



## VICKSBURG COMMUNITY SCHOOLS

### REQUEST FOR PROPOSALS

**PROJECT: ADMINISTRATION BOILER PURCHASE**  
**Bids Due by 1:30 p.m., May 11, 2010**

**OWNER: Vicksburg Community Schools**  
**301 South Kalamazoo Ave**  
**Vicksburg, Michigan 49097**

#### **INSTRUCTIONS AND PROCEDURES**

1. Bids for the Administration Boiler Purchase project, as described in these specifications, will be accepted until **Tuesday, May 11, 2010 at 1:30 PM EDT**, at which time they will be opened and read.
2. Bids will be accepted by mail or by personal delivery to Vicksburg Community Schools Administration Building at 301 South Kalamazoo Ave, Vicksburg, Michigan 49097.
3. Should a vendor elect to hand deliver bids to the Vicksburg Community Schools Administration Building, it is the responsibility of the vendor to ensure that the bid is delivered to the reception desk of the business office at 301 South Kalamazoo Ave, Vicksburg, Michigan 49097.
4. All bids must be printed & in electronic format and placed in an opaque envelope with "SEALED BIDS ADMINISTRATION BOILER PURCHASE" clearly marked on the outside of the envelope.
5. All bids must be addressed to:  
  
James Rice, Director of Facilities and General Operations  
Vicksburg Community Schools  
301 South Kalamazoo Ave  
Vicksburg, MI 49097
6. Bids received after **Tuesday, May 11, 2010 at 1:30 PM EDT**, and bids sent by fax or electronic mail will not be accepted.
7. It is the sole responsibility of the vendor to ensure that the bids are delivered to the Vicksburg Community School District by the stated date and time.

8. All bids must be submitted with the BID RESPONSE FORM (Attachment B) and must be signed by an authorized representative of the vendor.
9. Bids not submitted with the BID RESPONSE FORM or bids not signed and/or dated will not be considered and will be determined to be a non-bid.
10. A notarized copy of Public Act 232 of 2004, Familial Relationship Disclosure, (Attachment C) must accompany all bids. Bids submitted without the notarized Public Act 232 of 2004, Familial Relationship Disclosure, will be determined to be a non-bid.
11. **5% Bid Bond:** A certified check or bank draft payable to Vicksburg Community Schools, or a satisfactory bid bond executed by the bidder and a surety company in the amount equal to not less than five percent of the maximum bid amount shall be submitted with each proposal.
12. The Vicksburg Community School District reserves the right to withdraw this Request for Bid at any time and for any reason and to issue such clarifications, modifications and/or amendments as it may deem appropriate.
13. The Vicksburg Community School District Board of Education reserves the right to accept any bid, reject any part or all bids, or to waive any information in the bids should they deem it to be in the best interest of the school district.
14. Any questions regarding the (copy of) specifications or bid process should contact JR Rice, Director of Facilities and General Operations, at (269) 321-1026 at the address stated above.

## VICKSBURG COMMUNITY SCHOOLS SUNSET BOILER PURCHASE

## PART 1 -GENERAL

## 1.1 SUMMARY

- A. This Section includes packaged, water-tube boilers, trim, and accessories for generating hot water with the following configurations, burners, and outputs:
  - 1. Factory assembled.
  - 2. Forced-draft gas burner.

## 1.2 SUBMITTALS

- A. Product Data: Include performance data, operating characteristics, furnished specialties, and accessories.
- B. Shop Drawings: For boilers, boiler trim, and accessories. Include plans, elevations, sections, details, and attachments to other work.
  - 1. Wiring Diagrams: Power, signal, and control wiring.
- C. Source quality-control test reports.
- D. Field quality-control test reports.
- E. Operation and maintenance data.
- F. Warranty: Special warranty specified in this Section.
- G. Other Informational Submittals:
  - 1. Startup service reports.

## 1.3 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. ASME Compliance: Fabricate and label boilers to comply with ASME Boiler and Pressure Vessel Code.
- C. Boilers shall have minimum efficiency of 90% @ 160 degrees return.
- D. UL Compliance: Test boilers for compliance with UL 795, "Commercial-Industrial Gas Heating Equipment." Boilers shall be listed and labeled by a testing agency acceptable to authorities having jurisdiction.

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## 1.4 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace heat exchangers damaged by thermal shock of boilers that fail in materials or workmanship within specified warranty period. The boiler manufacturer shall guarantee a minimum of 90% thermal efficiency at 160° F return water and 180° F supply water (20 ° F rise)
1. Warranty Period for Heat Exchangers: 25 years from date of Substantial Completion.

