



Request for Proposals # 274-DEB-LOX-FMH-2023

Title: DE Benton WTP Liquid Oxygen and Equipment Lease

Issue Date: August 31, 2023

Due Date: September 22, 2023 at 2:00 PM EST

LATE PROPOSALS WILL NOT BE ACCEPTED

Issuing Department: *Public Utilities Raleigh Water*

Direct all inquiries concerning this RFP to:

Mike Hughes, Plant Operations Superintendent

Email: frederick.hughes@raleighnc.gov

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1 INTRODUCTION

1.1 **Purpose**

The City of Raleigh (COR) is soliciting proposals from one or more firm(s) with which to contract for the following services:

The City of Raleigh Public Utilities Department is requesting proposals to supply Liquid Oxygen and tank and equipment lease/maintenance to the DE Benton Water Treatment Plant.

A detailed scope of services is provided in Section 4 of this document.

All information related to this solicitation, including any addenda, will be posted to the North Carolina electronic Vendor Portal (eVP) at <https://evp.nc.gov/>.

All questions related to this solicitation must be submitted in writing (via email) to the following individual:

Contact Name	Email Address
Mike Hughes	Frederick.Hughes@raleighnc.gov

Questions submitted via telephone will not be answered.

1.2 **Background**

The City of Raleigh, the Capital City of North Carolina, remains one of the fastest growing areas in the country. A great economy, top educational institutions, and exceptional health care facilities are some of the characteristics that attract people to the triangle area. The mild climate, diverse work force and proximity to Research Triangle Park combine to make Raleigh a great place to live.

Raleigh is a 21st Century City of Innovation focusing on environmental, cultural, and economic sustainability. The City conserves and protects our environmental resources through best practice and cutting-edge conservation and stewardship, land use, infrastructure and building technologies. The City welcomes growth and diversity through policies and programs that will protect and enhance Raleigh's existing neighborhoods, natural amenities, history, and cultural and human resources for future generations. The City leads to improve quality of life for neighborhoods and standard of living for all citizens. The City works with universities, colleges, citizens, and local partners to promote new technology, create new job opportunities, and encourage local businesses and entrepreneurs. The City enlists and prepares 21st Century staff with the skill sets to carry out the duties of the City through transparent civic engagement and by providing the very best customer service to our citizens.

The City of Raleigh Public Utilities Department provides water and wastewater services to approximately 620,000 customers in Raleigh, Garner, Wake Forest, Rolesville,

Knightdale, Wendell, and Zebulon. The DE Benton WTP uses liquid oxygen to generate ozone on site for the removal of taste and odor compounds.

1.3 Request for Proposal (RFP) Timeline

Provided below is a list of the anticipated schedule of events related to this solicitation. The City of Raleigh reserves the right to modify and/or adjust the following schedule to meet the needs of the service. All times shown are Eastern Time (EST):

RFP Process	Date and Time
RFP Advertisement Date	8/31/23
Pre-Proposal Conference (if required)	9/14/23
Deadline for Written Questions	9/19/23
City Response to Questions (anticipated)	9/20/23
Proposal Due Date and Time	9/22/23
Evaluation Meeting (anticipated)	10/6/23
Interviews (if required)	N/A
Selection Announced (tentative)	10/13/23

1.4 Pre-Proposal Conference

If the City of Raleigh elects to conduct a Pre-Proposal Conference or Site Visit, attendance by prospective proposers is strongly encouraged but is not mandatory. Prospective Proposers are encouraged to submit written questions in advance. Date, time, and location of pre-proposal conference is shown above in the RFP Timeline (Section 1.3).

1.5 Proposal Questions

Requests for clarification and questions to this RFP must be received by the City not later than the date shown above in the RFP Timeline (Section 1.3) for the submittal of written inquires. The firm's failure to request clarification and submit questions by the date in the RFP Timeline above shall be considered to constitute the firm's acceptance of all City's terms and conditions and requirements. The City shall issue addenda reflecting questions and answers to this RFP, if any, and shall be posted to North Carolina electronic Vendor Portal ([eVP](#)). No information, instruction or advice provided

orally or informally by any City personnel, whether made in response to a question or otherwise in connection with this RFP, shall be considered authoritative or binding. Respondents shall be entitled to rely *only* on written material contained in an Addendum to this RFP.

It is important that all Respondents submitting to this RFP periodically check [eVP](#) for any Addenda. It is the Respondents responsibility to ensure that all addenda have been reviewed and, if required signed and returned.

All questions related to this solicitation must be submitted in writing (via email) to the following individual:

Contact Name	Email Address
Mike Hughes	Frederick.Hughes@raleighnc.gov

Questions submitted via telephone will not be answered.

1.6 Proposal Submission Requirements and Contact Information

Proposals must follow the format as defined in Section 2 (PROPOSALS), and be addressed and submitted as follows:

<u>DELIVERED BY US POSTAL SERVICE</u> <u>MAIL:</u>	<u>DELIVERED BY OTHER DEIVERY</u> <u>SERVICES:</u>
City of Raleigh ATTN: Mike Hughes DE Benton WTP PO Box 590 Raleigh, NC 27602 RFQ No. 274-DEB-LOX-FMH-2023	City of Raleigh ATTN: Mike Hughes DE Benton WTP 2315 Benson Rd Garner, NC 27529 RFQ No. 274-DEB-LOX-FMH-2023

Proposals must be enclosed in an envelope or package and clearly marked with the name of the submitting company, the *RFP number* and the *RFP Title*.

Proposers must submit:

- A. one (1) signed original;
- B. one (1) electronic version of the signed proposal and;
- C. and (write number (x) of paper copies need by the evaluation team) copies of the signed proposal.

The electronic version of the Proposal must be submitted as a viewable and printable Adobe Portable Document File (PDF) on a USB Flash Drive. Both hard copy and electronic versions must be received by the City on or before the RFP due date and time provided in RFP Timeline (Section 1.3). Proposals received after the RFP due date and

time will not be considered and will be returned unopened to the return address on the submission envelope or package.

Any requirements in the RFP that cannot be met must be indicated on Appendix VI: Exceptions to the RFP and submitted with the proposal. **Proposers must respond to the entire Request for Proposals (RFP). Any incomplete proposal may be eliminated from competition at the discretion of the City of Raleigh.** The City reserves the right to reject any or all proposals for any reason and to waive any informality it deems in its best interest.

Proposals that arrive after the due date and time will not be accepted or considered for any reason whatsoever. If the firm elects to mail in its response, the firm must allow sufficient time to ensure the City's proper receipt of the package by the time specified in the RFP Timeline (Section 1.3). Regardless of the delivery method, it is the responsibility of the firm to ensure that their proposal arrives at the designated location specified in this Section by the due date and time specified in the RFP Timeline (Section 1.3).

