MANDATORY PRE-BID MEETING – Tuesday, March 3, 2020 at 10:00 a.m. Local Time  
Central Water Treatment Plant, 215 West Stockbridge Avenue, Kalamazoo, MI  
AIR STRIPPER ACCESS HATCH WILL BE OPEN FOR INSPECTION

INVITATION FOR BID (IFB)  
The City of Kalamazoo, Michigan is soliciting sealed bids for:

Project Name: Central Air Stripper Media Replacement  
Bid Reference #: 91063-002.0

IFB ISSUE DATE: February 20, 2020

BID DUE/OPENING DATE: March 19, 2020 @ 3:00 p.m. Local Time  
Facsimile Bids Will Not Be Accepted.

MAILING ADDRESS & INSTRUCTIONS
Mail to:  
Purchasing Division  
241 W. South Street  
Kalamazoo, MI  49007

Questions about this IFB should be directed to:  
Department Contact: Eric Sajtar, P.E.  
sajtare@kalamazoocity.org

Include on the Envelope the Project Name and Bid Reference Number. All Envelopes Must Be Sealed.

You are invited to submit a bid for this project. Specifications, terms, conditions and instructions for submitting bids are contained herein. This Invitation for Bid with all pages, documents and attachments contained herein, or subsequently added to and made a part hereof, submitted as a fully and properly executed bid shall constitute the contract between the City and the successful bidder when approved and accepted on behalf of the City by an authorized official or agent of the City. Please review the bid document as soon as possible and note the DEADLINE FOR QUESTIONS in the Instructions to Bidders.

All bidders shall complete and return the Bid and Award page(s) and submit all information requested herein in order for a bid to be responsive. The bid document shall be returned in its entirety, in a properly identified and sealed envelope to the Purchasing Division at the above address. BIDS MUST BE RECEIVED BEFORE THE DUE DATE - LATE BIDS WILL NOT BE CONSIDERED. The City reserves the right to postpone the bid opening for its own convenience.

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</table>
STATEMENT OF NO BID

NOTE:  If you DO NOT intend to bid on this commodity or service, please complete and return this form immediately.  Your response will assist us in evaluating all responses for this important project and to improve our bid solicitation process.

The Purchasing Division of the City of Kalamazoo wishes to keep its bidders list file up-to-date.  If, for any reason you cannot supply the commodity/service noted in this bid solicitation, this form must be completed and returned to remain on the particular bid list for future projects of this type.

If you do not respond to this inquiry within the time set for the bid opening date and time noted, we will assume that you can no longer supply this commodity/service, and your name will be removed from this bid list.

____ Specifications too "tight", i.e. geared toward one brand or manufacturer only (explain below).
____ Specifications are unclear (explain below).
____ We are unable to meet specifications.
____ Insufficient time to respond to the Invitation for Bid.
____ Our schedule would not permit us to perform.
____ We are unable to meet bond requirements.
____ We are unable to meet insurance requirements.
____ We do not offer this product or service.
____ Remove us from your bidders list for this commodity or service.
____ Other (specify below).

REMARKS:   _________________________________________________________________________
_____________________________________________________________________________________

SIGNED: _________________________________ NAME: _________________________________
(Type or Print)

TITLE: __________________________________ DATE: _________________________________

FIRM NAME: ____________________________________________________________
(if any)

ADDRESS: _______________________________________________________________
(Street address) (City) (State) (Zip)

PHONE: _________________________________ FAX: _________________________________

EMAIL: _________________________________________________________________
SECTION I
INSTRUCTIONS TO BIDDERS

1. **EXAMINATION OF BID DOCUMENT**- Before submitting a bid, bidders shall carefully examine the specifications and shall fully inform themselves as to all existing conditions and limitations. The bidder shall indicate in the bid the sum to cover the cost of all items included on the bid form.

2. **PREPARATION OF BID**- The bid shall be legibly prepared in ink or typed. If a unit price or extension already entered by the bidder on the Bid and Award form is to be altered, it shall be crossed out and the new unit price or extension entered above or below and initialed by the bidder with ink. The bid shall be legally signed and the complete address of the bidder given thereon.

   All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted by Fax machine will not be accepted.

3. **EXPLANATION TO BIDDERS**- Any binding explanation desired by a bidder regarding the meaning or interpretation of the Invitation for Bid (IFB) and attachments must be requested in writing, at least business 10 days before the bid opening so a reply may reach all prospective bidders before the submission of bids. Any information given to a prospective bidder concerning the IFB will be furnished to all prospective bidders as an amendment or addendum to the IFB if such information would be prejudicial to uninformed bidders. Receipt of amendments or addenda by a bidder must be acknowledged in the bid by attachment, or by letter or fax received before the time set for opening of bids. Oral explanation or instructions given prior to the opening will not be binding.

4. **CASH DISCOUNTS**- Discount offered for payment of less than thirty (30) days will not be considered in evaluating bids for award. Offered discounts of less than thirty (30) days will be taken if payment is made within the discount period, even though not considered in evaluation of the bid.

5. **WITHDRAWAL OF BIDS**- Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the exact time set for receipt of bids. No bid may be withdrawn for at least ninety (90) days after bid opening.

6. **ALTERNATE BIDS**- Bidders are cautioned that any alternate bid, unless specifically requested or any changes, insertions or omissions to the terms and conditions, specifications or any other requirement of this IFB may be considered non-responsive, and at the option of the City, result in rejection of the alternate bid.

7. **LATE BIDS**- Any bid received at the office designated herein after the exact time specified for receipt will not be considered. (Note: The City reserves the right to consider bids that have been determined by the City to be received late due to mishandling by the City after receipt of the bid and no award has been made.)

8. **UNIT PRICES**- If there is a discrepancy between unit prices and their extension, unit prices shall prevail.
CITY OF KALAMAZOO – INVITATION FOR BID
Central Air Stripper Media Replacement

SECTION II
BID AND AWARD

The undersigned having become thoroughly familiar with all of the bid/contract documents incorporated herein, the project site and the location conditions affecting the work, hereby proposes to perform everything required to be performed in strict conformity with the requirements of these documents, and to provide and furnish all the equipment, labor and materials necessary to complete in a professional manner the furnishing and installing of all of the following, meeting or exceeding the specifications as set forth herein for the prices as stated below.

BID – WITH PREVAILING WAGES
This project will be awarded WITH Prevailing Wages.

CENTRAL AIR STRIPPER MEDIA REPLACEMENT

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<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total Amount</th>
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<td>Media Purchase, Delivery and Installation</td>
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<td>5</td>
<td>Flushing, Disinfection and Startup</td>
<td>2</td>
<td>Air Strippers</td>
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<td>6</td>
<td>Acid Washing with Pump</td>
<td>4</td>
<td>Events</td>
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<td>7</td>
<td>Mechanical Breaking</td>
<td>2</td>
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<td>8</td>
<td>Acid Power Washing</td>
<td>2</td>
<td>Air Strippers</td>
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TOTAL BID
**ALTERNATE BID – WITHOUT PREVAILING WAGES**

To gather information on the cost of completing projects WITHOUT Prevailing Wages. This project will be awarded WITH Prevailing Wages.

### CENTRAL AIR STRIPPER MEDIA REPLACEMENT

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**TOTAL BID**

Bidder shall provide all of the information as requested herein with their bid. **Failure to do so and/or failure to provide post-bid requested information may be cause for rejecting the bid as non-responsive.**

Work shall start in **November 2020** and shall be completed by **March 15, 2021**.
Bidder/Contractor has examined and carefully studied the bidding documents and attachments, and acknowledges receipt of the following addenda:

Addendum No:  __________  __________  __________  __________  __________  __________
Dated:  __________  __________  __________  __________  __________  __________

This contract shall be governed by the laws of the State of Michigan.

By my signature below, I certify that the firm bidding on this contract, when making hiring decisions, does not use a past criminal conviction as a bar to or preclude a person with a criminal conviction from being considered for employment with the bidding firm unless otherwise precluded by federal or state law. I further certify that I have read and agree to be bound by the provisions of the City’s Non-Discrimination Clause found in Appendix A as updated by City Ordinance 1856.

Signed: ________________________________  Name: ________________________________
Title: ________________________________
CITY OF KALAMAZOO EX-OFFENDER POLICY CHECKLIST

As part of the City’s commitment to reducing unacceptable poverty, encouraging rehabilitation, reducing recidivism and strengthening families in Kalamazoo, the City has updated its Purchasing Policy to ensure that firms with whom the City does business share in this commitment by utilizing hiring practices that do not unfairly deny people with arrest and conviction records gainful employment. *(Important: This requirement also extends to any subcontractors the bidder intends to use to fulfill the contract for goods or services being sought from the City.)*

**Part I: Proof that the bidder does not inquire about an individual’s past arrest or criminal history on the bidders employment application form**

☐ Attach a copy of the current application for employment being used by the bidder

**Part II: Certification that the bidder does not use an individual’s past arrest or criminal history to unlawfully discriminate against them by checking one or more of the following:**

☐ That pursuant to federal or state law bidder is precluded from hiring persons with certain criminal records from holding particular positions or engaging in certain occupations by providing a cite to the applicable statute or regulation; if checking this box, provide a citation to the applicable statute or rule upon which the bidder is relying:________________________

☐ That bidder conducts criminal history background checks only as necessary, and only after making a conditional offer of employment; that any withdrawal of an offer of employment to an individual because of a past criminal history is job-related and consistent with business necessity after the individual has been provided an individualized assessment opportunity to review and challenge or supplement the history of past criminal conduct being relied upon by the bidder;

☐ That the use by bidder of criminal history background checks complies with the U.S. Equal Employment Opportunity Commission’s Enforcement Guidance on the Consideration of Arrest and Conviction Records in Employment Decisions and that the bidder has not had a determination rendered against it in past 7 years that it discriminated against a person through the use of an individual’s arrest or criminal history

**I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.**

______________________________                        ______________________________

Date                                                Signature

______________________________                        ______________________________

Printed Name                                         Position
The lowest responsive Kalamazoo County bidder whose bid is not low but falls within 2\% of the lowest responsive bid is afforded the opportunity to become the successful bidder if it agrees to reduce its bid to match the lowest responsive bid. The City of Kalamazoo is the sole determiner whether a bidder is responsible, qualifies as a Kalamazoo County bidder, and if its bid is responsive to the City’s specifications, terms and conditions.

If the lowest Kalamazoo County bidder chooses not to match the lowest bid, the next lowest responsive Kalamazoo County bidder whose bid falls within 2\% of the lowest bid, is given the opportunity to match the lowest responsive bid.

To qualify as a Kalamazoo County bidder, the bidder must meet both the following criteria:

1. Have a physical presence in Kalamazoo County by maintaining a permanent office, factory or other facility in Kalamazoo County with employees working in Kalamazoo County.

2. Have paid real or personal property taxes related to said business to the City of Kalamazoo, County of Kalamazoo or other municipal corporation within Kalamazoo County in the previous tax year, except that a non-profit entity need not meet this requirement.

This local preference policy applies only to purchases for materials, supplies, capital outlay, and services for maintenance, repair or operation of City facilities that are over $25,000. If more than 50\% of the contract is subcontracted to firms located outside of Kalamazoo County that bid does not qualify for the local preference policy outlined above. The local preference policy will not apply if prohibited by law. The Purchasing Agent has the authority to finally determine if the bidder qualifies as a Kalamazoo County bidder as set forth herein. The Purchasing Agent may take into account the permanency of the business in Kalamazoo, and whether the business appears to be claiming to be a Kalamazoo County business solely or primarily to qualify as a Kalamazoo County business under this Resolution, and any other material factors.

CERTIFICATION

If you qualify as a Kalamazoo County bidder and wish to be considered for the local preference provisions as provided above please certify that fact by providing the information requested below and attesting to its accuracy.

Firm Name: _____________________________________________________________

Street Address of Business: _____________________________________________

City, State, and Zip Code: ______________________________________________

Number of employees working in Kalamazoo County: _______________________

Name the city or township to which business real and/or personal property taxes are paid or provide non-profit status:

The above information is accurate:

Signature: ____________________________ Date: __________________________

Title: ________________________________________________________________

Revised April 2008
SUB-CONTRACTING INFORMATION

Using the table below provide information regarding the sub-contractors that will be working to fulfill the requirements of this contract. Submit as complete a list as possible at the time of your bid. You will have two business days after the bid opening to update the list as needed. The information provided will be used for evaluating your bid and to assist in determining if you qualify as a Kalamazoo County Bidder.

