ADDENDUM #3

FOR

TURKEY HILL ELEMENTARY SCHOOL
BOILER UNIT AND VENTILATOR REPLACEMENT PROJECT

441 TURKEY HILL ROAD, ORANGE, CT

TOWN OF ORANGE
BOARD OF EDUCATION

637 ORANGE CENTER ROAD
ORANGE, CONNECTICUT

LYNN MCMULLIN

SUPERINTENDENT OF SCHOOLS

STATE PROJECT NUMBER TMP-107-GMZN

ISSUED: NOVEMBER 19, 2013

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Facility Support Services, LLC

Environmental & Safety Consulting Engineers

ADDENDUM # 3

All contractors receiving addenda are reminded that they must verify receipt of all addendums in their Bid Proposals. The following addendum modifies, substitutes, deletes, and/or adds items to the Bid Documents, Specifications and Drawings.

THE BID DATE SHALL REMAIN THE SAME AS LISTED IN THE INSTRUCTIONS TO BIDDERS

TECHNICAL SPECIFICATIONS:

1. SECTION 23 50 00 – VENTS AND BREACHINGS, Delete Section in its entirety and Add new Section Attached.

DRAWINGS:

1. TH-M107 SCHEDULES AND DETAILS MECHANICAL – New Equipment notes: The model of the new Boilers B1 & B2 shall read MPC12 in lieu of indicated MPC14.

End of Addendum #3

SECTION 23 50 00

VENTS AND BREACHINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Vents and Breechings.

B. Chimneys Inspection and Report.

C. Chimneys liners.

1.02 RELATED SECTIONS

A. Section 15556 - Cast Iron Boilers.

1.03 REFERENCES

A. ANSI/ASTM A167 - Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

B. ANSI/ASTM A525 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, General Requirements.

C. ASHRAE - Handbook, Equipment Volume, Chapter "Chimney, Gas, Vent, and Fireplace Systems."

D. ASTM A527 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Lock-Forming Quality.

F. SMACNA - HVAC Duct Construction Standards - Metal and Flexible.

G. UL 441 - Standard for Gas Vents.

H. UL 641 - Standard for Low Temperature Venting Systems.

1.04 DEFINITIONS

A. Breeching: Vent Connector.

B. Chimney: Primarily vertical shaft enclosing at least one vent for conducting flue gases outdoors.

C. Smoke Pipe: Round, single wall vent connector.

D. Vent: That portion of a venting system designed to convey flue gases directly outdoors from a

vent connector or from
an appliance when a vent connector is not used.

E. Vent Connector: That part of a venting system that conducts the flue gases from the flue collar of an appliance to a chimney or vent, and may include a draft control device.

1.05 DESIGN REQUIREMENTS

A. All products furnished under this section shall conform to the requirements of NFPA-85A, B, D and NFPA-211. Products shall be listed to UL-103 and shall carry the appropriate UL listing mark or label. The vents and breechings shall be warranted by the manufacturer against defects in material and workmanship for a period of twelve (12) years from the date of the original installation. Any portion of the vents or breechings repaired under warranty shall be warranted for the remainder of the original warranty period.

1.06 SUBMITTALS

A. Submit shop drawings under provisions of Division 1.

B. Submit shop drawings indicating general construction, dimensions, weights, support and layout of vents & breechings. Where factory built units are used submit layout Drawings indicating plan view and elevations.

1.07 QUALIFICATIONS

A. Manufacturer: Company specializing in the manufacture of products specified in this Section with minimum three years documented experience.

1.08 REGULATORY REQUIREMENTS

A. Conform to applicable ANSI Z223.1 code for installation of natural gas burning appliances and equipment.

PART 2 - PRODUCTS

2.01 VENTS AND BREECHINGS

A. Furnish and install new vents and breeching, as indicated on drawings. The vent and breeching shall be of insulated positive pressure double-wall design, factory built type for use with equipment burning natural gas and fuel oil # 2, as described in NFPA-211, which produce flue gases exhausted at a temperature not exceeding 1400 F continuously and 1800 F intermittently. The vents & breechings sections shall be constructed of an inner and outer wall . The outer wall shall be constructed of aluminized steel, .025" thickness. The inner wall, forming the flue-gas carrying pipe, shall be constructed of type 304 stainless steel, .035" thickness. Inner and outer walls shall be connected by means of spacer clips which maintain the concentricity of the annular space and allow unobstructed differential thermal expansion of inner and outer walls. All gas vents and breechings up and including 14" outer diameter shall include 1 inch thick

and over 14" in outer diameter shall include 2 inch thick high temperature resistant insulation between inner and outer walls equal to Metal-Fab, Inc. model IPIC1 and IPIC2 respectively. The manufacturer's required clearance to combustible materials will have to be maintained at all times.

All inner pipe joints shall be held together by means of tee bands and sealed with P078 Ceramic Sealant. Nuts for the inner and outer bands shall be restrained by means of a free floating cage to allow easy alignment. Screws shall be of the hex head type with shoulder stops and tapered "lead-in" threads for easy starting. Provide all required fittings, supports, auxiliary materials, etc., for a complete operational installation.

B. All boilers to be provided barometric dampers with thermal spill switches mounted on the new gas vents. on the new gas vents.

2.02 CHIMNEY INSPECTION AND REPORT

A. All existing chimneys' flues will require to be thoroughly inspected and vacuumed cleaned, prior to the installation of the new vents and breechings, by a certified chimney sweeping organization. A written Report shall be provided to the Architect/Engineer in (3) copies for review and comment, prior to starting this work.

2.03 CHIMNEY LINERS

A. All existing chimneys' flues will require to receive single wall rigid construction type stainless steel 316L chimney liners, Category I (for oil & gas), UL listed under the MH46608 and tested in accordance with UL 1777 Standard for maximum continuous flue-gas temperature outlet temperature that not exceed 570 F or maximum 1700 F for 10 minutes. The chimney liners shall include all required fittings, supports and accessories, such as assembly bans, collars, flashing, drain sections, elbows, exhaust cones, fire stops, increasers/reducers, adjustable lengths, guy wire bans, tees, wall bands, suspended bands, wall supports, rain caps, etc., as required for a complete approved operational installation. This work shall be performed in strict accordance with the manufacturer's instructions recommendations and warranty. Provide fire seals at the connection of the breeching to the chimney lining at chimney, as required.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install in accordance with recommendations of ASHRAE - Handbook, Equipment Volume, Chapter "Chimney, Gas, Vent, and Fireplace Systems", and ANSI Z223.1 (NFPA 54).

C. Install vents and breeching with minimum of joints. Align accurately at connections, with internal surfaces smooth.

D. Clean breeching during installation, removing dust and debris. Sweep existing chimneys before start-up.

E. Support and anchor vents and breeching with seismic restraints, as required.

END OF SECTION 23 50 00