City of Muskegon Water Filtration Plant 1900 Beach Street Muskegon, MI 49441

The City of Muskegon is seeking a consultant to perform an evaluation of the Water Filtration Plant to meet the requirements of the Michigan Safe Drinking Water Act, Public Act 399, Rule 325.11203, 1204, 1604-1606,1105, 1006, 1008 for a 5 year Water Supply Reliability Study.

Please submit questions to Steve Teunis at <u>Steve.Teunis@shorelinecity.com</u>, phone (231) 724-4104, or submit them in writing to the following address:

Attn. Steve Teunis c/o City of Muskegon Water Filtration Plant 1900 Beach Street Muskegon, MI 49441

If you are interested in providing engineering services a cost proposal is requested. All proposals must be in the City Clerks Office prior to 2:00 PM EST on Tuesday, February 19, 2013 for a public bid opening

Anticipating expansion of the service area in 2015, the minimum reliability evaluation shall include:

- 1. Evaluate the adequacy of Water Filtration Plant storage and pumping equipment, and major equipment systems per Rule 325.11203. Include capacity and equipment condition to meet increased water supply requirements.
- <u>2.</u> Adequacy of power reliability. Evaluate benefit of updating the alternate incoming power supply.
- <u>3.</u> Evaluate the condition and life expectancy of the chemical storage including feed pumps, storage tanks and controls and recommend replacement schedule. Include study of metering accuracy.
- 4. Evaluate and recommend online instrumentation.
- <u>5.</u> Evaluate recirculation system operation for efficiency and reliability.
- <u>6.</u> Evaluate and recommend improvements to the Ultraviolet Treatment system on the recycle water.
- <u>7.</u> Evaluate low filter run hours in summer months and recommend valve replacement schedule.
- <u>8.</u> Evaluate and recommend SCADA upgrades to reporting software for compatibility and functionality.
- <u>9.</u> Evaluate recommendations for control system upgrades at all remote locations.

- <u>10.</u> Identification and evaluation of capacity of providing emergency water supply to the service area.
- 11. Evaluate low and high service pump sizing and condition to most efficiently meet water demand over the low and high daily flow rates. Recommend capital improvements to better meet the flow demands. Include recommendation for high service pump valves.
- <u>12.</u> Develop plans and recommendations for repairing cracks in buried reservoirs (onsite and remote locations) based on previous inspections.
- 13. Evaluate and recommend improvements for remote site communications.
- <u>14.</u> Develop tracer study procedure for settling basin to evaluate mixing/settling efficiencies related to low and high daily flows.
- 15. Evaluate and recommend sludge handling improvements.
- <u>16.</u> Evaluate employee shift schedule and compensation for retention.
- <u>17.</u> Evaluate improvements toward "renewable energy sources". Ie solar, wind, wave energy.
- 18. Evaluate feasibility of usable data from lake buoys.
- 19. Create capital improvement lists for a 5 year and 20 year plan.
- <u>20.</u> All work shall be completed as scheduled by the Water Plant Supervisor
- <u>21.</u> The Engineer shall submit a draft of the Water Plant Reliability Study report to the City of Muskegon and MDEQ for review
- <u>22.</u> The Engineer will arrange and attend a meeting to review the report with Water Plant staff prior to submitting report to the MDEQ.
- 23. The Engineer will revise the draft report based on feedback from the City of Muskegon and MDEQ and supply 10 copies of the report.
- <u>24.</u> Report deadline for completion is to the Michigan Dept. of Environmental Quality on June 30, 2013.

Please include the following details in the proposal

- Services to be provided.
- Project leader or contact person, and staff or sub-consultants to be used with related staff experience (not of that firm) including position or role on the project.
- Cost estimate, including:
 - o Projected man-hours by position for each task
 - o Hourly rates for each position to identify direct labor costs for each task.
 - Indirect labor cost using your firm's multiplier (as determined by most recent audit for a similar project) and subcontracts compiled in the same manner.
 - Fixed Fee (profit) and expenses anticipated to determine a cost "not to exceed" for services to be provided.
- Statement of qualifications for performing Reliability Studies, to include:
 - o Company experience in reliability studies.

- o Organizational chart showing staff responsibilities for each project portion completed.
- Qualifications of staff performing work including education, experience, training, and certifications.
- o List of current references from entities in which engineer have performed reliability studies.

The City of Muskegon will provide the following, if requested.

- Previous Inspection Reports
- Reliability Reports
- Monthly Operating Reports
- Wage Tables
- Equipment installation dates
- Past maintenance performed
- Recirculation system procedures
- Communication equipment and repairs to remote sites
- Control system upgrade list

Equal Opportunity Employment

Consultant must submit their firms Equal Opportunity Employment (EOE) plan.