INSTRUCTIONS:

**Nature of Contract** - State a brief description of the work or product that will be provided.

**BIDDER** – Provide the percentage of services or construction activity that will be provided by your firm.

**Subcontractors:**
- Provide the Name and Address for each subcontractor providing services or construction activities for this contract.
- Indicate with YES or NO under the “Local?” box if they qualify as a “Kalamazoo County bidder” (see local preference certification page)
- Provide the percentage for the dollar amount of the contract work they will be performing.

If there are not enough lines in the table below make additional copies as needed.

<table>
<thead>
<tr>
<th>Nature of Contract:</th>
<th>Local?</th>
<th>% Of Total Contract</th>
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<tr>
<td><strong>Subcontractor Name/Address</strong></td>
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Does this List of Subcontractors need to be updated after the bid opening? **Yes __ No __**
REFERENCE QUESTIONNAIRE

Please answer the following questions completely.

1. Firm name: ____________________________________________________________

2. Established: Year ________ Number of Employees: _________

3. Type of organization:
   a. Individual: _________  b. Partnership: _________
   c. Corporation: _________  d. Other: _________

4. Former firm name(s) if any, and year(s) in business:
   ________________________________
   ________________________________

5. Include at least 3 references of contracts for similar work performed over the last five (5) years. Include: owner, contact person and phone number and description of work performed.
   5.1 Company Name: ____________________________________________________
       Address: ___________________________________________________________
       Phone: ____________________________________________________________
       Contact: __________________________________________________________
       Type of work or contract: ___________________________________________

   5.2 Company Name: ____________________________________________________
       Address: ___________________________________________________________
       Phone: ____________________________________________________________
       Contact: __________________________________________________________
       Type of work or contract: ___________________________________________

   5.3 Company Name: ____________________________________________________
       Address: ___________________________________________________________
       Phone: ____________________________________________________________
       Contact: __________________________________________________________
       Type of work or contract: ___________________________________________

I hereby certify that all of the information provided is true and answered to the best of my ability.

Signed: ___________________________________   Name: ____________________________
       (type or print)

Title: _______________________________________   Date: ____________________________
I hereby state that all of the information I have provided is true, accurate and complete. I hereby state that I have the authority to submit this bid which will become a binding contract if accepted by the City of Kalamazoo. I hereby state that I have not communicated with nor otherwise colluded with any other bidder, nor have I made any agreement with nor offered/accepted anything of value to/from an official or employee of the City of Kalamazoo that would tend to destroy or hinder free competition.

The firm’s identification information provided will be used by the City for purchase orders, payment and other contractual purposes. If the contractual relationship is with, or the payment made to, another firm please provide a complete explanation on your letterhead and attach to your bid. Please provide for accounts payable purposes:

Tax Identification Number (Federal ID): ________________________________

Remittance Address: ________________________________________________

I hereby state that I have read, understand and agree to be bound by all terms and conditions of this bid document.

SIGNED: ______________________________ NAME: _____________________________
            (Type or Print)

TITLE: ______________________________ DATE: ______________________________

FIRM NAME: ______________________________ (if any)

ADDRESS: ______________________________
            (Street address) (City) (State) (Zip)

PHONE: ______________________________ FAX: ______________________________

EMAIL ADDRESS: _______________________________________________________

FOR CITY USE ONLY - DO NOT WRITE BELOW
SECTION III
CITY OF KALAMAZOO
INDEMNITY AND INSURANCE

Contractor, or any of their subcontractors, shall not commence work under this contract until they have obtained the insurance required under this paragraph, and shall keep such insurance in force during the entire life of this contract. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and acceptable to the City of Kalamazoo within ten (10) days of the Notice of Award. The requirements below should not be interpreted to limit the liability of the Contractor. All deductibles and SIR’s are the responsibility of the Contractor.

The Contractor shall procure and maintain the following insurance coverage:

Workers’ Compensation Insurance including Employers’ Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

Commercial General Liability Insurance on an “Occurrence Basis” with limits of liability not less than $1,000,000 per occurrence and aggregate. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent, if not already included and (E) XCU coverage if the nature of the contract requires XC or U work.

Automobile Liability including Michigan No-Fault Coverages, with limits of liability not less than $1,000,000 per occurrence, combined single limit for Bodily Injury, and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

Additional Insured: Commercial General Liability and Automobile Liability, as described above, shall include an endorsement stating that the following shall be Additional Insureds: The City of Kalamazoo, all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed that by naming the City of Kalamazoo as additional insured, coverage afforded is considered to be primary and any other insurance the City of Kalamazoo may have in effect shall be considered secondary and/or excess.

To the fullest extent permitted by law the Contractor agrees to defend, pay on behalf of, indemnify, and hold harmless the City of Kalamazoo, its elected and appointed officials, employees, agents and volunteers, and others working on behalf of the City of Kalamazoo against any and all claims, demands, suits, or loss, including all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the City of Kalamazoo, by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof, which arises out of, or is in any way connected or associated with this contract.

Cancellation Notice: All policies, as described above, shall include an endorsement stating that it is understood and agreed that thirty (30) days, or ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: City of Kalamazoo, Purchasing Division, 241 W. South Street, Kalamazoo, MI 49007.

Proof of Insurance Coverage: The Contractor shall provide the City of Kalamazoo at the time that the contracts are returned by him/her for execution, or within 10 days of Notice of Award, whichever is earlier, a Certificate of Insurance as well as the required endorsements. In lieu of required endorsements, if applicable, a copy of the policy sections where coverage is provided for additional insured and cancellation notice would be acceptable. Copies or certified copies of all policies mentioned above shall be furnished, if so requested.
INDEMNITY AND INSURANCE

Continued

If any of the above coverages expire during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to City of Kalamazoo at least ten (10) days prior to the expiration date.

Scope of Coverage: The above requirements and conditions shall not be interpreted to limit the liability of the Contractor under this Contract, but shall be interpreted to provide the greatest benefit to the City and its officers and employees. The above listed coverages shall protect the Contractor, its employees, agents, representatives and subcontractors against claims arising out of the work performed. It shall be the Contractor’s responsibility to provide similar insurance for each subcontractor or to provide evidence that each subcontractor carries such insurance in like amount prior to the time such subcontractor proceeds to perform under the contract.
SECTION IV
SPECIAL REQUIREMENTS

1. BID BOND/GUARANTEE

The bid must be accompanied by a bid bond which shall not be less than five (5%) percent of the total amount of the bid. No bid will be considered unless it is accompanied by the required guarantee. The bid guarantee shall ensure the execution of the bid and award, and the furnishing of a performance bond and a labor and material bond (A and B below) by the successful bidder. (Contractors Note: A cashier's or certified check in lieu of a bid bond is NOT acceptable.)

A. PERFORMANCE BOND

A performance bond shall be furnished in the full amount of the contract ensuring the City of faithful performance of all the provisions of the contract, and the satisfactory performance of any equipment required hereunder. The bond shall also ensure the City against defective workmanship and/or materials.

B. LABOR AND MATERIAL (PAYMENT) BOND

A labor and material (payment) bond shall be furnished for the period covered by the contract, in the full amount of the contract for the protection of labor and material suppliers and sub-contractors.

Bonds shall be secured by a guaranty or a surety company listed in the latest issue of the U.S. Treasury, circular 570, and licensed to do business in the State of Michigan, and written in favor of the City of Kalamazoo. The amount of such bonds shall be within the maximum amount specified for such company in said circular 570. The bonds shall be accompanied by a power of attorney showing authority of the bonding agent to sign such bonds on behalf of the guaranty or surety company. The cost of the bonds shall be borne by the Contractor.

Failure of the Contractor to supply the required bonds within ten (10) days after Notice of Award, or within such extended period as the Purchasing Agent may agree to, shall constitute a default and the City of Kalamazoo may either award this contract to the next lowest bidder or re-advertise for bids and may charge against the Contractor for the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising, the defaulting bidder shall have no claim against the City of Kalamazoo for a refund.

2. WAIVERS OF LIEN

Upon completion of all work and request for final payment, the Contractor shall furnish a 100% waiver of lien from each supplier and sub-contractor covering all items of the work. Failure to supply waivers of lien for the entire job upon completion and final payment request will be considered grounds for withholding final payment.
3. **SUBCONTRACTORS**

   A. Contractors shall state on the Bid and Award page any and all subcontractors to be associated with their bid, including the type of work to be performed. Any and all subcontractors shall be bound by all of the terms, conditions and requirements of the contract; however, the prime contractor shall be responsible for the performance of the total work requirements.

   B. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women business enterprise, and shall use its best efforts to ensure that minority and women business enterprises have maximum practicable opportunity to compete for subcontract work under this agreement.

4. **PREVAILING WAGES**

   The successful bidder will be required to comply with Section 2-125 of the Code of Ordinances of the City of Kalamazoo regarding prevailing wages and Appendix B attached, incorporated herein by reference. Special note: This project requires prevailing wages.

   The City's requirements as it relates to prevailing wages includes a meeting with the City's Purchasing Division **prior** to work and payroll and work monitoring during the duration of the contract. Please contact Purchasing at (269) 337-8020 if you have any questions regarding Davis-Bacon provisions.
SECTION V
GENERAL PROVISIONS

1. INTENT

It is the intent of these specifications to provide a contractor who shall provide all labor, materials, tools, and equipment necessary to complete air stripper media replacement and associated tasks to the City of Kalamazoo as described in the specifications and bid document.

2. SCOPE OF WORK

This contract includes, but is not limited to: all labor, materials, tools, and equipment required to complete the work detailed in the attached specifications (Attachments A, B and C).

3. QUANTITIES

The quantities shown or indicated on the plans are only estimated. Payment will be made based upon unit pricing of quantities installed and tasks that are actually completed.

4. UNIT PRICING

The unit price, including its pro-rata share of overhead, multiplied by the quantity shown shall represent the total bid and shall be held firm for the life of this contract. Any bid not conforming to this requirement may be rejected as non-responsive.

5. MANDATORY PRE-BID MEETING AND SITE INSPECTION

All prospective contractors and subcontractors must attend a MANDATORY PRE-BID MEETING on Tuesday, March 3, 2020 at 10:00 a.m. Local Time at the Central Water Treatment Plant, 215 West Stockbridge Avenue, Kalamazoo, MI 49001. An AIR STRIPPER ACCESS HATCH WILL BE OPEN FOR INSPECTION.

6. AWARD

The following award criteria shall be used and considered in evaluating and awarding the contract:

   6.1 Bidder’s experience on similar projects, i.e., size, type, cost and location.
   6.2 Capacity of firm to start and complete a project of this type on target.
   6.3 Total bid price.

7. INSPECTION OF WORK

The City may maintain inspectors on the job who shall at all times have access to work.

8. INSPECTION OF SITE

Each bidder shall visit the site of the proposed work and fully acquaint himself/herself with the existing conditions relating to construction and labor, and shall fully inform himself/herself as to the facilities involved and the difficulties and restrictions attending the performance of this contract. The bidder shall thoroughly examine and become familiar with the drawings, specifications and all other bid/contract documents. The Contractor, by the execution of this contract, shall in no way be relieved of any obligation under it due to his/her failure to receive or examine any form or legal instrument, or to visit the site and acquaint himself/herself with the conditions there existing. No allowance shall be made subsequently in this connection in behalf of the Contractor for any negligence of his/her part. For inspection call the Public Services Department, Water Resources Division.
9. **INSPECTION AND TESTING**

The Contractor shall give the Project Manager timely notice of readiness of the work for all required inspections, tests or approvals, and shall cooperate with inspections and testing personnel to facilitate required inspections or tests. The City will provide for materials and construction testing including but not limited to water sample collection and analysis. The cost of said testing shall be borne by the City. Verification that testing required by the contract has been completed on one phase of the project prior to proceeding to the next phase is the responsibility of the Contractor. In the event that the project has proceeded without required testing, the Contractor shall insure that the required testing is obtained retroactively and shall provide access for testing as necessary at his/her sole expense.

