

January 28, 2022

UV REPLACEMENT AT HAVERSTRAW ELEMENTARY SCHOOL

MSA File No. 41048

North Rockland High School

SED No. 50-02-01-06-0-009-018

NOTICE TO BIDDERS

Re: ADDENDUM NO. 5

THE FOLLOWING REVISIONS TO THE PROJECT MANUAL AND OR THE DRAWINGS REFERENCED HEREIN SHALL BECOME A PART OF THE CONTRACT DOCUMENTS AND SHALL SUPERSEDE ANY PRIOR OR CONFLICTING INFORMATION.

- 1) SEALED BIDS will be received until 2:00 P.M. in the office of facilities, on the 2nd of February 2022, at the North Rockland Central School District, 65 Chapel Street, Garnerville, NY 10923, at which time and place they will be publicly opened and read. Faxed bids will NOT be accepted. Bids must be in sealed envelope(s) approximately labeled with the following label:
“UV Replacement at Haverstraw Elementary School – General Construction”
“UV Replacement at Haverstraw Elementary School – Mechanical Construction”
“UV Replacement at Haverstraw Elementary School – Electrical Construction”
- 2) Base bid power supply for UVs. Where existing UVs are being replaced, base bid will reuse the existing electrical feed, extend, and terminate to new UV as required. New electric supply as per drawings E-101, E-102 and E-103 will not be part of base bid. At new UV locations, new feeds will be provided, see Allowance No. 8. Base bid will also include new power supply to all ACs, BCs, CUs and GFIs, coordinate with drawings M-101, M-102, M-103 and M-104.
- 3) Alternate No. 3 has been added to the project. Alternate No. 3 will encompass the new electric supply to UVs shown on E-101, E-102 and E-103 dated 12-17-21. New conduit shall be installed within the line set enclosure. See attached revised detail 6/A-500 Line Set Enclosure. See attached revised drawing A-000 Cover Sheet, and specification sections 003000E Bid Form and 012300 Alternates dated 01-28-22. Remove originals and replace with attached.
- 4) There shall be no exposed electrical conduit running throughout the building. On the first and second floor corridors, all conduit and cables shall run above the existing ceilings. On the first and second floor classrooms and offices, wherever the ceiling is not accessible, the power shall be installed in the line set enclosure. On the third floor all line sets, combiner boxes, and electrical conduit are run in the attic and drop vertical to the UVs. The vertical drops shall be within a line set enclosure. See attached revised detail 6/A-500 Line Set Enclosure.
- 5) Allowance No. 8 has been added to the project. Electrical contractor shall include in base bid new power connection to ten newly installed UVs where no UV or power feed previously existed. See attached revised drawing A-000 Cover Sheet, and specification sections 003000E Bid Form and 012100 Allowances dated 01-28-22. Remove originals and replace with attached.
- 6) Unit Price No. 6 has been added to the project. Electrical contractor shall provide a price to provide new power supply to a unit ventilator where existing power supply is not usable. See attached revised drawing A-000 Cover Sheet, and specification sections 003000E Bid Form and 012200 Unit Prices dated 01-28-22. Remove originals and replace with attached.

- 7) See attached revised floor plan A-101 dated 01-28-22. Line set enclosures have been added to rooms 105B/E, 105C, 107A, 107B, 107D, 107E and 107F. Linear Foot for line set enclosures are indicated within their respective rooms. Remove originals and replace with attached.
- 8) See attached revised floor plan A-102 dated 01-28-22. Note previously stated that "all conduit and cables shall run above the existing ACT ceilings". "ACT" has been removed as ceilings in the second floor corridor are plaster and not ACT. Remove originals and replace with attached.
- 9) Question: Can you please provide clarity for Allowance No 7? Where is the "LF of wire mold noted on drawings." referencing?
Answer: The LF of wire mold and line set enclosures can be found in the floor plans (A-101, A-102 and A-103) Each classroom and office to receive wire mold and/or line set enclosures have the estimated LF listed in that room.
- 10) See attached revised drawings E-060, E-100 and E-201 dated 01/28/22. Location for sub-distribution panel has been revised to be in Electric Room 001. Remove originals and replace with attached.

END OF ADDENDUM NO. 5

PART 1 - GENERAL

1.01 GENERAL

- A. Pursuant to, and in compliance with, your Advertisement for Bids and the Information to Bidders relative thereto and all of the Contract Documents, including any Addenda issued by the Architect and mailed to the undersigned prior to the opening Bids, whether received by the undersigned or not, we

_____ (CONTRACTOR NAME)

hereby proposes to furnish all plant, labor, supplies, materials and equipment for UV Replacement at Haverstraw Elementary School – Electrical, as required by and in strict accord with the applicable provisions of the Drawings and Specifications entitled “UV Replacement at Haverstraw Elementary School – Electrical at Haverstraw Elementary School, 16 Grant Street, Haverstraw, NY 10927 for the North Rockland Central School District, 65 Chapel Street, Garnerville, NY 10923 ", all to the satisfaction and approval of the Architect and the Owner in accordance with the terms and conditions of the Contract Documents for the following prices:

1. _____ Dollars
 (Write out in words)
 (_____) Base Bid for all work.

_____ Consecutive Calendar Days for substantial completion _____ with base bid.

The undersigned further proposes and agrees hereby to commence work with an adequate force and equipment immediately after being notified in writing to do so, and to achieve substantial completion for all work as required by the plans and specifications within the number of consecutive calendar days as itemized above.

- A. UV Replacement at Haverstraw Elementary School

Total Project Electrical (\$ _____)

- B. ALTERNATES

The undersigned further proposes and agrees that, should any of the following alternates be accepted and included in the Contract, the amount of the Base Bid, is hereto stated, shall be increased or decreased by the amounts indicated below.

- Alternate No. 1

Work phasing. Phase A to be in summer of 2022 and phase B to be in summer of 2023. See architectural and mechanical floor plans for phase A and phase B locations. (Indicate add or deduct amount to Base Bid.)

(\$ _____)

- Alternate No. 2

Work phasing. Phase A to be in summer of 2022 and phase B to be during fall of 2022 2nd shift. See architectural and mechanical floor plans for phase A and phase B locations. (Indicate add or deduct amount to Base Bid.)

(\$ _____)

- Alternate No. 3

Provide new power supply to UVs as shown on E-101, E-102, and E-103 dated 12-17-21. New conduit shall be installed within the line set enclosure.

(\$ _____)

C. ALLOWANCES

The undersigned further proposes and agrees that, should any of the following alternates be accepted and included in the Contract, the amount of the Base Bid, is hereto stated, shall be increased or decreased by the amounts indicated below.

Allowance No. 1
Not used. (\$ _____)

Allowance No. 2
Not used. (\$ _____)

Allowance No. 3
Not used. (\$ _____)

Allowance No. 4: Quantity Allowance: Provide for the relocation of 40 electrical devices that require relocation due to the increased size of the new unit ventilators. (\$ _____)

Allowance No. 5:
Not used (\$ _____)

Allowance No. 6:
Not used. (\$ _____)

Allowance No. 7:
Contractor to include allowance for LF of wire mold noted on drawings. Adjustment to increase/decrease the LF will be in Unit Price No. 4. (\$ _____)

Allowance No. 8:
Electrical contractor shall include in base bid new power connection to ten newly installed UVs where no UV or power feed previously existed. (\$ _____)

1.02 TIME OF COMPLETION

A. It is agreed by the undersigned that after receipt of Notice of Award and a consummation of a Contract Agreement in accord with the terms of the Contract Documents, he will start work on June 27, 2022. Substantial completion will be August 19, 2022. The punch list work will be completed by September 16, 2022 and performed after school hours.

1.03 BID SECURITY

A. Attached hereto is Bid Security in the amount of five percent (5%) of the Base Bid.

1.04 UNIT PRICES

- A. Unit Price No. 1: Not used (\$ _____)
- B. Unit Price No. 2: Not used (\$ _____)
- C. Unit Price No. 3: Not used (\$ _____)
- D. Unit Price No. 4: Provide into price to increase or reduce by 10⁻⁰" the wire mold. (\$ _____)
- E. Unit Price No. 5: Not used (\$ _____)
- F. Unit Price No. 6: Electrical contractor shall provide a price to provide new power supply to a unit ventilator where existing power supply is not usable. (\$ _____)

1.06 NON-COLLUSIVE BIDDING CERTIFICATION

- A. By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:
 - 1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
 - 2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and
 - 3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not submit a bid for the purpose of restricting competition.

Resolved that _____
(Name of Individual)

be authorized to sign and submit the bid or proposal for the following project _____ and to include in such bid or proposal the certificate as to non-collusion required by Section One Hundred Three (d) (103d) of the General Municipal Law as the act and deed of such corporation, and for any inaccuracies or misstatements in such certificate this corporate bidder shall be liable under the penalty of perjury.

The foregoing is a true and correct cop of the resolution by

Corporation at a meeting of its Board of Directors held on the _____ day of _____, 20 ____.

(SEAL OF THE CORPORATION)

Secretary

1.07 ACCEPTANCE

- A. When this Proposal is accepted, the undersigned agrees to enter into Contract with the Owner as provided in the Form of Agreement.

1.08 AFFIRMS

A. The undersigned affirms and agrees that this Proposal is a firm one which remains in effect and will be irrevocable for a period of forty-five (45) days after opening of Bids.

1.09 TYPE OF BUSINESS

A. The undersigned hereby represents that it is a _____ (Corporation, Partnership, or an Individual). If a Corporation, then the undersigned further represents that it is duly qualified as a Corporation under laws of New York State and it is authorized to do business in this State.

1.10 PLACE OF BUSINESS

A. The following is the name and address of the person to whom all notices required in the connection with this Proposal may be telephoned, mailed or delivered.

(Name)

(Address)

(Telephone)

1.11 EXECUTION OF CONTRACT

A. When written Notice of Acceptance of the Proposal is mailed or delivered to the undersigned within forty-five (45) days after the opening of Bids, or anytime thereafter should the Proposal not be withdrawn, the undersigned, within ten (10) days, will execute the Form of Agreement with the Owner.

1.12 ADDENDA

A. Any Addenda issued by the Architect and mailed or delivered to the undersigned prior to the Bid opening date shall become part of the Contract Documents. The Bidder shall enter on this list any addenda issued after this Form of Proposal has been received and shall fill in the addenda number and date.

Addendum # _____	Dated _____

1.13 ASBESTOS

A. The Contractor certifies that no asbestos or asbestos-containing material will be incorporated into the Work of this Contract.