## PART 2 -PRODUCTS

## 2.1 FLEXIBLE WATER-TUBE BOILERS

- A. Provide two Bryan or equivalent Model Triple-Flex (TF 200) gas fired condensing flexible tube boiler, with a capacity of 2000 BTUH input and 1800 BTUH output. (54 HP at 98% efficiency)
1. Include ability for remote shutdown within unit wiring.
  2. Voltage: 208/1/60.
- B. The boiler shall be constructed and assembled as a completely packaged UL / CSD-1 approved unit ready for field connections to the water supply, return connection, electrical power supply, natural gas supply, relief valve discharge, building management controls and flue-gas vent.
- C. The water boiler shall be manufactured in accordance with the ASME Heating Boiler Code, Section IV, and shall bear the ASME "H" stamp for a maximum working pressure of 160 PSIG at 210°F temperature.
- D. The boiler shall have no less than 9 square feet of heating surface per boiler horsepower.
- E. Vessel and Tube Construction:
1. The boiler shall be constructed on a steel frame. The boiler pressure vessel shall be provided with upper and lower drums. A minimum of two downcomers shall be provided and shall be located inside the furnace chamber to maximize proper thermal internal water circulation. No external water circulation source shall be required. Stainless steel water tubes are to be 1.5" O.D., in two different tube pass configurations: furnace section - 8 pass tube convection section --10 pass tube. All tubes are flexible serpentine bend design, not subject to thermal shock damage. Individual water tubes shall be easily removable and replaceable without either welding or rolling.
- F. Furnace/Combustion Chamber Construction:
1. The boiler shall be constructed on a heavy steel frame. The # 316L stainless steel boiler pressure vessel shall be provided with adequately sized upper and lower drums. And includes # 316L stainless steel water tubes that are to be 1 ½" O.D. Each individual water tube shall be easily removable and replaceable without either welding or rolling. The boiler shall have no more than two tube configurations. The boiler shall be furnished with an adequate number of tappings and full size inspection openings to facilitate internal boiler inspection and cleaning.

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2. The boiler shall be provided with three distinct combustion flue gas chambers. Access to the furnace / combustion chambers is gained by an access door with an opening of no less than 30" wide x 59" high to allow for inspection of the interior chambers and the burner head.

All doors shall be individually removable and shall be affixed to the pressure vessel frame with fully gasketed attachments for pressurized firing.

The doors shall be insulated with 2" high temperature ceramic fiber blanket.

The furnace / combustion chamber shall be primarily of water-wall design with one side of removable panels. The stationary interior wall shall be lined with 2" high temperature ceramic fiber blanket insulation. The front and rear walls are insulated with 2" mineral fiber mono block covered by 2" high temperature ceramic fiber blanket insulation. The boiler furnace / combustion chamber and flueways shall be designed to operate at a positive 0.10" w.c. at the boiler flue outlet. The boiler will require a "positive pressure AL 29-4 C stainless steel type metal flue. The furnace/combustion chamber shall be water wall design and be insulated with mineral fiber micro block and high temperature ceramic blanket insulation.

## G. Jacket Construction:

1. The boiler shall be complete with a metal jacket, 16 gauge, zinc-coated rust resistant steel casing, finished with a suitable heat resisting paint and shall be constructed on a structural steel frame and properly insulated with no less than " air space. Complete jacket and insulation shall be easily removable and reinstalled. The boiler shall incorporate individually removable jacket doors, with handles providing easy access to furnace chamber and access panels. The entire tube area shall be easily accessible for fireside cleaning.
2. All appropriate controls where possible, shall be mounted on boiler jacket front.
3. A tube removal and replacement shall be demonstrated at time of start-up.

## H. Boiler Trim and Control Equipment:

1. Combination thermometer and pressure gauge.
2. Water temperature control operator.
3. High limit safety control.
4. Low water cutoff.
5. ASME safety relief valve(s)
6. Water Flow switch
7. Flue outlet temperature sensor
8. 0-135 ohm modulating temperature controller.

## I. Gas Burner and Control Equipment:

1. Boiler / burner control package shall be furnished with a Sub 30 PPM Low NOx forced draft metal fiber flame retention gas burner. Burner shall be complete with variable speed combustion blower for supplying optimum combustion air with normal vent conditions.

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2. The following controls shall be furnished:
  - a. Main manual gas shutoff valves.
  - b. Fuel / air ratio regulating gas valve operator and auxiliary safety shutoff gas valve.
  - c. Auxiliary safety shutoff gas valve.
  - d. High and low gas pressure switches
  - e. Gas pilot shutoff and solenoid valves
  - f. Gas pilot ignition assembly with ignition transformer
  - g. Pilot gas pressure regulator
  - h. Air safety switch
  - i. The boiler indicator panel shall be supplied with:
    - 1) Five signal indicators:
      - a) Power on
      - b) Enable
      - d) Fuel on
      - e) Alarm
    - 2) Air safety switch.
    - 3) Fused on / off / auto switch.
    - 4) Electronic combustion safety control.

## J. Optional Boiler Trim &amp; Controls:

1. Manual reset type high limit.
2. Manual reset type low water cutoff.
3. Auxiliary low water cutoff(s).
4. UL and CSD-1 insurance requirements.
5. Auxiliary probe type low water cutoff control

## K. Optional Burner Controls and Accessories:

1. Alarm buzzer
2. Lead lag control system for multiple boilers

## 2.2 ELECTRICAL POWER

- A. Single-Point Field Power Connection: Factory-installed and -wired switches, motor controllers, transformers, and other electrical devices necessary shall provide a single-point field power connection to boiler.

