



Memorandum

DATE: July 28, 2010

TO: Menasha Board of Public Works

FROM: Mark Radtke, Director of Public Works *MR*
Adam Alix, Building Services Superintendent *AA*

RE: Recommendation to Approve Proposal for HVAC Upgrades at the Public Protection Facility – Riederer Engineering LLC; \$6,300

Earlier this year, the City of Menasha was awarded an Energy Efficiency and Conservation Block Grant (EECBG) for the conversion of City street lights to induction lighting and the retrofit of HVAC equipment at the Public Protection Facility (PPF). The PPF retrofit involves the replacement of two condensers and two boilers and is supported by the EECBG amount of \$116,800.

It is necessary to prepare specifications, plans and bidding documents for the PPF HVAC project. A Request for Proposals was prepared and submitted to four area engineering firms on June 30, 2010. Following are the base and alternate price proposals from the two submitting firms:

	<u>Base Price</u>	<u>Alternate Price</u>
Riederer Engineering LLC	\$6,300	\$3,790
ALL HVAC Design, LLC	\$10,250	\$6,750

The alternate bid is an additional amount to generate specifications to upgrade the HVAC air distribution system to a fully DDC system with VAV boxes and reheat coils but we are not recommending selection of the alternate due to total price concerns.

Building Services Superintendent, Adam Alix, and I are recommending the approval of the proposal from Riederer Engineering LLC in the amount of \$6,300 for the base engineering design work. These funds were not included in the 2010 Budget due to the uncertainty of the EECBG program at budget preparation time. We are exploring the possibility of using other remaining Police and Fire department budgeted funds for this cost. We also have requested the application of EECBG funds toward the engineering costs, but the Wisconsin Department of Commerce has not yet responded to our request. The receipt of \$116,800 for the new equipment and the resulting increase in energy efficiency warrants the engineering cost, even if the City must entirely fund it.

Enclosure



Riederer Engineering LLC

2626 E. Wisconsin Ave., Appleton WI 54911

Phone 920-993-8337 Fax 993-8341 E-mail riedeng@new.rr.com

July 13, 2010

Mark Radtke, Director of Public Works
140 Main Street
Menasha, WI 54952

Subject: Public Protection Facility HVAC Upgrade
Proposal for Engineering Services

Dear Mr. Radtke:

We are pleased to submit a proposal for engineering services for replacement of HVAC equipment in the Public Protection Building at 430 First Street. Our proposal is in response to your Request for Proposals dated June 30 and is in accordance with that document unless noted otherwise.

SCOPE:

We understand the scope of the base project to consist of replacing 2 cast iron boilers and 2 air cooled condensing units. In general, we will provide design services per the attached "Scope of Professional Services".

Considerations that we are aware of are controls, pumping and venting for the replacement boilers, and compatibility of the existing DX coils and refrigeration piping in the air handling units with the replacement condensing units. These were discussed with Adam Alix during our site visit to observe the existing equipment. We anticipate changing the boiler system to primary-secondary or variable primary flow piping as part of the boiler replacement.

We have included electrical design necessary for the replacement of the HVAC equipment.

SCHEDULE:

We are prepared to start the project within two weeks of authorization to proceed, and can complete within 6 weeks after starting. If authorized in early August, we can complete the bid documents by the end of September. The most efficient construction schedule would be to replace the condensing units late this fall or early next spring, and the boilers after they are shut down for the summer 2011. There is no seasonal good time for the alternate VAV replacement.

FEE:

Our lump sum proposal for the project, subject to the included exceptions and clarifications, is Six Thousand Three Hundred (\$6,300) Dollars.

For the alternate item, our lump sum add is Three Thousand Four Hundred Eighty (\$3,790) for a total of Ten Thousand Ninety (\$10,090) Dollars

EXCEPTIONS:

Our proposal scope includes replacing the equipment with that of comparable output capacity, i.e. we have not included a complete re-calculation of building loads. History is the best reference in these cases.

Our understanding from the RFP is that we will not be expected to approve contractor pay requests.