(Sign Bid Here)

Dated _____, 20_____

Legal Name of Person, Partnership
or Corporation

By _____

Title _____

Address _____

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
 - 1. Unit-cost allowances.
 - 2. Quantity allowances.
 - 3. Testing and inspecting allowances.
- C. Related Requirements:
 - 1. Section 012200 "Unit Prices" for procedures for using unit prices, including adjustment of quantity allowances when applicable.
 - 2. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 3. Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

1.3 DEFINITIONS

- A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

1.5 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.6 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.7 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight [,] and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.8 UNIT-COST ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.9 QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.10 TESTING AND INSPECTING ALLOWANCES

- A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.
- B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
- C. Costs of testing and inspection services not specifically required by the Contract Documents are Contractor responsibilities and are not included in the allowance.
- D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.11 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
 - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Unit-Cost, Clean Existing Main Ductwork. Provide allowance to clean existing main ductwork for 20 linear feet per unit.
1. This allowance includes material cost receiving, handling, and installation [and] + Contractor overhead and profit.
- B. Allowance No. 2: Unit Cost Allowance: Replace Existing Supply and Return Steam Piping and Insulation. Provide allowance to replace existing supply and return steam piping and insulation for 20 linear feet per unit.
1. This allowance includes material cost receiving, handling, and installation and Contractor overhead and profit.
- C. Allowance No. 3: Commissioning Allowance: Provide a proposal from a third-party HVAC Commissioning Agent Contractor is to include this amount in their base bid. Contractor will issue a credit change order to the Owner for the commissioning proposal amount. Owner will contract directly with the commissioning agent
1. This allowance includes material cost receiving, handling, and installation and Contractor overhead and profit.
- D. Allowance No. 4: Quantity Allowance: Provide for the relocation of 40 electrical devices that require relocation due to the increased size of the new unit ventilators.
1. This allowance includes material cost receiving, handling, and installation and Contractor overhead and profit
 2. Coordinate quantity allowance adjustment with corresponding unit-price requirements in Section 012200 "Unit Prices."
- E. Allowance No. 5: Contractor to include allowance for LF of line set enclosure noted on drawings. Adjustment to increase/decrease the LF will be in Unit Price No. 1.
1. This allowance includes material cost receiving, handling, and installation and Contractor overhead and profit.
- F. Allowance No. 6: Contractor shall include in their bid an allowance 10' of piping/insulation for each UV and 20' at each RTU. See drawings 3/M-501 and 4/M-501. Adjustment to increase/decrease the LF will be in Unit Price No. 5.
1. This allowance includes material cost receiving, handling, and installation and Contractor overhead and profit.
- G. Allowance No. 7: Contractor to include allowance for LF of wire mold noted on drawings. Adjustment to increase/decrease the LF will be in Unit Price No. 4.
1. This allowance includes material cost receiving, handling, and installation and Contractor overhead and profit.
- H. Allowance No. 8: Electrical contractor shall include in base bid new power connection to ten newly installed UVs where no UV or power feed previously existed.
1. This allowance includes material cost receiving, handling, and installation and Contractor overhead and profit.

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
 - 1. Section 012100 "Allowances" for procedures for using unit prices to adjust quantity allowances.
 - 2. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 3. Section 014000 "Quality Requirements" for field testing by an independent testing agency.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated into the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, and profit.
- B. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- C. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the Part 3 "Schedule of Unit Prices" Article contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price No. 1: Provide unit price to increase or reduce by 10' - 0" the line set enclosure.
 - 1. Description: provide unit price to increase or reduce by 10' - 0" the line set enclosure.
 - 2. Unit of Measurement: per linear foot.
 - 3. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in Section 012100 "Allowances."

- B. Unit Price No. 2: Provide unit price per square foot of VCT replacement.
1. Description: provide unit price per square foot of VCT replacement.
 2. Unit of Measurement: per square foot
- C. Unit Price No. 3: Provide a unit price for linear feet of wood base replacement.
1. Description: provide unit price for linear feet of wood base replacement.
 2. Unit of Measurement: per linear foot
- D. Unit Price No. 4: Provide unit price to increase or reduce by 10' - 0" of wire mold.
1. Description: provide unit price for linear feet of wire mold.
 2. Unit of Measurement: per linear foot
- E. Unit Price No. 5: Provide unit price to increase or reduce by 10' - 0" of piping/insulation.
1. Description: provide unit price for linear feet of piping/insulation.
 2. Unit of Measurement: per linear foot
- F. Unit Price No. 6: Electrical contractor shall provide a price to provide new power supply to a unit ventilator where existing power supply is not usable.
1. Description: provide unit price per unit to receive new power supply.
 2. Unit of Measurement: each

END OF SECTION 012200

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation, whether or not indicated as part of alternate.
- B. Execute accepted alternates under the same conditions as other Work of the Contract.
- C. Schedule: A Part 3 "Schedule of Alternates" Article is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: Work phasing. Phase A will begin on site on June 2022 and complete by August 2022, and Phase B begin on site on June 2023 and complete by August 2023. Phase A will include the work related to the mechanical installation in the Western portion of the building (containing the three floors of classrooms), and any additional GC work not related to installation of mechanical equipment. Phase B will include the work related to the mechanical installation in the Eastern portion of the building (containing the gymnasium, auditorium, and locker rooms). Refer to

drawings A-000, A-101, A-102, A-103, A-104, M-101, M-102, M-103 and M-104 dated 01-24-22 for additional location information.

- B. Alternate No. 2: Work phasing. Phase A will begin on site on June 2022 and complete by August 2022, and Phase B as second shift work starting in September 2022. Phase A will include the work related to the mechanical installation in the Western portion of the building (containing the three floors of classrooms), and any additional GC work not related to installation of mechanical equipment. Phase B will include the work related to the mechanical installation in the Eastern portion of the building (containing the gymnasium, auditorium, and locker rooms). Refer to drawings A-000, A-101, A-102, A-103, A-104, M-101, M-102, M-103 and M-104 dated 01-24-22 for additional location information.
- C. Alternate No. 3: Provide new power supply to UVs as shown on E-101, E-102, and E-103 dated 12-17-21. New conduit shall be installed within the line set enclosure.

END OF SECTION 012300

UNIVENT REPLACEMENT AT HAVERSTRAW ELEMENTARY

HAVERSTRAW ELEMENTARY SCHOOL
16 Grant Street
Haverstraw, NY 10927
SED# 50-02-01-06-0-009-018

OWNER:
NORTH ROCKLAND
CENTRAL SCHOOL DISTRICT
65 Chapel Street
Garnerville, NY 10923

ARCHITECT:
MICHAEL SHILA ARCHITECTS, LLP
140 Park Avenue
New City, NY 10956

PME ENGINEER:
GREENMAN-PEDERSON, INC.
400 Rella Boulevard, Suite 207
Montabello, NY 10901

Symbol	Material
	CONCRETE MASONRY UNIT
	BRICK
	RIGID INSULATION
	CONCRETE
	GRAVEL OR STONE
	EARTH
	EIFS
	ASPHALT PAVING
	SAND/MORTAR/GYPSUM BOARD
	STEEL
	ACT
	ROUGH WOOD
	BRONZE

MATERIALS LEGEND

	DOOR NUMBER
	KEY NOTE
	PARTITION TYPE
	REVISION NUMBER
	WINDOW TYPE
	MECHANICAL EQUIPMENT
	EXISTING PARTITION
	EXISTING PARTITION TO BE REMOVED
	NEW PARTITION (SEE PARTITION LEGEND A-101)
	NEW DOOR
	EXISTING DOOR
	EXISTING DOOR TO BE REMOVED
	EXISTING WINDOW
	NEW WINDOW

	ROOM NAME
	OFFICE
	ROOM NAME/ NUMBER IDENTIFICATION
	ROOM NUMBER
	ROOM AREA
	DRAWING NUMBER
	WALL SECTION/ ELEVATION REFERENCE
	SHEET NUMBER
	DETAIL NUMBER
	DETAIL REFERENCE
	SHEET NUMBER
	COLUMN LINE DESIGNATION

SYMBOLS LEGEND

1. ALL PLAN DIMENSIONS ARE NOMINAL U.O.N. DIMENSIONS TO THE FINISHED FACE OF AN ELEMENT OR WALL WILL BE DESIGNATED WITH AN "F" AS SHOWN.

2. G.C. TO VERIFY ALL DIMENSIONS IN THE FIELD AND IS TO NOTIFY ARCHITECT IF THERE ARE ANY DISCREPANCIES.

GENERAL NOTES

ALTERNATE NO. 1: WORK PHASING. PHASE A TO BE IN SUMMER OF 2022 AND PHASE B TO BE IN SUMMER OF 2023. SEE ARCHITECTURAL AND MECHANICAL FLOOR PLANS FOR PHASE A AND PHASE B LOCATIONS.

ALTERNATE NO. 2: WORK PHASING. PHASE A TO BE IN SUMMER OF 2022 AND PHASE B TO BE DURING FALL OF 2022 2ND SHIFT. SEE ARCHITECTURAL AND MECHANICAL FLOOR PLANS FOR PHASE A AND PHASE B LOCATIONS.

ALTERNATE NO. 3: PROVIDE NEW POWER SUPPLY TO UVS AS SHOWN ON E-101, E-102 AND E-103.

ALTERNATES

DRAWING No.	DRAWING TITLE	DATE
A-000	COVER SHEET	01-28-22
B-100	CODE ANALYSIS	12-17-21
S-101	ROOF PLAN & GENERAL NOTES	12-17-21
S-102	ROOF PARTIAL PLANS	12-17-21
S-103	SECTIONS & TYPICAL DETAILS	12-17-21
S-104	SECTIONS & TYPICAL DETAILS S-2	12-17-21
D-101	FIRST FLOOR DEMO PLAN	12-17-21
D-102	SECOND FLOOR DEMO PLAN	12-17-21
D-103	THIRD FLOOR DEMO PLAN	12-17-21
D-104	ROOF DEMO PLAN	12-17-21
A-101	PROPOSED FIRST FLOOR PLAN	01-28-22
A-102	PROPOSED SECOND FLOOR PLAN	01-24-22
A-103	PROPOSED THIRD FLOOR PLAN	01-24-22
A-104	PROPOSED ROOF PLAN	12-17-21
A-400	REFLECTED CEILING PLAN	12-17-21
A-500	DETAILS	01-28-22
A-501	UNIT ELEVATIONS	12-17-21
A-501.1	UNIT ELEVATIONS	12-17-21
A-502	DETAILS	12-17-21
A-503	DETAILS	12-17-21
M-001	MECHANICAL NOTES	01-24-22
M-002	MECHANICAL SCHEDULES	01-24-22
M-003	MECHANICAL SCHEDULES 2	01-24-22
M-004	CONTROLS	01-24-22
M-005	VENTILATION SCHEDULE	12-17-21
M-006	UV SCHEDULE	01-24-22
M-061	HVAC DEMO FIRST FLOOR PLAN	01-24-22
M-062	HVAC DEMO SECOND FLOOR PLAN	01-24-22
M-063	HVAC DEMO THIRD FLOOR PLAN	01-24-22
M-101	FIRST FLOOR PLAN MECHANICAL	01-24-22
M-102	SECOND FLOOR PLAN MECHANICAL	01-24-22
M-103	THIRD FLOOR PLAN MECHANICAL	01-24-22
M-104	ROOF PLAN MECHANICAL	01-24-22
M-301	HVAC PIPING - 1ST FLOOR PLAN	12-17-21
M-302	HVAC PIPING - 2ND FLOOR PLAN	12-17-21
M-303	HVAC PIPING - 3RD FLOOR PLAN	12-17-21
M-401	VRF PIPING RISERS	12-17-21
M-501	MECHANICAL DETAILS	01-24-22
M-502	MECHANICAL DETAILS 2	12-17-21
FA-001	FIRE ALARM SYSTEM COVER SHEET	12-17-21
FA-101	THIRD FLOOR PLAN FIRE ALARM	12-17-21
FA-102	ROOF PLAN FIRE ALARM	12-17-21
E-001	ELECTRICAL COVER SHEET	12-17-21
E-060	BASEMENT DEMO PLAN ELECTRICAL	01-28-22
E-061	FIRST FLOOR ELECTRICAL DEMO PLAN	12-17-21
E-062	SECOND FLOOR ELECTRICAL DEMO PLAN	12-17-21
E-063	THIRD FLOOR ELECTRICAL DEMO PLAN	12-17-21
E-100	BASEMENT PLAN ELECTRICAL	01-28-22
E-101	FIRST FLOOR PLAN ELECTRICAL	12-17-21
E-102	SECOND FLOOR PLAN ELECTRICAL	12-17-21
E-103	THIRD FLOOR PLAN ELECTRICAL	12-17-21
E-104	ROOF PLAN ELECTRICAL	12-17-21
E-201	ELECTRICAL SCHEDULES & RISER	01-28-22
E-301	ELECTRICAL DETAILS	12-17-21