1. House in NEMA 250, Type 1 enclosure.
2. Wiring shall be numbered and color-coded to match wiring diagram.
3. Install factory wiring outside of an enclosure in a raceway.
4. Field power interface shall be to a fused on/off switch.
5. Provide each motor with overcurrent protection.

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## 2.3 SOURCE QUALITY CONTROL

- A. Burner and Hydrostatic Test: Factory adjust burner to eliminate excess oxygen, carbon dioxide, oxides of nitrogen emissions, and carbon monoxide in flue gas and to achieve combustion efficiency; perform hydrostatic test.

## 2.3 HYDRONIC EQUIPMENT

- A. Provide 2 B&G Base Mounted Pump Series 1510, Model 2 AC, BF, 2 HP, 1800 RPM, with 6.625" Impeller, Standard Seal, BG Choice, ODP, Energy Efficient, 230/460/3/60 Motor, 80 GPM, 43 FT TDH.
- B. Provide 2 B&G 3DS-3B BALANCED Type Triple Duty Valve Straight Pattern 3 IN.
- C. Provide 4 Metraflex Model MINI-3 Braided SS Pump Connector
- D. Provide 2 Bobco Differential Gauge Kit with gauge
- E. Provide 6 Metraflex 3" Butterfly Valves - Bronze Disc, EPDM Seat, 416ss Stems, Cast Iron Lug Body

## PART 3 -EXECUTION

## 3.1 FIELD QUALITY CONTROL

- A. Provide a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to conduct CSD-1 testing and prepare test reports.

## 3.2 DEMONSTRATION

- A. Provide a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain boilers

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Vendor: \_\_\_\_\_

**VICKSBURG COMMUNITY SCHOOLS  
PROPOSAL RESPONSE FORM  
BOILER PURCHASE FOR SUNSET BUILDING**

A. Cost

Contingency (If any) \$ \_\_\_\_\_

Factory Set Up Allowance \$ \_\_\_\_\_

Optional equipment cost \$ \_\_\_\_\_

Base cost \$ \_\_\_\_\_

Total Proposal \$ \_\_\_\_\_

[Use a separate proposal form for each product you desire to offer.]

Boiler name/type: \_\_\_\_\_

Optional equipment name/type: \_\_\_\_\_

Other/type: \_\_\_\_\_

NOTE: Contingency is to be authorized by Owner only. Any unused contingency will be returned completely to Owner at end of construction.

**5% Bid Bond:** A certified check or bank draft payable to Vicksburg Community Schools, or a satisfactory bid bond executed by the bidder and a surety company in the amount equal to not less than five percent of the maximum bid amount shall be submitted with each proposal.

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Vendor: \_\_\_\_\_

**VICKSBURG COMMUNITY SCHOOLS  
PROPOSAL RESPONSE FORM  
BOILER PURCHASE FOR SUNSET BUILDING**

B. References

The following references are provided which may be contacted by the Owner as needed:

Company Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Project Description: \_\_\_\_\_

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Address: \_\_\_\_\_

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VICKSBURG COMMUNITY SCHOOLS SUNSET BOILER PURCHASE

Vendor: \_\_\_\_\_

**VICKSBURG COMMUNITY SCHOOLS  
PROPOSAL RESPONSE FORM  
BOILER PURCHASE FOR SUNSET BUILDING**

C. Deviations

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E. Provide warranty information concerning installation and maintenance.

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F. How long will your prices be in effect? \_\_\_\_\_

G. If contract is awarded on May 17, 2010 when can Delivery be expected \_\_\_\_\_

**FAMILIAL RELATIONSHIP DISCLOSURE STATEMENT**

***Important: This disclosure statement must be included with your bid as required by state law (Public Act 232 of 2004).***

*As required by Public Act 232 of 2004, all bids shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the bidder and any member of the Vicksburg Community Schools Board of Education or the Superintendent of Schools. The Board of Education shall not accept a bid that does not include this sworn and notarized disclosure statement.*

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The undersigned, the owner or authorized officer of \_\_\_\_\_ (the "Bidder"), pursuant to the familial disclosure requirement provided in the Vicksburg Community Schools invitation to bid, hereby represent and warrant, except as provided below, that no familial relationships exist between the owner(s) or any employee of the company and any member of the Vicksburg Community Schools Board of Education or the Superintendent of Schools. (Listing of names follows.) If such a relationship exists, please explain:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By: \_\_\_\_\_ (bidder' signature)

Name: \_\_\_\_\_ (type or print)

Date: \_\_\_\_\_

**Subscribed and Sworn to Before Me:**

This \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_ A.D., in and for the County of \_\_\_\_\_, Michigan. My commission expires \_\_\_\_\_

\_\_\_\_\_  
Signature of Notary