10. **MATERIALS INSPECTION AND RESPONSIBILITY**

10.1 The Project Manager shall have the right to inspect any materials to be used in carrying out the terms of the contract.

10.2 The City does not assume any responsibility for the contracted quality and standard of all materials, equipment, components or completed work furnished under this contract.

10.3 Any materials, equipment, components or completed work which does not comply with contract specifications, MDOT, or State codes may be rejected by the City, and shall be replaced by the Contractor at no cost to the City.

10.4 Any materials, equipment or components rejected shall be removed within a reasonable period of time from the premises of the City at the entire expense of the Contractor after notice has been given by the City to the Contractor that such materials, equipment or components have been rejected.

11. **LAYING OUT WORK**

Before submitting a bid the Contractor shall verify all measurements and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the measurements indicated on the drawings. Any difference that may be found shall be submitted to the City Engineer for consideration before proceeding.

12. **SUPERVISION**

The Contractor shall employ an experienced superintendent or foreperson on the job at all times.

13. **TEMPORARY UTILITIES**

13.1 Temporary or construction water is available at the Site. The Contractor must provide drinking water, water hose(s), water tank(s), and pump(s) as necessary.

13.2 Temporary toilets: To be supplied by the Contractor as may be necessary. A restroom is present at the Site.
14. **SITE SECURITY**

The Contractor shall be responsible for job site security of all materials and tools provided by him/her and no claim for loss or damage will be considered by the City.

15. **TARDINESS**

Construction delays resulting from tardiness on the part of the Contractor will be reviewed by the City in the event of any request for contract extension by the Contractor.

16. **PROGRESS SCHEDULE**

16.1 After receipt of Notice to Proceed, *work shall start in November 2020* unless otherwise agreed to by the Project Manager.

16.2 *Project shall have a final completion date of March 15, 2021.*

16.3 Work of a similar nature may be added to this contract if agreed to by the City and the Contractor. In the event that work is added, the progress schedule for the work will remain unchanged. Any contract time added for additional work will be applied to that additional work only, and cannot be added to items in the original contract. Any work done on the items in the original contract past the number of working days stated herein will be subject to liquidated damages regardless of any work that may be added at a later date.

16.4 The Contractor will be required to meet with the Public Services representatives to work out detailed progress schedule. The schedule for this meeting will be within two weeks after contract award has been made.

16.5 The named sub-contractor(s) for all items shall also be present at the scheduled meeting and they will be required to sign the Progress Schedule to indicate their approval of the scheduled dates of work set forth in the Progress Schedule.

16.6 The Progress Schedule shall include, as a minimum, the starting and completion dates for major items, as well as the final project completion date specified in the bid documents. The Progress Schedule shall be coordinated with all aspects of the work occurring at the site.

16.7 Failure on the part of the Contractor to carry out the provisions of the Progress Schedule as established may be considered sufficient cause to prevent bidding future projects until a satisfactory rate of progress is again established.

16.8 The starting date and the contract time to the completion date for this project may be adjusted by Public Services without imposing liquidated damages upon the receipt of satisfactory documented evidence that unforeseen delayed delivery of critical materials will prevent the orderly prosecution of the work.
17. **CONSTRUCTION SCHEDULE AND COORDINATION**

17.1 The Contractor shall supply the City with an agreeable construction schedule before commencing work on this contract. This schedule shall detail beginning and completion dates for each major component of the project.

17.2 The Contractor shall coordinate and cooperate with all other contractors who may be working on the site in order to allow for the orderly progress of work being done.

17.3 The Contractor is required to keep the Project Manager fully informed of any proposed work which will tend to interfere with the existing operations at the site.

17.4 The Contractor shall schedule all work to accommodate the City's schedule. In the event Contractor's schedule falls on weekends, nights or overtime work is required, no additional compensation will be allowed. All work shall be part of this contract without regard to when it is done.

18. **CONTRACTOR COORDINATION**

18.1 The Contractor shall make every effort to coordinate every aspect of his work with that of other contractors on the site to assure an efficiently managed and proper installation.

18.2 Consideration shall be given to timing of construction, maintaining adequate construction access, and construction staging. Any costs associated with this coordination shall be included in the contract.

19. **COORDINATING CLAUSE**

The Contractor's attention is called to Article 104.07 of the MDOT 2003 Standard Specifications for Construction entitled "Cooperation by Contractor."

20. **ADDITIONS**

20.1 Any modification to the contract shall be subject to prior approval by the Purchasing Agent. City Commission approval may also be required.

20.2 Prices for additional work required are not requested in the itemized listing contained herein for the base project. Should additional work be authorized, compensation shall be made on the basis of price or prices to be mutually agreed upon. Such additional work shall not begin until approved.

21. **MAINTAINING TRAFFIC**

21.1 This work shall be in accordance with the requirements of Section 812 of the MDOT Standard Specifications for Construction and as specified herein. The Contractor is advised that the current Michigan Manual of Uniform Traffic Control Devices is hereby established as governing all work in connection with traffic control devices, barricade lighting, etc. required on this project.
21.2 The Contractor shall furnish, erect, maintain and, upon completion of the work, remove all traffic control devices and barricade lights within the project and around the perimeter of the project for the safety and protection of through and local traffic. This includes, but is not limited to: Advance, regulatory and warning signs; barricades and channeling devices at intersecting streets on which traffic is to be maintained; barricades at the ends of the project and at right-of-way lines for intersecting streets which are to be closed with the first usable street on each side of the project. Traffic regulators, where required by the Engineer, are included.

21.3 Where the existing pavement or partial widths of new pavement are to be utilized for the maintenance of through and local traffic, drum type barricades will be required at 50' intervals or as directed by the Engineer for channeling and directing traffic through the construction area.

21.4 Through traffic shall be maintained utilizing sidewalk closures with detours and traffic shifts per MDOT traffic and safety details.

21.5 Protection of all pedestrian traffic shall be maintained at all times.

21.6 Payment for the traffic control devices shall be based on the quantity used and the contract unit prices.

21.7 Under Article 812.04.D "Operated Pay Items" the term ‘Relocating’ shall include the relocating of the item from any street covered by the contract to any other street covered by the contract.

**Special Restrictions:** Access to frontage properties shall be maintained as much as practical. Emergency access shall be maintained at all times. The Contractor shall maintain two-way traffic with flag control as needed when the road is restricted to only one traffic lane.

22. **LIQUIDATED DAMAGES**

22.1 Liquidated damages, if applicable, shall be $500.00 a day regardless of contract size.

22.2 The provisions of Article 108.11B of the MDOT 2003 Standard Specifications for Construction for reducing liquidated damages of 50 percent of the amount indicated in Table 108-1 of article 108.11C for projects where traffic is maintained during construction will not apply.

23. **REMOVAL OF RUBBISH**

The Contractor shall daily remove all rubbish and accumulated materials due to his/her construction.

24. **SITE ACCESS**

The City will provide fair and reasonable access to the job site within the working schedules of both parties.

25. **GUARANTEE**

The Contractor shall guarantee all of his/her work for a period of two (2) years following the date of final acceptance of the completed work and shall repair, replace or make good any materials or work which fail to function or perform or be found defective, without cost to the City.
26. **SAFETY**

The Contractor shall comply with all applicable OSHA and MIOSHA regulations.

27. **PAY ESTIMATES**

The Contractor shall be responsible for the generation of invoices for payment. Payment will be generated by the City based upon an approved invoice. Recommended frequency of payment is monthly, however, frequency of payment will not exceed bi-weekly.

28. **PRODUCT/SYSTEM SUBSTITUTIONS**

Submit a written request, to be received not later than 10 days prior to scheduled bid opening, for Substitution of any Product not named. If no substitutions are submitted, it will be reasonably concluded by the Owner and Engineer that the specified product will be incorporated into the Work and the Bidder will be committed to supplying the specified product.

28.1 Describe in detail any variance to the Product specified. All proposed substitution for specified items shall be substantially the same size (height, length, width, diameter, etc.), type, color, construction quality and shall meet the design intent to be considered for substitution for the Product specified.

28.2 Document each request with complete data substantiating compliance of proposed Substitution with Product specified including written certification that Product conforms to or exceeds all requirements of the Product specified.

28.3 Document all coordination information, including a list of changes or modifications needed to the Contract Documents or other parts of the Work and to construction performed by the Owner and Separate Contractors that will become necessary to accommodate the proposed substitution.

28.4 Provide name, address and telephone number of manufacturer’s authorized representative.

28.5 Submit three copies of all documents for each request for Substitution for consideration.

28.6 Approval of the Substitution request, if given, will be in the form of an addendum issued prior to scheduled opening date and hour at local time.

29. **SAMPLES AND DEMONSTRATIONS**

Evidence in the form of samples may be requested. Such samples are to be furnished after the date of bid opening only upon request of the City unless otherwise stated in the bid proposal. If samples should be requested, such samples must be received by the City no later than seven (7) days after formal request is made. When required, the City may request full demonstrations of any unit(s) bid prior to the award of any contract. Samples, when requested, must be furnished free of expense to the City and if not used in testing or destroyed, will upon request within thirty (30) days of bid award be returned at the bidder's request.

30. **ACCEPTANCE OF MATERIAL**

The material delivered under this proposal shall remain the property of the seller until a physical inspection and actual usage of the material and/or services is made and thereafter accepted to the satisfaction of the City and must comply with the terms herein, and be full in accord with specifications and of the highest quality. In the event the material and/or service supplied to the City is found to be defective or does not conform to specifications, the City reserves the right to cancel the order upon written notice to the seller and return the product to seller at the seller's expense.
31. **VARIATIONS TO SPECIFICATIONS**

For purposes of evaluation, the bidder MUST indicate any variances from our specifications, terms and/or conditions, **no matter how slight**. If variations are not stated in the proposal, it will be assumed that the product or service fully complies with our specifications, terms and conditions.

32. **SAFETY STANDARDS**

The bidder warrants that the products supplied to the City conform in all respects to the standards set forth in the Occupational Safety and Health Act of 1970 and its amendments and the failure to comply with this condition will be considered a breach of contract.

33. **MANUFACTURER'S CERTIFICATION**

The City reserves the right to request from bidders separate manufacturer certification of all statements made in the bid.

34. **PROTECTION OF WORK**

The Contractor shall maintain adequate protection of all his/her work from damage and shall protect all public and private abutting property from injury or loss arising in connection with this contract.

35. **PROTECTION OF PROPERTY**

35.1 The Contractor shall confine his/her equipment and operations to those areas of the work site necessary for the completion of the work, or as authorized by the Project Manager. The Contractor shall protect and preserve from damage any facilities, utilities or features including trees, shrubs and turf which are not required to be disturbed by the requirements of the work.

35.2 The Contractor shall be responsible to determine the location of and to protect from damage any utilities or other improvements.

36. **QUESTIONS**

Bidders shall address questions regarding the specifications to Eric Sajtar, P.E. at sajtare@kalamazoocity.org. (This does not relieve the requirements of Page 1, Item 3.) Questions regarding terms, conditions and other related bid requirements may be addressed to Craig Hull, Buyer at (269) 337-8444.
1. AWARD OF CONTRACT

A. This contract will be awarded to that responsible bidder whose bid, conforming to this solicitation, will be most advantageous to the City, price and other factors considered. The City reserves the right to accept or reject any or all bids and waive informalities and minor irregularities in bids received. Other factors include, as an example but not limited to, delivery time, conformance to specifications, incidental costs such as demurrage and deposits, etc.

Notification of award will be in writing by the Purchasing Agent. Upon notification, the Contractor shall submit to the Purchasing Division all required insurance certificates (if required) and such other documentation as may be requested or required hereunder. Upon their receipt and subsequent approval by the City, the Purchasing Agent will forward to the Contractor a written NOTICE TO PROCEED. Work shall NOT be started until such NOTICE TO PROCEED is received by the Contractor.

B. Unilateral changes in bid prices by the bidder shall not be allowed. However, the City, at its sole option, reserves the right to negotiate with bidders in the event of, but not limited to:

1) No bids received;
2) A single bid being received; or
3) Prices quoted are over budget and/or unreasonable.

