

ROCKFORD BOARD OF EDUCATION INVITATION FOR BID ON SUPPLIES, MATERIALS, EQUIPMENT OR SERVICES FOR SCHOOL DISTRICT NO. 205 ROCKFORD, ILLINOIS

IFB No. 16-45 Kennedy Middle School Boiler Replacement

DATE: Wednesday, April 6, 2016

RE: **ADDENDUM NO. 1**

To All Bidders:

Attached are modifications, clarifications and/or corrections for the Project Manual and are hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

PLEASE SEE REVISED REQUIRED FORMS CHECKLIST ATTACHED

Refer all questions relative to the business aspect, Instructions to Bidders, Special Conditions, and questions concerning the technical aspect of the documents to the Purchasing Process Manager by email at tamara.pugh@rps205.com.



4615 E. State Street Suite 206 Rockford Illinois 61108 815 / 397-3330

ADDENDUM NO. 1

Date: April 5th. 2016

Project: 16-45 Kennedy middle School Boiler Replacement

Project Number: IFB No. 16-45

To: All Bidders

This addendum is issued to modify, clarify, or correct the original Project Manual and/or Drawings for Kennedy Middle School Boiler Replacement and is hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

Changes to the Project Manual for Kennedy Middle School Boiler Replacement.

Rockford Public Schools Required Bid Forms Check List

Refer to attached Revised Bid Form Check list Dated 04-06-2016 to be used in lieu of existing bid forms check list.

Note the added line item to include the following: *Boiler Product Information including cut sheets*

Section 004100 Refer to attached Revised Bid Form Dated 04-06-2016 Addendum #1 to be used in lieu of existing bid form dated 03-11-2016

Add Section 012300 Alternates

To be included as part of the project manual dated 04-06-16 Addendum #1

Section 12500 Substitution Procedure Part 1.4 - Action Submittals
Items 1 Have Included CSI Form 13.1A

Add Section 02449 Selective Demolition

To be included as part of the project manual dated 04-06-16 Addendum #1

Add Section 040120.65 Brick Veneer Repair

To be included as part of the project manual dated 04-06-16 Addendum #1

Changes to the Project Construction Documents for Kennedy Middle School Boiler Replacement Addendum #1

- 1. SU-001 Drawing- Chimney Repair photograph scope of work
 - a) Refer to added specification sections 02449 & section 040120.65, additional scope of work added to the project
- 2. Sheet M0.12 Key Notes 11

Omit reference to removal of "4'-0" of existing masonry stack", Revised to Read as follows: 6'-10" plus existing concrete wash of existing masonry stack"

OSA, LLC

Engineering Services / Building Commissioning/ LEED ConsultantsMEP Consultant

- a) Letter Dated 04-04-2016
 - Refer to attached Letter from OAS Addressing drawings items that were brought up during the Pre-bid Meeting on March 29th 2016
- b) Letter Dated 04-05-2016
 Refer to attached Letter from OAS Addressing drawings sheet M0.11 Additional items that were added to the scope of work by RPS.
- c) See attached Hot Water Storage Tank Photograph

See the following attachments

- a) Pre-Bid meeting notes dated 03-28-2016.
- b) Pre-Bid Sign-In Sheet dated 03-28-2016 Addendum #1
- c) Revised Bid Form Check list Dated 04-06-2016 Addendum #1
- d) Revised Bid Form Dated 04-06-2016 Addendum #1
- e) Add Spec. Section 012300 Alternates Dated 04-06-2016 Addendum #1
- f) Add Spec. Section 02449 Selective Demolition Dated 04-06-2016 Addendum #1
- g) Add Spec. Section 040120.65 Brick Veneer Repair Dated 04-06-2016 Add.#1
- h) SU-001 Drawing- Chimney Repair photograph scope of work
- i) See attached Hot Water Storage Tank Photograph
- j) CSI 13.1 Substitution Request Form

OSA, LLC

Engineering Services / Building Commissioning/ LEED Consultants MEP Consultant

- a) Attached Letter from OAS dated 04-04-2016
- b) Attached Letter from OAS dated 04-05-2016

End of Addendum #1



MINUTES OF THE MEETING

Date: Monday March 28th 2016

Time: 3:00 PM

Location: Kennedy Middle School Boiler Replacement

PROJECT NAME: 16-45 Kennedy Middle School Boiler Replacement

Attendees: See Attached list

Meeting Purpose: Mandatory Pre-Bid Meeting

ITEMS DISCUSSED

Kennedy Middle School Boiler Replacement:

General Rockford Public School Questions and or Clarification requested:

