



Date: June 30, 2010

Project #: EP-0034-C01

Description: Garfield Jackson Academy Addendum #1

This addendum shall be considered part of the bid documents issued in connection with the referenced project. Should information conflict with the bid documents, this Addendum shall supercede the relevant information in the bid documents.

1. **Specification section 07600 Flashing and Sheet Metal- Remove Section 07600 with a footer date of 4/26/10 and replace with the attached Section 07600 with a date of 6/30/10.**
2. **Bid Due Date has been revised to July 13, 2010 at 2:00 PM.
Bids shall be delivered to the NJSDA, attention Martin Taylor, at the following address:**

If US Mail:

NJSDA
PO Box 991
Trenton, NJ 08625-0991

If Fed Ex, UPS, Courier, Hand Delivery:

NJSDA
1 West State Street
First Floor (Wachovia Bank Building)
Trenton, NJ 08625-0991

End of Addendum #1


NJS
Steven Burgos
6/30/10
Date

<Addendum 1>

NJSDA
1 West State Street
Trenton, NJ 08625
Phone:
Fax:

Date: **June 30, 2010**

Project #: **EP-0034-C01**

Description: **Garfield Jackson Academy Addendum #1**

Addendum No. 1

Acknowledgement of Receipt of Addendum

Contractor must acknowledge the receipt of the Addendum by signing in the space provided below and returning via fax to 609-656-7229. Signed acknowledgement must be received prior to the Bid Due Date. Acknowledgement of the Addendum must be made in Section E.6 of the Price Proposal Submission.

Signature

Print Name

Company Name

Date

SECTION 07600 - FLASHING AND SHEET METAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and Division 01 apply to work of this section.
- B. Closely related work specified in other sections:
 - 1). Rough Carpentry - Section 06100
 - 2). Roof Repairs - Section 07516
 - 3). Modified Bitumen Membrane Roofing - Section 07550
 - 4). Exterior Insulation and Finish System - Section 07240
 - 5). Joint Sealers - Section 07900

1.02 DESCRIPTION OF WORK:

- A. Provide all sheet metal and flashing at EPDM roof areas, including.
 - 1). Gravel Stops
 - 2). Metal Termination Bars.
 - 3). Coping Caps.
 - 4). Modified K-Flashing (skirt flashing).
 - 5). Through Wall Scuppers
 - 6). Down Spouts
 - 7). Gutter

1.03 SUBMITTALS:

- A. Product Data, Flashing, Sheet Metal and Accessories: Manufacturer's technical product data, installation instructions and general recommendations for each specified sheet material and fabricated product.
- B. Samples of the following flashing, sheet metal and accessory items:

SECTION 07600 - FLASHING AND SHEET METAL

- 1). 8" square samples of specified sheet materials to be exposed as finished surfaces.
 - 2). 12" long samples of factory-fabricated products exposed as finished work. Provide complete with specified factory finish.
 - 3). Two (2) samples of each fastener type.
- C. Shop drawings showing layout, profiles, methods of joining and anchorages details, including major counterflashings, trim/fascia units, and expansion joint systems. Provide layouts at 1/4" scale and details at 3" scale.

1.04 PROJECT CONDITIONS:

- A. Coordinate work of this section with interfacing and adjoining work for proper sequencing of each installation. Ensure best possible weather resistance and durability of work and protection of materials and finishes.

1.05 QUALITY ASSURANCE:

- A. Qualifications of Installers: Provide at least one person, present at all times during execution of the work of this section, who shall be thoroughly trained and experienced in the materials and methods required and who shall direct the entire flashing and sheet metal fabrication and installation.
- B. Codes and Standards: In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations contained in "Architectural Sheet Metal Manual," 3rd Edition of the Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA Manual).