1.7 MWBE Participation Form

The City of Raleigh prohibits discrimination in any manner against any person based on actual or perceived age, race, color, creed, national origin, sex, mental or physical disability, sexual orientation, gender identity or expression, familial or marital status, religion, economic status, or veteran status. The City maintains an affirmative policy of fostering, promoting, and conducting business with women and minority owned business enterprises.

Complete and submit the MWBE Participation Form (Appendix IV) with your proposal.

1.8 Rights to Submitted Material

All proposals and supporting materials, as well as correspondence relating to this RFP, shall become the property of the City. The content of all submittals will be held confidential until the selection of the firm is made. Proposals will be reviewed by the Evaluation Team, as well as other City staff and members of the general public who submit public record requests. ***Any proprietary data must be clearly marked.*** In submitting a Proposal, each Prospective Proposer agrees that the City may reveal any trade secret materials contained in such response to all City staff and City officials involved in the selection process and to any outside consultant or other third party who serves on the Evaluation Team or who is hired by the City to assist in the selection process.

The City reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the proposer of the conditions contained in this Request for Proposals. Proposals marked entirely as "confidential", "proprietary", or "trade secret" will be considered non-responsive and will be removed from the evaluation process.

1.9 Communications

All communications of any nature regarding this RFP with any City staff, elected City officials, evaluation committee members, are strictly forbidden from the time the solicitation is publicly posted until award. Questions must be submitted in writing to the individual designated in Section 1.1 (Purpose), prior to the deadline provided in the RFP Timeline (Section 1.3). Violation of this provision may result in the firm's proposal being removed from consideration.

1.10 Lobbying

By responding to this solicitation, the firm certifies that it has not and will not pay any person or firm to influence or attempt to influence an officer or employee of the City or the State of North Carolina, or any elected official in connection with obtaining a contract as a result of this RFP.

1.11 Conflicts of Interest

City of Raleigh contracts are controlled by three conflict of interest provisions.

First, federal procurement standards provide in 2 CFR 200.318 (c)(1),

No employee, officer, or agent may participate in the selection, award, or administration of a contract supported by a Federal award if he or she has a real or apparent conflict of interest. Such a conflict of interest would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or a firm which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract. The officers, employees, and agents of the non-Federal entity may neither solicit nor accept gratuities, favors, or anything of monetary value from contractors or parties to subcontracts.

Similarly, the North Carolina General Statutes provides a *criminal* statute for conflicts of interest in public contracting. N.C.G.S. § 14-234(a):

(1) No public officer or employee who is involved in making or administering a contract on behalf of a public agency may derive a direct benefit from the contract except as provided in this section, or as otherwise allowed by law. (2) A public officer or employee who will derive a direct benefit from a contract with the public agency he or she serves, but who is not involved in making or administering the contract, shall not attempt to influence any other person who is involved in making or administering the contract. (3) No public officer or employee may solicit or receive any gift, favor, reward, service, or promise of reward, including a promise of future employment, in exchange for recommending, influencing, or attempting to influence the award of a contract by the public agency he or she serves.

City of Raleigh Charter Section 3.9 regulates private transactions between the City and its officials and employees. The Charter states:

No member of the City Council, official, or employee of the City of Raleigh shall be financially interested, or have any personal beneficial interest, either directly or indirectly, as agent, representative, or otherwise, in the purchase of, or contract for, or in furnishing any materials, equipment or supplies to the City of Raleigh, nor shall any official or employee of the City of Raleigh accept or receive, or agree to accept or receive, directly or indirectly, from any person, firm or corporation to whom any contract may be awarded or from whom any materials, equipment or supplies may be purchased by the City of Raleigh, by rebate, gift, or otherwise, any money or anything of value whatsoever, or any promise, obligation or contract for future reward or compensation, for recommending or procuring the uses of any such materials, equipment or supplies by the City of Raleigh; no member of the City Council, official or employee of the City of Raleigh shall for his own personal benefit operate, directly or indirectly, any concession in any building or on any lands of the City of Raleigh, nor shall any official or employee of the City of Raleigh bid for or be awarded any contract granting concessionary rights of any nature or kind from the City of Raleigh; it shall be unlawful for any member of the City Council, official or employee of the City of Raleigh to bid for or to purchase or to contract to purchase from the City of Raleigh any real estate, equipment, materials, or supplies of any nature or kind whatsoever, either directly or indirectly, at either public or private sale, either singly, or through or jointly with any other person.

1.12 Proposer Expenses

The City of Raleigh will not be responsible for any expenses incurred by any Proposer in the development of a response to this Request for Proposal or any other activities associated with this procurement including but not limited to any onsite (or otherwise) interviews and/or presentations, and/or supplemental information provided, submitted, or given to City of Raleigh and/or its representatives. Further, the City of Raleigh shall reserve the right to cancel the work described herein prior to issuance and acceptance of any contractual agreement/purchase order by the recommended Proposer even if the awarding authority for each entity has formally accepted a recommendation.

1.13 Proposer Acceptance

Submission of any proposal indicates a Proposer's acceptance of the conditions contained in this RFP unless clearly and specifically noted otherwise on Appendix VI Exceptions to RFP and submitted with proposal. Furthermore, the City of Raleigh is not bound to accept a proposal on the basis of lowest price, and further, the City of Raleigh has the sole discretion and reserves the right to cancel this RFP, and to reject any and all proposals, to waive any and all informalities and/or irregularities and reserves the right to re-advertise this RFP with either the identical or revised scope and specifications if it is deemed to be in the best interests of the City of Raleigh to do so. The City of Raleigh reserves the right to accept or reject any or all of the items in the proposal, and to award the contract in whole or in part and/or negotiate any or all items with individual Proposers if it is deemed in the best interest of the City of Raleigh to do so. Moreover, the City of Raleigh reserves the right to make no selection if proposals are deemed to be outside the fiscal constraint or not in the best interest of the City of Raleigh.

2 PROPOSALS

Responses must follow the format outlined below. The City may reject as non-responsive at its sole discretion any proposal that does not provide complete and/or adequate responses or departs in any substantial way from the required format.

2.1 **Request for Proposals Required Document Format**

Responses should be divided using tabs to separate each section, listed sequentially as follows:

Tab 1: Cover Letter

Provide an introduction letter summarizing the unique proposal of your firm to meet the needs of this service requirement. This letter should be presented on the firm's official letterhead and signed by an authorized representative who has the authority to enter into a contract with the City on behalf of the firm. Additionally, include the name, address, telephone and email address of the individual who serves as the point of contact for this solicitation.

Tab 2: Corporate Background and Experience

Include background information on the firm and provide detailed information regarding the firm's experience with similar projects. Provide a list of all similar contracts performed in the past 5 years, accompanied by at least 3 references (contact persons, firm, telephone number and email address).

Include the total amount invoiced for each listed project, the length of the project, and list of those involved in the project who are also proposed for the subject project named in this solicitation. Failure to provide a list of all similar contracts in the specified period may result in the rejection of the firm's proposal. The evaluation team reserves the right to contact any or all listed references, and to contact other public entities regarding past performance on similar projects.