1. Mark Kehely of Hagney Architects read RPS 205 pre-bid conference opening statement

General Scope Review:

- 1. James Dobyns of RPS spoke about the district boiler project from the districts point of view.
 - a) RPS Abatement sub-contractor performing all boiler removal scope of work. This work to start on Monday May 28th
 - b) We anticipate that boiler room abatement scope of work will take 8 to 10 working days for completion and testing prior to the boiler room be opened up to the general contractors scope of work to begin.
 - c) Bid due date as noted on construction documents for 2:00 pm, Thursday, April 14th 2016
 - d) Have requested that all general contractor submit boiler product information material along with cut sheet information with their base bid submittal (This will be add to Rockford Public Schools Required Bid form Check List by Addendum #1)
 - e) District would be asking for an alternate for all work associated for new panels and receptacle work in present classrooms. (Hagney to provide revised bid form with Addendum #1
 - f) Additional contractor request to gain access back into Kennedy Middle school may be made by contacting James Dobyns at 815-298-6957 or by james.dobyns@rps205.com
 - g) All substation request must be submitted through Purchasing Process Manager by Email at tamara.pugh@rps205.com Hagney noted this information must be submitted on SCI 13.1A substitution request form. (Which will be included in addendum #1)

- 2. Keith O Higgins of OSA, LLC gave an overall scope of work for the following items.
 - a) Boiler replacement scope of work
 - b) Reworking of the present brick chimney requirements. (Hagney to provide additional information regarding this item)
 - c) Gave overall description of Univent replacement at the annex building addition. Walk through of this area was taken by all contractors.
 - d) Gave overall description of additional receptacle work being added to classrooms as noted on drawings.
 - e) Have requested that all general contractor submit boiler room cut information with their base bid

General Project Questions:

- 1. Q: Clarification was requested for boiler control system; Response Keith O Higgins of OSA would address this item by addendum #1
- 2. Q: Clarification was requested for valves rating; Response Keith O Higgins of OSA would address this item by addendum #1
- 3. Q: Clarification was requested for control wiring and conduit; Response Keith O Higgins of OSA would address this item by addendum #1
- 4. Q: Clarification was requested for building automation system; Response Keith O Higgins of OSA would address this item by addendum #1

General Walk through Project Questions:

- 5. Q: Existing Boiler room pad clarification; Response Keith O Higgins noted that new pads would be formed over existing pad. This item would be addressed by addendum #1
- 6. Q: Regarding the installation time period for the new GWH-1 per the district summer requirements. Response Keith O Higgins of OSA would verify with the RDP an address this item by addendum #1
- 7. Q: Regarding the existing boiler room access with present handrail; Response- General contractor may remove, store and reinstall present handrail as required to gain access to lower boiler room layout. Reinstallation of handrail to include a neat reinstallation to like new condition any and all wields to be ground down smoothed and repainted to match existing.
- 8. Q: Regarding present pair of H.M. exterior doors for new boiler access. Keith noted that specified the project boilers would fit through the present door opening. In the event that G.C. submits alternate boiler and unit is approved by RPS. It will be the responsibility of the G.C. to demo, remove, store adjust, and reinstall present exterior H.M. door and frame including present door lintel and any interior /exterior brick and block wall material as required to like new condition.
- Q: Was asked about any noted abatement work above the present hallway acoustical ceiling system for the required classroom hallway scope of work. Hagney's follow up conversation from RPS. States that there is no abatement material above the present acoustical ceiling line.

The above summation is our interpretation of the items discussed and the decisions reached at the above referenced meeting. Any persons desiring to add to or correct the minutes are requested to put their comments in writing within ten days otherwise the minutes will stand as written.

Mark Kehely, Project Manager Hagney Architects, LLC cc: All those present



PRE-BID MEETING SIGN-IN SHEET

IFB # 16-45 Kennedy Middle School Boiler Replacement

Tuesday, March 29, 2016 2:30 pm (CDST)

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25 Hot	Run Taine	Steven Reach	Citers BENSON	Jennifer Hopkins		Tom Carlina	Hurch Rother	Printed Name
Chicago Cuting Inc.	Morce Grap	The Morse Cromp	RELSO-BURNETTCO.	Jennifer Hopkins mechanical Inc.	Special Rower Inc.	Commercial Wechenica	Marietae	Company Name
101. 60193			SEIT SOCKNESS DEWE	Freebort IT 61032	ROCKEGAD THE GHOST			Company Address
8 15-558-720	(D8-856-7293	608-449-2456	815-877-4874	815-235-1955	815-962-1210	309243-7768	95-990 MGO	Telephone
8 15-558-7300 Jett @ Chicagocutec. com		608-449-2456 Sreed Othemorecqueupico	815-877-4874 Obenson Okelso-burneth.com	815-235-1955 Thopkinsomechine	KHOWERD Special power	LASON COMIL ON		E-mail

ROCKFORD PUBLIC SCHOOLS 16-45 Kennedy Middle School Boiler Replacement Pre-Bid Meeting Sign-In Sheet Tuesday, March 29, 2016 at 2:30 p.m.