LIST OF DRAWINGS

ACT	ACOUSTICAL CEILING TILE
A.F.F.	ABOVE FINISH FLOOR
ASPH	ASPHALT
BLK	BLOCK
BLK'G	BLOCKING
BUR	BUILT UP ROOFING
CLS	CEILING
CONC	CONCRETE
CONC CONT	CONTINUOUS CONTROL JOINT
C.I.	DOWN
DN	DOWN
DIA	DIAMETER
DWG	DRAWING
E.F.	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
E.W.	EACH WAY
E.W.C.	ELECTRICAL WATER COOLER
EL	ELEVATION
ELC	ELECTRICAL CONTRACTOR
EXIST	EXISTING
EXP	EXPANSION
EXT'G	EXISTING
EXTR	EXTERIOR
FP	FIREPROOF FINISH(ED)
GA	GAUGE
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GL	GLASS
GWB	GYPSUM WALL BOARD
HM	HOLLOW METAL
H.P.	HIGH POINT
HAC	HEATING & A/C CONTRACTOR
ITR	INDIVIDUAL TREATMENT ROOM
IT	JOINT
LAM	LAMINATE
LAV	LAVATORY
LP	LOW POINT
MAX	MAXIMUM
MFR	MANUFACTURER
MTL	METAL
MIN	MINIMUM
MO	MASONRY OPENING
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
OC	ON CENTER
OPN'G	OPENING
PBC	PLUMBING CONTRACTOR
PLAS.LAM.	PLASTIC LAMINATE
PL	PLATE
PLY'D	PLYWOOD
RAD	RADIUS
REF.CLG.	REFLECTED CEILING
REQ'D	REQUIRED
RO	ROUGH OPENING
SIM	SIMILAR
STL	STEEL
SUSP.CLG.	SUSPENDED CEILING
T.O.M.	TOP OF MASONRY
T.O.S.	TOP OF STEEL
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V.I.F.	VERIFY IN FIELD
VCT	VINYL COMPOSITE TILE
W/	WITH
WD	WOOD

ABBREVIATIONS

ALLOWANCE NO. 1: PROVIDE ALLOWANCE TO CLEAN EXISTING MAIN DUCTWORK FOR 20 LINEAR FEET PER UNIT.

ALLOWANCE NO. 2: PROVIDE ALLOWANCE TO REPLACE EXISTING SUPPLY AND RETURN PIPING AND INSULATION FOR 20 LINEAR FEET PER UNIT.

ALLOWANCE NO. 3: PROVIDE A PROPOSAL FROM A THIRD PARTY HVAC COMMISSIONING AGENT CONTRACTOR IS TO INCLUDE THIS AMOUNT IN THEIR BASE BID. CONTRACTOR WILL ISSUE A CREDIT CHANGE ORDER TO THE OWNER FOR THE COMMISSIONING PROPOSAL AMOUNT, OWNER WILL CONTRACT DIRECTLY WITH THE COMMISSIONING AGENT.

ALLOWANCE NO. 4: PROVIDE ALLOWANCE FOR THE RELOCATION OF 40 ELECTRICAL DEVICES THAT REQUIRE RELOCATION DUE TO THE INCREASED SIZE OF THE NEW UNIT VENTILATORS.

ALLOWANCE NO. 5: CONTRACTOR TO INCLUDE ALLOWANCE FOR LF OF LINE SET ENCLOSURE NOTED ON DRAWINGS.

ALLOWANCE NO. 6: CONTRACTOR SHALL INCLUDE IN THEIR BID AN ALLOWANCE FOR 10' OF PIPING/ INSULATION FOR EACH UV AND 20' AT EACH RTU. SEE DRAWINGS 3/M-501 AND 4/M-501.

ALLOWANCE NO. 7: CONTRACTOR TO INCLUDE ALLOWANCE FOR LF OF WIRE MOLD NOTED ON DRAWINGS.

ALLOWANCE NO. 8: ELECTRICAL CONTRACTOR TO PROVIDE NEW POWER CONNECTIONS TO 10 UVS.

ALLOWANCES

UNIT PRICE NO. 1: PROVIDE UNIT PRICE TO INCREASE OR REDUCE BY 10'-0" THE LINE SET COVER. SEE DETAIL 5/A-500.

UNIT PRICE NO. 2: PROVIDE UNIT PRICE PER SQUARE FOOT OF VCT REPLACEMENT.

UNIT PRICE NO. 3: PROVIDE A UNIT PRICE FOR LF OF WOOD BASE REPLACEMENT.

UNIT PRICE NO. 4: PROVIDE A UNIT PRICE TO INCREASE OR REDUCE BY 10'-0" OF WIRE MOLD.

UNIT PRICE NO. 5: PROVIDE A UNIT PRICE TO INCREASE OR REDUCE BY 10'-0" OF WIRE MOLD.

UNIT PRICE NO. 6: PROVIDE A UNIT PRICE TO PROVIDE NEW POWER SUPPLY WHERE EXISTING POWER SUPPLY IS NOT USABLE.

UNIT PRICES

No.	Date	Revisions
6	01-28-22	ADDENDUM 5
5	01-24-22	ADDENDUM 3
4	01-14-21	ADDENDUM 1
3	12-17-21	ISSUED FOR BID
2	11-19-21	ISSUED ADDENDUM 1
1	08-30-21	BIDDING DOCUMENTS

Drawn by	MAL
Checked by	MS/JC
Project No.	41048
Scale	AS NOTED
Date	08-30-21

GREENMAN PEDERSON, INC. 400 Rella Boulevard Montabello, NY 10901	Mechanical & Electrical Engineer:
	Structural Engineer:

UNIVENT REPLACEMENT AT HAVERSTRAW ELEMENTARY
 SED# 50-02-01-06-0-009-018
 140 Park Avenue New City, NY 10956
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 Fax 914-706-9201
 COUNTY OF ROCKLAND



COVER SHEET
 Drawing No. **A-000**

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— EXISTING THROUGH WALL LOUVER
 □ SUPPLY REGISTER
 ▨ NEW UNIT VENT
 UV-00
 ▨ NEW FAN COIL UNIT
 FC-00
 ▨ NEW CASSETTE
 CS-00
 ▨ EXISTING UNIT VENT (TO REMAIN)
 ▨ EXISTING UNIT VENT (TO BE REMOVED)
 ▨ NEW RELIEF VENT ENCLOSURE
 RA
 ■ AREA OF NEW ROOF
 *LF LE LINE SET ENCLOSURE NUMBER INDICATES AMOUNT OF LINEAR FEET FOR EACH ROOM. SEE DETAIL 6/A-500
 *LF WM WIRE MOLD NUMBER INDICATES AMOUNT OF LINEAR FEET FOR EACH ROOM. SEE DETAIL 7/A-500

LEGEND

- (A1) INSTALL NEW UNIT VENTILATORS.
 (A2) INSTALL NEW CEILING AS REQUIRED: 095113. INSTALL DUCTS AND REGISTERS AS REQUIRED.
 (A3) REMOVE EXISTING CEILING TO ACCESS DUCT WORK. REPLACE WITH NEW CLG TILE: 095113
 (A4) PROVIDE NEW FIN TUBE ENCLOSURES IN ENTIRE ROOM.
 (A5) VOID
 (A6) REROUTE EXISTING ELECTRICAL SUPPLY TO NEW CEILING MOUNTED UNIT.
 (A7) PROVIDE METAL STUD AND GYPSUM ENCLOSURE AROUND NEW INTAKE AIR DUCT AT FLOOR LEVEL AND DUCT TO CEILING. MODIFY GYPSUM CEILING FOR NEW DUCT.
 (A8) CONSTRUCT GYPSUM ENCLOSURE TO COVER RELIEF AIR DUCT. COORDINATE WITH MECHANICAL DRAWINGS AND DRAWING 5/A-500.
 (A9) INSTALL NEW GYPSUM SOFFIT FOR NEW CEILING MOUNTED UNIT VENTILATORS. SEE DRAWINGS 1/A-502 AND 2/A-502.
 (A10) INSTALL NEW ACCESS PANEL IN PLASTER CEILING.
 (A11) PATCH EXISTING MASONRY AT DUCTWORK PENETRATIONS IN FAN ROOM.
 (A12) PATCH AND PAINT EXISTING PLASTER CEILING WHERE NEW UNIT IS MOUNTED IN CEILING.
 (A13) INSTALL LINESET AND POWER ABOVE CEILING AND IN TO CHASE FOR HVAC UNITS. ALL WIRE AND MECHANICAL EQUIPMENT SHALL BE CONCEALED.
 (A14) REINSTALL EXISTING DOORS TO SWING IN DIRECTION OF EGRESS.
 (A15) INSTALL NEW HOLLOW METAL DOOR AT BOILER ROOM. PROVIDE 1 1/2" HR LABEL DOOR WITH CLOSER. REUSE EXISTING LOCKSET. PAINT DOOR AND FRAME (COLOR BY ARCHITECT)(BOILER ROOM DOOR IN BASEMENT)
 (A16) PROVIDE AND INSTALL (1) 10 LB FIRE EXTINGUISHER AT SELECTED LOCATION.
 (A17) SAW CUT PLASTER CEILING FOR INSTALLATION OF HVAC COMBINER BOX. REINSTALL EXISTING CEILING TILE.
 (A18) PATCH WALL WHERE EXISTING UNIVENT IS REMOVED. PAINT TO MATCH EXISTING.
 (A19) REMOVE EXISTING DOOR TO UNDERCUT EXISTING DOOR TO ALLOW FOR 2" AIR SPACE. REINSTALL DOOR.
 (A20) GLAZING PANEL IN AREA TO BE REMOVED AND TESTED TO DETERMINE THAT IT IS SAFETY GLAZING. GLAZING TO BE REPLACED WITH LAMINATED GLAZING. OWNER AND ARCHITECT TO DETERMINE WHICH PANELS TO BE REMOVED.
 (A21) CONSTRUCT NEW CLOSET TO HOUSE NEW AC UNIT. COORDINATE CLOSET SIZING WITH UNIT. PROVIDE NEW DOOR AND FINISHES. CONFIRM SIZE AND COLOR WITH OWNER AND ARCHITECT.

- ### KEY NOTES
- CONTRACTOR SHALL BE REQUIRED TO CORE DRILL ALL HOLES IN WALLS, FLOORS AND CEILINGS TO FACILITATE NEW LINESETS, ELECTRICAL CONDUITS AND CONDENSATE LINES.
 - PATCH EXISTING VCT FLOORING AT BASE UNDER UNI-VENT.
 - WIRE MOLD RUNS ALONG THE EXISTING TRIM UNDER WINDOW SILL INTO RELIEF VENT FOR FIRST AND SECOND FLOORS UNLESS OTHERWISE NOTED. CONTRACTOR WILL REVIEW LAYOUT WITH ARCHITECT/OWNER PRIOR TO INSTALLATION.
 - WIRE MOLD RUNS UP WALL 9FT ABOVE DROPPED CEILING, THEN DOWN 5FT INTO RELIEF VENT FOR 3RD FLOOR ONLY. CONTRACTOR WILL REVIEW LAYOUT WITH ARCHITECT/OWNER PRIOR TO INSTALLATION.
- ### GENERAL NOTES