2. COMPLETE CONTRACT

This bid document together with its addenda, amendments, attachments and modifications, when executed, becomes the complete contract between the parties hereto, and no verbal or oral promises or representations made in conjunction with the negotiation of this contract shall be binding on either party.

3. SUBCONTRACTORS - NON ASSIGNMENT

Bidders shall state in writing any and all sub-contractors to be associated with this bid, including the type of work to be performed. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women-owned business enterprises.

The Contractor hereby agrees and understands that the contract resulting from this solicitation shall not be transferred, assigned or sublet without prior written consent of the City of Kalamazoo.

4. TAXES

The City of Kalamazoo is exempt from all federal excise tax and state sales and use taxes. However, depending upon the situation, the vendor or contractor may not be exempt from said taxes and the City of Kalamazoo is making no representation as to any such exemption.
5. **INVOICING**

All original invoice(s) will be sent to the Finance Division, 241 W. South Street, Kalamazoo, MI 49007 or via email at apinvoice@kalamazoocity.org. Faxed copy of invoice(s) will not be accepted, unless it is to replace an original invoice that was lost in the mail. The Finance Division processes payments after receipt of an original invoice from the Contractor and approval by the department.

The City of Kalamazoo policy is to pay invoice(s) within 30 days from the receipt of the original invoice, if the services or supplies are satisfactory and the proper paper work and procedures have been followed. In order to guarantee payment to the vendor on a timely basis, the vendor needs to receive a purchase order number before supplying the City of Kalamazoo with goods or services. All original, and copies of original invoice(s), will clearly state which purchase order they are being billed against.

The City of Kalamazoo is a government municipality and therefore is tax exempt from all sales tax. Our tax exempt number is 38-6004627.

The vendor is responsible for supplying the Finance Division with a copy of their W-9 if they are providing a service to the City of Kalamazoo.

6. **PAYMENTS**

Upon issuance of certificates of Payment by the Architect/Engineer for labor and material incorporated in the work and the materials suitably stored at the site payment shall be made up to ninety (90%) percent of the value thereof.

When the cumulative total of payment is equal to fifty (50%) percent of the contract sum, subsequent payments will be made in the full amount for labor and material certified by the Architect/Engineer.

The amount retained shall be held until final acceptance of the work, receipt of all payrolls, releases, and waiver of liens.

7. **CHANGES AND/OR CONTRACT MODIFICATIONS**

The City reserves the right to increase or decrease quantities, service or requirements, or make any changes necessary at any time during the term of this contract, or any negotiated extension thereof. Price adjustments due to any of the foregoing changes shall be negotiated and mutually agreed upon by the Contractor and the City.

Changes of any nature after contract award which reflect an increase or decrease in requirements or costs shall not be permitted without prior approval by the Purchasing Agent. City Commission approval may also be required. **SUCH CHANGES, IF PERFORMED IN ADVANCE OF PURCHASING AGENT APPROVAL, MAY BE SUBJECT TO DENIAL AND NON-PAYMENT.**
8. **LAWS, ORDINANCES AND REGULATIONS**

The Contractor shall keep himself/herself fully informed of all local, state and federal laws, ordinances and regulations in any manner affecting those engaged or employed in the work and the equipment used. Contractor and/or employees shall, at all times, serve and comply with such laws, ordinances and regulations.

Any permits, licenses, certificates or fees required for the performance of the work shall be obtained and paid for by the Contractor, unless stated otherwise.

This contract shall be governed by the laws of the State of Michigan.

9. **RIGHT TO AUDIT**

The City or its designee shall be entitled to audit all of the Contractor's records, and shall be allowed to interview any of the Contractor's employees, throughout the term of this contract and for a period of three years after final payment or longer if required by law to the extent necessary to adequately permit evaluation and verification of:

A. Contractor compliance with contract requirements,
B. Compliance with provisions for pricing change orders, invoices or claims submitted by the Contractor or any of his payees.

10. **HOLD HARMLESS**

If the acts or omissions of the Contractor/Vendor or its employees, agents or officers, cause injury to person or property, the Contractor/Vendor shall defend, indemnify and save harmless the City of Kalamazoo, their agents, officials, and employees against all claims, judgments, losses, damages, demands, and payments of any kind to persons or property to the extent occasioned from any claim or demand arising therefrom.

11. **DEFAULT**

The City may at any time, by written notice to the Contractor, terminate this contract and the Contractor's right to proceed with the work, for just cause, which shall include, but is not limited to the following:

A. Failure to provide insurance and bonds (when called for), in the exact amounts and within the time specified or any extension thereof.

B. Failure to make delivery of the supplies, or to perform the services within the time specified herein, or any extension thereof.

C. The unauthorized substitution of articles for those bid and specified.

D. Failure to make progress if such failure endangers performance of the contract in accordance with its terms.

E. Failure to perform in compliance with any provision of the contract.
DEFAULT (cont.)

F. **Standard of Performance** - Contractor guarantees the performance of the commodities, goods or services rendered herein in accordance with the accepted standards of the industry or industries concerned herein, except that if this specification calls for higher standards, then such higher standards shall be provided.

Upon notice by the City of Contractor's failure to comply with such standards or to otherwise be in default of this contract in any manner following the Notice to Proceed, Contractor shall immediately remedy said defective performance in a manner acceptable to the City. Should Contractor fail to immediately correct said defective performance, said failure shall be considered a breach of this contract and grounds for termination of the same by the City.

In the event of any breach of this contract by Contractor, Contractor shall pay any cost to the City caused by said breach including but not limited to the replacement cost of such goods or services with another Contractor.

The City reserves the right to withhold any or all payments until any defects in performance have been satisfactorily corrected.

In the event the Contractor is in breach of this contract in any manner, and such breach has not been satisfactorily corrected, the City may bar the Contractor from being awarded any future City contracts.

G. All remedies available to the City herein are cumulative and the election of one remedy by the City shall not be a waiver of any other remedy available to the City.

12. **TERMINATION OF CONTRACT**

The City may, at any time and without cause, suspend the work of this contract for a period of not more than ninety days after providing notice in writing to the Contractor. The Contractor shall be allowed an adjustment in the contract price or an extension of the contract times, or both, directly attributable to the suspension if Contractor makes an approved claim.

The City may, without prejudice to any other right or remedy of the City, and with or without cause, terminate the contract by giving seven days written notice to the Contractor. In such case the Contractor shall be paid, without duplication, for the following items:

A. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such work;

B. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the contract documents in connection with uncompleted work, plus fair and reasonable sums for overhead and profit on such expenses;

C. All documented claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and

D. Reasonable expenses directly attributable to termination.

The Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.
13. **INDEPENDENT CONTRACTOR**

At all times, the Contractor, any of his/her employees, or his/her sub-contractors and their subsequent employees shall be considered independent contractors and not as City employees. The Contractor shall exercise all supervisory control and general control over all workers’ duties, payment of wages to Contractor's employees and the right to hire, fire and discipline their employees and workers. As an independent contractor, payment under this contract shall not be subject to any withholding for tax, social security or other purposes, nor shall the Contractor or his/her employees be entitled to sick leave, pension benefit, vacation, medical benefits, life insurance or workers’ unemployment compensation or the like.

14. **PROJECT SUPERVISOR**

The Contractor shall employ an individual to act as Project Supervisor. The Project Supervisor shall be available to the Contractor's workers and the Project Manager at all times by use of a beeper or other reliable means. The Project Supervisor shall prepare daily work plans for the employees, monitor employee performance, attendance and punctuality; and work closely with the City's Project Manager in assuring contract compliance.

15. **MEETINGS**

The Contractor and/or Project Supervisor shall be available to meet with the City’s Project Manager at a mutually agreeable time to discuss problems, issues or concerns relative to the contract. Either party may call a meeting at any time. When such a request for a meeting is made, the meeting date shall, in no case exceed five (5) working days after the request; and, if in the sole opinion of the Project Manager, the severity of the circumstance warrants, no more than one (1) working day.
APPENDIX A
NON-DISCRIMINATION CLAUSE FOR ALL CITY OF KALAMAZOO CONTRACTS


1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability, family status, sexual orientation or gender identity that is unrelated to the individual’s ability to perform the duties of the particular job or position. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability family status, sexual orientation or gender identity that is unrelated to the individual’s ability to perform the duties of the particular job or position.

3. If requested by the City, the Contractor shall furnish information regarding practices, policies and programs and employment statistics for the Contractor and subcontractors. The Contractor and subcontractors shall permit access to all books, records and accounts regarding employment practices by agents and representatives of the City duly charged with investigative duties to assure compliance with this clause.

4. Breach of the covenants herein may be regarded as a material breach of the contract or purchasing agreement as provided in the Elliott-Larson Civil Rights Act and City Ordinance 1856.

5. The Contractor will include or incorporate by reference the provisions of the foregoing paragraphs 1 through 4 in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission* and will provide in every subcontract or purchase order that said provision will be binding upon each subcontractor or seller.

6. The Contractor will not preclude a person with a criminal conviction from being considered for employment unless otherwise precluded by federal or state law. (for contracts over $25,000)

The Elliott-Larson Civil Rights Act, Sec. 202 of Act. No. 453 of 1976 reads in part as follows:

Sec. 202. (1) An employer shall not:

(a) Fail or refuse to hire, or recruit, or discharge or otherwise discriminate against an individual with respect to employment, compensation, or a term condition or privilege of employment because of religion, race, color, national origin, age, sex, height, weight or marital status.

(b) Limit, segregate or classify an employee or applicant for employment in a way which deprives or tends to deprive the employee or applicant of an employment opportunity or otherwise adversely affects the status of an employee or applicant because of religion, race, color, national origin, age, sex, height, weight or marital status.

(c) Segregate, classify or otherwise discriminate against a person on the basis of sex with respect to a term, condition or privilege of employment, including a benefit plan or system.

* Except for contracts entered into with parties employing less than three employees.

1-2010
APPENDIX B - PREVAILING WAGES

Prevailing wages are applicable to this contract, therefore, rates will apply as follows:

(XX) Project is funded by City of Kalamazoo monies and is estimated to be in excess of $100,000.00. The applicable prevailing wage rates are attached.

Specifications for projects in which the City of Kalamazoo is party for construction, alterations and/or repair including painting and decorating of public buildings or public works in or for the City of Kalamazoo and which requires or involves the employment of mechanics and/or laborers shall contain the following provisions stating the minimum wages to be paid the various classes of laborers and mechanics for the project. Prevailing wage rates determined by the U.S. Department of Labor under Davis Bacon and related acts will be used for City of Kalamazoo construction projects.

By the incorporation of prevailing wage rates within this specification, the City of Kalamazoo stipulates that:

- Contractor or his/her subcontractor shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less than once a week and without subsequent deduction or rebate on any account the full amount, accrued at the time of payment, computed at wage rates as incorporated herein regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and such laborers and mechanics;
- The scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
- The Prime Contractor and all subcontractors shall submit weekly certified payrolls documenting the hours worked and wages paid by work classification. **NOTE: Contactor shall not include Social Security numbers of employees on certified payrolls.**
- There may be withheld from the contractor's accrued payments the amount considered necessary by the City's Contracting Official to pay to laborers and mechanics employed by the contractor or any subcontractor on the work for the difference between the rates of wages required by the contract and the rates of wages received by such laborers and mechanics except those amounts properly deducted or refunded pursuant to the terms of the Davis-Bacon Act (USC, Title 40, Sec. 276a) and interpretations thereof.

**Special Note:** The City's requirements as it relates to prevailing wages includes a meeting with the City's Purchasing Agent prior to starting work and the submission of weekly certified payrolls by prime contractors and all subcontractors. The City will monitor certified payrolls, work progress, and conduct interviews with the mechanics and labors employed directly upon the site during the duration of the contract. Please contact the Purchasing Department at (269) 337-8020 if you have any questions regarding prevailing wage provision.

The overtime pay to which a laborer or mechanic is entitled under this contract shall be that overtime pay to which he/she is entitled by any agreement made with the contractor or subcontractor or by any applicable provision of law; but in no event shall such amount be less than the prevailing wage in the Kalamazoo community for such overtime.

