REQUEST FOR BOARD ACTION

ITEM NO. 18

DATE OF MEETING: November 9, 2015

REQUESTED BY: Michael G. Mack, Utilities Director

SHORT TITLE: Resolution to Award an Engineering Services Contract to Replace the Boiler/Chiller System that Serves the County Complex on S. Walker Street with a New HVAC System to Improve Temperature and Humidity Control in each of the Three Buildings to Cheatham and Associates in the Amount of $76,000.

BACKGROUND: The Administration, Health Department, and Agriculture Buildings located on South Walker Street are climate controlled by a 27 year old Boiler/Chiller system. The boiler/chiller system has become increasingly difficult and expense to maintain due to its age and is insufficient to properly eliminate humidity in the buildings thereby allowing the possibility for mold and mildew to accumulate in the buildings. Staff hired Cheatham and Associates in October 2014 to conduct a study of the existing system and to provide recommendations for upgrading the existing Boiler/Chiller system or replacing it all together with a new HVAC mechanical system. Based on the results of the study and recommendation to replace the boiler/chiller system with new air handler units with split system heat pumps in each building, staff requested and received Capital Project funding in amount of $1,200,000 for this project.

Staff has recently met several times with Cheatham & Associates to discuss options and define the project criteria and scope of their work. The project criteria was agreed upon and documented in the attached letter dated October 14, 2015. Based on the defined project criteria, Cheatham & Associates submitted their attached engineering services fee proposal dated October 21, 2015 in addition to an overall Opinion of Probable Fees and Construction Costs for the completion of the project. Please note their fee proposal does not include the cost for cleaning of the duct work or interior of the buildings as this work will be under a separate contract administered by the Public Works Department.

Staff recommends award of the Engineering Services Contract to Cheatham & Associates in the total amount of $76,000.

SPECIFIC ACTION REQUESTED: To adopt a Resolution awarding an Engineering Services Contract to Cheatham & Associates for the HVAC mechanical renovations of three (3) County Government Buildings in the amount of $76,000.

RESOLUTION

NOW, THEREFORE BE IT RESOLVED by the Pender County Board of Commissioners that:

a Resolution awarding an Engineering Services Contract for the HVAC mechanical renovations for three (3) buildings at the County Government Complex in the amount of $76,000 to Cheatham & Associates is Approved and Authorized.

60-404505-6096	Engineering Services	$76,000

The Chairman/County Manager/Project Manager is authorized to execute any document necessary to implement this resolution.

AMENDMENTS:

MOVED_____ SECONDED_____

APPROVED_____ DENIED_____UNANIMOUS

YEA VOTES: Williams ___ Brown ___ McCoy ___ Piepmeyer ___ Keith ___

_____ 11/09/15
J. David Williams, Jr. Chairman Date

_____ 11/09/15
ATTEST Date

Cheatham and Associates, P.A.
Consulting Engineers

October 21, 2015

Mr. Michael G. Mack, Director
Pender County Utilities
P.O. Box 995
Burgaw, NC 28425

RE: Engineering Services Proposal
Mechanical Renovations
Pender County Government Complex
Burgaw, North Carolina

Dear Mr. Mack:

We greatly appreciate the opportunity given us to prepare this engineering services fee proposal for the above referenced project. We are pleased to offer HVAC and Electrical systems design services based on the following:

1. HVAC and electrical renovations based on our October 14, 2015 Project Criteria (enclosed for reference). The three buildings included in this proposal are the Administration, Health and Human Services, and Agricultural Services Buildings.

2. Our preliminary Opinion of Probable Cost for the HVAC renovations, HVAC control replacement, electrical renovations and ceiling replacement as understood is $813,000.00 (see attached Opinion of Probable Cost). This includes design fees and allowances.

3. Documents will be suitable for public bidding and construction that address the applicable project criteria.

4. Bidding phase services include attendance at pre-bid conference, responses to bid questions, preparation of addenda, and attendance at bid opening.

5. Construction phase services include review of submittal data/shop drawings, twelve (12) construction observation site visits with construction status meeting, review of pay requests, response to RFI's, final inspections, project close-out documentation, and preparation of record drawings.

6. The following services are not included in our proposal:

    a. Provision of system commissioning or coordination with a commissioning agent.

    b. Investigation, evaluation, and design of remediation of lead paint and asbestos containing materials.

    c. Mold assessment report.

    d. Foam sealing perimeter of buildings.

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e. Renovation of building envelope.

f. Although the HVAC loads will be calculated for the building's spaces, life cycle cost analysis and/or energy usage modeling are not included in this proposal.

7. The Standard of Care for all professional services performed or furnished by Cheatham and Associates, P.A. (Consultant) under this Proposal will be the skill and care used by members of Consultant's profession practicing under similar circumstances at the same time and in the same locality. Consultant makes no warranties, express or implied, under this Agreement or otherwise in connection with Consultant's services.

Our fee breakdown is as follows:

Engineering Services	Percent of Fee Payment	HVAC & Electrical
Design Development	35%	$ 26,600.00
Construction Documents	30%	$ 22,800.00
Receipt of Bids	5%	$ 3,800.00
Construction Phase	30%	$ 22,800.00
Total – Design and Construction	**100%**	**$76,000.00**

Please indicate acceptance of this proposal and return a signed copy to our office. Thank you again for giving us the opportunity to work with you and Pender County Utilities on this project.