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			BUE COMBIENO	Toold Byzhoc	Jim Olsen	13 Graco (1)	MAH Angell	11 Ahmal Muhammed	10 Keth O'Higgins	Jim Nobyns	Printed Name	
			SEMMET CONSTRUCTOR	willer Eug-	K.	Nelson (se) som Mech	midwest mech	Illinois Mechanical Sales	OAS, LLC	50/W	Company Name	
											Company Address	
			5/8-289-2660	815-963-4878 TBYLLE	(815) 742-8478	6815)-394-1910	(8/5) 234 - 8200	(173) 342-8330	430-538-1994	(569-862518	Telephone	
			BEWELL SEWELLEY	Hecograp con	(815) 742-8478 James. Olson@ Jcl. Com	(615)-394-1910 Shill@ welcowpipipipiscis	o mangell mi Duest C	(173) 342-8330 amshammal@ilmersoles.com	(30-538-1994 Konggins@oaslk:	815-298-6957 James, Johns & 185	E-mail	

SECTION 004100 BID FORM

TO:

Director of Purchasing Rockford Board of Education, School District No. 205 501 Seventh Street, 6th Floor Conference Room Rockford, Illinois 61104

FROM:	
Operatin	g as (strike out conditions that do not apply) (an Individual,) (a Corporation, organized and
	under the law of the State of,) (a Partnership,) (a Joint Venture consisting of the firm

BASE PROPOSAL:

In response to your invitation to submit a proposal for the execution of all work described by the Drawings and Specifications dated 02.23.16 and titled: RPS 205 - Boiler Replacement Project at Kennedy Middle School, located in Rockford, IL and having examined the sites where the work is to be executed; and having become familiar with local conditions as they might in any way affect the cost and/or execution of the work; and having carefully examined the aforesaid drawings, specifications and other related documents and addenda thereto, the undersigned Bidder hereby proposes and agrees to provide all labor, materials, plant, equipment, transportation, and other facilities as necessary and/or required for the complete and satisfactory execution of the work for which this proposal is submitted, for the lump-sum consideration as stated hereinafter:

Bidders must show bid amount in both words and figures. In case of discrepancy, amount shown in words shall govern.

BASE PROPOSAL:

Base Bid: For Complete Boiler Replacement at <u>Kennedy Mic</u> work described and shown on the drawings for the sum of:	ddle School, Bidder agrees to perform all
Bid	Dollars
(in writing)	(in figures)
Base Bid -Break down for Mechanical Scope of work only: Middle School , Bidder agrees to perform all work described an	
Bid	Dollars
(in writing)	(in figures)
Base Bid - Break down for Electrical Scope of work only: Middle School , Bidder agrees to perform all work described an	-
Bid	Dollars
(in writing)	(in figures)
Base Bid - Break down for combined Mechanical & Electric For Boiler Replacement at Kennedy Middle School, Bidder as shown on the drawings for the sum of:	grees to perform all work described and
Bid (in writing)	Dollars (in figures)
ALTERNATE BID ADD E-1: For complete Work shown on sheets E1.01, E1.11, E1.12, Ithe Bidding Documents for Alternate Add E-1 Bids. State Amount if the work of the Alternate Add E-1 Bid is included coordination, revision, or adjustment. (Refer to Specific Addendum #1) ALTERNATE NO. E-1: Add the sum of:	E1.13, E3.01, E3.02, E4.01 and specified in e the amount to be added to the Base Bid led in the Contract. Include costs of related ation Section 012300 Alternate - Part of
Add E-1 (in writing)	Dollars (in figures)
((()

The Owner has the right to accept the Base Bid within thirty days, and to accept any of the Alternate Bids within sixty days from the Bid Due Date, with no increase to the costs stated herein.

ADDENDA ACKNOWLEDGEMENT:

The undersigned acknowledges receipt of the following addenda:

(List by number and date appearing on each addenda. If all addenda are not acknowledged, the bid will be considered irregular).