Revised 4-08
PREVAILING WAGES

Central Air Stripper Media Replacement

Bid Reference #: 91063-002.0

February 2020
"General Decision Number: MI20200061 01/03/2020

Superseded General Decision Number: MI20190061

State: Michigan

Construction Type: Heavy

County: Kalamazoo County in Michigan.

Heavy, Includes Water, Sewer Lines and Excavation (Excludes Hazardous Waste Removal; Coal, Oil, Gas, Duct and other similar Pipeline Construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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CARP0525-006 06/01/2019

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ELEC0131-006 05/27/2019

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* ENGI0325-009 09/01/2019

POWER EQUIPMENT OPERATORS: Underground Construction (Including Sewer)

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https://beta.sam.gov/wage-determination/MI20200061/0?index=wd&keywords=&is_activ... 2/20/2020
GROUP 3
$ 27.53
GROUP 4
$ 27.25

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Backhoe/Excavator, Boring Machine, Bulldozer, Crane, Grader/Blade, Loader, Roller, Scraper, Trencher
(over 8 ft. digging capacity)

GROUP 2: Trencher (8-ft digging capacity and smaller)

GROUP 3: Boom Truck (non-swinging, non-powered type boom)

GROUP 4: Broom/Sweeper, Fork Truck, Tractor, Bobcat/Skid Steer/Skid Loader

-------------------------------------------------------------------------------------------------------------------
ENGIO326-025 06/01/2019

EXCLUDES UNDERGROUND CONSTRUCTION

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<th>OPERATOR: Power Equipment</th>
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<td>GROUP 7.................. $ 23.58</td>
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POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Crane operator with main boom and jib 400', 300', or 220' or longer.

GROUP 2: Crane operator with main boom and jib 140' or longer, tower crane, gantry crane, whirley derrick

GROUP 3: Backhoe/Excavator; Boring Machine; Bulldozer; Crane; Grader/Blade; Loader; Roller; Scraper; Tractor; Trencher

GROUP 4: Bobcat/Skid Loader; Broom/Sweeper; Fork Truck (over 20' lift)

GROUP 5: Boom truck (non-swinging)

GROUP 6: Fork Truck (20' lift and under for masonry work)

GROUP 7: Oiler

FOOTNOTES:
Crane operator with main boom and jib 300' or longer: $1.50 per hour above the group 1 rate.

Crane operator with main boom and jib 400' or longer: $3.00 per hour above the group 1 rate.

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IRON0340-004 06/19/2017

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https://beta.sam.gov/wage-determination/MI20200061/0?index=wd&keywords=&is актив... 2/20/2020
IRONWORKER, STRUCTURAL AND REINFORCING

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LAB00334-011 09/01/2018

SCOPE OF WORK:
OPEN CUT CONSTRUCTION: Excavation of earth and sewer, utilities, and improvements, including underground piping/conduit (including inspection, cleaning, restoration, and relining)

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LABORER

(1) Common or General........$ 20.97 12.85
(2) Mason Tender-
  Cement/Concrete............$ 21.10 12.85
(4) Grade Checker............$ 21.28 12.85
(5) Pipelayer................$ 21.40 12.85

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LAB00355-010 06/01/2018

EXCLUDES OPEN CUT CONSTRUCTION

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LABORER

Common or General; Grade Checker; Mason Tender -
  Cement/Concrete............$ 23.02 12.85
  Pipelayer................$ 20.34 12.85

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PA00312-014 06/12/2014

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PAINTER

Brush & Roller..............$ 21.75 11.94
Spray......................$ 22.75 11.94

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PLAS0016-020 04/01/2014

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CEMENT MASON/CONCRETE FINISHER...$ 22.31 12.83

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PLUM0333-026 06/01/2019

Fort Custer

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PLUMBER....................$ 38.19 22.33

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PLUM0357-012 07/01/2018

Excluding Fort Custer

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PLUMBER....................$ 33.70 19.85

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TEAM0007-011 06/01/2019

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TRUCK DRIVER
Lowboy/Semi-Trailer Truck...$ 27.30 .50 + a+b
Tractor Haul Truck.........$ 27.05 .50 + a+b

FOOTNOTE:
a. $446.70 per week.
b. $67.00 daily.

---------------------------------------------
SUMI2010-059 11/09/2010

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

------------------------------
The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "Identifier" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UNAV" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUMO198-005 07/01/2014. PLUM is an abbreviation identifier of...
the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. IA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

--------------------------------

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- an existing published wage determination
- a survey underlying a wage determination
- a Wage and Hour Division letter setting forth a position on a wage determination matter
- a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted.
because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION
ATTACHMENT A

SPECIFICATIONS & DRAWINGS/PLANS

Central Air Stripper Media Replacement

Bid Reference #: 91063-002.0

February 2020
Air Stripper Packing Media Replacement

City of Kalamazoo
Kalamazoo County, Michigan
[Intentionally left blank]
City of Kalamazoo

Air Stripper Packing Media Replacement

Technical Specifications

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<td>Materials and Equipment</td>
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<td>43 32 60</td>
<td>Project Completion and Pay Items</td>
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Drawings

- Sheet 1 - Cover
- Sheet 2 – 1994 Floor Plan
- Sheet 3 – Process Plan and Sections
- Sheet 4 – Flow Schematic

Reference Drawings

- Sheets 5 through 9 – Original Air Stripper Submittal Drawings
PART 1 - GENERAL

1.01 GENERAL

A. Related Sections: Some Sections of the Specifications (Divisions 1 through 43) may include a paragraph titled “Related Sections.” This paragraph is an aid to the Project Manual user and is not intended to include all Sections that may be related. It is the Contractor’s obligation to coordinate all Sections whether indicated under “Related Sections” or not.

1.02 SUMMARY OF WORK

A. The work covered by the Contract Documents consists of improvements to the City of Kalamazoo Central Well Field Water Treatment Plant, located at 215 West Stockbridge. Included in this work is furnishing all supervision, labor, materials, equipment, activities and related costs necessary for completing the improvements. Work includes but is not limited to:

- Removal and replacement of the existing packing media and demister pads in the two existing air strippers in the Water Treatment Plant. Also included is all staging, sequencing, cleaning, disinfecting, and startup activities necessary for a complete operating system. Contractor shall complete work in a manner that allows for continuous operation of at least one air stripper at all times. Work will be limited by the Owner to “low flow” times of the year. The Owner plans to have this work completed starting in November 2020. Time is of the essence and after work is begun, Contractor shall continue work until complete. Both air strippers shall be available for use by the City by March 15, 2021.

- Contractor shall also complete an inspection of the interior of both air strippers including documenting condition of interior with photographs. If inspection indicates a need for any repairs, Contractor shall complete repairs on a time and material basis after approval by the Owner.

B. The Contractor shall attend a mandatory pre-bid meeting at the site of the work and shall completely inform himself relative to construction hazards and procedure, labor, and all other conditions and factors, local and otherwise, which would affect execution and completion of the work and its cost. Such considerations shall include the arrangement and condition of the existing structures and facilities, the availability and cost of labor and facilities for transportation, handling and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of the Contractor's proposal. There will be no subsequent financial adjustment for lack of such prior information.

C. Phasing:

1. One of the air strippers shall be available to the City for use in treating drinking water at all times.

2. Refer to section 43 32 60 for detailed phasing requirements.

1.03 CONTRACTOR USE OF SITE AND PREMISES

A. Limit use of site and premises to allow Owner access to and operation of all existing treatment facilities.

B. The water treatment plant facilities shall remain operational during the entire project to assure the ability of the City to maintain successful treatment for the public water supply.
SECTION 01 10 00
SUMMARY OF WORK

It is not possible to remove the Water Treatment Plant from service during the work. Contractor shall coordinate with the Owner to have flows reduced or adjusted in particular areas of the plant to the extent possible.

The Contractor shall not encumber the site with material and equipment that would interfere with operation.

C. Access to Site

1. During construction, all roadways, streets and alleys may not be obstructed unless special permission is received from Owner.

D. Construction Operations: Limited to areas noted on Drawings. Limits of construction shall be confined to property owned by the Owner. Contractor shall coordinate access, site utilization, and work area limits with the Owner.

E. Time Restrictions for Performing Work: Work shall be performed during normal business hours. Monday – Friday, 7AM to 5PM. No night or weekend or Holiday work allowed unless permission is received from the Owner.

F. Utility Outages and Shutdowns: Any utility outages required, beyond those described herein, shall be approved in advance by the Owner. In the event that outages beyond those described herein are necessary, temporary utilities shall be provided by the Contractor to ensure the full functionality of the facility during temporary outages.

G. Use of Site for Storage and Field Office: Space for storage and field office for the Contractor is his responsibility. Any structures or facilities needed for storage or field office shall be constructed by the Contractor at his own expense and no separate payment will be made therefor. The Contractor shall not unreasonably encumber the site with materials and equipment and shall obtain and pay for use of additional storage or work areas needed for operations. The Contractor shall not load structures with weight that will endanger the structure. The Contractor shall move any stored products which interfere with operations of the Owners or other Contractors.

All security requirements for such facilities shall be provided and maintained by the Contractor. The Contractor shall remove any temporary facilities and all surplus materials when there is no further need of them. Each subcontractor shall be held responsible to the Contractor for all damages to existing site facilities disturbed through the performance of his work, or in the delivery of materials or equipment for his use, and shall pay all costs in connection with repairing of same. The Contractor shall be held responsible that all damage be repaired.

H. During performance of the work, the Contractor shall, at all times, keep the site or sites of the work and adjacent premises as free from material, debris and rubbish as is practical and shall remove it from any portion of the site and building, if in the opinion of the Engineer, such material, debris or rubbish constitutes a nuisance or is objectionable.

At the conclusion of the work, all erection plant tools, temporary structures and materials belonging to the Contractor shall be promptly removed from the construction site and he shall remove and promptly dispose of all water, dirt, rubbish or any other foreign substances.

The Contractor shall thoroughly clean all equipment and materials installed by him and shall deliver such materials and equipment undamaged in a bright, clean, polished and new condition.

Areas of work shall be clean and dust free prior to beginning operation of new equipment.
1.04 PROGRESS SCHEDULE

To enable the work to be laid out and completed in an orderly and expeditious manner, the Contractor shall submit to the Engineer a proposed progress schedule within 5 days of signing of the Contract. This schedule shall indicate the construction starting date and completion date for each of the various operations to be performed under this Contract. This schedule shall be in the form of a bar chart or of a network diagram showing, in a visual and logical manner, the various work functions or activities necessary to complete the work under this Contract, and the critical relationships between these activities. Activities conducted to insure operational status of the water treatment plant shall be included.

Required interruption of service to complete activities under this contract shall be addressed in a manner that includes scope of work, preparation tasks prior to service interruption that will minimize down time, estimate of duration of service interruption, and activities that will be requested of the Owner. The Engineer and the Owner will review the proposed progress schedule to determine conformity to the Contract Documents. If such conformity is demonstrated, the Engineer will accept the proposed schedule.

In the event that the project schedule must be modified, the Contractor shall submit to the Engineer a revised progress schedule indicating any anticipated change from the original progress schedule. The revised schedule shall be submitted within 3 - business days and shall include provisions for performing work authorized under approved Change Orders. If the Engineer determines that the modifications in the revised progress schedule are reasonable and that they conform to the Contract Documents, the Engineer will accept the revised schedule.

If the Contractor fails to adhere to the approved progress schedule as revised, he shall promptly adopt such other or additional means and methods of construction as will make up for the time lost, and will assure completion in accordance with such schedule.

Once construction has commenced it shall continue through to completion without interruption, unless approved by the Owner.

1.05 PERMITS

A. General: The Owner will obtain an Act 399 Permit for Water Supply Systems from the Michigan Department of Environment, Great Lakes, and Energy, if necessary. The Contractor shall obtain all permits necessary for construction of this project not obtained by the Owner. The Contractor shall pay for any charges or bonds required by agencies for permits, inspections or similar charges to construct this project as shown on the Drawings.

1.06 DATUM PLANE

Retrofit activity shall integrate new facilities with existing. Existing facility dimension data was established by field measurement. The Contractor shall field verify actual site conditions.