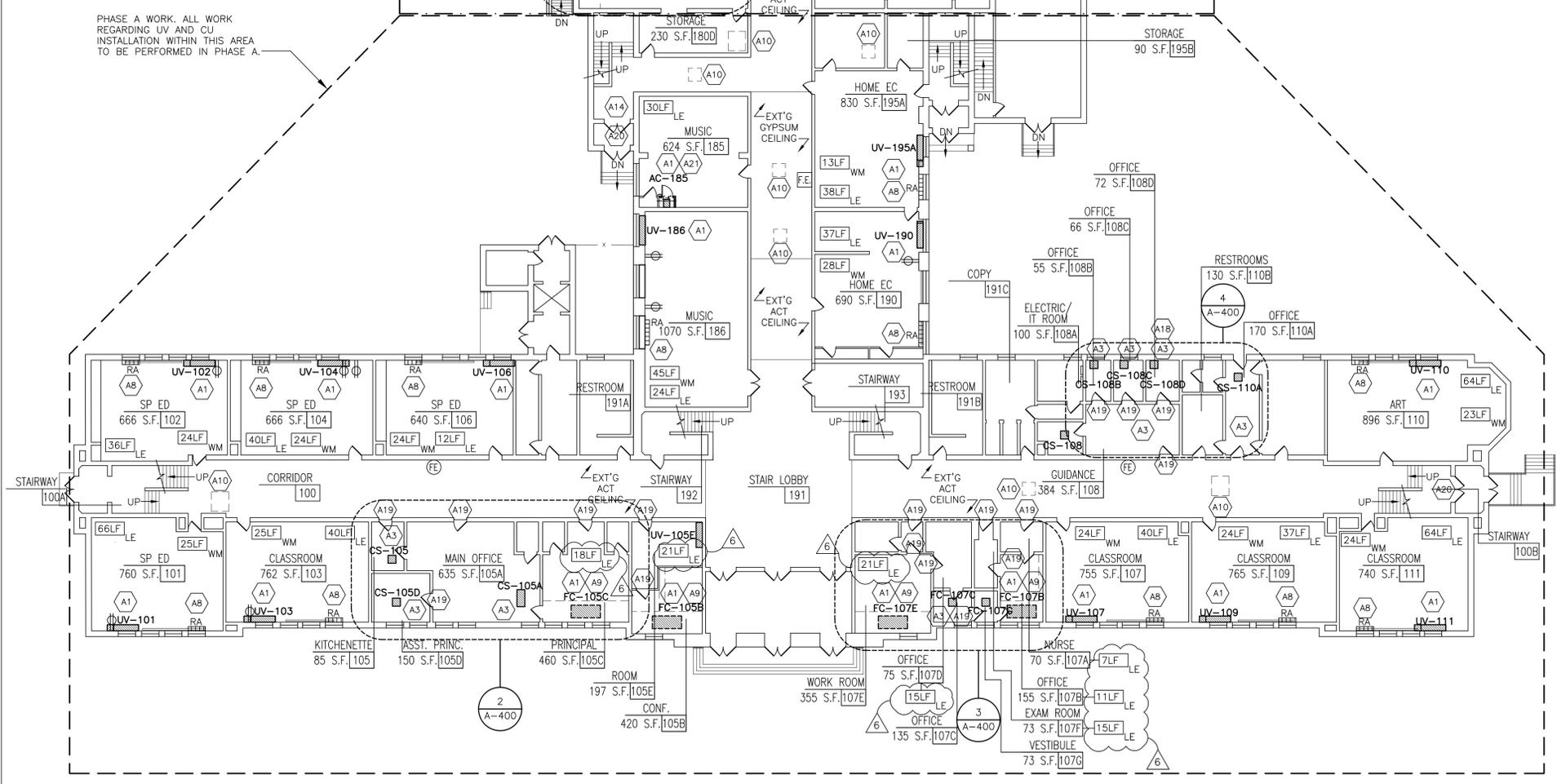
NOTE: ALL LINE SETS AND ELECTRICAL CONDUIT IN CORRIDOR SHALL BE ABOVE THE EXISTING ACT CEILING.

NOTE: FLASH PATCH EXISTING CONCRETE AT NEW UV LOCATIONS AND INSTALL NEW VCT/WOOD TO MATCH EXISTING MATERIAL. COLOR TO BE SELECTED BY OWNER.

NOTE: ANY GC WORK NOT RELATED TO INSTALLATION OF MECHANICAL EQUIPMENT TO BE PART OF PHASE A.

PHASE B WORK. ALL WORK REGARDING UV AND CU INSTALLATION WITHIN THIS AREA TO BE PERFORMED IN PHASE B.

PHASE A WORK. ALL WORK REGARDING UV AND CU INSTALLATION WITHIN THIS AREA TO BE PERFORMED IN PHASE A.



1 PROPOSED FIRST FLOOR PLAN
SCALE: 1/16"=1'-0"

0 1/2
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

6	01-28-21 ADDENDUM 5
5	01-24-21 ADDENDUM 3
4	01-14-21 ADDENDUM 1
3	12-17-21 ISSUED FOR BID
2	11-19-21 1ST ADDENDUM 1
1	08-30-21 BIDDING DOCUMENTS
No.	Date

Drawn by	MAL
Checked by	MS/JC
Project No.	41048
Scale	AS NOTED
Date	05-14-21

GREENMAN PEDERSEN, INC
 400 BELLA BOULEVARD
 MONTEBELLA, NY 10901
 Mechanical & Electrical Engineer
 Structural Engineer

UNIVENT REPLACEMENT AT HAVERSTRAY ELEMENTARY
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 18 Grant Street
 Haverstray, NY 10927
 COUNTY OF ROCKLAND

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 info@msaarch.com

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PROPOSED FIRST FLOOR PLAN
 Drawing No. **A-101**



— EXISTING THROUGH WALL LOUVER
 □ SUPPLY REGISTER
 ▨ NEW UNIT VENT
 UV-00
 ▨ NEW FAN COIL UNIT
 FC-00
 ▨ NEW CASSETTE
 CS-00
 ▨ EXISTING UNIT VENT (TO REMAIN)
 ▨ EXISTING UNIT VENT (TO BE REMOVED)
 ▨ NEW RELIEF VENT ENCLOSURE
 RA
 ▨ AREA OF NEW ROOF
 *LF LE LINE SET ENCLOSURE NUMBER INDICATES AMOUNT OF LINEAR FEET FOR EACH ROOM. SEE DETAIL 6/A-500
 *LF WM WIRE MOLD NUMBER INDICATES AMOUNT OF LINEAR FEET FOR EACH ROOM. SEE DETAIL 7/A-500

LEGEND

- (A1) INSTALL NEW UNIT VENTILATORS.
- (A2) INSTALL NEW CEILING AS REQUIRED: 095113. INSTALL DUCTS AND REGISTERS AS REQUIRED.
- (A3) REMOVE EXISTING CEILING TO ACCESS DUCT WORK. REPLACE WITH NEW CLG TILE: 095113
- (A4) PROVIDE NEW FIN TUBE ENCLOSURES IN ENTIRE ROOM.
- (A5) VOID
- (A6) REROUTE EXISTING ELECTRICAL SUPPLY TO NEW CEILING MOUNTED UNIT.
- (A7) PROVIDE METAL STUD AND GYPSUM ENCLOSURE AROUND NEW INTAKE AIR DUCT AT FLOOR LEVEL AND DUCT TO CEILING. MODIFY GYPSUM CEILING FOR NEW DUCT.
- (A8) CONSTRUCT GYPSUM ENCLOSURE TO COVER RELIEF AIR DUCT. COORDINATE WITH MECHANICAL DRAWINGS AND DRAWING 5/A-500.
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- (A21) CONSTRUCT NEW CLOSET TO HOUSE NEW AC UNIT. COORDINATE CLOSET SIZING WITH UNIT. PROVIDE NEW DOOR AND FINISHES. CONFIRM SIZE AND COLOR WITH OWNER AND ARCHITECT.

- ### KEY NOTES
1. CONTRACTOR SHALL BE REQUIRED TO CORE DRILL ALL HOLES IN WALLS, FLOORS AND CEILINGS TO FACILITATE NEW LINESETS, ELECTRICAL CONDUITS AND CONDENSATE LINES.
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- ### GENERAL NOTES

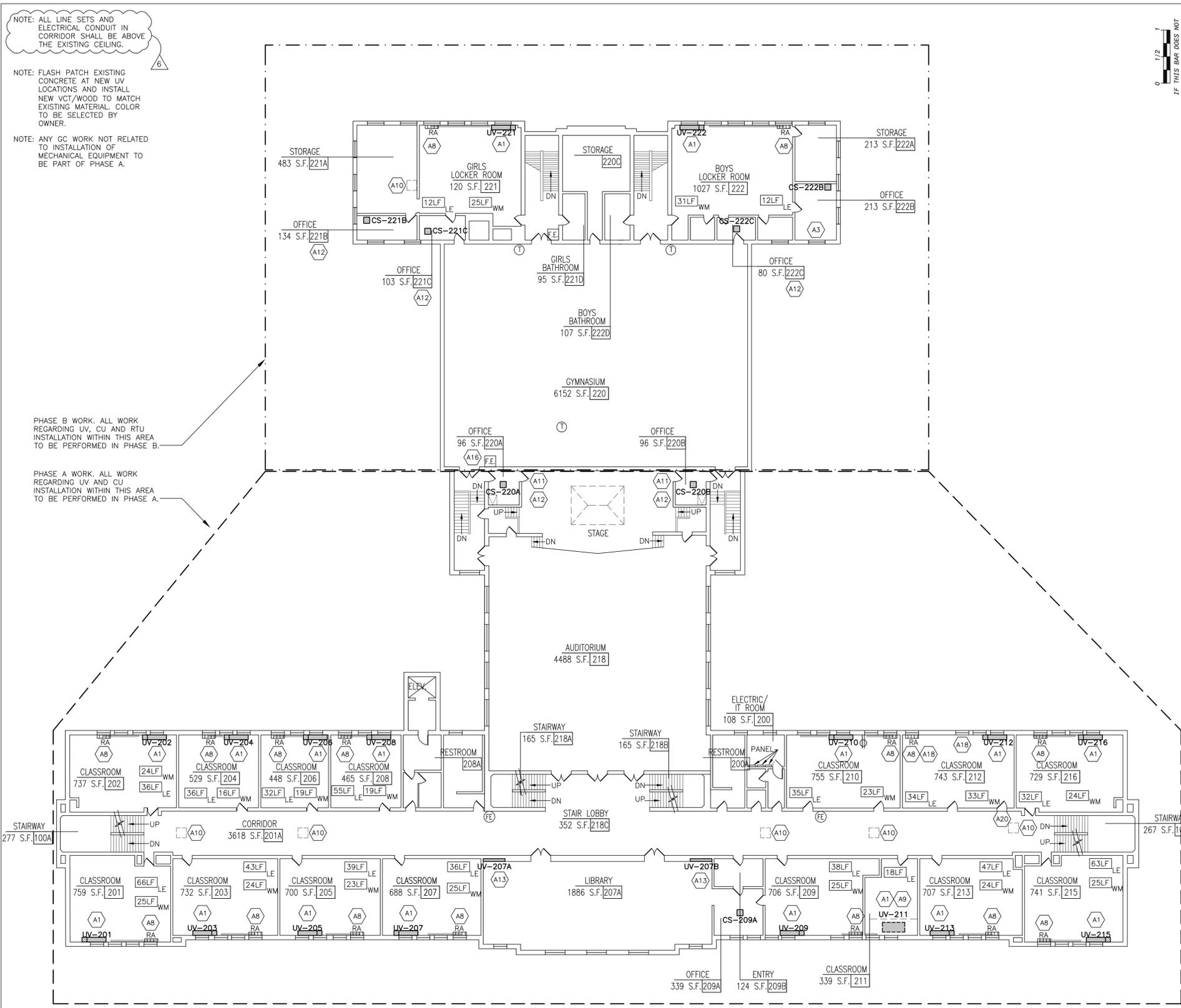
NOTE: ALL LINE SETS AND ELECTRICAL CONDUIT IN CORRIDOR SHALL BE ABOVE THE EXISTING CEILING.

NOTE: FLASH PATCH EXISTING CONCRETE AT NEW UV LOCATIONS AND INSTALL NEW VCT/WOOD TO MATCH EXISTING MATERIAL. COLOR TO BE SELECTED BY OWNER.

NOTE: ANY GC WORK NOT RELATED TO INSTALLATION OF MECHANICAL EQUIPMENT TO BE PART OF PHASE A.

