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8 June 2017
7046-9956

Via Email (gbrennan@twpunionschools.com) and Mail

Township of Union Public Schools
2369 Morris Avenue
Union, NJ 07083

Attn: Mr. Gregory E. Brennan
School Business Administrator/Board Secretary

**Re: Proposal for Professional Engineering Services
Union High School Media Center HVAC Upgrades and Repairs**

Dear Mr. Brennan:

Thank you for inviting our firm to submit this proposal to provide professional architectural and engineering services covering Union High School Media Center HVAC Upgrades located at 2350 North Third Street, Union, NJ 07083. From discussions with district representatives during our May 30, 2017 site visit, we understand Township of Union Public Schools intends to replace the existing HVAC equipment serving the High School Media Center. This proposal covers the replacement and upgrades to existing rooftop condensers, air handling units, and distribution systems. Based on our May 30 site visit and our design experience with similar HVAC Upgrade and Repair projects, we have developed a clear understanding of your project objectives.

EI Associates is a full-service firm of consulting engineers, architects and construction managers founded in 1944. We have all of the necessary in-house architectural and engineering disciplines, including mechanical, plumbing and electrical engineers, to address the subject HVAC Upgrade and Repair project requirements, and we have an experienced construction management team to provide assistance with project scheduling, value engineering and cost estimate preparation. In our 72 year history, EI has served over 100 NJ school districts, including Township of Union Public Schools. EI is proud to have served Township of Union Public Schools with numerous projects including our recent Boiler Replacement design for Union High School, Intercom Upgrades at the Burnet and Middle School and the Ceiling, Lighting and Fire Alarm replacement project at Union High School. We look forward to continuing our professional relationship with The Township of Union Public Schools.

Our team of architects and engineers has completed numerous similar HVAC replacement, upgrade and repair projects for K-12 public schools, colleges and universities and corporations throughout NJ, NY and PA. Many of these projects have involved the replacement of HVAC systems serving educational areas including Media Centers for clients including Metuchen Public Schools, Little Falls Schools, Hasbrouck Heights Schools, Newton Schools, Summit Public Schools, Verona Public Schools, Rutgers University and the County College of Morris.

In addition, EI fully understands the unique requirements associated with NJ public school projects including public bid requirements through our current role as District Architect/Engineer for many NJ school districts including the Township of Union, Summit, Madison, South Orange and Maplewood, Ridgewood, Metuchen, Demarest, Cranbury, West Amwell, Mendham Township, Hasbrouck Heights, Little Falls, Piscataway and Park Ridge. Our work for these districts covers multi-discipline renovations, energy upgrades and infrastructure improvements including the replacement of MEP systems.

EI has an "Unlimited" prequalified rating in the category of Architecture as set forth by the NJ Department of the Treasury – Division of Property Management and Construction and EI has high prequalification ratings in all Engineering disciplines including HVAC, Plumbing and Electrical. Within the past 5 years EI's K-12 School Design Studio has submitted close to 100 educational facility renovation projects to NJDOE for approval. Our team fully understands all local jurisdictional agency requirements. We are confident that we are well qualified to provide the required services for this project and we are ready to commence work promptly on this project at your direction. Thank you for this opportunity to once again be of service to the Township of Union Public Schools.

PROJECT DESCRIPTION

Township of Union Public Schools (TUPS) intends to replace the existing antiquated HVAC equipment and systems serving the High School Media Center. The room is presently conditioned by a single split direct expansion unit. The air handling unit is located in an existing mechanical room and the condenser is located on an adjacent roof.

The replacement will consist of a new, modern, split, direct expansion unit with new DDC controls and energy reduction protocols.

The project requirements are as follows:

- Provide new load calculations to right size equipment for the media center. Determine equipment size.
- Analyzed equipment size will determine replacement of the equipment.
- Design new mechanical equipment for Media Center. Design to cover the demolition of existing, deficient equipment and the installation of new equipment.

- Consideration will be given to establishing enthalpy control (free cooling) if possible.
- Provide a new BMS system for control of the new HVAC equipment. All new equipment, as a minimum, will be BMS compatible with communications cards supplied with the equipment.