1.07 PROTECTION OF NATURAL RESOURCES

A. The Contractor shall take all necessary steps to prevent damage to fish and game habitat and to preserve the natural resources of the State. Construction shall be carried out so as to minimize discharge of damaging material into any stream, lake, reservoir, or onto the ground.

B. The Contractor shall exercise caution in the discharge of waters from pumps, deep wells, or well point systems, in order that such discharges do not cause erosion, siltation, soil depositions, etc., in sewers, streams or other water courses or drainage structures.

C. The Contractor shall not permit any sand or debris of any kind to enter the existing ditches, streams, storm sewers or culverts.
D. The rules and regulations of all work shall comply with Part 31 (Water Resources Protection), Part 301 (Inland Lakes and Streams Act), Part 91 (Soil Erosion), and Part 303 (Wetland Protection) of P.A. No. 451(Natural Resources and Environmental Protections Act of 1994).

1.08 PROTECTION OF ADJACENT STRUCTURES AND LANDSCAPING

The Contractor shall be entirely responsible for all damage to water pipes, electric conduits or cables, drains, sewers, gas mains, poles, telephone lines, railroad bridges and tracks, streets, pavements, sidewalks, curbs, fences, street and highway bridges and culverts, building foundations, retaining walls or other structures of any kind met with during the progress of the work, and shall be liable for damages to public or private property resulting therefrom.

The cost of protection, replacement in their original positions and conditions or payment for damages thereto of pipe lines and structures affected by the work and the removal, relocation and rebuilding of pipe lines and structures called for on the Drawings or specified shall be deemed included in the contract Pay Items. No additional payment will be made therefor.

The Contractor shall, at all times in performance of the work, employ approved methods and exercise reasonable care and skill so as to avoid unnecessary delay, injury, damage or destruction of public utility installations and structures; and shall, at all times in the performance of the work, avoid unnecessary interference with, or interruption of, public utility services, and shall cooperate fully with the Owner and utility owners thereof to that end.

1.09 WARRANTY

The Contractor shall warranty and guarantee all equipment and work for a minimum of two years from the dates of substantial completion. Greater warranty duration may be required by the project specifications for specific equipment and/or work.

1.10 SAFETY

The Contractor is solely responsible for safety in accordance with the General Conditions.

Work inside the air strippers will require confined space entry. Contractor shall meet all Michigan OSHA requirements for certified personnel and procedures for confined space entry.

PART 2 - PRODUCTS
*** Not Used ***

PART 3 - EXECUTION
*** Not Used ***

END OF SECTION
PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Data to be furnished by the Contractor.

1.02 CONSTRUCTION PROGRESS SCHEDULE

A. See requirements for Contractor submission of a construction progress schedule in Section 01 10 00 – “Summary of Work.”

1.03 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

A. General: Where required by the Specifications, the Contractor shall submit descriptive information which will enable the Engineer to advise the Owner whether the Contractor's proposed materials, equipment, or methods of work are in general conformance to the design concept and in compliance with the Drawings and Specifications. The information to be submitted shall consist of drawings, specifications, descriptive data, certificates, samples, test results and such other information, all as specifically required in the Specifications. Shop drawings shall be in accordance with the General Conditions and Supplementary Conditions and the requirements outlined herein.

B. Submittal Content and Format: Submittals shall be numbered consecutively and distinctly present the following:

1. All working and erection dimensions.
2. Arrangements and sectional views.
3. Necessary details, including complete information for making connections between work under this Contract and work under other Contracts.
4. Electrical wiring connections between all equipment furnished under the Contract, including all internal wiring between internal components of equipment and controls.
5. Kinds of materials and finishes.
6. Parts lists and description thereof.
7. Drawings for mechanical and electrical equipment shall present, where applicable, such data as dimensions, weight, and performance characteristics. These data shall show conformance with the performance characteristics and other criteria incorporated in the Contract Documents.

C. Contractor Responsibility

1. Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the submittal. The Contractor shall verify that the material and equipment described in each submittal conform to the requirements of the Specifications and Drawings. If the information shows deviations from the Specifications or Drawings, the Contractor shall insure that there is no conflict with other submittals and notify the Engineer in each case where submittal may affect the work of another Contractor or the Owner. The Contractor shall insure coordination of submittals among the related crafts and Subcontractors.

2. The Contractor shall be responsible to check and verify all field measurements, all dimensions on shop and setting drawings and all schedules required for the work of all the various trades.

3. The Contractor may authorize in writing a material or equipment supplier to deal directly with the Engineer or with the Owner with regard to a submittal. These dealings shall be limited to contract interpretations.
4. The Contractor shall stamp each submittal with stamp, initialed and signed, certifying to review of the submittal by the Contractor, verification of field measurements and compliance with Contract Documents.

D. Transmittal Procedure

1. Submittals shall be submitted promptly in accordance with dates in proposals, approved schedules and in such sequence that there is no delay in the Work or the work of any other Contractor. Submittals may be submitted by mail or electronically per the requirements listed below.

2. Submittals regarding material and equipment shall be accompanied by clear identification of the equipment and any variations from these Specifications.

3. A unique number, sequentially arranged, shall be noted on the transmittal form accompanying each item's submittal. Original submittal numbers shall have the following format "XXX-Y": where "XXX is the originally assigned submittal number, and "Y" is a sequential letter assigned for resubmittals, i.e., A, B, or C being the 1st, 2nd and 3rd resubmittals, respectively. Submittal 025-B, for example, is the second resubmittal of submittal 25.

E. Electronic Transmittal Procedure – Submittals shall be submitted electronically via the Prein&Newhof Plan Room in accordance with the above “Transmittal Procedure” requirements as well as the following requirements and procedures.

1. Contractor shall be given a Login ID and Password to the Prein&Newhof Plan room. The website for the Prein&Newhof Plan Room is http://www.preinnewhof.com/plan-room/.

2. Upon logging into the website, the Contractor will have access to a project folder labeled with the name of the Owner and Project. This folder will only be accessible to the Contractor, the Owner, and the Engineer.

3. Login and password will not be provided to Subcontractors. If the Contractor provides their login information to their Subcontractors, the Contractor assumes responsibility for the Subcontractor’s actions.

4. The Contractor may request automatic notifications by email of an “Upload” of both submitted and reviewed documents.

5. Within the “Project Folder” there will be a “To Be Reviewed” folder and a “Reviewed” Folder. Contractor shall upload submittals in PDF format to the “To Be Reviewed” subfolder. The time and date of the upload will be logged and automatic email notifications will be sent.

6. All submittals shall be prepared in accordance with this Section 01 33 00 of the specifications. Electronic submittals shall have the following naming format:

   Submittal Number – Specification Section – Description.pdf

   For example –001-033000-Concrete Mix Design.pdf

   A letter shall be added after the submittal number for resubmittals. For example, 001B-033000-Concrete Mix Design.pdf would be the second resubmission.

7. Within 15 days, reviewed submittals will be posted in the “Reviewed” folder. Automatic email notifications of the upload will be sent.

8. The Engineer will update the “Shop Drawing Status Log” and post it in the Project Folder as submittals are received, where it will be accessible by the Owner, Contractor, and Engineer.

9. Contractor shall submit any submittal requiring an Engineer’s seal as a hard copy. In addition, all submittals with an original size greater than 11 inches by 17 inches shall be submitted as a hard copy. All hard copy submittals shall also be submitted electronically.

F. Deviation from Contract: If the Contractor proposes to provide material or equipment which does not conform to the Specifications and Drawings, he shall indicate so under "deviations" on the transmittal form accompanying the submittal copies. Contractor shall prepare reason for a change, including cost differential, and request a change order to cover the deviations.
G. Submittal Completeness: Submittals which do not have all the information required to be submitted, including deviations, are not acceptable and will be returned without review.

H. Review Procedure

1. When the contract documents require a submittal, the Contractor shall submit five (5) copies of all submittal data (or one (1) electronic copy if submitting electronically), of which two (2) copies will be retained by the Engineer. For samples this number may vary. For samples, submit the number stated in each Specifications Section.

2. If the review indicates that the material, equipment or work method is in general conformance with the design concept and complies with the Drawings and Specifications, submittal copies will be marked "NO EXCEPTIONS TAKEN". In this event the Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

3. If the review indicates limited corrections are required, submitted copies will be marked "FURNISH AS CORRECTED". The Contractor may begin implementing the work method by the submittal in accordance with the noted corrections. Where submittal information will be incorporated in Operation and Maintenance data, a corrected copy shall be provided.

4. If the review reveals that the submittal is insufficient or contains incorrect data, submitted copies will be marked "REVISE AND RESUBMIT". Except at its own risk, the Contractor shall not undertake work covered by this submittal until it has been revised, resubmitted and returned marked either "NO EXCEPTIONS TAKEN" or "FURNISH AS CORRECTED".

5. If the review indicates that the material, equipment or work method is not in general conformance with the Drawings and Specifications, copies of the submittal will be marked "REJECTED". Submittals with deviations which have not been identified clearly may be rejected. Except at its own risk the Contractor shall not undertake the work covered by such submittals until it has been revised, resubmitted and returned marked either "NO EXCEPTIONS TAKEN" or "FURNISH AS CORRECTED".

6. If the review indicates that the material or equipment is not from an acceptable manufacturer, as indicated in the Specifications, copies of the submittal will be marked "REJECTED". Except at its own risk, the Contractor shall not undertake the work covered by such submittals until it has been revised, resubmitted and returned marked either "NO EXCEPTIONS TAKEN" or "FURNISH AS CORRECTED".

7. If the review indicates "ACKNOWLEDGED RECEIPT", the submittal under review has been appropriately noted and filed. No further action is required for a submittal so noted.

8. If the review indicates "ON HOLD", the submittal is being held in the office of the Engineer pending the submittal of additional information, etc. so that the review can be completed. No further action on the submittal shall be taken until the information needed has been received and the submittal is returned marked either "NO EXCEPTIONS TAKEN" or "FURNISH AS CORRECTED".

I. Effect of Review of Contractor's Submittal

1. Review of Drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of its responsibility for errors therein and shall not be regarded as an assumption of risks or liabilities by the Engineer or the Owner, or by an officer or employee thereof, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed.

2. Review of Drawings also shall not relieve the Contractor of responsibility for the proper fitting and construction of the work nor for the furnishing of materials or work required by the Contract and not indicated on the Drawings.

3. A mark of "NO EXCEPTIONS TAKEN" or "FURNISH AS CORRECTED" shall mean that the Owner has no objection to the Contractor, upon its own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.
1.04 LIST OF SHOP DRAWING SUBMITTALS

A. Requirements

1. Within two (2) weeks after Notice of Award, the Contractor shall submit for review by the Engineer an anticipated list of shop drawing submittals and submittal dates.

1.05 OPERATION AND MAINTENANCE DATA

A. Requirements

1. Compile product data for all equipment and associated controls systems furnished and installed under this Contract. Provide all necessary information for Owner’s operation and maintenance of products furnished.

2. Prepare data in the form of an instructional manual for use by Owner’s personnel. Prepare three (3) copies or complete sets compiled, bound in hard stock, and indexed.

3. A USB drive shall be provided of the entire manual in electronic, PDF, format.

4. The manuals shall include detailed operation and maintenance instructions for all equipment, the name and phone number of the manufacturer, and a complete parts list.

5. Submittal of operation and maintenance manuals shall be prior to final payment request.

6. Each hard copy of the manual shall be prepared and arranged as follows:

   a. One hard copy of all approved shop drawings and diagrams for all equipment furnished. If the Contractor originally submitted the shop drawings electronically, a hard copy of each shall be printed and provided by the Contractor in each O&M manual. All sheets larger than 8-1/2 by 11 inches shall be folded to 8-1/2 by 11 inches.

   b. One copy of each manufacturer's operation, lubrication, maintenance instructions and spare parts list for all equipment and controls furnished. All equipment operating, lubrication and maintenance instructions and procedures and parts lists shall be furnished on 8-1/2 by 11 inch commercially printed typed forms. Such forms shall include equipment name, serial number and other identifying references.

   c. One valve schedule, giving the valve number, location, fluid and fluid destination for each valve installed, prepared on 8-1/2 by 11 inch printed or typed forms as specified. All valves in the same piping system shall be grouped together in the schedule. A sample of the valve numbering system to be used will be furnished by the Engineer.

   d. List of electrical relay settings and control and alarm contact settings.

   e. Electrical interconnection wiring diagram for equipment furnished including all control and lighting systems.

   f. Each copy of the manual shall be assembled in one or more binders, each with title page, typed table of contents, and heavy section dividers with copper reinforced holes and numbered plastic index tabs. Each manual shall be divided into sections paralleling the Special Specifications equipment specifications. Binders shall be 3-ring, hard-back type. All data shall be punched for binding and composition and printing shall be arranged so that punching does not obliterate any data. The cover and binding edge of each manual shall have the project title, and manual title printed thereon, all as approved by Engineer.

   g. Where more than one binder is required they shall be labeled Vol. 1, Vol. 2, and so on. The table of contents for the entire set, identified by volume number, shall appear in each binder.