PART 2 - PRODUCTS

2.01 SHEET METAL AND FLASHING MATERIALS:

- A. All Roof Areas:
- 1). Aluminum: ASTM B209, Alloy 3003, Temper H14, Mill Finish, as follows:
 - a. For metal flashing skirts: .050" and .032" thickness.
 - b. For metal termination bar: .125" thickness.
 - 2). Copper: Fed. Spec. QQ-C576, ASTM B370, Light Cold-Rolled temper, as follows:
 - a. For counterflashing at Repair Roof Area 6:

- 3). Aluminum: ASTM B209, alloy 3003, temper H14, baked on Kynar finish, color as selected by Owner, as follows:
 - a. For metal gravel stops: .050" Thickness, Kynar Finish
 - b. For coping caps: .050" thickness, Kynar Finish
 - c. For down spouts: .050" thickness, Kynar Finish
 - d. For gutter: .050" thickness, Kynar Finish
- 4). Zinc Coated Copper: ASTM B370 coated on sides with zinc/tin Alloy, hot dipped.
 - a. For through wall scuppers: 16 ounces per square foot.
 - b. For conductor head: 16 ounces per square foot.

2.02 FASTENERS:

A. Fasteners for securing metal to specific substrates will be as follows:

- 1). Copper to Wood: Nails used for fastening copper shall be copper or hardware bronze of Stronghold type, or equal, with large flat head. They shall not be smaller than No. 12 Stubs gauge (0.109") and of sufficient length to penetrate wood not less than 3/4".
- 2). Copper to Copper: Rivets shall be hard copper, brass, or bronze. Screws and bolts used for fastening copper shall be copper, bronze, brass or stainless steel (passive).
- 3). Copper to Masonry: Rawl Zamac Nail in with Mushroom Head: Minimum 1/4" diameter with minimum 3/4" penetration into masonry.

2.03 FABRICATED UNITS:

- A. General Metal Fabrication: Shop-fabricate work to greatest extent possible. Comply with details shown and with applicable requirements of SMACNA "Architectural Sheet Metal Manual" and other recognized industry practices. Fabricate for waterproof and weather-resistant performance; with expansion provisions of running work, sufficient to permanently prevent leakage, damage or deterioration of the work. Form work to fit substrates. Comply with material manufacturer instructions and recommendations for forming material. Form exposed sheet metal work without excessive oil-canning, buckling and tool marks, true to line and levels indicated, with exposed edges folded back to form hems.

- B. Seams: Fabricate non-moving seams in sheet metal with flat-lockseams. For metal other than aluminum, tin edges to be seamed, form seams, and solder. Form aluminum seams with epoxy seam sealer, rivet joints for additional strength where required.
- C. Expansion Provisions: Where lapped or bayonet-type expansion provisions in work cannot be used, or would not be sufficiently water/weatherproof, form expansion joints of intermeshing hooked flanges, not less than 1" deep, filled with mastic sealant (concealed within joints).
- D. Sealant Joints: Where moveable, non-expansion type joints are indicated or required for proper performance of work, form metal to provide for proper installation of elastomeric sealant, in compliance with SMACNA standards.
- E. Separations: Provide for separation of metal from noncompatible metal or corrosive substrates by coating concealed surfaces at locations of contract with bituminous coating or other permanent separation as recommended by manufacturer/fabricator.

PART 3 - EXECUTION

3.01 INSTALLATION REQUIREMENTS:

- A. General: Except as otherwise indicated, comply with manufacturer's installation instructions and recommendations, and with SMACNA "Architectural Sheet Metal Manual." Anchor units of work securely in place by methods indicated, providing for thermal expansion of metal units; conceal fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints and seams which will be permanently watertight and weatherproof.
- B. Underlayment: Where stainless steel or aluminum is to be installed directly on cementitious or wood substrates, install a slip sheet of red rosin paper and a course of polyethylene underlayment.
- C. Bed flanges of work in a thick coat of bituminous roofing cement at built-up roof and shingle areas and approved sealant at elastomeric areas, where required for weatherproof performance.
- D. Saw-cut existing reglets in masonry walls to the depths indicated and anchor metal counterflashing with lead wedges and fill reglet with mastic or elastomeric sealant as indicated, and depending on sealant exposure.
- E. Install "beehive" type strainer guards at downspout locations, removable for downspout cleaning.