The City will provide the necessary wage rate schedules, and other specific requirements for contractors such as safety rules, insurance requirements, bid and performance bonding, etc. for inclusion in the construction contract. We anticipate that this contract will be bid as a single prime with HVAC being the lead contractor.

The City will, with input from us as required, satisfy the reporting requirements for the EECBG program.

CLARIFICATIONS:

1. The drawings will be produced using AutoCAD. If the alternate is taken, we will produce overall building drawings on floor plan backgrounds furnished by the City (these may consist of scanned paper drawings). Specifications will be produced using our office standard format, which is similar to AIA MasterFormat.
2. For changes in scope and/or additional services requested, we will bill according to the attached labor and expense schedule. This schedule will also apply to reimbursable items not included in our quoted fees as listed below:
 - a. Approval or permit fees
 - b. Bulk reproduction of contract documents
 - c. Mileage
 - d. Postage
3. Progress billings will be made as follows, due net 30 days:
 - a. During design development and contract document phases: Monthly progress billings.
 - b. At conclusion of design development phase: 25%
 - c. At delivery of contract documents: 50%
 - d. At completion of submittal review: 15%
 - e. Upon completion of final site visit and punch list: 10%
4. We are prepared to enter into a standard AIA Agreement Between Owner and Consultant at the commencement of this project, or you may sign and return this proposal as our Agreement. Any other contract required may require adjustment of the quoted fees.

RISK ALLOCATION

Riederer Engineering LLC carries Professional Liability Insurance. In recognition of the relative risks, rewards and benefits to our Client and our firm, to the fullest extent permitted by law, our firm's total liability for this project for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement from any

cause or causes, shall not exceed \$100,000. Such causes include, but are not limited to, our firm's negligence, errors, omissions, strict liability, breach of contract, or breach of warranty.

This proposal is subject to acceptance within 60 days of the proposal date and is void thereafter at the option of Riederer Engineering LLC.

Thank you for providing us with the opportunity to quote you on these services. If the above scope, schedule, or fee is not to your satisfaction, please contact us immediately.

Sincerely,
RIEDERER ENGINEERING LLC



Thomas A. Riederer, P.E.

ACCEPTANCE OF PROPOSAL:

The above prices and conditions are hereby accepted. Riederer Engineering LLC is authorized to perform the work as stipulated in this proposal.

_____ Authorized signature
Date Name (please print)

- Attachments:
Scope of Professional Services
Confidential Billing Rates, dated May 10, 2010



Riederer Engineering, LLC

2626 E. Wisconsin Ave., Appleton, WI 54911
Phone 920-993-8337 Fax 920-993-8341 E-mail riedeng@new.rr.com

SCOPE OF PROFESSIONAL SERVICES

Client: City of Menasha Project: Public Protection Facility Equipment Replacement
Date: July 13, 2010

Professional Areas Included: HVAC Interior plumbing

"•" Below indicates included in design scope

Preliminary/Design Development

- Initial site visit
- Heating/cooling calculations
- Design development report
- Energy use analysis
- Envelope compliance analysis
- Cost estimating, preliminary
- Technical report(s), other

Construction Documents

- Manual drafting (sketches)
- AutoCAD drafting
- Design criteria drawings
- Demolition Drawings
- Detailed drawings
- Site utility design
- Plumbing isometrics
- Roof drainage design
- All-Air HVAC
- Hydronic/Steam HVAC
- Control Schematics/ P&ID's
- Outline specifications
- Detailed specifications
- Cost estimating, detailed
- Plan review applications

Bidding/Procurement

- Pre-bid meeting
- Prepare addenda
- Equipment specifications
- Bid review/tabulation

Construction Phase Support

- Pre-construction meeting
- Submittal review
- 2 Site visit(s) during construction, with reports
- Construction bulletins as required
- Final site visit
- On-site for commissioning or startup
- Record drawings