Tab 3: Financial Information

Review and provide one of the following three (3) financial statement options:

1. Recent audited or reviewed financial statements prepared by an independent certified public accountant (CPA) that shall include, at a minimum, a balance sheet, income statement (i.e., profit/loss statement) and cash flow statement **and**, if the audited or reviewed financial statements were prepared more than six (6) months prior to the issuance of this RFP, the Proposer shall submit its most recent internal financial statements (balance sheet, income statement and cash flow statement or budget with entries reflecting revenues and expenditures from the date of the audited or reviewed financial statements to the end of the most recent financial reporting period (i.e., the quarter or month preceding the issuance date of this RFP)).

OR

2. Recent compiled financial statements prepared by an independent CPA that shall include, at a minimum, a balance sheet, income statement (i.e., profit/loss statement) and cash flow statement **and**, if the compiled financial statements were prepared more than three (3) months prior to the issuance of this RFP, the Proposer shall submit its most recent internal financial statements (balance sheet, income statement and cash flow statement or budget with entries reflecting revenues and expenditures to date), and other evidence of financial stability such as most recently filed income tax return, evidence of a line of credit/loans/other type of financing with statement of amount in use/outstanding balance (e.g., a complete copy commitment letter, loan agreement, billing statement reflecting the line of credit or statement from lender acknowledging the commitment to fund the Proposer's stated financing), personal guaranty with copies of personal income tax filing and statement of net worth or such other evidence that is accurate, reliable and trustworthy regarding the Proposer's financial stability.

OR

3. Include a certified, signed statement from a licensed CPA regularly engaged in the review of the firm's financial information verifying the financial viability of the firm.

All financial information, statements and/or documents provided in response to this solicitation shall be kept confidential provided that EACH PAGE is marked as follows: "CONFIDENTIAL – DO NOT DISCLOSE EXCEPT FOR THE EXPRESS PURPOSE OF PROPOSAL EVALUATION."

"Recent" shall be defined as financial statements that were prepared within the 12 months preceding the issuance date of this RFP.

Consolidated financial statements of the Proposer's parent or related corporation/business entity shall not be considered, unless: (1) the Proposer's actual financial performance for the designated period is separately identified in and/or attached to the consolidated statements, (2) the parent or related corporation/business entity provides the State with a document wherein the parent or related corporation/business entity will be financially responsible for the Proposer's performance of the contract and the consolidated statement demonstrates the parent or related corporation's/business entity's financial ability to perform the contract, financial stability and/or such other financial considerations identified in the evaluation criteria; and/or (3) Proposer provides its own internally prepared financial statements and such other evidence of its own financial stability identified above.

The firm's failure to provide any of the above-referenced financial statements may result in the proposal being removed from consideration. Proposers are also encouraged to explain any negative financial information, and to provide documentation supporting those explanations and demonstrating the financial strength of the firm.

Tab 4: Project Understanding, Approach and Schedule

Provide a comprehensive narrative, outline, and/or graph demonstrating the firm's understanding and approach to accomplishing the tasks outlined in the Scope of Work section of this RFP. A description of each task and deliverable and the schedule for accomplishing each shall be included.

Tab 5: Team Firm, Experience and Certifications

This section must include the proposed staffing, deployment and firm of personnel to be assigned to this project. The Proposer shall provide information as to the Proposals and experience of all executive, managerial, legal, and professional personnel to be assigned to this project, including resumes citing experience with similar projects and the responsibilities to be assigned to each person. A project-specific firm chart which clearly illustrates the roles, responsibilities, and the reporting relationships of each team member should be included.

Tab 6: Cost

In a separate sealed envelope provide a minimum of 2 complete copies of cost schedule. Hourly rates shall be fully burdened to include all costs, all applicable overhead and profit (including lodging, meals, and transportation). Attach any additional pricing details.

2.2 RFP Documents

This RFP is comprised of the base RFP document, any attachments, and any addenda released before Contract award. All attachments and addenda released for this RFP in advance of any Contract award are incorporated herein by reference.

3 PROPOSAL EVALUATION

3.1 Proposal Evaluation Criteria (Stage 1)

This is not a bid. There will not be a public opening. The Proposals received in response to this RFP will be evaluated and ranked, by the Proposal Evaluation Committee in accordance with the process and evaluation criteria contained below. Responses will be evaluated in light of the material and substantiating evidence presented in the response, and not on the basis of what is inferred. After thoroughly reading and reviewing this RFP, each Evaluation committee member shall conduct his or her independent evaluation of the proposals received and grade the responses on their merit in accordance with the evaluation criteria set forth in the following table.

The maximum interview/demonstration points a Proposer can receive is five (5) points. The Proposers selected for interviews/demonstrations under this section will be notified in writing of the date and time. The Proposers' interview/demonstrations shall be based solely upon information provided in each Proposer's original proposal. No new information may be presented.

Criteria	(a) Weight	(b) Score (0-3)	(a) x (b) Weighted Score
Corporate Background and Experience	15		
Firm Financial Stability	5		
Project Understanding	15		
Project Approach	20		
Team Firm Experience	20		
Proposed Cost	25		
Total Score (without Interview/Demonstrations)			
Interview/Demonstration (if applicable)	N/A		
Final Score (with Interview/Demonstrations)			

Score Points

0- Missing or Does Not Meet

Expectation

1- Partially Meets Expectation

2- Meets Expectation

3- Exceeds Expectation

Cost Formula: The cost criterion is rated by giving the proposal with the lowest total cost the maximum number of Cost points available. The remaining proposals are rated by applying the following formula:

$$1 - \frac{B - A}{A} \times C = D$$

A—the lowest Proposer's cost.

B—the Proposer's cost being scored.

C—the maximum number of cost points available.

D—Proposer's cost score (points).

Note: If the formula results in a negative number (which will occur when the Offeror's cost is more than twice the lowest cost), zero points shall be assigned.

3.2 Interview/Demonstration (Stage 2)

A short-list of firms may be invited to Stage 2 of the evaluation process, the *Interview/Demonstration*. Interview/demonstrations are an important aspect of the evaluation process that offers the City an opportunity to see how the proposer's solution meets the critical components of the RFP.

3.3 Final Selection

Proposals will be evaluated and ranked according to the criteria and weighted values set forth in Section 3.1. Either a final selection for recommendation will be made at this time or the short-list of firms will be invited to participate in Stage 2 of the evaluation process. If Stage 2 is implemented, each firm will be evaluated and assigned a score to determine the best firm for recommendation.

After which negotiations of a contract with the most qualified firm will commence. If negotiations are unsuccessful, the City will then pursue negotiations with the next most qualified firm. All Proposers will be notified of their standing immediately following the City's decision.

The City shall not be bound or in any way obligated until both parties have executed a contract. The City also reserves the right to delay the award of a contract or to not award a contract.