PHASE B WORK. ALL WORK REGARDING UV, CU AND RTU INSTALLATION WITHIN THIS AREA TO BE PERFORMED IN PHASE B.

PHASE A WORK. ALL WORK REGARDING UV AND CU INSTALLATION WITHIN THIS AREA TO BE PERFORMED IN PHASE A.



1 **PROPOSED SECOND FLOOR PLAN**
SCALE: 1/16"=1'-0"

0 1/2
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

No.	Date	Revisions
6	01-28-21	ADDENDUM 5
5	01-24-21	ADDENDUM 3
4	01-14-21	ADDENDUM 1
3	12-17-21	ISSUED FOR BID
2	11-19-21	ISSUED ADDENDUM 1
1	09-30-21	BIDDING DOCUMENTS

Drawn by MAL
 Checked by MS/JC
 Project No. 41048
 Scale AS NOTED
 Date 05-14-21

GREENMAN PEDERSEN, INC
 400 BELLA BOTTEGARD
 MONTEBELLA, NY 10901

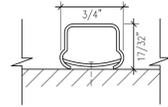
Mechanical & Electrical Engineer
 Structural Engineer

UNIVENT REPLACEMENT AT HAVERSTRAW ELEMENTARY
 SED# 50-02-01-06-0-009-018
 18 Grant Street Haverstraw, NY 10927
 COUNTY OF ROCKLAND

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 Fax: 945-063200

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 Drawing Title **PROPOSED SECOND FLOOR PLAN**
 Drawing No. **A-102**



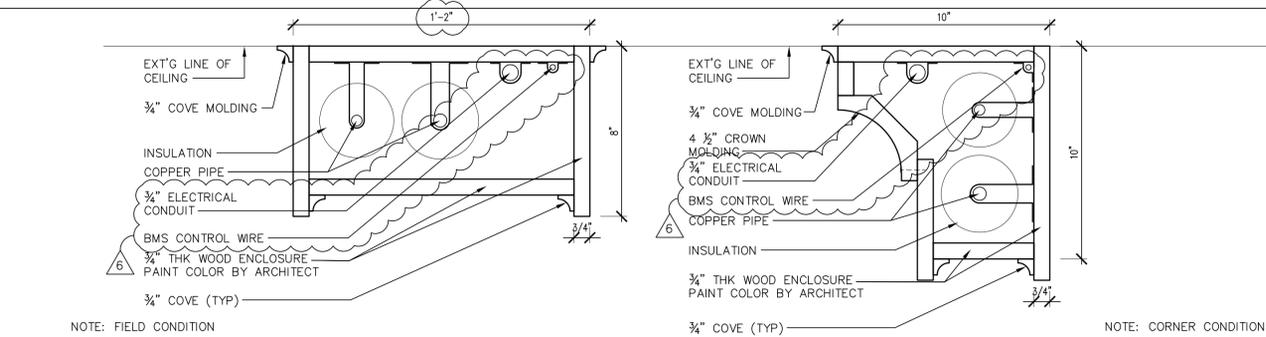
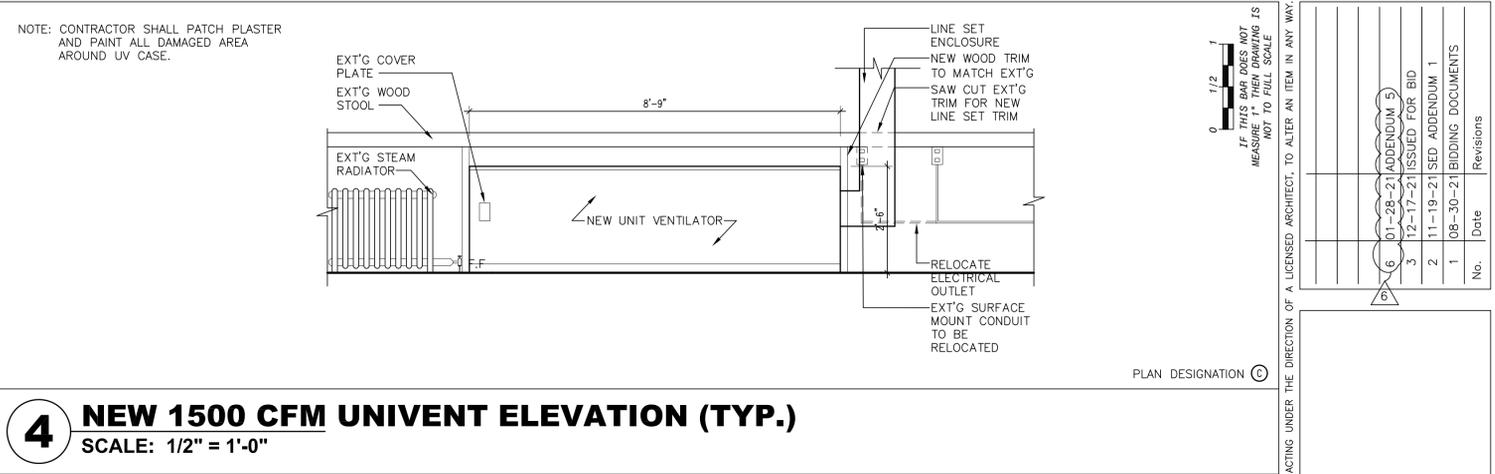


7 WIRE MOLD DETAIL
SCALE: 1:1

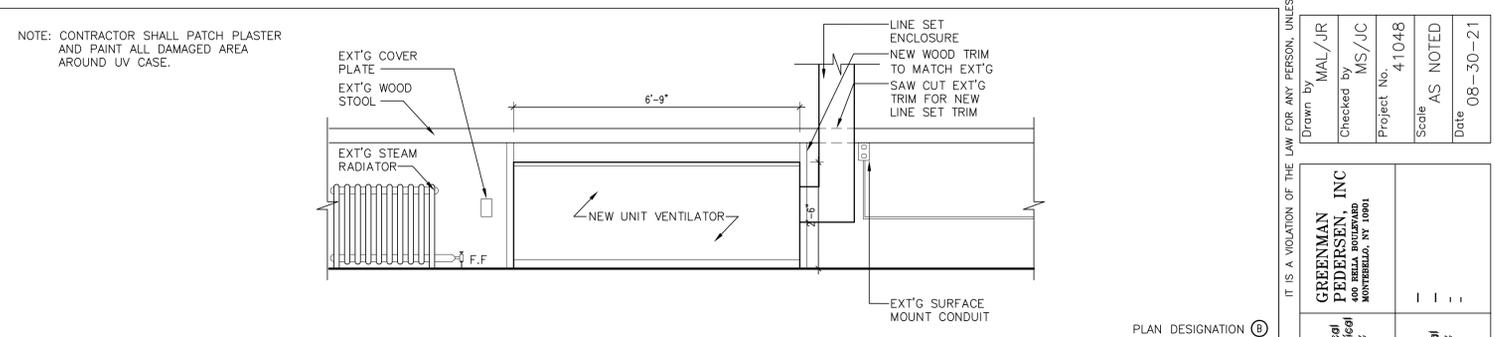
CODE	MATERIAL	MANUFACTURER	PRODUCT	CATALOG NO.	FINISH	COLOR	REMARKS
PT1	LATEX FINISH	BENJAMIN MOORE	REGAL AQUA PEARL	310	EGGSHELL	BY ARCH	(1) COAT PT4, (2) COATS PT1
PT4	LATEX PRIMER	BENJAMIN MOORE	LATEX PRIMER	273	FLAT	BY ARCH	
PT5	LATEX FINISH	BENJAMIN MOORE	DTM ACRYLIC	M29	SEMI-GLOSS	BY ARCH	(3) COAT PT6

FINISH MATERIAL SCHEDULE

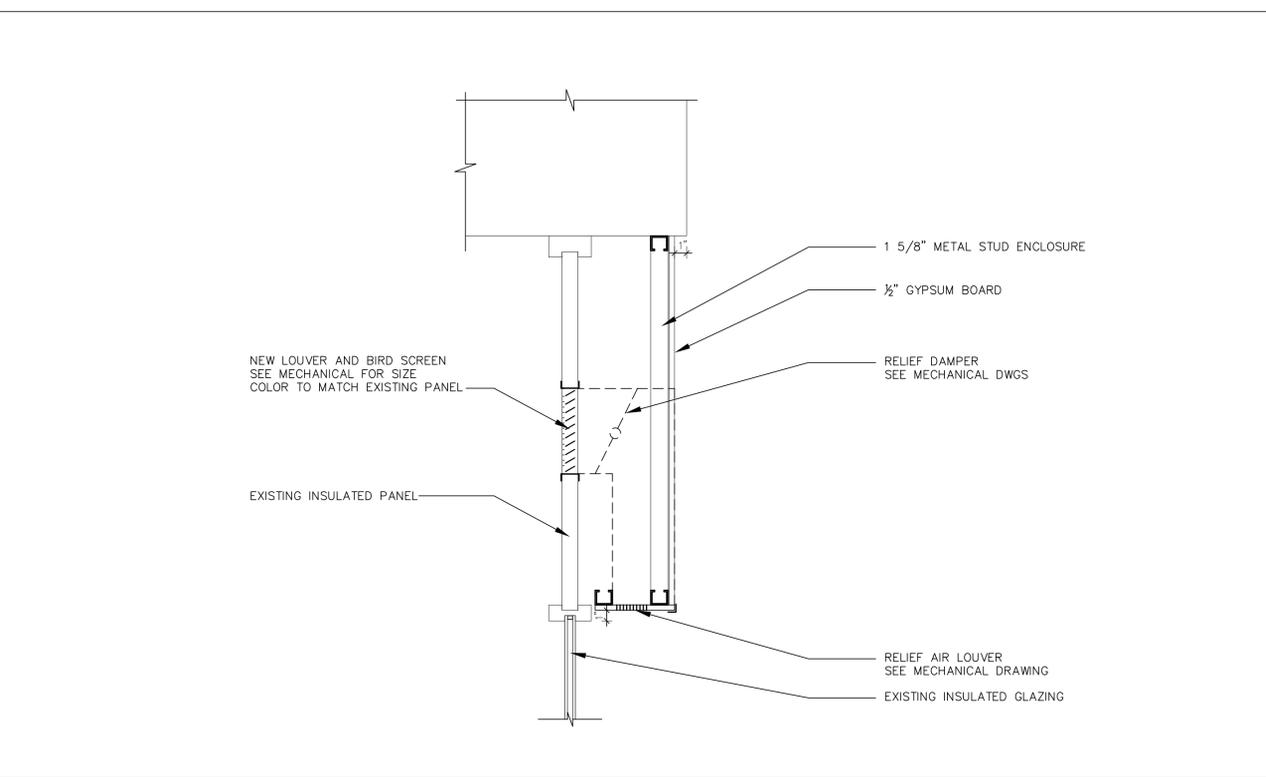
4 NEW 1500 CFM UNIVENT ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"



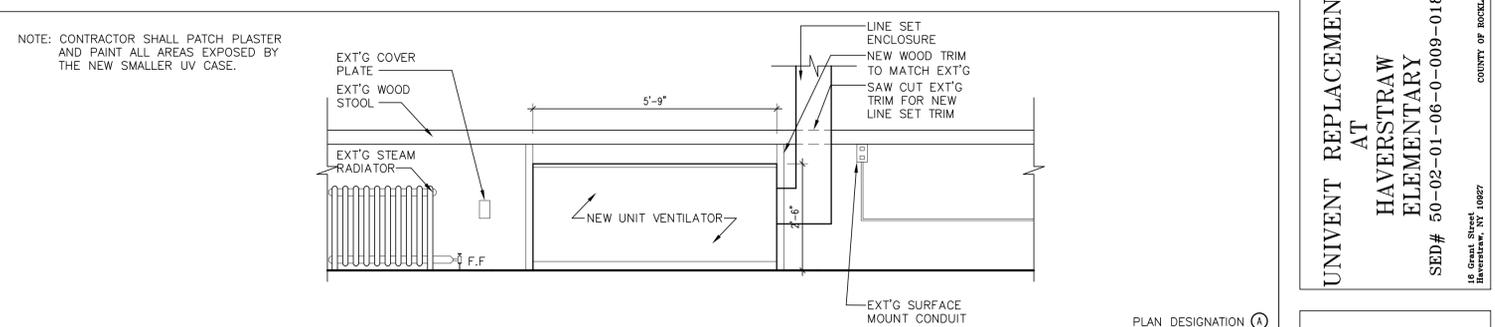
6 LINE SET ENCLOSURE
SCALE: 3" = 1'-0"