3.02 METAL FLASHING INSTALLATION:

- A. Metal Gravel Stop: Contractor shall furnish and install .050 thick or Kynar finish aluminum gravel stop and fascia along the roof perimeters, formed as indicated on the plans. Provide new continuous drip edge fastener on the bottom edge of the fascia. The gravel stop shall be in 8' lengths and installed after the roofing membrane has been applied. Allow a 1/8" space between butt joints. Provide 12" aluminum concealed flashing. Strip flash flange as detailed on Contract Drawings.
- B. Metal Skirt Flashing or K-Flashing: Provide new .050" Kynar finish aluminum or 16 ounce copper K-flashing along walls as shown on the Contract Drawings. The K-flashing shall be supplied in 8' maximum lengths. Joints shall be overlapped a minimum of 6". Existing surfaces shall be cleaned of all foreign material (bitumen, caulking, roof cement) down to bare substrate all along the top edge where caulking is to be installed. Caulk upper lip solid with a continuous bead of Dow-Corning silicone sealant so that the top surface of the sealant sheds water. Install the K-flashing in concrete walls with concrete screws with rubber washers through pre-drilled holes at 8" on center.
- 1). Where skirt flashing is to be installed below new or existing flashing, slide vertical leg up under existing flashing and face secure to existing curb with screw type fasteners with rubber washers 6" on center.
- C. Termination Bars: Where indicated provide and install new 1/8" thick x 1" wide aluminum termination bars. Length of termination bar shall not exceed 8' - 0". Secure termination bars over new base flashing composite with fasteners for appropriate substrate, minimum 8" on center. Fasteners shall incorporate rubber washers. Top of termination bar shall be sealed with sealant tooled to shed water.
- D. Through Wall Scuppers: At parapet wall, provide new 16 ounce zinc-coated copper scupper boxes with conductor head formed as shown on the Contract Drawings. Provide soldered seams. Scupper box shall incorporate a 4" flange secured over base flashing or new membrane on inside wall surface at 3" on center. Strip flange in as specified elsewhere. Provide exterior lip with hemmed flange secured 3" on center to outside wall surface. Install a continuous bead of caulk around outside hemmed flange to masonry wall surface.
- E. Gutter Installation: Provide new .050" aluminum gutters sized as indicated on Contract Details. Gutter shall be supported by 1/16" x 1" wide aluminum brackets, 3' on center and 1/16" thick x 1" wide aluminum anchor straps at 3' on center, alternating between channel brackets.

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Gutter to be continuous with no joints, except at expansion joint locations and at ends. Provide new .050" aluminum cleat, sized as indicated on Contract Drawings, secured to wood blocking 6" on center with aluminum roofing nails. End joints to be pop-riveted and caulked with sealant. Provide 3" long aluminum sleeves at downspout locations. Sleeves to be pop-riveted and sealed to bottom of gutter. Sleeve size to match inside dimension of new downspouts. Provide new wire strainers to fit snugly at all gutter sleeve openings.

- F. Down Spouts: Contractor shall furnish and install new .050" Kynar finish aluminum down spouts, as shown on Contract Drawings. Field verify size and lengths. Down spouts shall be strapped to the building walls using 1/8" thick x 1" wide mill finish aluminum strap anchors spaced at each joint and at 36" on-center. Down spouts shall incorporate 45° elbows so that down spouts conform to building profile. All elbows and joints are to be pop-riveted.

3.03 CLEANING AND PROTECTION:

- A. Clean exposed metal surfaces, removing substances which might cause corrosion of metal or deterioration of finishes.
- B. Protection: Advise Contractor of required procedures for surveillance and protection of flashings and sheet metal work during construction to ensure that work will be without damage or deterioration, other than natural weathering at time of Substantial Completion.

END OF SECTION 07600