ADDENDUM No.	Date

The undersigned agrees to complete all work at the school, as required by the contract as follows:

	Boiler Replacement
	Kennedy Middle
	School
Contract Award:	
Commence Work on:	
Substantial Completion:	
Final Completion:	

BID SECURITY:

Bid Security is attached, without endorsement, in the sum of (5% of Bid Amount):	

GENERAL STATEMENT:

- The undersigned has checked all of the figures contained in this proposal and further understands that the Owner will not be responsible for any errors or omissions made therein by the undersigned
- The undersigned agrees to assist and cooperate with the Owner in preparing the formal Contract, and shall execute same and return it to the Owner along with surety bonds and insurance certificates, as may be required by the specifications and other Contract Documents, within 10 days following its receipt.
- The undersigned further agrees to begin work on said contract as soon as practicable after date of "Contract" or "Notice to Proceed," whichever is earlier; or, in any case the undersigned fails or neglects to appear within the specified time to execute the Contract, the undersigned will be considered as having abandoned it, and the Bid Security accompanying this proposal will be forfeited to Owner as liquidated damages for delay and loss caused to Owner by reason of such failure on the part of the undersigned.
- It is understood that the right is reserved by Owner to reject any or all proposals, to waive all informalities and irregularities in connection therewith, and to award a contract for any part of the work or the project as a whole. It is agreed that this proposal may not be withdrawn for a period of 60 days after it has been opened, without permission to the Owner.

Job # C1825 BID FORM 004100-3

- The undersigned declares that the person(s) signing this proposal is/are fully authorized to sign on behalf of the named firm and to fully bind the named firm to all the conditions and provisions thereof.
- It is agreed that no person(s) or company other than the firm listed below or as otherwise indicated hereinafter has any interest whatsoever in this proposal or the Contract that may be entered into as a result thereof, and that in all respects the proposal is legal and fair, submitted in good faith, without collusion or fraud.
- It is agreed that the undersigned has complied or will comply with all requirements concerning licensing and with all other local, state, and national laws, and that no legal requirements has been or will be violated in making or accepting this proposal, in awarding the Contract to him, or in the prosecution of the work required thereunder.

The contractor certifies that the contractor is not barred from bidding on the contract as a result of a conviction for either bid-rigging or bid rotating under Article 33E of the Criminal Code of 1961.

Name of Contractor (Typed)

Contractor's Signature

SUBCONTRACTOR LISTING: (By Bidders of General Construction category of work):

RPS 205 is requesting the following breakdown of the bids. The amounts provided are for information only and will not be used for the purpose of determining the low bidder; however, all \$ amounts shall equal the amount of the entire bid entered above.

This proposal has been prepared using sub bids received from the firms listed below:

Boiler Replacement Kennedy Middle School:

Classification of Work	Name of Sub-Bidder	Total Bid Amt. (\$\$)
General Conditions & Fee		\$
Plumbing		\$
HVAC		\$
Electrical		\$
Total Bid Amount		\$\$

BOILER MANUFACTURER:

RPS 205 is requesting the manufacturer name as well as the model number of the boiler unit;

This proposal has been prepared using the boiler listed below:

Boiler Replacement Kennedy Middle School:

Job # C1825 BID FORM 004100-4

Classification	Name of Manufacturer	Model #
Boiler Unit		

BIDDER SIGNATURE:	
Respectfully submitted this day of,2016	
Legal Name of Firm:	
Federal Tax Identification Number:	
BY:	
CERTIFICATE OF ELIGIBILITY TO CONTRACT	
1961 as amended, hereby certifies that neither(he, she, it) nor any of (his, her, its) parts of (his, her, its) business has been convicted in the past five (5) years of the offense of b 33E-3 of the Illinois Criminal Code of 1961 as amended; that neither (he, she, it) no partners, officers or owners has ever been convicted of the offense of bid-rotating unconflicted that neither (he, she, it) nor any of officers or owners has ever been convicted of bribing or attempting to bribe an office State of Illinois, or has made an admission of guilt of such conduct which is a matter of Date:	id-rigging under section for any of (his, her, its) der section 33E-4 of the f (his, her, its) partners, or or an employee of the
SUBSCRIBED and SWORN TO before me	
This day of	
NOTARY PUBLIC	

END OF BID FORM

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.2 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 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 alternate E-1 is the net addition to the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

1.3 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 alternate under the same conditions as other work of the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 ALTERNATE

1. Alternate Add No.E-1 For complete work shown on sheets E1.01, E1.11, E1.12, E1.13, E3.01, E3.02, E4.01 and specified in the Bidding Documents; As indicated for work related to the installation of additional power panels RP1, RP2, RP3; all conduit and wiring associated to connect those panels to the new MDS & all conduit and surface mounted raceway for distribution to new room receptacles scope of work only for Alternate Add E-1 Bids. State the amount to be added to the Base Bid Amount if the work of the Alternate Add E-1. Bid is included in the Contract. Include costs of related coordination, revision, or adjustment. NOTE: Cost of 200A, 3P Circuit breakers in MSD for RP1, RP2, & RP3 are to be included in the Base Bid.