Due to the age of the construction, hazardous material testing, identification and abatement services are anticipated to be required. The District shall be responsible to provide hazardous materials abatement services as required.

SCOPE OF WORK

EI Associates proposes to provide professional design services covering the Union High School Media Center HVAC Upgrades. We plan to execute this assignment in the following multi-phased project approach:

- Phase I: Design
- Phase II: Bid/Award and Construction Administration

Phase I: Design

1. Attend a meeting with all required District stakeholders to review and confirm the scope of the work, deliverables and project schedule.
2. Immediately following our meeting, tour the project area with our team of engineers. Obtain field dimensions and information necessary for the project. Evaluate the existing project area and conditions.
3. From information obtained during our site visit and information provided by the District including maintenance service records, drawings and manufacturer data sheets, provide an evaluation of the existing subject HVAC systems and related support equipment. Prepare a report, in 8 ½" x 11" text format, addressing equipment condition and suggested upgrades of the subject HVAC systems.
4. Prepare budgetary construction cost information covering the suggested equipment and system improvements.
5. Meet with District to review the HVAC system report and budgetary cost information. Obtain District comments and approvals.
6. Prepare Contract Documents in compliance with applicable codes/regulations covering the approved HVAC system improvements.
7. Prepare 30% Contract Documents.
8. Meet with District representatives to review the 30% Contract Documents. Provide District with one full set of documents reflecting 30% completion. Obtain District comments and approvals.
9. Update the project cost estimate to reflect the 30% Contract Documents.

10. Work with the District's Environmental Engineer to identify the school areas affected by the project. The District's Environmental Engineer shall identify any hazardous materials and prepare contract documents covering abatement and or mitigation of the hazardous materials suitable to append to the HVAC upgrade contract documents.
11. Prepare project applications and assemble the 30% drawings and cost estimate information for NJDOE schematic review and approval of the recommended HVAC system improvements. Address comments as required and obtain NJDOE schematic approval.
12. Prepare 90% Contract Documents.
13. Meet with TUPS representatives to review the 90% Contract Documents. Provide District with one full set of documents reflecting 90% completion. Obtain District comments and approvals.
14. Update the project cost estimate to reflect the 90% Contract Documents.
15. Incorporate District comments and prepare 100% Contract Documents. We anticipate preparation of the following documents:

LIST OF DRAWINGS

GENERAL

- T01 Cover Sheet
- T02 General Notes, Code Analysis, Abbreviations & Legends

MECHANICAL

- M00 Mechanical General Notes and Abbreviations
- MD10 Demolition Mech Room and Roof
- M10 HVAC Mech Room and Roof
- M11 Rebalance Plan
- M40 Details
- M60 Equipment Schedules
- M90 Sequence of Operations

ELECTRICAL

- E00 General Notes, Symbol List and Abbreviations
- ED10 Mech Room and Roof
- E10 Mech Room and Roof

Drawings will be prepared on 30" x 42" sheets in AutoCAD format. Technical specifications will be provided on the drawings or in separate booklet format as is practical. Non-technical "boiler plate" specifications will be prepared by District. (We will append the hazardous materials abatement/mitigation) contract documents to our contract documents for a complete set of project contract documents.

16. Meet with District to review the 100% Contract Documents. Obtain District comments and approvals.

17. Obtain District non-technical boiler plate specifications for inclusion in the Contract Documents. Coordinate boiler plate review and comments with TUPS' legal counsel.