Sincerely,

Cheatham and Associates, P.A.

Kenneth Lynch, P.E., LEED AP

Attachments

KL/dsb

Accepted:

Pender County Utilities

By: _____
Michael G. Mack, Director

Date: _____

Cheatham and Associates, P.A.
Mechanical • Plumbing • Electrical
Consulting Engineers

OPINION OF PROBABLE FEES AND CONSTRUCTION COST
MECHANICAL RENOVATIONS
PENDER COUNTY GOVERNMENT COMPLEX
PENDER COUNTY UTILITIES
BURGAW, NORTH CAROLINA

October 21, 2015

Item	Amount
Major equipment including 33 split system heat pumps for the three buildings and seven dehumidifying outside air units to control the buildings' humidity. The projected average size of the split system heat pumps will be four tons. No mold remediation or foam sealing the walls between the ceiling and the roof is included in this estimate.	
Construction Cost with Contractors working nights and weekends	
Mechanical	$ 495,000.00
Electrical	$ 160,000.00
Ceilings	$ 62,000.00
Subtotal	$ 717,000.00
Allowance	$ 20,000.00
Construction Cost	**$ 737,000.00**
Design Fee	$ 76,000.00
TOTAL PROJECT COST	**$ 813,000.00**

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Cheatham and Associates, P.A.
Consulting Engineers

MECHANICAL RENOVATIONS
PENDER COUNTY GOVERNMENT COMPLEX
PENDER COUNTY UTILITIES
PENDER COUNTY, NORTH CAROLINA
CAPA No. 15.57

October 14, 2015

PROJECT CRITERIA

1. HVAC systems will be replaced to be split system heat pumps in the Administration, Health and Human Services, and Agricultural Services buildings.

2. HVAC zoning will be increased in each building.

3. Existing duct systems will be reused as much as possible. Existing diffusers and grilles will be replaced.

4. All three buildings will remain occupied and in use during the duration of the HVAC replacement project.

5. Pender County will be responsible for duct interior cleaning in the three buildings. Mold assessment has been completed. There is no evidence of toxic materials in any of the three buildings. Therefore, remediation is not a part of this project.

6. Spray foam on exterior wall to seal outside air from infiltrating the building will be done if found necessary at a later date.

7. Existing ceiling tiles, ceiling grid and light fixtures will remain intact and shall be removed only during Contractor's working hours. Ceiling tiles shall be replaced each day before the operating hours in the building.

8. The Contractor's working hours shall be from 5:00 PM until 8:00 AM each work day and all day Saturdays and Sundays. Holidays may be available with Owner's permission.

9. The Contractor shall clean up any debris left inside of the occupied area each day before the buildings are occupied.

10. By alternate bids, Contractor shall replace ceiling tiles and light fixtures, and clean the existing ceiling grid.

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11. Heating and cooling of the different areas of the buildings shall remain in operation during the full construction time with no areas out of operation for more than two days. Owner shall have advance notice of any HVAC outages.

12. The fire alarm systems, communication equipment, and any other interconnecting wiring shall remain in operation during the entire contract time. Only fire alarm system work will be that associated with the new heat pumps.

13. Outdoor heat pumps will be located as coordinated with the Owner.

14. The entire contract shall be under a single general or mechanical contract.

15. The HVAC control system shall be as simple as possible to control room temperature, room humidity, and outside air.

16. The existing underground piping from the Central Plant will be abandoned in place.

17. The equipment in the Central Plant building will be drained of water, refrigerant recovered, chemical treatment disposed of, and permanently shut down. Power wiring to all equipment shall be disconnected and removed.

18. Tasks:

    a. Field investigation to document existing systems, equipment, etc.

    b. Investigation, evaluation, and design of remediation of mold, lead paint, and asbestos containing materials are <u>not</u> included in our scope of work.

    c. Investigation, evaluation, and design of remediation of underground fuel oil storage tanks and piping systems are <u>not</u> included in our scope of work.

    d. Preparation of drawings, specifications, and front end documents suitable for bidding and construction that address all applicable Project Criteria.

    e. Preparation of opinion of probable construction cost.

    f. At each phase, submit documents for Owner review.

    g. Submit for permitting. Permitting costs are not included in our scope of work.

    h. Attendance at pre-bid conference.

    i. Response to bid questions and preparation of addenda information as applicable.

    j. Attendance at bid opening.

    k. Attendance at pre-construction conference.

l. Review of submittal data/shop drawings.

m. Twelve (12) construction observation site visits.

n. Response to construction phase RFIs.

o. Review of pay requests.

p. Project close-out documentation including substantial completion, final punchlist, O&M Manuals with warranties and Owner training.

q. Record drawing preparation.

Prepared by,

Cheatham and Associates, P.A.

James H. Cheatham, Jr.

James H. Cheatham, Jr.

JHCjr/dsb

Approved by,

Pender County Utilities

Michael G. Mack, Director