END OF SECTION 012300

ALTERNATES 012300 - 1

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of the existing building chimney down to 24" above finish roofline.

1.2 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.3 INFORMATIONAL SUBMITTALS

- A. Schedule of selective demolition activities with starting and ending dates for scope of work.
- B. Predemolition photographs.

1.4 FIELD CONDITIONS

- A. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- B. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify and photograph existing adjacent roofing material before starting selective demolition operations.

3.2 PROTECTION

- A. Temporary Protection: Provide temporary barricades and fencing protection required to prevent injury to people and damage to adjacent buildings and facilities to below scope of work.
- B. Remove temporary barricades and protections where hazards no longer exist.

3.3 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting roof.
 - 4. Dispose of demolished items and materials promptly.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition[and cleaned] and reinstalled in their original locations after selective demolition operations are complete.

3.4 CLEANING

- A. Remove demolition waste materials from Project site.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 040120.63 - BRICK MASONRY REPAIR

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes chimney demolition down to 24" above finish roofline, repairing brick masonry including replacing units, and providing a new concrete wash.

1.2 DEFINITIONS

A. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review methods and procedures related to brick masonry demolition and repair of existing chimney.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified.

1.5 QUALITY ASSURANCE

A. Brick Masonry Repair Specialist Qualifications: Engage an experienced brick masonry repair contractor to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience in only installing masonry is <u>insufficient</u> experience for masonry repair work. Contractor must have experience in demolition and repairing masonry.

PART 2 - PRODUCTS

2.1 MASONRY MATERIALS

- A. Face Brick: As required to complete brick masonry repair work.
 - 1. Brick Matching Existing: Units with colors, color variation within units, surface texture, size, and shape that match existing brickwork.
 - a. Physical Properties: According to ASTM C 67.
- B. Building Brick: ASTM C 62, Grade SW where in contact with earth or Grade SW, MW, or NW for concealed backup; and of same vertical dimension as face brick, for masonry work concealed from view.

2.2 MORTAR MATERIALS

- A. Portland Cement: ASTM C 150/C 150M, Type I or Type II, except Type III may be used for cold-weather construction; white or gray, or both where required for color matching of mortar.
 - 1. Provide cement containing not more than 0.60 percent total alkali when tested according to ASTM C 114.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Masonry Cement: ASTM C 91/C 91M.
 - 1. <u>Products</u>: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Lafarge North America Inc.; Lafarge Masonry Cement.
- D. Mortar Cement: ASTM C 1329/C 1329M.
 - 1. <u>Products</u>: Subject to compliance with requirements, [provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:
 - a. <u>Lafarge North America Inc.</u>; Lafarge Mortar Cement.
- E. Mortar Sand: ASTM C 144.
 - 1. Exposed Mortar: Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
 - 2. Colored Mortar: Natural sand or ground marble, granite, or other sound stone of color necessary to produce required mortar color.
- F. Mortar Pigments: ASTM C 979/C 979M, compounded for use in mortar mixes, and having a record of satisfactory performance in masonry mortars.
 - 1. <u>Products</u>: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. <u>Davis Colors, Inc.</u>; True Tone Mortar Colors.
 - b. <u>Lanxess Corporation</u>; Bayferrox Iron Oxide Pigments.
 - c. Solomon Colors, Inc.; SGS Mortar Colors.
- G. Water: Potable.

2.3 MANUFACTURED REPAIR MATERIALS

- A. Brick Patching Compound: Factory-mixed cementitious product that is custom manufactured for patching brick masonry.
 - 1. <u>Products</u>: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Cathedral Stone Products, Inc.; Jahn M100 Terra Cotta and Brick Repair Mortar.
 - b. Conproco Corporation; Mimic or Matrix.
 - c. Edison Coatings, Inc.; Custom System 45 or Thin-Fill 55.
 - 2. Use formulation that is vapor and water permeable (equal to or more than the masonry unit), exhibits low shrinkage, has lower modulus of elasticity than masonry units being repaired, and develops high bond strength to all types of masonry.