3.4 Notice to Proposers Regarding RFP Terms and Conditions

It shall be the Proposer's responsibility to read the Instructions, the City's Standard Contract Terms and Conditions (Appendix V), all relevant exhibits, attachments, and any other components made a part of this RFP and comply with all requirements and specifications herein. Proposers are also responsible for obtaining and complying with all Addenda and other changes that may be issued in connection with this RFP.

3.5 Contract Term

The Contract shall have an initial term of (3) years, beginning on the date of the Contract award (the "Effective Date"). At the end of the Contract's current term, the City shall have the option, in its sole discretion, to renew the Contract on the same terms and conditions for up to a total of (2) additional one-year terms. The City will give the Contractor written notice of its intent whether to exercise each option no later than 60 days before the end of the Contract's then-current term. In addition, the City reserves the right to extend a contract term for a period of up to 180 days in 90-day-or-less increments.

4 SCOPE OF SERVICES

Awarded Contractor shall provide services, all as set forth in this RFP and more particularly described in this Section 4.

4.1 General

The City of Raleigh wishes to contract for the purchase of Liquid Oxygen (LOX) as stated in the specifications below for a period of five (5) years. LOX tanks and equipment will be leased from the contractor. Contractor shall provide annual lease cost for tanks and equipment and bill monthly. Contractor shall be responsible for all maintenance of tanks and equipment. Contractor shall be responsible for remote monitoring of tank levels and making deliveries before the tanks reach low level. The City will provide a phone line at the facility.

Pricing of Liquid Oxygen must be firm for one year. No more than a 2% increase per year will be allowed and only with documentation from manufacturer of such an increase. Increases greater than 2% may be grounds for cancellation of the remainder of contract period. Price increases/decreases will be re-negotiated at the end of each contract year. Quantities are estimated at 1,400,000 total lbs. per year for the DE Benton WTP.

4.1.1 Required Documents:

- 4.1.1.1 List of three (3) references from large (10 MGD or greater) drinking water treatment plants
- 4.1.1.2 Transition Plan (See section 4 below)
- 4.1.1.3 Copy of Lease Agreement
- 4.1.1.4 Letter of Product Commitment stating that the vendor will ensure no interruption in the supply of Liquid Oxygen to either facility.

4.1.2 DE Benton WTP required tanks and equipment:

- 4.1.2.1 Two (2) horizontal 9,000-gallon tanks Local level gauge for each tank. Local pressure gauge for each tank. Normal operating pressure of tanks shall be 50-80 psi.
- 4.1.2.2 One (1) ambient air vaporizer
- 4.1.2.3 Two (2) block heaters 480V each capable of increasing the gas temperature to at least 38°F. NOTE: DE Benton WTP currently only has one block heater. The selected vendor will need install a second heater as a back up to the original heater.
- 4.1.2.4 All piping, valves, fittings, and accessories required for a complete operational oxygen system. All piping shall be configured so if any one piece of equipment is out of service, oxygen can still be produced and sent to facility's ozone system.
- 4.1.2.5 4-20 mA signal wires for level and pressure for each tank to connect to plant SCADA
- 4.1.2.6 4-20 mA signal wires for temperature for the vaporizer
- 4.1.2.7 Required pressure for plant ozone generator gas feed: 16-17 psi

4.2 Specifications for Liquid Oxygen

4.2.1 Affidavit of Compliance

- 4.2.1.1 An affidavit from the manufacturer or vendor must be furnished showing compliance with all applicable requirements of these specifications.
- 4.2.1.2 The person(s) authorized to certify the affidavit of compliance for the Contractor shall be as stated in the Request for Bid.
- 4.2.1.3 The affidavit of compliance tender documents shall accompany each delivery. The Liquid Oxygen MUST MEET AWWA B304-13 latest edition and ANSI/NSF

STANDARD 60. The vendor must provide technical assistance as deemed necessary by the City of Raleigh on the application of their product.

4.2.2 Quality

Liquid Oxygen must comply to the following parameters:

4.2.2.1 Chemical Properties:

- Oxygen, min %(v/v) 95.0 %
- Moisture 1 ppm
- Argon, max ppm (v/v) 4.5%
- Nitrogen, max ppm (v/v) 2.5%
- Total Hydrocarbons as methane, max ppm (v/v) <20 ppm

4.2.2.2 Physical Properties:

- Molecular Weight 31.998
- Color
 - Vapor None
 - Liquid Clear Pale Blue
- Boiling Point (1 atm) -297.33°F
(-182.96°C)
- Latent Heat of Vaporization 91.7 Btu/lb. (213 kj/kg)
- Specific Heat, Gas 70°F(21.1°C), 1 atm
 - Constant Pressure, Cp 0.2193 Btu(lb.°F)
(0.9181kj⁻¹K⁻¹)
- Gas/Liquid Ratio
 - Gas at 70°F(21.1°C)
 - Liquid at sat, 1 atm (v/v) 860.5
- Solubility in water
 - Gas at 70°F(21.1°C)1 atm, 10 mg/L 8.021

4.2.3 Certified Laboratory Report

For the first delivery to the Water Treatment Plants or when a significant change occurs in the contractor manufacturing process, a certified laboratory report must be submitted to:

City of Raleigh Public Utilities Department
E.M. Johnson Water Plant
Attention: Laboratory Supervisor
P.O. Box 590
Raleigh NC, 27602

4.2.4 Transition

The DE Benton WTP uses LOX to make ozone which is critical to the water treatment process. To ensure there is no interruption of the LOX supply to the facility the contractor must submit a transition plan if the winning bidder does not currently provide product/leased equipment to our facilities. The plan should outline how the winning bidder plans to transition from the current LOX vendor to the potential new LOX vendor including temporary system setup and tie in to the main plant oxygen feed. The DE Benton WTP is currently under contract with Air Products until January 2024 and leases their tanks and equipment. The removal of any of the existing LOX system equipment and the installation of any new LOX system equipment shall be coordinated by the successful bidder at their cost. The temporary system must be able to support current maximum demands at each facility.

4.2.5 Equipment Lease Maintenance

The vendor shall maintain the LOX system throughout the lease period. Any leaks shall be fixed within 24 hours. The maintenance technician name and phone number must be provided. A 24-hour emergency contact telephone number and emergency 24-hour maintenance service support phone number shall be provided.