Evaluation and selection of proposals

The owner will review the proposals and evaluate them based on the requested information and the information provided. The City reserves the right to accept or reject any, and all, proposals. The City of Muskegon may waive any information or minor defects or reject any and all bids without incurring any liability. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 45 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified time period, the time may be extended by mutual agreement between the City of Muskegon and the bidder.

Sealed Bids Opening

Proposals must be received to the City Clerks Office, by Tuesday February 19, 2013 @ 2:00 PM.

c/o Ann Marie Cummings, City Clerk, Muskegon City Hall 933 Terrace Street, PO Box 36 Muskegon MI, 49443-0536

Please label "Water Plant Reliability Study".

Required Insurance provided by Engineer

The consultant shall furnish a certificate of insurance to the City with the following coverage:

- 1. Hold Harmless Agreements: To the fullest extent permitted by law, CONSULTANT agrees to defend, pay in behalf of, indemnify, and hold harmless the CITY, its elected and appointed officials, employees, volunteers and others working on behalf of the CITY against any and all claims, demands, suits, or loss, including any costs connected therewith, and for any damages which may be asserted, claimed or recovered against or from the CITY, its elected and appointed officials, employees, volunteers, or others working on behalf of the CITY, by reason of personal injury, including bodily injury and death, property damage, including loss of use thereof, and/or the effects of or release of toxic and/or hazardous material which arises out of or is in any way connected or associated with this contract. The obligation to defend and hold harmless extends to CONSULTANT'S employees, agents, subcontractors, assigns and successors.
- 2. Consultant Insurance Requirements: CONSULTANT shall not commence work under this contract until obtaining the insurance required under this paragraph. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and Best Rated. All coverage shall be with insurance carriers acceptable to the CITY.
- 3. Workers' Compensation Insurance: The CONSULTANT shall procure and maintain during the life of this contract, Workers' Compensation Insurance, including Employer's Liability coverage, in accordance with all applicable Statutes of the State of Michigan.
- 4. General Liability Insurance: The CONSULTANT shall procure and maintain during the life of this contract, commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$500,000 per occurrence and/or aggregate combined single limit, Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following extensions: (a) Contractual Liability; (b) Products and Completed Operations; (c) Independent Contractor's Coverage; (d) Broad Form General Liability Extensions or equivalent.
- <u>Motor Vehicle Liability</u>: The CONSULTANT shall procure and maintain during the life of this contract Motor Vehicle Liability Insurance, including Michigan no-fault coverage, with limits of liability of not less than \$500,000 per occurrence or combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.

- 6. Professional Liability Insurance: The CONSULTANT shall procure and maintain during the life of this contract and during the performance of all services Professional Liability Insurance covering all performances from the beginning of the consultant's services on a "claims made basis" and shall maintain coverage from commencement of this contract until six (6) months following completion of the consultant's work with limits of liability not less than \$500,000 per claim.
- 7. Additional Insured: Commercial General Liability and Motor Vehicle Liability Insurance, as described above, shall include an endorsement stating the following shall be "Additional Insured": The CITY OF MUSKEGON, all elected and appointed officials, all employees and volunteers, all boards, commissions and/or authorities and board members, including employees and volunteers thereof.
- 8. Cancellation Notice: Workers' Compensation Insurance, General Liability Insurance, Motor Vehicle Liability Insurance, and Professional Liability Insurance, as described above, shall include an endorsement stating the following: "It is understood and agreed that Thirty (30) Days Advance Written Notice of Cancellation, Non-Renewal, Reduction and/or Material Change shall be sent to: CITY OF MUSKEGON ENGINEERING DEPARTMENT.
- 9. <u>Proof of Insurance Coverage</u>: The CONSULTANT shall provide the CITY at the time the contracts are returned by him for execution, certificates and policies as listed below:
 - a. Two (2) copies of Certificate of Insurance for Workers' Compensation Insurance.
 - b. Two (2) copies of Certificate of Insurance for Commercial General Liability Insurance.
 - c. Two (2) copies of Certificate of Insurance for Vehicle Liability Insurance.
 - d. Two (2) copies of Certificate of Insurance for Professional Liability Insurance.
 - e. If so requested, certified copies of all policies mentioned above will be furnished.
- 10. If any of the above coverage expires during the term of this contract, the CONSULTANT shall deliver renewal certificates and/or policies to the CITY at least ten (10) days prior to the expiration date.