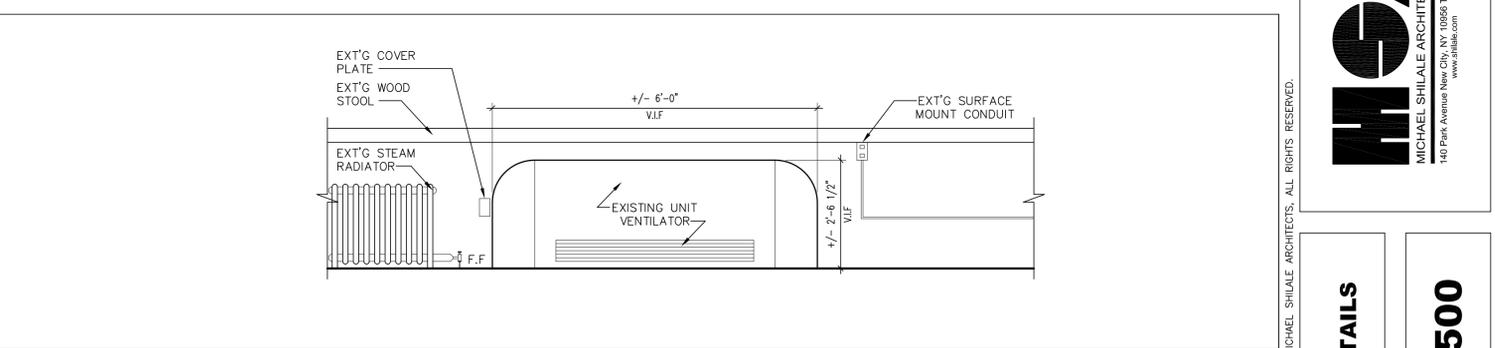
3 NEW 1000 CFM UNIVENT ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"



5 RELIEF AIR GYPSUM ENCLOSURE
SCALE: 1 1/2" = 1'-0"



2 NEW 750 CFM UNIVENT ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"



1 EXISTING UNIVENT ELEVATION (TYP.)
SCALE: 1/2" = 1'-0"

No.	Date	Revisions
1	08-30-21	BIDDING DOCUMENTS
2	11-19-21	SED ADDENDUM 1
3	12-17-21	ISSUED FOR BID
6	01-28-21	ADDENDUM 5

Drawn by: MAL/JJR
Checked by: MS/JC
Project No.: 41048
Scale: AS NOTED
Date: 08-30-21

GREENMAN PEDERSEN, INC
400 BELLA BOULEVARD
MONTEBELLO, NY 10901

Mechanical & Electrical Engineer
Structural Engineer

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140 Park Avenue New York, NY 10022
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www.mshale.com

DETAILS

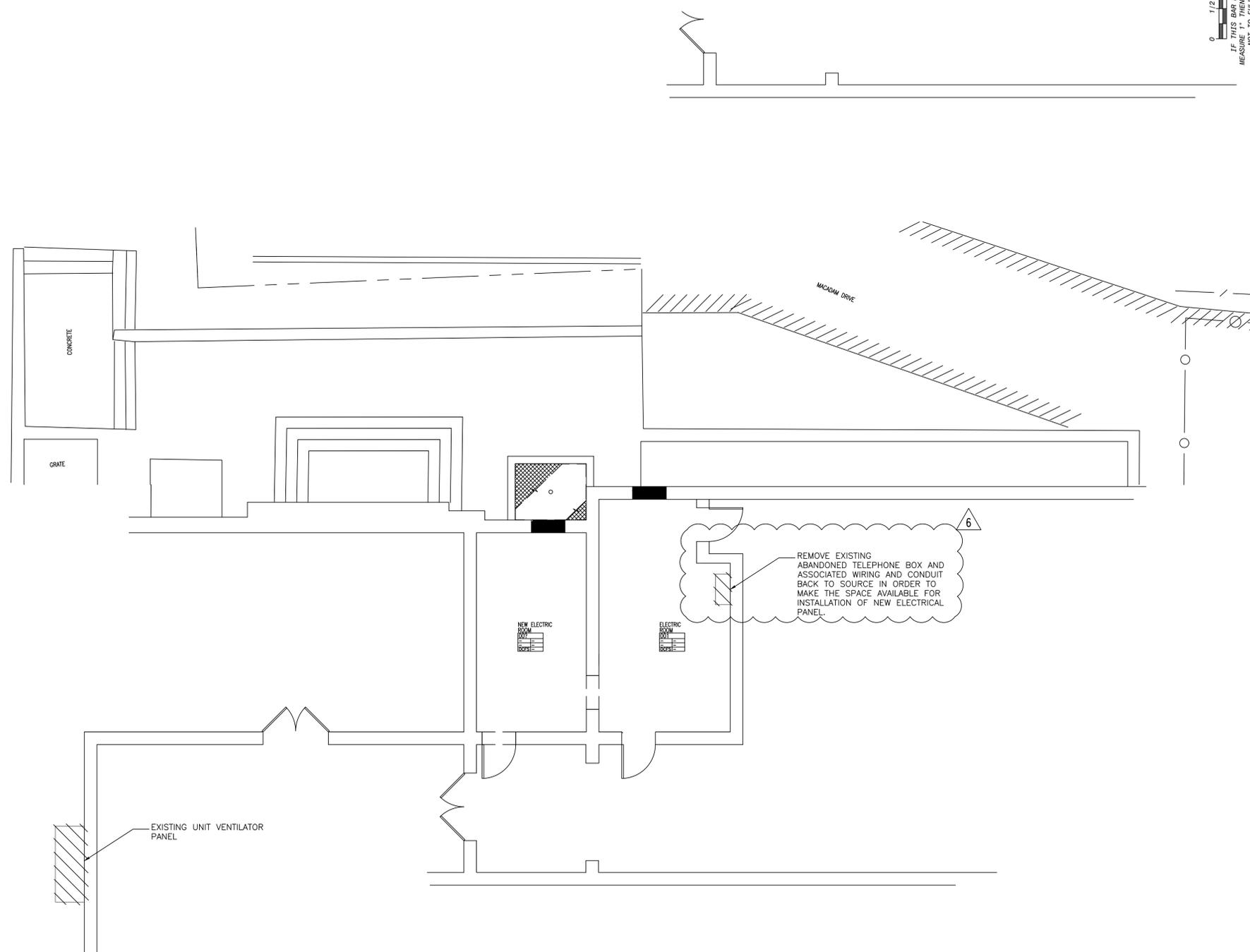
Drawing No. **A-500**

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Drawing Title

ELECTRICAL DEMOLITION NOTES:

- FOR ELECTRICAL SYMBOLS & LEGENDS, GENERAL NOTES, ABBREVIATIONS REFER TO DRAWING E001.00
- MAINTAIN CIRCUIT CONTINUITY TO AREAS NOT AFFECTED BY DEMOLITION
- ALL DEVICES, EQUIPMENT AND CONNECTIONS SHOWN IN THIS DRAWING ARE EXISTING AND SHALL BE REMOVED WITH ALL ASSOCIATED CONTROLLERS, WIRING, EXPOSED CONDUITS, PULL BOX, SWITCHES, DISCONNECTS, JUNCTION BOX, SUPPORTS ETC. BACK TO SOURCE, UNLESS OTHERWISE INDICATED.
- CONTRACTOR SHALL PATCH AND PAINT AREAS AFFECTED BY REMOVAL TO MATCH SURROUNDINGS.
- THE CONTRACTOR IS REQUIRED TO COORDINATE WITH OTHER TRADES AND BUILDING FACILITY DURING THE DEMOLITION WORK ON THIS FLOOR. ANY SERVICE DISRUPTION AND SHUTDOWN TO THE ELECTRICAL AND LOW VOLTAGE SYSTEMS IN THE EXISTING BUILDING, IF AND WHEN REQUIRED SHALL BE PERFORMER AFTER WELL COORDINATION WITH BUILDING FACILITY AND OBTAINING A WRITTEN PERMISSION FROM THEM. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY UNAUTHORIZED SERVICE DISRUPTION OR SHUTDOWN ON THE EXISTING BUILDING
- COORDINATE REMOVAL OF POWER TO MECHANICAL AND PLUMBING EQUIPMENT WITH THE RESPECTIVE CONTRACTOR.
- REFER TO PLUMBING AND MECHANICAL DRAWINGS FOR REMOVAL OF PLUMBING AND MECHANICAL EQUIPMENTS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO REMOVE ALL ASSOCIATED ELECTRICAL FEEDERS, CIRCUITS, STARTERS, DISCONNECT SWITCHES, PULL BOXES, EXPOSED CONDUITS, ETC. BACK TO SOURCE FOR THE EQUIPMENTS BEING REMOVED BY THE MECHANICAL AND PLUMBING CONTRACTOR, UNLESS OTHERWISE INDICATED.
- THE ELECTRICAL CONTRACTOR SHALL FIELD EXAMINE THE ENTIRE AREA AFFECTED BY THIS CONSTRUCTION AND SHALL REMOVE ALL EXISTING ELECTRICAL EQUIPMENT AND DEVICES, RECEPTACLE, LIGHTING, LOW VOLTAGE DEVICES ETC. COMPLETE WITH ALL ASSOCIATED WIRING, SWITCHES, CONTROLLERS, SURFACE CONDUITS, PULL BOXES, JUNCTION BOXES, SUPPORTS ETC. BACK TO SOURCE, AS REQUIRED TO COMPLETE THE NEW WORK, EXCEPT THE EXISTING DEVICES SHOWN AS "EXISTING TO REMAIN" AND UNLESS OTHERWISE INDICATED.
- ALL UNIT VENTILATORS ARE CURRENTLY BEING FED FROM EXISTING UNIT VENTILATOR PANEL LOCATED IN THE BASEMENT.