- **If any equipment changes or adjustments to the LOX system are needed the Plant Maintenance Supervisor or Plant Operations Supervisor must be notified in advance by the LOX technician.**

4.2.6 Liquid Oxygen System Specifications

4.2.6.1 Scope of Work

- A. The equipment of the Section shall be furnished, installed and maintained as part of the lease agreement between the City of Raleigh and the City of Raleigh's Liquid Oxygen Supplier. The Liquid Oxygen Supplier shall furnish and install the system specified herein and remove the system when the lease expires. The liquid oxygen systems shall be considered an integral component of the ozone systems at the DE Benton Water Treatment Plants.
- B. The equipment specified herein shall be fabricated, shop tested and shipped as fully assembled units requiring a minimum of field installation labor.
- C. The equipment for the liquid oxygen system for the facility shall include the following:
 - 2 Liquid oxygen storage tanks.
 - 1 Ambient air vaporizer
 - 2 heaters (if needed to meet the temperature maintenance requirements)
 - 1 particulate filters – 10 micron (and hydrocarbon filters if needed to meet the specified gas requirements)
 - Instrumentation and Controls
Piping, valves, fittings and accessories. All piping shall be configured and valved to provide redundant piping so if any one piece of equipment is out of service, the facility is still functional.
- D. Furnish all piping, valves, fittings and accessories required for a complete

operational oxygen system at each facility. All materials shall be suitable for oxygen service. All piping, valves and filters on the gaseous oxygen side of the vaporizers shall be insulated. Insulation shall be aluminum jacketed and compatible with LOX/GOX service.

4.2.6.2 Reference Standards

- A. Compressed Gas Association (CGA)
 - 1. CGA G - 4-1 Cleaning Equipment for Oxygen Service
- B. CGA G - 4.4 Industrial Practices for Gaseous Oxygen Transmission and Distribution Piping Systems
- C. National Fire Protection Association (NFPA)
 - 1. NFPA 50 - Standard for Bulk Oxygen Systems at Consumer Sites
 - 2. NFPA 70 - National Electric Code
- D. American Society of Mechanical Engineers (ASME)
 - 1. Section VIII, Division 1 - Rules for Construction of Pressure Vessels
- E. National Safety Council
 - 1. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

4.2.6.3 Ozone/Oxygen Service

- A. All equipment, valves, analyzers, seals, gaskets, valve seats and associated appurtenances to be used with oxygen shall be cleaned, sealed and protected in accordance with CGA publication G-4-1 and certified for oxygen service before shipping to each facility.
- B. All equipment, valves, valve seats, analyzers, seals, gaskets, welds and all associated appurtenances to be used with oxygen, must be resistant to degradation and gas losses due to the use of this gas.

4.2.6.4 Delivery, Storage and Handling

- A. All parts shall be properly protected so no damage or deterioration shall occur during a prolonged delay from the time of shipment until installation is completed and the equipment is ready for operation.
- B. Finished iron or steel surfaces not painted shall be properly protected to prevent rust and corrosion.

4.2.6.5 Maintenance

All equipment and piping provided by the liquid oxygen system supplier shall be maintained by the liquid oxygen system supplier.

4.3 **Equipment**

4.3.1 **General**

The bulk oxygen storage system and associated equipment shall comply with the latest edition of NFPA 50, CGA Pamphlet G-4.4 and all applicable local codes.

4.3.2 Liquid Oxygen Storage System

- 4.3.2.1 The liquid oxygen storage system at the facility shall include the liquid oxygen storage tanks and all related safety devices, appurtenances and equipment required for operation.
- 4.3.2.2 The liquid oxygen storage tanks at each facility shall have double-wall construction. The inner shell of the tank shall be non-embrittling alloys of 9 percent nickel steel and designed, fabricated, tested, inspected and stamped in accordance with Section VIII, Division 1, of the ASME Code. The outer shell shall be designed to standards of the ASME Code for full external vacuum and shall be carbon steel. No code stamp is required for outer shell.
- 4.3.2.3 Internal vessel pressure relief shall consist of both automatic primary and secondary relief devices and manual tank vent valves. External vessel pressure relief shall consist of an automatic relief device.
- 4.3.2.4 The insulation shall be perlite packing in the annular ring and a high vacuum. The tank boil-off rate shall not exceed 0.3% of the tank capacity by weight per day.
- 4.3.2.5 The tank shall be equipped with a pressure building system to maintain the minimum pressure required for the ozone generation system.
- 4.3.2.6 All piping, fitting and valves shall be Type 316 stainless steel of welded construction or copper with silver soldering. All liquid valves shall have extended stems.
- 4.3.2.7 The unit shall include a dip tube liquid withdrawal system and a vapor return line from the economizer system. The tank shall be fitted with a liquid level gage with a low-level alarm switch or low-level signal with remote telemetry unit. The tank shall be fitted with quick couplings for tanker truck delivery of the liquid oxygen. Both top and bottom fill capability shall be provided.

4.3.3 Liquid Oxygen Vaporization System

- 4.3.3.1 One (1) ambient air vaporizers shall be provided for the liquid oxygen vaporization system at each facility including all related safety devices, appurtenances and equipment required for operation.
- 4.3.3.2 The design of the vaporizers shall be based on the following conditions:
 - A. Capacity of each vaporizer:
100 percent of the oxygen flow rate required by each ozone system for maximum design rated production (6,000 lbs./day oxygen at DE Benton), under the coldest winter conditions.
 - B. Minimum period of operation for
8 hours continuous vaporization cycle
 - C. Maximum pressure
450 psi
 - D. Working pressure
PRV
Approximately 16-17 psi at LOX system
 - E. Design temperature
Minimum of -425° F
- 4.3.3.3 The vaporizers at each facility shall be an ambient air vaporizer, factory assembled unit complete with bracing, lifting lugs, pressure safety relief valves, necessary

internal manifolding and suitable for outside installation and operation. The materials of construction shall be suitable for the design conditions and oxygen compatible and shall be factory cleaned for oxygen service and sealed.

- 4.3.3.4 The vaporizers at each facility shall be capable of receiving liquid oxygen from the storage vessel and continuously converting it to gaseous form of supply to the ozone system at the required system pressure. Further oxygen compression shall not be required. Vaporizers shall be provided with pressure safety relief valves. Automatic vaporizer valve controls shall be furnished to provide automatic switch covers to standby vaporizers on a timed basis to prevent vaporizer freeze-up. The two vaporizers will alternate between lead and defrost/standby positions.
- 4.3.3.5 A low temperature cut off switch shall be installed downstream of each vaporizer and shall automatically close a valve in the inlet line to the vaporizer to prevent liquified oxygen from entering downstream process lines. The low-temperature switch shall be set at minus 40° F.
- 4.3.3.6 An electric unit which includes heating elements and an aluminum heat exchange block shall be used to defrost the off-line ambient vaporizer when ambient temperatures do not allow regular defrosting. The heating elements and oxygen piping shall be installed in the cast aluminum heat exchange block. Energy is transferred through the aluminum block from the heating elements to the oxygen piping to vaporize the liquid oxygen. The heating elements shall be replaceable and rated at 30 kw, 480-volt, 3 phase. The controls for this vaporizer shall include safety cutouts; a selector switch with local, off, and auto operation; status indicating lights; alarm lights; starter; main breaker mechanically interlocked with door; and all safety devices as recommended by the liquid oxygen supplier; all housed in a NEMA 4X 316 stainless steel enclosure.