Administrative

- 1 Project meetings during design
- 0 Project meetings during construction
- Limitation of Professional Liability: \$100,000
- Plan approval fees
- Document reproduction costs
- Travel expenses included
- Reimbursables billed per attached rate sheet

THIS PROPOSAL IS VALID FOR 60 DAYS FROM PROPOSAL DATE
TERMS: Progress billings, 80% due on plan issue, 100% due at completion of scope
Payments due net 30 days

Riederer Engineering LLC

Confidential Billing Rates

Effective May 10, 2010

This attachment is part of the contact

Labor

Senior Engineer/Principal services (at individual's rate).....	\$90.00-\$100.00/hr
Engineer/Designer services (at individual's rate).....	\$60-\$75.00/hr
Design support services (at individual's rate).....	\$40-\$50.00/hr
Administrative support services.....	\$42.00-\$45.00/hr

Above rates include computer, CAD workstation, and other normal office equipment
Labor is billed to nearest one-quarter hour

Expenses

Mileage, automobile.....	\$0.56/mi.
Photographs (film or digital).....	\$0.50 ea.
8-1/2" x 11" Photocopies or printer originals.....	\$0.15 ea.
Plotted drawings on bond, black & white	
11x17 or smaller.....	\$1.00 ea.
24x36.....	\$2.00 ea.
30x42.....	\$3.00 ea.
Contracted or specialty services.....	Cost plus 10%
Plan approval fees paid by us.....	Cost plus 5%
Professional Liability in excess of \$100,000, if not stated in scope	
\$500,000 coverage.....	\$200
\$1,000,000 coverage.....	\$300

A service charge of 1-1/2% per month will be charged on all balances not paid in 30 days



ALL HVAC Design, LLC - services available to aid in: 1
Envelope Performance Evaluation, Compliance, & Energy Study
Feasibility & Budgeting Assistance • Creation of State Approved Drawings
Project Supervision & Management • Shop Drawing Compliance Review
Commissioning HVAC Systems • Creation of Record Drawings

Heating, Ventilating, & Air Conditioning Design, LLC

July 14th, 2010

CITY OF MENASHA **REQUEST FOR PROPOSAL**

PUBLIC PROTECTION FACILITY HVAC UPGRADE **(BOILER AND AIR COOLED CONDENSING UNIT REPLACEMENT)**

Project Location: 430 First St., City of Menasha - WI

SECTION 1

A. Statement of non-affiliation:

- I. ALL HVAC Design, LLC is a completely independent, “third party”, Heating, Ventilating, and Air Conditioning engineering, design, and consulting firm. We have no affiliation with any material suppliers, manufacturers, or contractors.

SECTION 2 (Description of Requested Design Services)

A. City of Menasha’s requested H.V.A.C. engineering services

1. Replacement of (2) existing comfort heating hot water boilers with new sealed combustion, high efficiency, fully modulating, fully condensing boilers. Provide digital boiler controls with outdoor air reset and lead-lag boiler arrangement.
2. Replacement of (2) existing air cooled condensing units and associated dx coils with ultra-high efficiency air cooled condensing units and dual circuit serpentine dx coils.

Note: Boilers and Condensing Units shall be selected for maximum efficiencies in order to obtain largest possible Focus on Energy contributions.

Partnering with: Architects • Contractors • Engineers • Owners • Utilities

Joseph J. Ferg – owner and Licensed Designer of Engineering Systems - HVAC
213 Stroebe Rd. • Appleton, WI 54914 • Tel: (920) 730-7473 • Email: jferg@new.rr.com

SECTION 3 (Base Bid Design Services)

A. Cost of providing the above requested services:

Fixed Fee: \$10,250.00

Included in the H.V.A.C. engineering services are the following...