Phase II: Bid/Award and Construction Administration Services

1. Provide District with two electronic copies (pdf format) and up to ten hard copies of the Contract Documents for District use in the preparation of multiple bid packages.
2. Assist the District in advertising for bids. Provide the district with an electronic copy of the Bid Advertisement. The District shall place the ad in the media.
3. Assist the District in the bidding process covering the issuance of addendum, answering technical questions from bidders, attending a bidder's walk-through, and analyzing the bids when received. Address contractors RFI's during bidding.
4. Provide the District with a recommendation for award. We assume one General Contractor will be selected for this project.
5. Distribute the bid documents to potential bidders. Provide necessary clarification.
6. Review contractor bids. Prepare recommendation to award.
7. Review contractor submittals as specified in the Contract Documents for conformance with the drawings and specifications.
8. Visit the site to observe the progress of work in order to perform technical reviews of the construction, address any technical questions regarding the design and, review the progress of the work and contractor requisitions for payment. EI will prepare a field report for each site visit. We have budgeted a total of four site visits. The number of site visits can be increased or decreased to accommodate the District's needs and any additional site visits will be invoiced in accordance with the enclosed billing rate schedule.
9. With input from the District, EI will review the project construction schedule prepared by the Contractor for compliance with the project schedule.
10. Provide technical support to resolve technical issues in the field, and to clarify the intent of the design and technical specifications. Respond to technical RFI's.
11. Upon receipt of the contractor's punch list, prepare one final punch list.
12. Perform a final technical inspection of the work upon notification by the Contractor that the work is 100% complete.
13. Review project closeout documents and recommend final payment amounts.

Please note that this does not represent that EI personnel will be managing the construction of the project. Full construction management services can be provided by EI, if so desired, for additional compensation.

WORK SCOPE NOTES

Our proposal is based upon the following assumptions and qualifications:

1. We have assumed the existing utilities and systems serving the project areas are adequate and in close proximity to support the proposed improvements without requiring modification.
2. We have assumed the existing building structure is adequate to support the new equipment without requiring modification and/or reinforcement. We will confirm this basis during the Phase I work.
3. All work will be constructed as a single project with one bidding cycle and one construction contractor.
4. Fire sprinkler system modifications are not anticipated and not covered under this proposal. We do not anticipate and have not covered work to address fire sprinkler piping and/or related device interferences.
5. Ceiling related improvements are limited to the removal and reinstallation of existing suspended ceiling systems to facilitate replacement. Ceiling replacement is not anticipated and not covered.
6. Modifications to existing lighting systems are not anticipated and not covered.
7. We have assumed local jurisdictional agency permit review and approval. DCA permit review services are excluded.
8. EI Associates Construction Phase Services are based on an on-site construction duration of 2 consecutive months following delivery of the new HVAC equipment to the project site. Construction Phase Services beyond the 2-month construction period will be provided as an additional service for an additional fee.
9. We have covered a 30 day project close-out period immediately following the above described construction period. Services beyond the 30 day closeout period will be provided an ad additional service for an additional fee.
10. Our proposal assumes this project will not receive NJSDA funding.
11. Commissioning services are excluded.

COMPENSATION

The Design and Bid/Award/Construction Phase Services described above will be performed for the lump sum fee of Twenty Thousand Five Hundred (20,500) Dollars, and Phase III Bid/Award Construction Administration lump sum fee three Five Thousand dollars (5,000).

Additional services will be provided in accordance with the attached EI Hourly Rate Schedule, dated 22 January 2017. Reimbursable expenses, covering items such as document reproductions, and mail will be invoiced in accordance with the attached EI Charges for Reimbursable Expenses. We recommend you budget \$1,000 to cover Reimbursable Expenses. Invoices will be submitted monthly, and will be due and payable in 30 days. The enclosed EI Business Terms shall apply to this project.

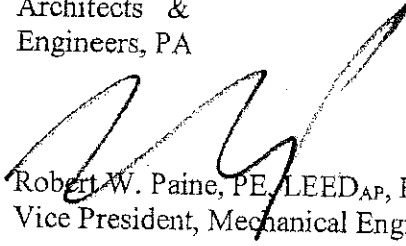
We look forward to working with the Township of Union Public Schools on this important project. Please indicate your acceptance by forwarding to our office your Board Resolution making reference to this proposal.

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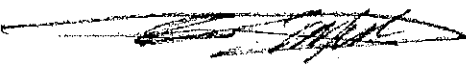
Please do not hesitate to contact us if you have any questions or require any additional information. Thank you for this opportunity to once again assist the Township of Union Public Schools.