7. When the work reaches 80 percent completion, the Contractor shall submit to the Engineer two copies of the Operation and Maintenance Manual with all specified material that is available at that time. The submittal shall accompany the Contractor’s partial payment request for the specified completion. Within 30 days after the Engineer’s approval of the two-copy submittal, the Contractor shall furnish to the Engineer the remaining copies of the manual. Appropriate space shall be left in the manual for material not available at the time of the initial submittal. Manual shall be complete prior to request for final payment.
The costs of the Operation and Maintenance Manual shall be included in the Contract Price and no separate payment will be made therefore.

1.06 RECORD DOCUMENTS

A. Requirements

1. The Contractor shall maintain on the construction site a minimum of one (1) complete set of contract documents amended by "RED LINE" or highlight inclusion to reflect the most immediate status methods, materials, and locations and routings of construction. Supplementary sketches shall be included, if necessary, to clearly indicate all work as constructed.

2. At conclusion of work, the Contractor shall submit to the (Engineer) one (1) complete amended record set of these site documents.

3. Submittal shall be prior to final payment.

4. Failure of the Contractor to maintain an up-to-date set of Record Drawings on the project site shall be reason to withhold payments.

PART 2 - PRODUCTS
*** Not Used ***

PART 3 - EXECUTION
*** Not Used ***

END OF SECTION
PART 1 - GENERAL

1.01 MATERIALS AND EQUIPMENT:

A. Materials and equipment incorporated into the Work:

1. Shall conform to applicable specifications and standards.
2. Shall comply with size, make, type and quality specified or as specifically approved by the Engineer.
   a. Design, fabricate and assemble in accord with the best engineering and shop practices.
   b. Manufacture like parts of duplicate units to standard sizes and gages to be interchangeable.
   c. Two or more items of the same kind shall be identical, by the same manufacturer.
   d. Products shall be suitable for service conditions.
   e. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
4. Do not use material or equipment for any purpose other than that for which it is designed or specified.

1.02 MANUFACTURER'S INSTRUCTIONS:

A. When Contract Documents, require that installation of work shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation, including two sets to the Engineer.

1. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Engineer for further instructions.

B. Handle, install, connect, clean, and condition and adjust products in strict accord with such instructions and in conformity with specified requirements.

C. Perform work in accord with manufacturer's instructions. Do not omit any preparatory step or installation procedures unless specifically modified or exempted by Contract Documents.

1.03 TRANSPORTATION AND HANDLING:

A. Arrange deliveries of products in accord with construction schedules; coordinate to avoid conflict with work and conditions at the site.

1. Deliver products in undamaged condition, in manufacturer's original containers or packaging with identifying labels intact and legible.

2. Immediately upon delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals and that products are properly protected and undamaged.

B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.
1.04 STORAGE AND PROTECTION:

A. Store products in accord with manufacturer's instructions, with seals and labels intact and legible.
   1. Store products subject to damage by the elements in weather tight enclosures.
   2. Maintain temperature and humidity within the ranges required by manufacturer's instructions.

B. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections to assure that products are maintained under specified conditions and free from damage or deterioration.

PART 2 - PRODUCTS
*** Not Applicable ***

PART 3 - EXECUTION
*** Not Applicable ***
PART 1 - GENERAL

1.01 SCOPE

The work in this Section shall include all labor, equipment, and materials furnished and installed as specified herein or indicated on the Drawings to remove and replace the existing air stripper packing media in two existing air strippers at the City of Kalamazoo Central Well Field Water Treatment Plant.

Scope includes removal of the existing 3.5-inch LANPAC media by Lantec Products and replacing with new media in each of two air strippers. The new media depth in each 12-foot diameter air stripper shall match the existing depth of 18 feet.

Scope also includes cleaning and inspection of air stripper vessel interior.

Base bid air stripper packing media shall be NSF-61 approved 3.5-inch LANPAC by Lantec Products, Inc. 5302 Derry Ave. Agoura Hills, California. Phone: (818) 707-2285, FAX: (818) 707-9367.

All materials covered by these specifications shall be standard materials of proven performance as manufactured by reputable companies. Materials shall be manufactured and installed in accordance with the best practice of the trade.

Payment for all work will be on a unit price basis according to the bid items listed in the Contractor’s proposal. Contractor shall include all costs in the items listed in the proposal for all work specified herein and all associated work necessary for returning the air strippers to operation.

1.02 SUBMITTALS

A. The manufacturer of the air stripper packing shall submit the following data:

1. Shop drawings.
2. Certified media analyses
4. Catalog data consisting of specifications, illustrations and identification of the materials to be used.
5. Complete Operation and Maintenance Manuals shall be furnished.

C. No material furnished under this Specification shall be shipped to the jobsite until all submittals have been approved by the Engineer.

Each submittal shall be complete in all aspects incorporating all information and data listed herein and all additional information required to evaluate the proposed treatment system’s compliance with the Contract Documents. Partial or incomplete submissions shall be returned disapproved without review.

PART 2 - PRODUCTS

2.01 MATERIALS

Materials and accessories shall conform to the following specifications.

2.02 AIR STRIPPER PACKING MEDIA

Air stripper packing media shall be 3.5-inch LANPAC media. No substitutions will be allowed. Packing media shall be manufactured of polypropylene and shall be NSF-61 approved for use with drinking water. Packing media shall have a minimum geometric surface area of 44 square feet per cubic foot.
2.03 AIR STRIPPER DEMISTER PADS

Air stripper demister pads shall be Airol™ 320-1 mesh mist eliminators, manufactured by Coastal Technologies, Inc. No substitutions will be allowed. Demister pads shall be manufactured of polypropylene and shall have a density of 2.5 lbs/ft³. Demister pads shall have at least 95.5% voids, and a surface area of at least 86 ft²/ft³.

PART 3 - EXECUTION

3.01 GENERAL

A. The air stripper packing media and demister pads shall be stored, handled, and installed in accordance with the Manufacturer’s instructions and the drawings and specifications. All necessary components for a complete system shall be supplied and installed by the Contractor.

B. Contractor shall take all necessary measures to avoid introducing dirt or other contamination into the air strippers. Tools, work boots, and all other items used inside the air stripper shall be cleaned with a chlorine bleach solution prior to entering the air stripper. Contractor shall also prevent the introduction of bodily fluids and hair into the air stripper through the use of hair nets or hoods, and clean coveralls.

C. The Contractor shall be responsible for safety including all necessary fall protection and Confined Space entry and monitoring procedures while working inside an air stripper.

D. The Contractor shall be responsible for protection of all components of the air stripper and shall repair or replace any components damaged as a result of his work.

E. Phasing:

1. Refer to plans from original construction and from influent piping/valve modifications for valve numbers. Prior to beginning work on Air Stripper No. 1, Contractor shall complete the following:

   a. Coordinate with Owner to have the system flow rate reduced and Air Stripper No. 1 shut down. Owner will close all valves necessary to isolate the air stripper. Owner and Contractor will lockout valves, dampers and/or motor(s).

   b. Coordinate with Owner to have Owner shut down and lock out/tag out Fan NO. 1. Contractor shall also lockout/tagout Fan No. 1. Close Fan No. 1 motorized damper and motorized damper on duct connecting the discharge between Fan No. 1 and Fan No. 2. Owner and Contractor to lockout both closed dampers.

   c. Owner will close 16-inch influent valve (21-1), allow air stripper to drain to the detention tank beneath the air stripper. Lock out/Tag out per City of Kalamazoo and Contractor requirements.

   d. Owner will close 20-inch effluent valve (6-1). Lock out/Tag out per City of Kalamazoo and Contractor requirements.

   e. Owner will isolate acid wash pump from both air strippers by closing 4-inch PVC ball valves on the acid wash supply line and suction line to each air stripper. (refer to Drawings). Lock out/Tag out per City of Kalamazoo and Contractor requirements.

2. Remove existing air stripper packing media.
3. Power wash interior of air stripper.

4. Replace 14 demister pads.

5. Complete inspection of interior of air stripper including photographic log of:
   a. Interior walls and floor including below packing media supports
   b. Distributor (from above and below)
   c. Demister Pads
   d. Packing supports (from above and below)

6. As needed, negotiate time and materials pricing and schedule with Owner to complete repairs of deficiencies noted during interior inspection. Payment for repairs shall be provided on a negotiated time and materials basis via Change Order.

7. Install replacement air stripper packing media.

8. Complete system flushing and disinfection.

9. Return to service for 1 week trial period.

10. Complete steps above for Air Stripper No. 2 using the following valves for isolation:
    a. 16-inch Influent (21-2)
    b. 20-inch effluent valve (6-2)
    c. Acid wash supply and suction valves serving Air Stripper No. 2.
    d. Isolate fan No. 2 and No. 3 from Air Stripper No. 2 and lockout associated valves and dampers.

3.02 REMOVAL OF EXISTING AIR STRIPPER PACKING MEDIA

After isolating the air supply fan, inlet and effluent valves, Contractor may begin removal of air stripper packing media from one of the air strippers.

For removal of existing air stripper packing media, the Contractor may utilize the 24-inch pipe manway with centerline elevation of 796.5 (9.5 feet above floor and 1.5 feet above the lower platform) and the 24-inch manway with centerline elevation of 810.5 (23.5 feet above floor and 3.5 feet above the intermediate platform). Contractor shall be responsible for containing the media removed, minimizing spillage on the floor and immediately cleaning all surfaces impacted by removal.

Contractor shall be responsible for removing and properly disposing of all media removed in a licensed Type II landfill.

If workmen enter the air stripper during removal operations, the load shall be distributed by use of plywood sheeting or other method to avoid point loads on the lower packing platform and supports.
If removal of air stripper media using the manway(s) is not possible due to the media being bonded together by mineral scale/precipitates, Contractor shall perform acid washing of the air stripper interior in an effort to remove or loosen scale from the media and allow it to be removed from the air stripper using the manway(s). Acid washing shall be performed in accordance with manufacturer recommendations using the acid wash pump. Contractor shall fill the sump (lower portion of air stripper) with 20% citric acid solution to a height of 3 feet above ground via the 4-inch fill port located 4.5 feet above floor level and recirculate through the air stripper for a period of 3 hours utilizing the existing acid wash feed pump and piping. After 3 hours, Contractor shall utilize the existing drain at the bottom of the air stripper to discharge to the sanitary sewer. Contractor shall neutralize the water prior to discharge. The blower shall remain off and locked out during this process.

If mechanical methods are necessary to facilitate media removal, following acid washing, care must be taken to avoid damaging the air stripper and all ancillary equipment. Any damage to the air stripper must be repaired prior to installing new media. Contractor shall provide pricing in the bid that will be available to compensate Contractor for acid washing with the acid wash pump and/or mechanical methods to break apart the media. Payment shall be provided under the Acid Washing with Pump and/or Mechanical Breaking pay items. If these tasks are not required, payment under these pay items will not be allowed.

Contractor shall repair any damage that results from Contractor's action(s) at Contractor's expense. Any chemicals used for acid washing must be neutralized prior to discharge to the sewer.

3.03 INTERIOR CLEANING

Following air stripper packing media removal, wash the interior of the air stripper in accordance with air stripper packing manufacturer recommendations outlined below:

Contractor shall utilize a power washer and potable water to power wash all walls and all internal components of the air stripper. After power washing, Contractor shall utilize the existing drain at the bottom of the air stripper to discharge wash water to the sanitary sewer.