The control panel shall provide electrical power for vaporizers, controls, meters, instrumentation, etc. The panel shall be designed to permit only one vaporizer to operate at a time. All necessary contactors, interlocks, etc. shall be provided. Individual circuit breakers shall be provided for each transmitter

4.3.4 Oxygen Filters

Oxygen filters shall be 316 stainless steel sized for the maximum gas flow specified mesh and grade as equal to hospital particulate filters with 10 micron or rating smaller.

4.3.5 Instrumentation

- 4.3.5.1 All instrumentation and electrical equipment specified below and other instruments recommended by the equipment manufacturer shall meet the requirements of the NEC, State and local codes.
- 4.3.5.2 The system for each facility shall be equipped with mechanical gauges. The gauges shall provide local readings only for the following parameters:
 - A. Liquid Oxygen tank level
 - B. Inner shell pressure for each tank
 - C. Vaporizer outlet temperature
 - D. Particle filter pressure differential

4.3.5.3 The liquid oxygen supplier shall provide NEMA 4X indicating transmitters for the following parameters (4-20 mA analog signal output shall be provided for each transmitter):

A. Liquid Oxygen Tank Level Vaporizer

B. Temperature Oxygen Pressure

4.3.5.4 Liquid oxygen tank control junction box. A junction box shall be mounted on the north wall of the ozone facility at the DE Benton Plant.

The liquid oxygen control panel shall be capable of remote operation by the ozone system. Provide controls as necessary. Dry contacts shall be provided for liquid oxygen system "On" and "LOX System Common Fail".

4.3.6 Valves

4.3.6.1 Butterfly valves for use in oxygen gas service shall be specifically designed for this service. Valves shall meet all requirements of MSS-Sp-67. The valve body, one-piece disc, and shaft shall be constructed of Type 316 stainless steel. The valve seats shall be Teflon, backed with Viton or Hypalon. The packing shall be oxygen resistant Viton or Hypalon. The valve design shall be such that oxygen will come in contact with only stainless steel or Teflon materials. Butterfly valves for these services shall be on the threaded Jug type and shall be suitable for use with 90 - 100 percent by weight oxygen gas concentration. Valves 6-inches and larger shall be furnished with gear operators.

4.3.6.2 Check valves for use in oxygen gas service shall be of the threaded lug, dual plate type. The valve body, disc plates, hinge shaft, disc shop, and spring shall be Type 316 stainless steel construction. The valve seats shall be Teflon. The valve design shall be such that ozone gas will come in contact with only stainless steel or Teflon materials. Valves shall be suitable for use in a 90-100 percent by weight oxygen gas concentration.

4.3.6.3 Ball valves or oxygen gas shall be of Type 316 stainless steel construction. The valve packing shall have Teflon packing and twin seals. Valves shall be suitable for 90- 100 percent by weight oxygen gas concentration.

4.3.6.4 Brass or copper alloy conforming to ASTM B-62 may be used instead of stainless steel for LOX valves in the preceding 3 paragraphs provided that the LOX supplier certify that the valve materials are their standard and that they will be maintained free from leaks and are appropriate for the application. Stainless steel valves as specified above are required for GOX.

4.4 Execution

4.4.1 Inspection and Testing

4.4.1.1 After all equipment has been completely installed, each unit shall be tested by LOX supplier authorized personnel.

A. The LOX supplier shall test the liquid oxygen storage system at each facility under actual start-up and operating conditions to determine that the operation is satisfactory, that the pressure building system and economizer system are operating properly and that the liquid oxygen boil-off rate does not exceed the

value specified. The test data sheet shall indicate, at a minimum, the time, tank oxygen liquid level, and liquid pressure. Readings shall be taken and recorded at 20-minute intervals over the duration of the test. A minimum of 4 consecutive readings shall be taken and recorded for each test.

- B. The LOX supplier shall test the liquid oxygen vaporizers under actual start-up and operating conditions to determine that the operation is satisfactory and that the duration of vaporization to freeze at the maximum vaporization rate required for the ozonation system and the duration of defrosting period do not exceed the specified values. A start-up test report shall be submitted to the Town following completion of testing.

- 4.4.1.2 If the equipment performance does not meet specifications, corrective measures shall be taken or the equipment shall be removed and replaced with units which will satisfy the condition specified, at no additional expense to the Owner.

4.4.2 Cleaning Procedures

Field clean all piping, fittings, equipment, etc. that will come in contact with oxygen liquid or gas. The selected procedure used shall be one that is used in the oxygen manufacturing industry, as recommended by the CGA. Upon completion, the system shall be dried using dry nitrogen gas and inspected by authorized personnel to ensure compliance with the cleaning procedure requirements.

4.4.3 Packaging and Shipping

- 4.4.3.1 The liquid oxygen solution must be shipped in clean, suitable tanker trucks.
- 4.4.3.2 Tanker trucks shall be in suitable condition for hauling liquid oxygen and shall not contain any substances that might affect the use or usefulness of the liquid oxygen in treating municipal water supplies.
- 4.4.3.3 The bulk shipments must be accompanied by weight certificates of certified weights.

4.4.4 Delivery

- 4.4.4.1 Upon arrival at the plant facility, the truck driver shall present to operator in charge the following items:
 - A. Contractor Bill of Lading
 - B. Affidavit of Compliance (Certificate of Analysis)
 - C. Machine Stamped Weighmaster Certificate of Weight and Measure
- 4.4.4.2 The deliveries should be made to either:

DE Benton Water Treatment Plant
2315 Benson Road
Garner, North Carolina 27529

- 4.4.4.3 All deliveries shall be made during the daylight hours (dawn to dusk), between the hours 7:00 a.m. and 2:00 p.m. Monday through Friday. No weekend deliveries. Any exception to this requirement must be approved by the Plant Operations Supervisor or their designated representative.

- 4.4.4.4 The transfer of chemicals from the tanker truck shall be considered the responsibility of the Contractor and the tanker truck operator.
- 4.4.4.5 All tanker and appurtenant valves used for the delivery of liquid oxygen under this agreement must be in good mechanical order and shall be in full compliance with the applicable requirements of all current Hazardous Material Regulations.
- 4.4.4.6 Any tanker truck found leaking chemicals shall not be allowed to depart the facility until appropriate repairs is made by the Contractor or his assigned representative. Any tanker truck found leaking chemicals shall be considered as an emergency requiring immediate attention by the Contractor.
- 4.4.4.7 The Contractor and truck operator shall be responsible of cleanup of all spillage, contaminated matter, and the removal of all contaminated cleanup material. The contractor will be notified immediately of any spillage that is not cleaned up by the truck driver. Any spillage not cleaned up within 2 hours of notification will be cleaned up by the City and billed to the contractor.
- 4.4.4.8 Unloading time shall be free of charge to the City for a minimum of 2.5 hours, beginning upon arrival of the tanker on the City property and ending upon its departure from the City property. Additional charges for each quarter of an hour beyond the 2 hours of free time shall be quoted on the Request for Bid. Each charge shall be investigated and approved prior to payment.
- 4.4.4.9 The truck driver shall bring all paperwork to the control room after offloading product is completed.
- 4.4.4.10 The vendor shall ensure that the product is delivered in clean containers/tanks and free of contaminants. Contamination of stock shall render the vendor liable for disposal of contaminated material, clean-up of storage facilities and full replacement of stock at vendor expense.