Respectfully submitted,

EI ASSOCIATES
Architects &
Engineers, PA



Robert W. Paine, PE, LEED^{AP}, HBDP
Vice President, Mechanical Engineering



Ralph Nashed
Sr. Project Manager

Cc: EI Distribution
Att: EI Business Terms
EI Charges for Reimbursable Expenses

EI ASSOCIATES
BUSINESS TERMS FOR DESIGN PROJECTS

1. **CONFIDENTIALITY**
This proposal is for the use of the addressee only and may not be duplicated nor made available to any third party.
2. **PROPOSAL DURATION**
Proposals presented by EI will remain effective for a period of 30 days. EI is always willing to discuss a mutually agreeable time extension.
3. **DELAYS**
Should any project be delayed by no fault of EI Associates, then there shall be an equitable fee adjustment to cover EI Associate's unanticipated extra costs.
4. **INVOICES**
 - a. Invoices submitted monthly will be due and payable within 30 days.
 - b. Any invoices not paid within 30 days of receipt, will be subject to interest charged at 1-1/2% per month of the unpaid balance.
 - c. If payments are not received within 60 days of receipt, our fee will be increased by 2%. In addition, EI Associates also reserves the right to suspend services under the contract and EI Associates will not be held responsible for resulting damages. The client will be responsible for the additional costs to demobilize and remobilize.
5. **LIMITATIONS OF LIABILITY**
EI Associates and its consultants will not be responsible for the correctness or accuracy of any information supplied by parties other than EI and its consultants. The aggregate EI Associates liability for damages resulting from its errors, omissions, or other causes, shall not be in excess of its fee. EI shall not render services relating to asbestos. Owner shall indemnify EI against all liability for damages arising out of handling of asbestos and any other hazardous materials.
6. **MUTUAL COVENANT**
EI and its clients mutually agree not to offer or accept for employment the employees of the other party for a period of six (6) months after completion of any assignment. Should either party hire employees of the other party, the hiring employer will pay the other party, a sum equal to one year's total compensation of the employee who is changing employer.
7. **OWNERSHIP OF DOCUMENTS**
Owner agrees not to reuse documentation prepared by EI Associates beyond the agreed upon scope of work without the written consent of EI Associates.
8. **EXPERT WITNESS TESTIMONY**
EI Associates will provide expert witness testimony services at the rate of \$800 per half day and \$1,400 per full day, plus reimbursable expenses as outlined above.

EI ASSOCIATES
CHARGES FOR REIMBURSABLE EXPENSES

Expenses incurred in the interest of the project are charged at the following rates, or if not shown, at cost plus 15%.

1. Reproduction expenses as follows:

Digital Bond First Copy – 30 x 42	\$7.98 each
Digital Bond Print – 30 x 42	\$3.50 each
Digital Bond First Copy – 24 x 36	\$5.35 each
Digital Bond Print – 24 x 36	\$2.50 each
Photocopy – 8.5 x 11	\$0.18 per sheet
Photocopy – 11 x 17	\$0.35 per sheet
Color Copy – 8.5 x 11	\$2.00 each
Color Copy – 11 x 17	\$3.00 each
CAD Color Plot – 30 x 42	\$27.00 each
CAD Color Plot – 24 x 36	\$18.00 each
CAD Check Plot – 8.5 x 11	\$2.50 per plot
CAD Check Plot – 11 x 17	\$2.75 per plot
CAD Check Plot – 15 x 21	\$3.00 per plot
Staple Prints	\$1.50 per set
Wire or GBC Punch & Bind	\$11.55 set
Acco Punch & Bind	\$8.60 per set
Acetate 8.5 x 11	\$0.75 each
Scan to Disc	\$18.00 per dwg.

2. Downward conversion of latest version of AutoCAD to earlier version @ \$75 per drawing. Retrieval of archived information: base fee \$250.

3. Bind, purge, audit and publish AutoCAD files @ \$25 per drawing.

4. Fax at \$.50 per Page.

5. Automobile travel at \$.54 per mile. Travel involving airplanes, rental cars, hotels, etc. at cost + 15%.

6. Messenger and overnight delivery charges at cost + 15%.

7. Subconsultants such as geotechnical, surveying, asbestos remediation, and specialty consultants at cost + 25%.