0 1/2
1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

1 BASEMENT DEMO PLAN
SCALE: 3/16" = 1'-0"



No.	Date	Revisions
6	01-28-22	ADDENDUM 5
3	12-17-21	ISSUED FOR BID
2	11-19-21	ISSUED ADDENDUM 1
1	08-30-21	BIDDING DOCUMENTS

Drawn by	FC
Checked by	SH
Project No.	41048
Scale	AS NOTED
Date	08-30-21

GREENMAN PEDERSEN, INC 400 BELLA BOULEVARD MONTEBELLO, NY 10601	
Mechanical Electrical Engineer:	—
Structural Engineer:	—

UNIVENT REPLACEMENT AT HAVERSTRAW ELEMENTARY
SED# 50-02-01-06-0-009-018
18 Grant Street, Haverstraw, NY 10627
COUNTY OF ROCKLAND

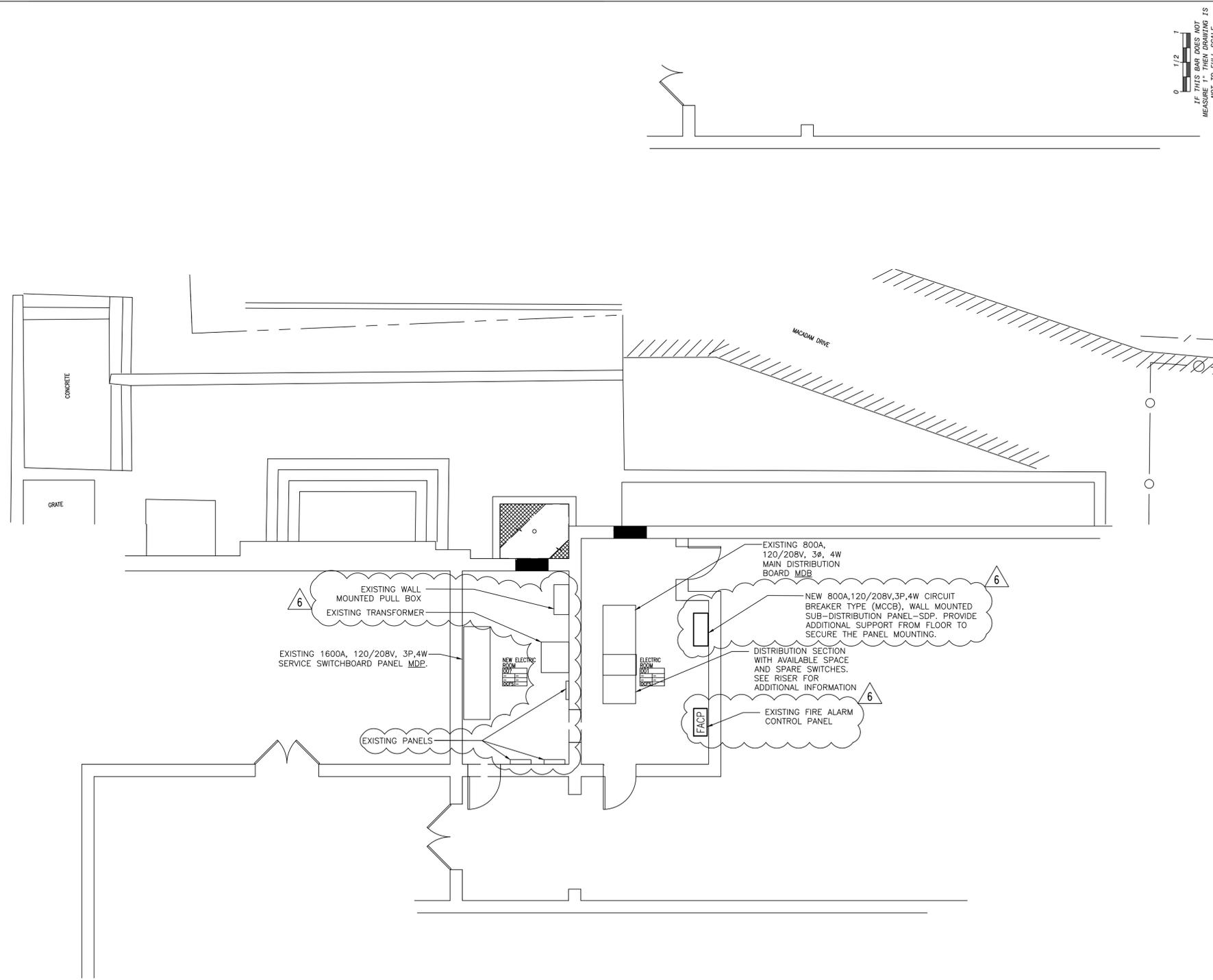
MSA
MICHAEL SHILALE ARCHITECTS, L.L.P.
140 Park Avenue, New City, NY 10958 Tel: 845-708-8200
www.shilale.com

BASEMENT DEMO PLAN - ELECTRICAL
Drawing No. **E-060**

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ELECTRICAL NOTES:

- REFER TO ADDITIONAL INSTALLATION NOTES ON DRAWING E-001.
- ALL NEW RUNS SHALL BE WITH MINIMUM OF 2#12+1#12G IN 3/4" CONDUIT, UNLESS OTHERWISE NOTED ON THE PANEL SCHEDULES.
- PROVIDE LABELS ON ALL ELECTRICAL EQUIPMENT INDICATING CIRCUIT ORIGINATION.
- UPDATE ALL EXISTING PANEL DIRECTORIES AFFECTED BY NEW WORK.
- CONTRACTOR SHALL PERFORM AMP PROBE READINGS ON EXISTING SERVICE EQUIPMENT BEFORE AND AFTER WORK TO ENSURE EQUIPMENT WILL NOT BE LOADED BEYOND ITS MAX AMPACITY.
- CONTRACTOR SHALL MAINTAIN CONTINUITY TO ALL EXISTING CIRCUITRY TO REMAIN WHICH ARE AFFECTED BY THE SCOPE OF WORK; CONTRACTOR SHALL FURNISH ALL NECESSARY JUNCTION BOXES, CONDUIT, AND WIRES AS REQUIRED TO KEEP CONTINUITY.
- REFER TO MECHANICAL PLANS FOR EQUIPMENT TO BE SUPPLIED BY OTHER TRADES AND INSTALLED/WIRED UNDER THIS SECTION. COORDINATE LOCATION OF DEVICES WITH OTHER CONTRACTORS.
- PROVIDE FIRESTOPPING FOR ALL PENETRATIONS TO MATCH EXISTING FIRE RATING WHERE APPLICABLE. ALL CORE DRILLS SHALL BE VERIFIED BY BUILDING REPRESENTATIVE PRIOR TO COMMENCING WORK. XRAY ALL FLOOR SLABS PRIOR TO ROUGH-INS FOR CORE DRILL WORK.
- THE CONTRACTOR SHALL FIELD ROUTE FEEDER FOR NEW POWER PANELS. COORDINATE EXACT ROUTING PATH WITH OWNER. SUBMIT A PROPOSED ROUTING PATH TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO RUNNING ANY CONDUIT OR WIRE ASSOCIATED WITH THIS FEEDER.
- ALL NEW FIRE ALARM DEVICES SHALL BE CIRCUITED TO RESPECTIVE ZONES IN THE EXISTING MAIN FIRE ALARM CONTROL PANEL SHOWN ON THIS DRAWING. ALL NEW DEVICES SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM. COORDINATE ALL WORK WITH THE FIRE ALARM VENDOR. PROVIDE ALL APPURTENANCES AS REQUIRED FOR A COMPLETE, CODE COMPLIANT, OPERABLE SYSTEM INSTALLATION IN A NEAT AND WORKMANLIKE MANNER.
- ALL THE 120/208V PANELS AND DISTRIBUTION BOARD NEEDS TO BE INSTALLED IN SUCH A WAY SO THAT A 3 FEET CLEARANCE IN FRONT OF THE PANELS IS BEING MAINTAINED AS REQUIRED BY NEC 2017.



1 BASEMENT PLAN
SCALE: 3/16" = 1'-0"



No.	Date	Revisions
1	08-30-21	BIDDING DOCUMENTS
2	11-19-21	ISSUED ADDENDUM 1
3	12-17-21	ISSUED ADDENDUM 2
6	01-28-22	ADDENDUM 5

Drawn by	FC
Checked by	SH
Project No.	41048
Scale	AS NOTED
Date	08-30-21

GREENMAN PEDERSEN, INC 400 BELLA BOULEVARD MONTEBELLO, NY 10601	
Mechanical Electrical Engineer:	Structural Engineer:

UNIVENT REPLACEMENT AT HAVERSTRAW ELEMENTARY SED# 50-02-01-06-0-009-018 18 Grant Street Haverstraw, NY 10627 COUNTY OF ROCKLAND
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MSA MICHAEL SHILALE ARCHITECTS, L.L.P. 140 Park Avenue New City, NY 10958 Tel: 845-708-9200 www.shilale.com

BASEMENT PLAN - ELECTRICAL
Drawing No. E-100

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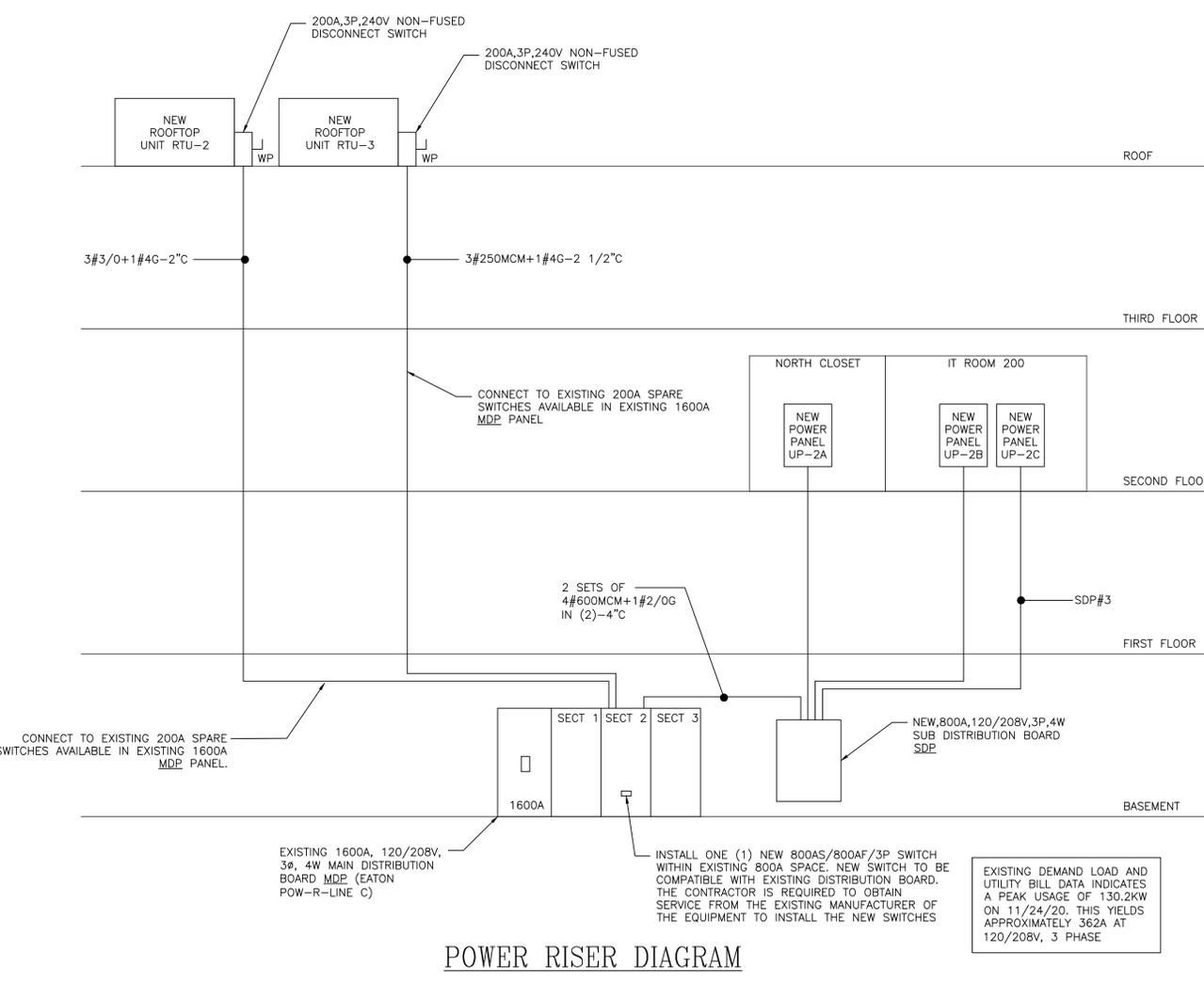
PANEL SCH. UP-2A		MLO										M.C.B. / M.L.O.		
PANEL LOC. CLOSET		AMP BUS SIZE 400 AMP										PANEL SHORT CIRCUIT RATING: > 22 KAIC		
FDR. DATA	CIR. NO.	LOAD DESCRIPTION	C.B. POLE NO.	C.B. TRIP A	C.B. LOAD VA	PHASE A	PHASE B	PHASE C	C.B. LOAD VA	C.B. TRIP A	C.B. POLE NO.	LOAD DESCRIPTION	CIR. NO.	FDR. DATA
No. WIRE GND													No. WIRE GND	
2 12 12	1	2ND FLOOR UNIVENT	1	15	600	1200			600	15	1	2ND FLOOR UNIVENT	2	2 12 12
2 12 12	3	2ND FLOOR UNIVENT	1	15	600		1200		600	15	1	2ND FLOOR UNIVENT	4	2 12 12
2 12 12	5	2ND FLOOR UNIVENT	1	15	600			1200	600	15	1	2ND FLOOR UNIVENT	6	2 12 12
2 12 12	7	2ND FLOOR UNIVENT	1	15	600	1200			600	15	1	2ND FLOOR UNIVENT	8	2 12 12
2 12 12	9	3RD FLOOR UNIVENT	1	15	600		1200		600	15	1	3RD FLOOR UNIVENT	10	2 12 12
2 12 12	11	3RD FLOOR UNIVENT	1	15	600			1200	600	15	1	3RD FLOOR UNIVENT	12	2 12 12
2 12 12	13	3RD FLOOR UNIVENT	1	15	600	1200			600	15	1	3RD FLOOR UNIVENT	14	2 12 12
2 12 12	15	BC-4	2	20	250		850		600	15	1	1ST FLOOR UNIVENT	16	2 12 12
2 12 12	17				250			850	600	15	1	1ST FLOOR UNIVENT	18	2 12 12
2 12 12	19	BC-2	2	20	250		850		600	15	1	1ST FLOOR UNIVENT	20	2 12 12
2 12 12	21				250			850	600	15	1	1ST FLOOR UNIVENT	22	2 12 12
2 12 12	23	BC-1	2	20	250			250	20	1		SPARE	24	
2 12 12	25				250	850			600	15	1	1ST FLOOR UNIVENT	26	2 12 12
2 12 12	27				4920		5520		600	15	1	1ST FLOOR UNIVENT	28	2 12 12
3 6 10	29	CU-7	3	60	4920		5520		600	15	1	1ST FLOOR UNIVENT	30	2 12 12
2 12 12	31				4920	5520			600	15	1	1ST FLOOR UNIVENT	32	2 10 10
3 3 8	33	CU-1	3	90	6840		7440		600	15	1	2ND FLOOR UNIVENT	34	2 10 10
3 3 8	35				6840	13680		7440	600	20	1	EXTERIOR RECEPTACLE(1)	36	2 12 12
3 3 8	37				6840	13680		6840	90	3		CU-3	38	3 3 8
3 3 8	41	CU-2	3	90	6840		13680		6840				42	
2 12 12	43				6840	13680			6840				44	
2 12 12	45	ROOF RECEPTACLES	1	20	540		7380		6840	90	3	CU-4	46	3 3 8
2 12 12	47	ROOF RECEPTACLES	1	20	720			7560	6840				48	
2 12 12	49	1ST FLOOR UNIVENT	1	15	600	850			250	20	2	BC-7	50	2 12 12
2 12 12	51	SPARE	1	20			250		20	2			52	
2 12 12	53	SPARE	1	20			0		20	1		SPARE	54	
2 12 12	55	SPARE	1	20			0		20	1		SPARE	56	
2 12 12	57	SPARE	1	20			0		20	1		SPARE	58	
2 12 12	59	SPARE	1	20			0		20	1		SPARE	60	