3. Formulate patching compound in colors and textures to match each masonry unit being patched.

2.4 ACCESSORY MATERIALS

- A. Setting Buttons and Shims: Resilient plastic, nonstaining to masonry, sized to suit joint thicknesses and bed depths of masonry units, less the required depth of pointing materials unless removed before pointing.
- B. Other Products: Select materials and methods of use based on the following, subject to approval of a mockup:
 - 1. Previous effectiveness in performing the work involved.
 - 2. Minimal possibility of damaging exposed surfaces.
 - 3. Consistency of each application.
 - 4. Uniformity of the resulting overall appearance.
 - 5. Do not use products or tools that could leave residue on surfaces.

2.5 MORTAR MIXES

- A. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
- B. Colored Mortar: Produce mortar of color required by using specified ingredients. Do not alter specified proportions without Architect's approval.
 - 1. Mortar Pigments: Where mortar pigments are indicated, do not add pigment exceeding 10 percent by weight of the cementitious or binder materials, except for carbon black which is limited to 2 percent.
- C. Do not use admixtures in mortar unless otherwise indicated.
- D. Mixes: Mix mortar materials in the following proportions:
 - 1. Rebuilding (Setting) Mortar by Volume: ASTM C 270, Proportion Specification, 1 part portland cement, 1 part lime, and 6 parts sand.
 - 2. Rebuilding (Setting) Mortar by Type: ASTM C 270, Proportion Specification, Type N unless otherwise indicated; with cementitious material limited to portland cement and lime, masonry cement or mortar cement.
 - 3. Rebuilding (Setting) Mortar by Property: ASTM C 270, Property Specification, Type N unless otherwise indicated; with cementitious material limited to portland cement and lime, masonry cement or mortar cement.
 - 4. Pigmented, Colored Mortar: Add mortar pigments to produce exposed, setting (rebuilding) mortar of colors required.

PART 3 - EXECUTION

3.1 PROTECTION

A. Existing building roofing material adjacent to masonry demolition and chimney repair. During masonry scope of work..

1. Provide temporary plywood sheathing a min of 10'-0" away from existing chimney.

3.2 BRICK CHIMNEY REMOVAL AND REPAIR

- A. At locations indicated, remove existing brick chimney along with existing flue linear down to 24" above finish roof line ELEV. Carefully remove entire chimney from joint to joint, without damaging surrounding masonry below roof line, in a manner that permits replacement with full-size units.
- B. Support and protect remaining masonry that surrounds removal area.
- C. Notify Architect of unforeseen detrimental conditions including voids, cracks, bulges, and loose units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.
- D. Remove in an undamaged condition as many whole bricks as possible.
 - 1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
 - 2. Remove sealants by cutting close to brick with utility knife and cleaning with solvents.
- E. Clean masonry surrounding removal areas by removing mortar, dust, and loose particles in preparation for brick replacement below 24" above finish roofline.
- F. Replace removed damaged brick with other removed brick in good condition, where possible, matching existing brick. Do not use broken units unless they can be cut to usable size.
- G. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw designed to cut masonry with clean, sharp, unchipped edges.
 - 1. Maintain joint width for replacement units to match existing joints.
 - 2. Use setting buttons or shims to set units accurately spaced with uniform joints.
- H. Lay replacement brick with rebuilding (setting) mortar and with completely filled bed, head, and collar joints. Butter ends with enough mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min. (30 g/194 sq. cm per min.) Use wetting methods that ensure that units are nearly saturated but surface is dry when laid.
 - 1. Tool exposed mortar joints in repaired areas to match joints of surrounding existing brickwork.
 - 2. Rake out mortar used for laying brick before mortar sets. Point at same time as repointing of surrounding area.
 - 3. When mortar is hard enough to support units, remove shims and other devices interfering with pointing of joints.
- I. Curing: Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.
 - 1. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.

3.3 MASONRY UNIT PATCHING

A. Patching Bricks:

- 1. Remove loose material from masonry surface. Carefully remove additional material so patch does not have feathered edges but has square or slightly undercut edges on area to be patched and is at least 1/4 inch (6 mm) thick, but not less than recommended in writing by patching compound manufacturer.
- 2. Mask adjacent mortar joint or rake out for repointing if patch extends to edge of masonry unit.
- 3. Mix patching compound in individual batches to match each unit being patched. Combine one or more colors of patching compound, as needed, to produce exact match.
- 4. Rinse surface to be patched and leave damp, but without standing water.
- 5. Brush-coat surfaces with slurry coat of patching compound according to manufacturer's written instructions.
- 6. Place patching compound in layers as recommended in writing by patching compound manufacturer, but not less than 1/4 inch (6 mm) or more than 2 inches (50 mm) thick. Roughen surface of each layer to provide a key for next layer.
- 7. Trowel, scrape, or carve surface of patch to match texture and surrounding surface plane or contour of masonry unit. Shape and finish surface before or after curing, as determined by testing, to best match existing masonry unit.
- 8. Keep each layer damp for 72 hours or until patching compound has set.