- I. Preliminary Design
 - a) Attend a preliminary meeting with City staff prior to creating the specs and bid documents to review the City's requirements and desired outputs.
 - b) Perform building envelope heat loss calculations to determine the proper size of the new boilers.
 - c) Review previous year's gas bills from the utility provider.
 - d) Determination of type and manufacturer of boilers to be installed in building considering energy consumption, building limitations, and other constraints.
 - e) Prepare a summary of the potential savings (in terms of gas used and money savings on utility bills) by replacing the existing boilers with new as determined in item 'd' above. This summary will also be used in obtaining Focus on Energy contributions as they determine their grant amounts based on estimates of therms saved annually.
 - f) Determine best possible boiler locations within the existing boiler room to allow ease of maintenance and adhere to all manufacturer minimum clearance requirements.
 - g) Investigate current settings on the outdoor air intake dampers for the building's ventilation and exhaust make-up air. Provide a determination if it will be possible to lower the outdoor air quantity being brought into the building while still maintaining acceptable code required ventilation levels and proper building pressurization. The amount of energy required to heat or cool a building's outdoor air intake quantity is typically a large percentage of the building's overall comfort heating and cooling energy usage.
 - h) Investigate potential grants, rebates, etc. with Focus on Energy. Note: Boilers and Condensing unit sizing shall be selected for maximum efficiencies in order to obtain the largest possible Focus on Energy contributions.
- II. Working Drawings
 - a) Prepare all necessary final equipment schedules showing proper equipment capacities, mfr., model numbers, voltages, horse-powers, etc. Coordinate all sizing with other trades that may be affected, such as, electrical engineer.
 - b) Prepare Demolition Drawings showing the removal of the existing boiler, condensing units, dx coils, and all piping that will be required to be removed before the new equipment is installed.
 - c) Prepare Bid / Construction drawings and details using AutoCad that detail the installation of the new boilers, pumps, condensing units, dx coils, and associated piping.

Partnering with: Architects • Contractors • Engineers • Owners • Utilities

Joseph J. Ferg – owner and Licensed Designer of Engineering Systems - HVAC
 213 Stroebe Rd. • Appleton, WI 54914 • Tel: (920) 730-7473 • Email: jferg@new.rr.com

- d) Bid / Construction drawings shall be in full compliance with all city / state codes and all ARRA requirements.
- e) Bid / Construction documents shall conform to all accepted engineering practices regarding this type of work.
- f) Prepare specifications meeting all City, State, and ARRA requirements. Note: The federal Davis Bacon wage rate determination shall be included in the bidding documents.
- g) Provide final stamped and signed calculations to be submitted with drawings for state review.
- h) Prepare plans and required forms for State and local agency approvals.

III. Bid Phase

- a) Answer all questions from prospective bidders as needed.
- b) Assist the city with bid evaluations, review of submitted bids with regards to compliance with bid documents, and contractor qualification/selection.
- c) Prepare a "Recommendation to Award" letter to the City.

IV. Construction Phase Services

- a) Conduct a pre-construction meeting with winning contractor and City representatives to review the project once again in order to answer any design intent questions that may have come up before construction begins.
- b) Review shop drawings.
- c) Review any change orders with the Construction Management Team and the City as the situation may dictate.
- d) Site visit as needed in order to verify compliance with construction documents. A minimum of (3) site visits are included with this proposal ((1) near initial installation, (1) at approximately 50% completion, (1) near final completion).

Note: All items appearing "not in compliance" will be noted in a construction observation report with copies being sent to the City representative and the Contractor.

- e) Final inspection at project completion including preparation "punch list" of items needing correction and/or completion by the contractor; as well as signing of the required compliance statement to be turned over to the local inspector.

V. Insurance

- a) Certificate of Insurance will be provided upon award of design contract for this project.

VI. The fee does not include:

- a) Changes in scope of the project.
- b) As-built record drawings.

Partnering with: Architects • Contractors • Engineers • Owners • Utilities

Joseph J. Ferg – owner and Licensed Designer of Engineering Systems - HVAC
 213 Stroebe Rd. • Appleton, WI 54914 • Tel: (920) 730-7473 • Email: jferg@new.rr.com

- c) Administration of the bid process including...coordinating advertisement for bid, pre-qualification of all bidders, procurement of all bid documents, and receipt and opening of bids.
- d) State construction document review fees. All required fees will be treated as a reimbursable expense and invoiced as a separate line item on the billing statement.