4.4.5 Safety Requirements

- 4.4.5.1 The vendor or manufacturer must provide the City's Water Plant staff with the Liquid Oxygen Safety Data Sheet. (SDS)
- 4.4.5.2 The truck driver shall wear the appropriate protective face and body apparel, as required by North Carolina Occupational and Health Standard for unloading and handling this chemical. This includes hardhat with shield, goggles, rubber gloves, rubber boots, chemical resistant rain suit with pants and jackets or apron that is long enough to reach the top of the rubber boots.

4.4.6 Security

- 4.4.6.1 Vendors must send the water plant photos & names of drivers making deliveries prior to delivery.
- 4.4.6.2 The water plant must be notified via email of the driver before the truck leaves the terminal. This allows staff to match up the driver and photo with his ID when he arrives. A list of DE Benton staff emails will be sent to winning bidder.
- 4.4.6.3 Trucks must be sealed with security tags after being loaded at terminal.

APPENDIX I

PROPOSAL COST FORM

Awarded Contractor shall perform the services to be performed as set forth in this RFP and more particularly described in Section 4 for a not to exceed total amount of

\$_____.

Proposer shall attach proposal cost breakdown to this Appendix I Proposal Cost Form.

Firm Name: _____

Authorized Signature _____ Date _____

Signed by: _____
[Type or Print Name]

Title of Signer: _____

APPENDIX II PROPOSER QUESTIONNAIRE

The following questions must be answered, and data given must be clear and comprehensive. If necessary, questions may be answered on separate sheets. The Proposer may submit any additional information desired.

Company Name:		d/b/a (if applicable)	
Street / PO Box:			
City:		State:	Zip:
Phone:		Fax:	E-Mail:
Website (if applicable):			
<input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation <input type="checkbox"/> Other			
Number of years in business under company's present name:			
Fed Tax ID #:		DUNS #	
Are you registered with the North Carolina Secretary of State to conduct business (if required)? (Check One) YES: <input type="checkbox"/> NO: <input type="checkbox"/> Not Applicable: <input type="checkbox"/>			
Are you properly licensed/certified by the Federal and/or State of North Carolina to perform the specified work?			
YES: <input type="checkbox"/> NO: <input type="checkbox"/> Not Applicable: <input type="checkbox"/> ATTACH COPY OF ALL APPLICABLE LICENSING/CERTIFICATION DOCUMENTS			
Are/will you be properly insured to perform the work? YES: <input type="checkbox"/> NO: <input type="checkbox"/>			
Contact for this Contract:		Title:	
Phone:		Fax:	E-Mail:
Have you ever defaulted or failed on a contract? (If yes, attach details) YES: <input type="checkbox"/> NO: <input type="checkbox"/>			
List at least three (3) references for which you have provided these services (same scope/size) in the past three years - preferably government agencies. Do not include City of Raleigh as a reference to meet the requirement of listing at least (3) references. PROPOSERS ARE RESPONSIBLE FOR SENDING REFERENCE QUESTIONNAIRE (APPENDIX III) TO THEIR REFERENCES.			
1.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
2.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
3.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
4.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
5.	Company:		
	Contact Person:	Title:	
	Phone:	Fax:	E-Mail:
Describe Scope of Work:			
The undersigned swears to the truth and accuracy of all statements and answers contained herein:			
Authorized Signature:		Date:	

APPENDIX III
REFERENCE QUESTIONNAIRE
(Instructions)

274-DEB-LOX-FMH-2023

The City of Raleigh, as a part of the RFP, requires proposing companies to submit a minimum of three (3) business references as required within this document. The purpose of the references is to document the experience of the proposer relevant to the scope of services and assist in the evaluation process.

- The Proposer is required to send the reference form (the following two pages) to each business reference listed on Proposer Questionnaire.
- The business reference, in turn, is requested to submit the Reference Form directly to the City of Raleigh Point of Contact identified on the Reference Questionnaire form for inclusion in the evaluation process.
- The form and information provided will become a part of the submitted proposal. The business reference may be contacted for validation of the response.
- It is the Proposer's responsibility to verify their references have been received by the City of Raleigh Point of Contact by the date indicated on the reference form.

APPENDIX III

REFERENCE QUESTIONNAIRE FORM

274-DEB-LOX-FMH-2023

(Name of Business Requesting Reference)

This form is being submitted to your company for completion as a business reference for the company listed above.

This form is to be returned to the City of Raleigh, **Mike Hughes**, via email to Frederick.Hughes@raleighnc.gov no later than **5:00 p.m. EST, September 20, 2023 (09/20/23)** and **MUST NOT** be returned to the company requesting the reference.

For questions or concerns regarding this form, please contact the City of Raleigh, Point of Contact above.

Company Providing Reference

Contact Name and Title/Position

Contact Telephone Number

Contact Email Address

Questions:

1. In what capacity have you worked with this company in the past? If the company was under a contract, please acknowledge and explain briefly whether or not the contract was successful.

Comments:

2. How would you rate this company's knowledge and expertise?

☐ 3= Excellent

☐ 2= Satisfactory

☐ 1= Unsatisfactory

☐ 0= Unacceptable

Comments:

3. How would you rate the company's flexibility relative to changes in the scope and timelines?

☐ 3= Excellent

☐ 2= Satisfactory

☐ 1= Unsatisfactory

☐ 0= Unacceptable

Comments:

4. What is your level of satisfaction with hard-copy materials, e.g. reports, logs, etc. produced by the company?
☐ 3= Excellent ☐ 2= Satisfactory ☐ 1= Unsatisfactory ☐ 0= Unacceptable

Comments:

5. How would you rate the dynamics/interaction between the company and your staff?
☐ 3= Excellent ☐ 2= Satisfactory ☐ 1= Unsatisfactory ☐ 0= Unacceptable

Comments:

6. Who were the company's principle representatives involved in providing your service and how would you rate them individually? Would you comment on the skills, knowledge, behaviors or other factors on which you based the rating?