3.4 CONCRETE CHIMNEY CROWN

A. Reinforced Concrete Crown:

- 1. Cast in place a new three (3") inch thick cement wash to extend two and half (2 1/2") inches beyond perimeter of chimney. Sloped down from flue.
- 2. Crown mix to be 1 part Portland cement, 2 part concrete sand, 2 part coarse aggregate, provide integral water repellant. mix to include integral fiber reinforcement.
- 3. Crown at edge to be a min of 2" thick at the outside corners
- 4. Crown to include a drip edge on the underside of crown at least 1" inch from the chimney wall.
- 5. Slope crown downward from existing flue linear, crown not to intersect with existing flue linear run continuous sealant bead between both surfaces.
- 6. Provide bond break between the crown and the masonry to allow for differential expansion

3.5 FINAL CLEANING

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, applied by low pressure spray.
 - 1. Do not use metal scrapers or brushes.
 - 2. Do not use acidic or alkaline cleaners.

END OF SECTION 040120.63

Existing chimney size is 7'-0" x 4'-0" wide with existing concrete cap with two existing clay stack flues.

- 1. Demo Chimney & flue down to ELEV. + 24"+/- above finish roof line ELEV.
- 2. Repair chimney from roof line up to new concrete wash.
- 3. Provide new concrete wash.
- 4. Refer to Specification Sections 024119 & 040120.63 Part of Addendum #1



chitects Inc.)	PROJECT Kenn Boiler I	edy Middle School Replacement Project	TITLE Chimney Rework			
GNEY/FGM Ar	The Desirement		DRAWN	DATE 04-06-2016	SHEET NO. SU-001	
2013 HAG	100		APPROVED	JOB NO. HAGNEY: C1825	ISSUED AS	
(© 70	PROFESSION	IAL DESIGN FIRM - IL # 184-003268		HAGNET, CT023	ADDENDUM #1	







SUBSTITUTION REQUEST

Project:	Substitution Request Number:			
	From:			
То:	Date:			
	A/E Project Number:			
Re:	Contract For:			
Specification Title:	Description:			
Section: Page:				
Proposed Substitution:				
	Phone:			
Trade Name:	Model No.:			
	Phone:			
History: ☐ New product ☐ 2-5 years old ☐ 5-10 yrs o	old More than 10 years old			
Differences between proposed substitution and specified produc				
Point-by-point comparative data attached - REQUIRED BY	A/E			
Reason for not providing specified item:				
Similar Installation:				
Project: Arcl	hitect:			
Address: Own	ner:			
Date	e Installed:			
D 1 1 (1) (2) (C) (1) (C) (T) 1	No Yes; explain			
Proposed substitution affects other parts of Work:				
Proposed substitution affects other parts of Work:				

SUBSTITUTION REQUEST

(Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become
 apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Coordination, installa	ation, and changes in	the Work as necessar	y for accepted su	bstitution will be comp	plete in all respects.	
Submitted by:						
Signed by:						
Firm:						
Address:						
Telephone:						
A/E's REVIEW AND AC	ΓΙΟΝ					
Substitution approved Substitution approved Substitution rejected - Substitution Request re	as noted - Make subr Use specified materia	nittals in accordance als.				
Signed by:					Date:	
Additional Comments:	☐ Contractor	Subcontractor	Supplier	☐ Manufacturer	A/E	

Engineering Services / Building Commissioning / LEED Consultants

IFB No. 16-45 Kennedy Middle School Boiler Replacement Project

Date: April 4, 2016

Addendum Items:

A. Drawings:

- 1. Sheet M0.11 –New Partial Plan –Boiler Room– Mechanical
 - a. ADD the following General Notes to sheet:
 - 1. Existing pads for existing boilers (2) to remain. New boiler pads to be formed over the top of existing pads and doweled into the existing boiler pads. New pads to have 6×6 mesh top and bottom.
 - 2. All existing equipment pads, except boiler pads, to be removed in their entirerty.
 - 3. The stack liner will be 38'-0" in height from stack base to top. The existing brick chimney/stack will be removed down to 2'-0" below the top of the new stack liner.
- 2. Sheet P2.01 –New Partial Plan Boiler Room Plumbing
 - a. The installation of new GWH-1 (water heater) must be coordinated with Owner as building will be partially occupied during the summer. A maximum time period of four (4) weeks is to be established for the removal and installation of the new heater, piping, venting and getting the system operational. This time period is to be coordinated with Owner.