If deemed necessary by Owner and Engineer, Contractor shall then utilize the acid wash pump and/or a power washer and 20-30% food grade citric acid solution to power wash all walls and all internal components of the air stripper. After power washing with the acid solution, Contractor shall utilize the existing drain at the bottom of the air stripper to discharge acid wash water to the sanitary sewer after neutralizing the solution. The blower shall remain off and locked out during this process. Contractor shall be responsible for all health and safety precautions to avoid contact exposure and/or inhalation of acid mist or fumes. Payment shall be provided under the Acid Power Washing and/or Acid Washing with Pump pay items. If this task is not required, payment under this pay item will not be allowed.

Following washing, mechanically remove any remaining scale and other materials from the distributor, distributor tray, bed limiter, intermediate packing support platform, lower packing support platform, supports, air and water inlets, and ancillary equipment in accordance with manufacturer recommendations to the extent necessary to facilitate air stripper inspection and operation, including the unimpeded flow of air and water.

When pressure washing the interior of the air stripper, the pressure shall not exceed manufacturer recommendations, and shall never exceed 2,500 psi. Care shall be taken to avoid any damage to the fiberglass vessel. Any damage to the air stripper must be repaired prior to installing new media. Contractor shall repair any damage that results from Contractor's action(s) at Contractor's expense.

Cleaning shall include the area of the packing media bed as well as the area above the distributor and below the packing platform supports. All of the existing 24-inch manways in the side of the vessel are available.
for this purpose. All cleaning water shall be collected from the bottom of the air stripper and drained to the sanitary sewer via the existing drain. Special care shall be taken to clean the bottom (floor level/Sump) of the air stripper with complete removal of any accumulated sediment and scale.

Any proposed chemicals for cleaning shall be submitted to Engineer for approval prior to use.

Any chemicals used for acid washing and/or cleaning shall be neutralized prior to discharge to the sewer.

Prior to inspection, replace demister pads (14), per manufacturer recommendations and section 3.04.

3.04 INSTALLATION OF DEMISTER PADS

Demister pads shall be sized and installed in accordance with manufacturer’s instructions to complete a full replacement of the existing demisters. Old demister pads shall be properly disposed.

3.05 REPAIR

In the event that the inspection(s) indicates that either air stripper requires repair(s), Contractor shall immediately notify Owner and Engineer and negotiate time and materials pricing and schedule with Owner to complete repairs of deficiencies noted during interior inspection. Payment for necessary repairs, which are not the result of Contractor's work, shall be provided via Change Order on a time and materials basis. No payment shall be allowed for damage resulting from Contractor's actions.

3.06 INSPECTION

Contractor shall utilize a company with a minimum of five years of experience manufacturing similar fiberglass vessels. Before new media is installed, the inspection company shall provide a summary report of findings including photographic log of the below items. Owner will review and negotiate repair work cost and schedule with the Contractor, as necessary.

Photographic log shall include the following:

- Fiberglass vessel interior
- Packing platforms, supports and all hardware
- Distributor and distributor supports and all hardware
- Bed limiter
- Demister
- Sump and all air and water inlets and outlets

3.07 INSTALLATION OF AIR STRIPPER PACKING MEDIA

Air stripper media shall not be installed until owner reviews inspection results, deficiencies are resolved, repairs are made, and/or Owner provides authorization to proceed.

The air stripper packing media may be dumped into place, but in no case shall the media be allowed to free fall more than 10 feet. Contractor shall use chutes, buckets or other methods to allow uniform placement of the media over the full 18-foot height of the packing bed depth. The nominal volume of the packing bed is
2,040 cubic feet per air stripper. Contractor shall supply enough packing material to fill the packing bed plus 5%. Any excess media will be turned over to the Owner.

The Contractor shall visually verify and photo document uniform placement of packing media at every 3 feet of depth installed. Contractor shall take special care to fill all irregular areas including the areas of sidewall pipe connections/manways.

The existing 24-inch manways may be used for access to install the air stripper packing media.

If workmen enter the air stripper during filling operations, the load shall be distributed by use of plywood sheeting or other method to avoid point loads on the packing supports/platforms and on the media itself.

3.08 FLUSHING OF AIR STRIPPER PACKING MEDIA

After the media has been installed over the full depth of the packing bed, the Contractor shall flush the media to remove any residual debris.

Prior to flushing activities, Contractor shall verify with the Owner that the suction and discharge lines from the existing acid wash pump to the air stripper remaining in service are fully closed and locked out/tagged out.

Contractor shall fill the sump (lower portion of air stripper) with potable water to a height of 3 feet above floor level via the 4-inch fill port located 4.5 feet above floor level and recirculate through the air stripper for a period of 3 hours utilizing the existing acid wash feed pump and piping. After 3 hours, Contractor shall utilize the existing drain at the bottom of the air stripper to discharge flushing water to the sanitary sewer. The blower shall remain off and locked out during this process.

Discharge to sanitary sewer shall be via the existing air stripper drain and discharge piping.

3.09 DISINFECTION

After completion of flushing, the Contractor shall disinfect the interior of the air stripper including the media. Contractor shall fill the sump to a height of 3 feet above the floor with a 1% sodium hypochlorite solution and recirculate this solution with the existing acid wash feed pump for a period of 2 hours. This water shall then be removed from the air stripper, dechlorinated, and discharged to the sanitary sewer. Discharge to sanitary sewer shall be via the existing air stripper drain and discharge piping. The flushing procedure above in Section 3.08 shall then be repeated.

At the end of this second flushing process, flushing water shall be drained and the air stripper filled again to three (3) feet above the floor with treated potable water and circulated. Water exiting the air stripper shall be tested for Total Coliform and heterotrophic plate count (HPC) after chlorine concentration is verified to be less than source water. A sample tap shall be added at the drain connection, as needed.

Sampling and testing for Total Coliform and HPC shall be repeated 24 hours later. The Contractor shall assist the Owner in collecting the samples. The Owner will collect the samples and complete analysis of the samples at no cost to the Contractor.

In the event that test results indicate insufficient disinfection, Contractor shall at Contractor's expense, continue to disinfect and flush the air stripper, as previously described, until test results indicate that the air stripper has been sufficiently disinfected.

3.10 START-UP

After results showing no presence of bacteria for two consecutive tests, startup of the air stripper may commence. Contractor shall coordinate the removal of locks and the opening of valves and dampers with the Owner (Owner will operate valves and dampers), and assist the Owner in placing the air stripper in
service. Over the period of a 1-week trial period, the Owner will collect samples to verify proper operation of the air stripper. After Owner approval, contractor may begin work on the second air stripper. Work on the second air stripper shall be completed in a similar manner.

3.11 WARRANTY

The air stripper packing media manufacturer shall warranty and guarantee the media against defect in design, material and workmanship for a period of eighteen (18) months after date of shipment or twelve (12) months after substantial completion, whichever occurs later. Contractor shall add additional media if the media has settled more than 3-inches below top of the 18 foot packing height within 12 months of installation.

END OF SECTION
CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
WATER TREATMENT PLANT IMPROVEMENTS
AIR STRIPPER MEDIA REPLACEMENT
CITY OF KALAMAZOO
2019 CENTRAL WELL FIELD
AIR STRIPPER MEDIA REPLACEMENT

9 OF 9 - REFERENCE DRAWING
1994 SUBMITTAL DRAWINGS

Notes:
1. Coastal to supply (2) Airal™320 Mist Eliminators, supplied as (1/2) path each, attached to bottom grids with cable ties.
2. Material of Construction: Polypropylene
3. Approx. Weight: 150 lbs. per vessel
4. Delta P.O. No. 5014-004
  Coastal Job No. 94098

COASTAL TECHNOLOGIES, INC.

Della Environmental, Inc. for Kalamazoo Project
ATTACHMENT B

UNIT PRICES – MEASUREMENT AND PAYMENT

Central Air Stripper Media Replacement

Bid Reference #: 91063-002.0

February 2020
UNIT PRICES - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes descriptions of the method of measurement and the basis of payment for Unit Price Work under this Contract.

B. Basis of Contract Payments:
   1. Final Contract Price shall be determined by actual quantities installed/performe
   2. Owner shall determine actual quantities installed/performe
   3. All work not included as a Bid Item shall be considered incidental and not paid for directly, except Work that would be considered additional Work due to unforeseen conditions.
   4. Unit price payments shall include everything necessary for such item to function as intended.
   5. Owner reserves the right to increase, decrease or eliminate any quantities for items listed in Contractor's Bid or which become a part of the Contract Documents.

C. Items included as incidental to Unit Prices. Unless there is a specific pay item identified, the unit price payment shall include, but not be limited to:
   1. Preparatory work and expenses incurred prior to beginning work onsite, including coordination and meetings.
   2. Transport materials, personnel, and equipment to the job site (including mileage, lodging, per diems, etc.).
   3. Establish temporary onsite construction facilities and chemical containment area(s).
   4. Provide insurance, bonds, and other costs associated with the project in general and not included in other pay items.
   5. All required submittals.
   6. Owner will provide potable water for contractor's use.
   7. Owner will perform and pay for bacterial sampling.

1.3 GENERAL CONDITIONS

A. Item No. 1 – Media Removal, Disposal and Interior Cleaning:
   1. Includes:
      a. Coordinating and performing air stripper shutdown and lock-out tag-out procedures, as specified.
      b. Removal, transport and proper disposal of all air stripper media, residues, and scale
      c. Air stripper cleaning via power washing and manual scrapping.
      d. Provide all PPE, equipment, and procedural requirements necessary to perform confined space entry and monitoring.
   2. Unit of Measure: Per Air Stripper
B. Item No. 2 – Demister Pads:
   1. Includes the following:
      a. Removal and proper disposal of the existing demister pads.
      b. Purchase, delivery and installation of the specified demister pads.
   2. Unit of Measure: Per Air Stripper

C. Item No. 3 – Inspection:
   1. Includes the following:
      a. Inspection of each air stripper as specified.
      b. Reporting/documentation for each air stripper inspection as specified.
   2. Unit of Measure: Per Air Stripper

D. Item No. 4 – Media Purchase, Delivery and Installation:
   1. Includes the following:
      a. Purchase, delivery and installation of the specified air stripper media as specified.
   2. Unit of Measure: Per Air Stripper

E. Item No. 5 – Flushing, Disinfection and Startup:
   1. Includes the following:
      a. Flushing, disinfection and startup of each air stripper, as specified, including providing all necessary chemicals and supplies.
      b. Performance of additional flushing and disinfection events until sample analysis confirms sufficient disinfection.
      c. City will perform and pay for all water sampling and analysis at no cost to the contractor.
   2. Unit of Measure: Per Air Stripper

F. Item No. 6 – Acid Washing with Pump:
   1. Includes the following:
      a. Supply all necessary chemicals, mixing tanks, hosing, PPE, labor etc. necessary to mix acid washing solution to the specified concentration and transfer the solution to each air stripper.
      b. Supply all necessary chemicals, equipment, supplies and labor to neutralize and discharge acid washing solution to sanitary sewer following each acid washing event.
      c. Provide all labor, equipment, etc. necessary to perform an acid washing event as specified.
   2. Unit of Measure: Per Event

G. Item No. 7 – Mechanical Breaking:
   1. Includes the following:
      a. Provide all labor, equipment and supplies necessary to mechanically break and remove scale from the interior of the air stripper using manual tools (hammers, scrapers, etc.) and power tools (mechanical breakers, jack hammers, hammer drills, cutting, etc.).
      b. All PPE, equipment, and procedural requirements necessary to perform confined space entry and monitoring.
   2. Unit of Measure: Per Air Stripper
H. Item No. 8 – Acid Power Washing:
   1. Includes the following:
      a. Provide all labor, equipment, supplies and chemicals necessary to perform power washing of the interior of each air stripper using the specified acid solution, and to neutralize the acid solution prior to discharge to the sanitary sewer.
      b. Provide all PPE and procedural requirements necessary to perform confined space entry and monitoring.
   2. Unit of Measure: Per Air Stripper

END OF SECTION
ATTACHMENT C

PHOTOGRAPHS

Central Air Stripper Media Replacement

Bid Reference #: 91063-002.0

February 2020