

WESTPORT PUBLIC SCHOOLS

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PARTIAL ROOF REPLACEMENT

SAUGATUCK ELEMENTARY SCHOOL 170 RIVERSIDE AVENUE WESTPORT, CT 06880

S/P+A PROJECT NO. 21.062

DATE: May 13, 2021

The following changes to the Drawings and Project Specifications shall become a part of the Drawings and Project Specifications; superseding previously issued Drawings and Project Specifications to the extent modified by Addendum No. 1.

General Information:

- The prebid sign-in sheet is attached for reference. (1)
- The deadline for RFIs is Friday, May 14, 2021.
- See attached RFI log. (1)

New Specifications:

- SECTION 264113, LIGHTNING PROTECTION FOR STRUCTURES has been added and is attached as part of this addendum. (4)

Changes to the Specifications:

- TABLE OF CONTENTS:
 - Page 2, Division 26 – Electrical, Section 264113, Pages, add “4”.

Changes to the Drawings:

- DRAWINGS C1, CODE INFORMATION LEGEND, A1, ROOF PLAN PART #1, and A2, ROOF PLAN PART 2, Construction Notes, add the following:
 - “7. Existing lightning protection system to be removed and replaced over the entire facility in accordance with Section 264113 of the Project Manual.”

The bid date remains unchanged by this addendum.

The addendum consists of seven (7) pages of 8½” x 11” text.
End of Addendum ‘1’



Project: **Saugatuck Elementary School Partial Roof Replacement**
State Project/Bid #:
S/P+A Project #: **21.062**

RFI Deadline: **05/14/21**
Bids Due: **05/21/21**

RFI #	QUESTION	DATE RECEIVED	RESPONSE	ADDENDUM # ISSUED
001	Can you please clarify the Asbestos Abatement section 028213-4 Par. 1.6.A Testing Laboratory Services: Typically the roofing samples and air monitoring (if required) are done by the owner is this stating the contractor needs to do this?	05/10/21	If the Contractor working with asbestos and OSHA requires them to do personal air sampling on their employees, it applies to the Contractor. The Owner does not hire someone to run OSHA samples on contractors, that is their own compliance requirements and not the Owner's responsibility. If there is going to be area sampling adjacent to the work areas and/or inside the building, that is the Owner's responsibility.	1

SECTION 264113 - LIGHTNING PROTECTION FOR STRUCTURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes the removal of existing, replacement with new, and the testing and recertification of the lightning protection system.

1.3 SYSTEM DESCRIPTION

- A. Furnishing all labor, materials, and items of service required for the removal and replacing of a functional and unobtrusive lightning protection system for ordinary structures approved by the Architect, Engineer, and in strict accordance with this section of the specifications and the applicable contract drawings.
- B. If any departure from the contract drawings or submittal drawings (where they exist), covered below are deemed necessary by the Contractor, details of such departures and reasons therefore shall be submitted as soon as practical to the Architect and Engineer for approval.
- C. The lightning protection system shall be designed by a Lightning Protection Institute Certified Master Installer Designer and the drawing shall bear the seal. The seal shall be current at the time of submission and shall be signed by the Master Installer Designer. This shall be accepted in lieu of a state certified Engineers stamp on the lightning protection drawings.
- D. The lightning protection installation company shall employ LPI Certified Master Installers to do the actual removal, installation, and the certification shall be part of the submittal package. The card shall be carried on site at all times.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings:
 - 1. Include layouts of the lightning protection system, with details of the components to be used in the installation.
 - 2. Include raceway locations needed for the installation of conductors.
 - 3. Details of air terminals, ground rods, ground rings, conductor supports, splices, and terminations, including concealment requirements.
 - 4. Include roof attachment details, coordinated with roof installation.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Certificates: For each type of roof adhesive for attaching the roof-mounted air terminal assemblies, approved by the roofing-material manufacturer.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For lightning protection system to include in maintenance manuals.
 - 1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
 - a. Dimensioned site plan showing dimensioned route of the ground loop conductor and the ground rod locations. Comply with requirements of Section 017839 "Project Record Documents."
 - b. A system testing and inspection record, listing the results of inspections and ground resistance tests, as recommended by NFPA 780, Annex D.
- B. Submit complete as-built drawings showing the type, size, and locations of all grounding, down conductors, through-roof/through-wall assemblies, roof conductors, and air terminals shall be provided by the owner where they exist.
- C. Completion Certificate:
 - 1. LPI Master Certificate.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Authorized installer listed in UL and a member of the Lightning Protection Institute. Authorized installer shall employ LPI Certified Master Installers to do the actual installation and the certification shall be part of the submittal package. The card shall be carried onsite at all times.
- B. The lightning protection system shall conform to the requirements for a complete lightning protection system in accordance with NFPA and LPI Standards. Upon completion, application shall be made to The Lightning Protection Institute for inspection and issuance of the LPI Inspection Program Certificate. UL Master Label will not be accepted as an equal.