PANEL SCH. UP-2B		MLO										M.C.B. / M.L.O.			
PANEL LOC. CLOSET		AMP BUS SIZE 400 AMP										PANEL SHORT CIRCUIT RATING: > 22 KAIC			
FDR. DATA	CIR. NO.	LOAD DESCRIPTION	C.B. POLE NO.	C.B. TRIP A	C.B. LOAD VA	PHASE A	PHASE B	PHASE C	C.B. LOAD VA	C.B. TRIP A	C.B. POLE NO.	LOAD DESCRIPTION	CIR. NO.	FDR. DATA	
No. WIRE GND													No. WIRE GND		
3 3 8	3	CU-8	3	80	5880		12720		6840	80	3	CU-11	2	4 3 3 8	
3 3 8	5				5880			12720	6840				4		
3 3 8	7				6840	13680			6840				6		
3 3 8	9	CU-9	3	90	6840		13680		6840	90	3	CU-12	10	3 3 8	
3 3 8	11				6840			13680	6840				12		
3 3 8	13				6840	7090			250	20	2	BC-9	14	2 12 12	
3 3 8	15	CU-10	3	90	6840		7090		6840				16	2 12 12	
2 12 12	17	ROOF RECEPTACLES	1	20	720	970			7090	250	20	2	BC-12	18	2 12 12
2 12 12	19				250			500	250	20	2	AC-1(A,B)	20	2 12 12	
2 12 12	21	BC-5	2	20	250			500	250	20	2		22	2 12 12	
2 12 12	23				250			500	250	20	2	AC-8A & AC-10A	24	2 12 12	
2 12 12	25	AC-5(A,B)	2	20	250	500			250	20	2		26	2 12 12	
2 12 12	27				250	500			250	20	2		28	2 12 12	
2 12 12	29	AC-9(A,B,C,E)	2	20	250			850	600	15	1	2ND FLOOR UNIVENT	30	2 12 12	
2 12 12	31				250	500			250	20	2	AC-5C	32	2 12 12	
2 12 12	33	BC-6	2	20	250			500	250	20	2		34	2 12 12	
2 12 12	35				250			850	600	20	1	2ND FLOOR UNIVENT	36	2 12 12	
2 12 12	37	SPARE	1	20					20	1		SPARE	38		
2 12 12	39	SPARE	1	20					20	1		SPARE	40		
2 12 12	41	SPARE	1	20					20	1		SPARE	42		

PANEL SCH. UP-2C		MLO										M.C.B. / M.L.O.			
PANEL LOC. CLOSET		AMP BUS SIZE 225 AMP										PANEL SHORT CIRCUIT RATING: > 22 KAIC			
FDR. DATA	CIR. NO.	LOAD DESCRIPTION	C.B. POLE NO.	C.B. TRIP A	C.B. LOAD VA	PHASE A	PHASE B	PHASE C	C.B. LOAD VA	C.B. TRIP A	C.B. POLE NO.	LOAD DESCRIPTION	CIR. NO.	FDR. DATA	
No. WIRE GND													No. WIRE GND		
2 12 12	1	2ND FLOOR UNIVENT	1	15	600	1200			600	15	1	2ND FLOOR UNIVENT	2	2 12 12	
2 12 12	3	2ND FLOOR UNIVENT	1	15	600		600		600	15	1	SPARE	4		
2 12 12	5	2ND FLOOR UNIVENT	1	15	600			1200	600	15	1	2ND FLOOR UNIVENT	6	2 12 12	
2 10 10	7	3RD FLOOR UNIVENT	1	15	1200	1800			600	15	1	2ND FLOOR UNIVENT	8	2 12 12	
2 12 12	9	3RD FLOOR UNIVENT	1	15	600		1200		600	15	1	3RD FLOOR UNIVENT	10	2 12 12	
2 12 12	11	3RD FLOOR UNIVENT	1	15	600			1800	1200	15	1	3RD FLOOR UNIVENT	12	2 10 10	
2 12 12	13				250	1450			1200	15	1	1ST FLOOR UNIVENT	14	2 10 10	
2 12 12	15	BC-11	2	20	250		850		600	15	1	3RD FLOOR UNIVENT	16	2 12 12	
2 12 12	17				250			850	600	15	1	3RD FLOOR UNIVENT	18	2 12 12	
2 12 12	19	BC-10	2	20	250		850		600	15	1	1ST FLOOR UNIVENT	20	2 12 12	
2 12 12	21				250		850		600	15	1	1ST FLOOR UNIVENT	22	2 12 12	
2 12 12	23	AC-9(F,G,H,I,J)	2	20	250			850	600	15	1	1ST FLOOR UNIVENT	24	2 12 12	
2 12 12	25				6840	7440			600	15	1	1ST FLOOR UNIVENT	26	2 12 12	
3 3 8	27	CU-5	3	90	6840		7440		600	15	1	1ST FLOOR UNIVENT	28	2 12 12	
2 12 12	29				6840		7440		600	15	1	1ST FLOOR UNIVENT	30	2 12 12	
3 4 8	31				5884	6484			600	15	1	2ND FLOOR UNIVENT	32	2 12 12	
3 4 8	33	CU-6	3	80	5884		6134		250	20	2	BC-3	34	2 12 12	
2 12 12	35				5884			6134	250	20	2		36		
2 12 12	37	AC-7(A,B,C,D)	2	20	250	500			250	20	2	AC-4(A,B,C)	38	2 12 12	
2 12 12	39				250	500			250	20	2		40		
2 12 12	41	AC-3A	2	20	250		500		250	20	2	BC-8	42	2 12 12	
2 12 12	43				250	500			250	20	2		44		
2 12 12	45	AC-4D	2	20	250		500		500	250	20	2	AC-11A & AC-8C	46	2 12 12
2 12 12	47				250		500		250	20	2		48		
2 12 12	49	FIRE SMOKE DAMPERS	1	20	500	900			20	1		SPARE	50		
2 12 12	51	SPARE	1	20					20	1		SPARE	52		
2 12 12	53	SPARE	1	20					20	1		SPARE	54		
2 12 12	55	SPARE	1	20					20	1		SPARE	56		
2 12 12	57	SPARE	1	20					20	1		SPARE	58		
2 12 12	59	SPARE	1	20					20	1		SPARE	60		

PANEL TYPE: NEMA 1	PHASE CONN.	35460	34990	35690	VA	20	% SPARE CAPACITY
MOUNTING: SURFACE	TOTAL CONN. LOAD	106.14	295	AMPS	100	% DEMAND FACTOR	
FED FROM:	CON and SPR. LOAD	127,368					
	TOT. DEM LOAD	127,368					
	TOT. DEM LOAD	353.9573144	@	208	VOLTS	REMARKS:	

PANEL TYPE: NEMA 1	PHASE CONN.	20724	18074	19274	VA	20	% SPARE CAPACITY
MOUNTING: SURFACE	TOTAL CONN. LOAD	58.072	161	AMPS	100	% DEMAND FACTOR	
FED FROM:	CON and SPR. LOAD	69,6864					
	TOT. DEM LOAD	69,6864					
	TOT. DEM LOAD	193.6594042	@	208	VOLTS	REMARKS:	



POWER AND DISTRIBUTION PANEL SCHEDULE							
VOLTAGE 120/208 3 PHASE 4 WIRE + G. U.O.N							
PANEL	BUS (AMPS)	MAIN DEVICE (MCCB (AMPS) TRIP (AMPS))	CKT. NO.	EQUIPMENT	BRANCH DEVICE (MCCB (AMPS) TRIP (AMPS))	POLES	FEEDER SIZE
SDP 42KAIC	800A COPPER	MLO MLO	1	POWER PANEL UP-2A	400 400	3	4#600MCM+1#3G-4°C
			2	POWER PANEL UP-2B	400 400	3	4#600MCM+1#3G-4°C
			3	POWER PANEL UP-2C	200 200	3	4#3/0+1#6G-2°C
			4	SPARE	100 100	3	
			5	SPARE	100 100	3	
			6	SPARE	200 200	3	

0 1/2" = 1' IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE

6	01-28-22	ADDENDUM 5
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Project No. 41048
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400 BELLA BOULEVARD
MONTROSE, NY 10601

Mechanical Electrical Engineer
Structural Engineer

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