESTED REPLY DATE: ASAP COPIES TO:** sweber@bertussis.com

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.)

Is the schedule for the boiler room work in the MS to be done 2024 or 2025? Is the schedule for the boiler room work in the HS to be done 2024 or 2025?

Please advise.

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: **DRAWINGS:** OTHER:

SENDER'S RECOMMENDATION: (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

MS project including boiler room to be completed by end of August 2024 HS project including boiler room to be completed by end of August 2025

RECEIVER'S REPLY: (Provide answer to RFI, including cost and/or schedule considerations.)

| Pancaldi   MEMASI | 01/09/24 | Arris Contracting |
|-------------------|----------|-------------------|
| ВҮ                | DATE     | COPIES TO         |

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### Request for Information ("RFI")

| PROJECT NUMBERS: MEMASI / 102-2301                 | COPIES TO:                  | )1/02/24  |
|--|-----------------------------|-----------|
| Eastchester Union Free School District             |                             |           |
| <b>PROJECT:</b> 2022 Capital Bond Project, Phase 3 | <b>ISSUE DATE:</b> 12/22/23 | RFI No. 1 |
| 2 Lyon Place<br>White Plains, NY 10601             |                             |           |
| T0: Piere Pancaldi CC: JpJackson , A S<br>MEMASI   | Smith FROM: Nico Carabetta  |           |

On P100A there is no pipe sizing on the spinkler line from alarm check valve to the existing connections also is it black pipe victaulic or copper On P101A Its showing install of two urinals but in the fixtures schdule there is nothing for type or model On P701 Diagram shows upright water heater the heater is a horizontal model it also shows a high flow mixing valve there is nothing showing in the fixture schdule for type or model. Please Advise **REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: DRAWINGS: P100A, P101A, P701 OTHER:

**SENDER'S RECOMMENDATION:** (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

The new sprinkler piping is 4" schedule 40 black steel, refer to drawing P100A and detail on drawing P601. The urinals make and model has been added to the plumbing fixture schedule, refer to drawing P601. The detail on drawing P701 has been updated to show the water heater more accurately. The mixing valve has been added to the water heater schedule in the comment section, refer to drawing P601.

**RECEIVER'S REPLY:** (Provide answer to RFI, including cost and/or schedule considerations.)

| Kassady Peters - Stantec | 1/9/2024 | Arris Contracting |
|--------------------------|----------|-------------------|
| BY                       | DATE     | COPIES TO         |

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## Request for Information ("RFI")

| <b>TO:</b><br>MEMASI<br>2 Lyon Place<br>White Plains, NY 10601  | FROM: Joe Lombardo Plumbing & Heating                                    |  |  |  |
|---|--|--|--|--|
| <b>PROJECT:</b><br>2022 Capital Bond Project, Phase 3<br>Eastchester Union Free School District   | ISSUE DATE: 1/4/2024 RFI No. #2  |  |  |  |
| PROJECT NUMBERS: MEMASI / 102-2301  | REQUESTED REPLY DATE:<br>COPIES TO:                                      |  |  |  |
| RFI DESCRIPTION: (Fully describe the question or type of information requested.)         Demolition drawing MSHS MD1000-B calls for boiler room demolition to refer to drawing MSHS MD302         for demolition work in this area, however there is no drawing MSHS MD302 as part of contract documents.         Please advise.         REFERENCES/ATTACHMENTS: (List specific documents researched when seeking the information requested.)         SPECIFICATIONS:       DRAWINGS: MD100-B |  |  |  |  |
| <b>SENDER'S RECOMMENDATION:</b> (If RFI concerns a recommended solution, including cost and/or schedule co  | site or construction condition, the sender may provide a posiderations.) |  |  |  |

**RECEIVER'S REPLY:** (Provide answer to RFI, including cost and/or schedule considerations.)

The note on dwg MSHS MD100-B should say 'refer to drawing MSHS MD301' which is included in the set of drawings.

| Pancaldi   MEMASI | 01.09.24 | Arris Contractng |
|-------------------|----------|------------------|
| BY                | DATE     | COPIES TO        |

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### Request for Information ("RFI")

TO: **MEMASI** 2 Lyon Place White Plains, NY 10601

PROJECT:

FROM:

Milcon Construction Corp.

**ISSUE DATE: 1.9.204** RFI No. 004

Eastchester UFSD 2022 Capitol Bond Project Phase 3 MEMASI Project # 102-2301

PROJECT NUMBERS: MEMASI / 102-2101

**REQUESTED REPLY DATE:** COPIES TO:

**RFI DESCRIPTION:** (Fully describe the question or type of information requested.) are you able to provide an asbestos report?

**REFERENCES/ATTACHMENTS:** (List specific documents researched when seeking the information requested.) SPECIFICATIONS: DRAWINGS: OTHER: Asbestos

**SENDER'S RECOMMENDATION:** (If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)

**RECEIVER'S REPLY:** (Provide answer to RFI, including cost and/or schedule considerations.)

Asbestos report will be uploaded to BiddyHQ.

| Pancaldi   MI | EMASI | 01.09.24 | Arris Contracting |
|---------------|-------|----------|-------------------|
| BY            |       | DATE     | COPIES TO         |

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