1.8 SEQUENCING AND SCHEDULING

- A. Coordinate the work of this Section with roofing installations. The roofing contractor will be responsible for sealing and flashing all lightning protection roof penetrations, if required, as per the roof manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. American Insulated Wire Corp.; a Leviton Company
 - 2. General Cable Corporation
 - 3. Senator Wire & Cable Company
 - 4. Southwire Company
 - 5. Substitutions: Under provisions of Section 012500 “Substitution Procedures”.

2.2 PERFORMANCE REQUIREMENTS

- A. NFPA Lightning Protection Standard: Comply with NFPA 780 requirements for Class I buildings.
- B. Lightning Protection Components, Devices, and Accessories: Listed and labeled by a qualified testing agency as complying with UL 96, and marked for intended location and application.
- C. Remove the existing LPS material completely and replace all material in conformance with this specification. The new equipment shall be UL listed and properly UL labeled.

2.3 EQUIPMENT

- A. Provide and install a complete lightning protection system in compliance with the specifications and standards of the most current editions of the National Fire Protection Association’s Lightning Protection Standard 780, and Lightning Protection Institute Standard LPI-175. The system shall be installed by a lightning protection contractor who is listed by Underwriters Laboratories, Inc.

2.4 MATERIALS

- A. All new lightning protection materials and components shall comply in weight, size and composition with UL 96 and lightning protection material requirements for this type of structure. All materials shall be matched in design and composition to the existing materials where possible. Aluminum components shall be used in locations where system components are mounted to aluminum, zinc, and galvanized surfaces to avoid galvanic corrosion of dissimilar metals. Class I materials shall be used on structures not more than 75 feet in height.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are ready to receive work.
- B. Beginning of installation means installer accepts existing conditions.

3.2 PROTECTION OF SURROUNDING ELEMENTS

- A. Protect elements surrounding work of this Section from damage or disfiguration.

3.3 INSTALLATION

- A. The installation company shall utilize Lightning Protection Institute Certified Master Installers. The installation shall be accomplished by an experienced installation company that is listed with Underwriters Laboratories for lightning protection installation. All equipment shall be installed in a neat, workmanlike manner. The system shall consist of a complete conductor network at the roof and include air terminals, connectors, splices, bonds, down leads, and proper ground terminals. If as built drawings are not available to verify the existing concealed parts of the LPS, new concealed work will be required unless the existing can be verified through testing.
- B. Install conductors with direct paths from air terminals to ground connections. Avoid bends less than 90 degrees and 8 inches in radius and narrow loops.
- C. Conceal conductors within normal view from exterior locations at grade within 200 feet of building. Comply with requirements for concealed systems in NFPA 780.
 - 1. Roof penetrations required for down conductors and connections to structural-steel framework shall be made using listed through-roof fitting and connector assemblies with solid rods and appropriate roof flashings. Use materials approved by the roofing manufacturer for the purpose. Conform to the methods and materials required at roofing penetrations of the lightning protection components to ensure compatibility with the roofing specifications and warranty.
 - 2. Install conduit where necessary to comply with conductor concealment requirements.
 - 3. Air Terminals on Single-Ply Membrane Roofing: Comply with adhesive manufacturer's written instructions.

3.4 INSPECTION AND CERTIFICATION

- A. Surge protection shall be updated as required by UL 1449 Edition 3 for lightning protection systems. The units shall be provided by the lightning protection contractor and installed by the Electrical Contractor. If current surge protection is not installed as part of this contract, then certifications will be based on the “surge exempt” criteria of the LPI-Inspection Program. LPI-IP Reconditioned Master Installation Certification shall be provided when the concealed system elements are verified by a previously issued certification provided by the Owner. When concealed work cannot be documented, the Limited Scope Inspection from LPI-IP shall be provided.
- B. Provide a letter of compliance by a LPI certified master designer stating conformance to UL.

END OF SECTION 264113