B. Specifications:

- 1. Section 23220-5; ADD paragraph 2.6 Valve Ratings as follows:
 - "2.6 Valve Ratings
 - 1. All valves shall have a minimum rating of 125 PSI."
- 2. Section 232230 2, Paragraph 3.3 Connections, ADD the following:
 - J. Contractor to furnish and install all control wiring and conduit, per Boiler manufacturer requirements, from each boiler control panel to the Multiple Boiler Sequencing Control and Hot water heating pump VFD's.
- 3. Section 230923-1 Direct Digital Control System for HVAC, paragraph 1.3, item A, REVISE as follows:

"Building automation system shall be an extension of the existing Tridium Jace based system. Contractor to field verify whether LON or BACNET based prior to purchasing equipment.



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- 4. Section 238000-5 Classroom Unit Ventilators, paragraph N. Controls, REVISE as follows:
- "1. Unit to be provided with Factory mounted DDC programmable controller with LON and/or BACNET interface (as required by existing Tridium Jace system). All damper operators, control transformers, low limit thermostat (s) to be furnished by manufacturer of the unit ventilator.
- 5. Section 230923-1 Direct Digital Control System for HVAC, paragraph 1.3 System Description, ADD the following item;

H. Furnish and install new Tridium Jace in boiler room to tie into existing Tridium control system in building. Contractor to field verify LON or BACNET prior to purchasing and installing Jace.

Sincerely,

Keith B. O'Higgins, P.E., LEED AP, CFC



OAS, LLC

Engineering Services / Building Commissioning / LEED Consultants

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IFB No. 16-45 Kennedy Middle School Boiler Replacement Project

Date: April 5, 2016

Addendum Items:

A. Drawings:

- 1. Sheet M0.11 –New Partial Plan –Boiler Room– Mechanical
 - a. ADD the following work to sheet:
 - 1. In corridor running N/S east of the Boiler Room there is a 9''-6'' long x 6'-0'' diameter existing domestic water storage tank. Tank is to have the ACM insulation removed by others. This contractor is to re-insulate the tank with 3'' thickness of Glass Fiber Rigid insulation:
 - 1) Basis of Design Manufacturers; Owens Corning, Knauf, or Owner-approved equal.
 - 2) Insulation: ASTM C612; rigid, noncombustible. K value 0.24 at 75 degrees F. Max. service temp.: 450 degrees F. Max moisture absorption: 0.1 percent by volume. Density: 2.0 lb/cu ft..
 - 3) Vapor Barrier: Kraft paper reinforced with glass fiber yarn and bonded to aluminized film. Moisture vapor transmission: ASTM E96; 0.02 perm. Secure with self-sealing longitudinal laps and butt strips. Secure with outward clinch expanding staples and vapor barrier mastic.
 - 4) Facing: 1 inch galvanized steel hexagonal wire mesh stitched on one face of insulation.
 - 5) Vapor Barrier Lap Adhesive: Compatible with insulation.
 - 6) Jacket; Canvas jacket, UL listed, ASTM C921. 6 oz./sq yd, plain weave cotton treated with dilute fire retardant lagging adhesive. Lagging adhesive to be compatible with insulation.

Sincerely,

Keith B. O'Higgins, P.E., LEED AP, CFC



OAS, LLC

Engineering Services / Building Commissioning / LEED Consultants

ROCKFORD PUBLIC SCHOOLS REQUIRED BID FORMS CHECK LIST

Bid/RFP/RFQ No.: 16-45 Kennedy Middle School Boiler Replacement

Listed below are the REQUIRED forms all bidders are REQUIRED to submit with sealed bids on or before the bid due date and time. Failure to submit ALL required forms may result in bidder being deemed non-responsive. **Required Forms Comments** Yes Bid Security Bond 5% of Base Bid Section 004100 – Bid Form **Bid Rigging Certification** Minority and Women Owned Business Concern Representation Certificate Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion Certificate Regarding Lobbying **OFAC Compliance** Vendor Conflict of Interest Disclosure Form Complete, sign, and notarize the form. If you are Certified Cleared Employee List uncertain of which employees will be working on the project, note this information on the form that the employee information will be forth coming BEFORE you start on the project, if awarded the contract. Asbestos Notification П AIA Document A305-1986 Contractor's **Oualification Statement** Section 004115 – References Boiler Product Info including cut sheets Listed below are REQUIRED FORMS/DOCUMENTS that must be submitted prior to starting work, if awarded the contract. Failure to submit forms below may result in project start delay. Performance Bond (100% of contract) Certificate of Liability Insurance Labor and Material Payment Bond (100% of AIA Document A101-2007 Standard Form of

contract)

Agreement between Owner and Contractor