SECTION 4 (Alternate Design Services Requested)

- A. In addition to the design services requested and described in Section's 2 and 3 above...design and generate specifications and construction documents to upgrade the HVAC air distribution system and controls to fully DDC control system with VAV boxes complete with hot water reheat coils.

Additional HVAC Design Fees associated with the above requested services:

Fixed Fee: \$6,750.00

SECTION 5 (Project Schedule)

- A. The City intends to proceed with the installation of the proposed equipment later this year. It is expected that the selection of the engineering firm will be approved August 2nd, 2010.
- B. If awarded the design contract on August 2nd, 2010 it is ALL HVAC Design's intent to have bid documents ready for distribution by Wednesday August 18th, 2010.

SECTION 6 (Engineer's Education & Experience)

- A. Engineer's education and experience:
 - I. *ALL HVAC Design, LLC* was founded in January of 2004 by Joseph Ferg with the primary goal of designing affordable, quality HVAC systems in an accurate and timely manner.
 - II. *ALL HVAC Design, LLC* began after over six years of experience working for; *Longberg & Associates, Inc.* (May of 1997 thru November of 2002) and *Longberg Brandel & Associates, Inc.* (November 2002 through December of 2003). Longberg & Associates, Inc. was a well established hvac design/consulting firm located in the Appleton area from 1978 until its sale in November of 2002.
 - III. Before starting a career in hvac design/consultation *ALL HVAC Design, LLC* owner Joe Ferg attended the following schools of higher education:
 - a) 1992-1994
University of Wisconsin – Fox-Valley
Emphasis of Study – Chemistry major / Biology minor

Partnering with: Architects • Contractors • Engineers • Owners • Utilities

Joseph J. Ferg – owner and Licensed Designer of Engineering Systems - HVAC
213 Stroebe Rd. • Appleton, WI 54914 • Tel: (920) 730-7473 • Email: jferg@new.rr.com

- b) **1994-1995**
University of Wisconsin – La Crosse
Emphasis of Study – Chemistry major / Biology minor
- c) **1995-1997**
Western Wisconsin Technical College
Emphasis of Study – Mechanical Design (Associate Degree)

- IV. Additional continued education:
 - a) ASHRAE member.

SECTION 7 (Corporate History of Similar Projects)

- A. Corporate history of similar projects:
 - I. City Center East Appleton – Boiler Replacement
 - II. City Center West Appleton – Steam-to-Hot Water Conversion and Boiler Replacement
 - III. Emmanuel United Methodist Church – Appleton – Boiler Replacement
 - IV. Lincoln Elementary School Appleton – Boiler replacement
 - V. Manawa High School – Boiler Replacement
 - VI. Rosendale Elementary School – Boiler Replacements
 - VII. Rosholt High School – Boiler Replacement
 - VIII. Rosholt Middle School – Boiler Replacement
 - IX. Union Congregational Church Green Bay – Boiler Replacement
 - X. Wabeno Elementary School – Boiler Replacement
 - XI. Wausau Airport – Heating system replacement
 - XII. Wautoma Area School District – High School Boiler Replacement
 - XIII. Wautoma Area School District – Riverview Elementary School Boiler Replacement

SECTION 6 (References)

- A. List of references:

<ul style="list-style-type: none"> I. Duane Braun Manawa High School 920-596-2524 II. Gerry Trzebiatowski Rosholt School District 715-677-4542 	<ul style="list-style-type: none"> III. Mark Spindler (Lincoln Elementary School) Appleton Area School District 920-997-1493 IV. Paul Werch Pfefferlee Management (City Center East & West) 920-730-4280
--	--

Partnering with: Architects • Contractors • Engineers • Owners • Utilities

Joseph J. Ferg – owner and Licensed Designer of Engineering Systems - HVAC
213 Stroebe Rd. • Appleton, WI 54914 • Tel: (920) 730-7473 • Email: jferg@new.rr.com