(3= Excellent; 2= Satisfactory; 1= Unsatisfactory; 0= Unacceptable)

Name: _____	Rating: _____
Name: _____	Rating: _____
Name: _____	Rating: _____
Name: _____	Rating: _____

Comments:

7. With which aspect(s) of this company's services are you most satisfied?

Comments:

8. With which aspect(s) of this company's services are you least satisfied?

Comments:

9. Would you recommend this company's services to your organization again?

Comments:

APPENDIX IV

MWBE PARTICIPATION FORM

IDENTIFICATION OF MWBE PARTICIPATION FOR FORMAL CONTRACTS

Contract amount is \geq (greater than or equal to) \$300,000.00

This Identification of MWBE Participation Form is for the purpose of capturing information regarding the utilization of MWBEs and other subcontractors and suppliers on Formal City Contracts. MWBE participation is encouraged for all City of Raleigh contracting opportunities. Please refer to the City's MWBE Policy for any contract specific requirements. *Copy this Form as needed.*

COMPANY NAME			
PROJECT NAME			
PROJECT NUMBER		CITY DEPARTMENT	
CONTRACT TYPE	" Services " Other _____ *		
<input type="checkbox"/> PRIME IS MWBE	Classification: _____ " Certified with NCHUB " Certified with NCDOT-DBE	RFP SUBMITTAL DATE	

MWBE Classifications:

American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

☐ **WORK TO BE SELF-PERFORMED**

Check this box **only** if you intend to perform 100% of the work for this Contract with your own current work forces, and you normally perform and have the capability to perform all elements of this work for this Contract with your own current work forces.

MWBE SUBCONTRACTORS

Complete the chart below for all MWBE subcontractors that you intend to use for this Contract regardless of dollar amount.

Company Name	MWBE Classification*	Description of Services	Percentage of Total Contract	Total Projected Utilization (\$)

*MWBE Classifications:

American Indian (AI), Asian American (AA), Black/African-American (B), Hispanic (H), Non-Minority Female (NMF), Socially/Economic Disadvantaged (D)

Total Estimated MWBE Utilization*

\$ _____

Total Proposal Amount*

\$ _____

Percent Estimated MWBE Utilization*

_____ %

(Total Estimated MWBE Utilization divided by Total Bid Amount)

APPENDIX V

CONTRACT STANDARD TERMS AND CONDITIONS

The contract terms provided herein shall become a part of any contract issued as a result of this solicitation. Any exceptions to the contract terms must be stated in the submittal. Any submission of a proposal without objection to the contract terms indicates understanding and intention to comply with the contract terms. If there is a term or condition that the firm intends to negotiate, it must be stated in the proposal. The successful firm will not be entitled to any changes or modifications unless they were first stated in the proposal. The City of Raleigh reserves the right, at its sole discretion, to reject any or all submittal package(s) containing unreasonable objections to standard City of Raleigh contract provisions.

1. **Compensation; Time of Payment**

The standard City of Raleigh payment term is NET 30 days from the date of invoice. For prompt payment all invoices should be emailed to (accountspayable@raleighnc.gov) or mail to the City of Raleigh, Accounts Payable, PO Box 590, Raleigh, North Carolina 27602-0590. All invoices must include the Purchase Order Number. Invoices submitted without the correct purchase order number will result in delayed payment.

2. **Workmanship and Quality of Services**

All work performed under this Contract shall be performed in a workmanlike and professional manner, to the reasonable satisfaction of the City, and shall conform to all prevailing industry and professional standards.

3. **Non-discrimination**

To the extent permitted by North Carolina law, the Parties for themselves, their agents, officials, directors, officers, members, representatives, employees, and contractors agree not to discriminate in any manner or in any form based on actual or perceived age, mental or physical disability, sex, religion, creed, race, color, sexual orientation, gender identity or expression, familial or marital status, economic status, veteran status or national origin in connection with this Contract or its performance.

The Parties agree to conform with the provisions and intent of Raleigh City Code §4-1004 in all matters related to this Contract. This provision is incorporated into the Contract for the benefit of the City of Raleigh and its residents and may be enforced by an action for specific performance, injunctive relief, or any other remedy available at law or equity. This section shall be binding on the successors and assigns of all parties with reference to the subject matter of the Contract.

4. **Minority and Women Owned Business Enterprise**

The City of Raleigh prohibits discrimination in any manner against any person based on actual or perceived age, race, color, creed, national origin, sex, mental or physical disability, sexual orientation, gender identity or expression, familial or marital status, religion, economic status, or veteran status. The City maintains an affirmative policy of fostering, promoting, and conducting business with women and minority owned business enterprises.

5. Assignment

This Contract may not be assigned without the express written consent of the City.

6. Applicable Law

All matters relating to this Contract shall be governed by the laws of the State of North Carolina, without regard to its choice of law provisions, and venue for any action relating to this Contract shall be Wake County Civil Superior Court or the United States District Court for the Eastern District of North Carolina, Western Division.

7. Insurance

Contractor agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this Contract the following coverages and limits. The requirements contained herein, as well as City's review or acceptance of insurance maintained by Contractor is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by Contractor under this Contract.

Commercial General Liability – Combined single limit of no less than \$1,000,000 each occurrence and \$2,000,000 aggregate. Coverage shall not contain any endorsement(s) excluding nor limiting Product/Completed Operations, Contractual Liability or Cross Liability.

Automobile Liability – Limits of no less than \$1,000,000 Combined Single Limit. Coverage shall include liability for Owned, Non-Owned and Hired automobiles. In the event Contractor does not own automobiles, Contractor agrees to maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Auto Liability policy. Automobile coverage is only necessary if vehicles are used in the provision of services under this Contract and/or are brought on a COR site.

Worker's Compensation & Employers Liability – Contractor agrees to maintain Worker's Compensation Insurance in accordance with North Carolina General Statute Chapter 97 with statutory limits and employees liability of no less than \$1,000,000 each accident.

Additional Insured – Contractor agrees to endorse the City as an Additional insured on the Commercial General Liability, Auto Liability and Umbrella Liability if being used to meet the standard of the General Liability and Automobile Liability. The Additional Insured shall read '**City of Raleigh is named additional insured as their interest may appear**'.

Certificate of Insurance – Contractor agrees to provide COR a Certificate of Insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect, and Certificates of Insurance shall provide a minimum thirty (30) day endeavor to notify, when available, by Contractor's insurer. If Contractor receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein, or receives notice that coverage no longer complies with the insurance requirements herein, Contractor agrees to notify the City within five (5) business days with a copy of the non-renewal or cancellation notice, or

written specifics as to which coverage is no longer in compliance. **The Certificate Holder address should read:**

**City of Raleigh
Post Office Box 590
Raleigh, NC 27602-0590**

Umbrella or Excess Liability – Contractor may satisfy the minimum liability limits required above under an Umbrella or Excess Liability policy. There is no minimum Per Occurrence limit of liability under the Umbrella or Excess Liability, however, the Annual Aggregate limits shall not be less than the highest 'Each Occurrence' limit for required policies. Contractor agrees to endorse City of Raleigh as an 'Additional Insured' on the Umbrella or Excess Liability, unless the Certificate of Insurance states the Umbrella or Excess Liability provides coverage on a 'Follow-Form' basis.

Professional Liability – Limits of no less than \$1,000,000 each claim. This coverage is only necessary for professional services such as engineering, architecture or when otherwise required by the City.

All insurance companies must be authorized to do business in North Carolina and be acceptable to the City of Raleigh's Risk Manager.

8. Indemnity

Except to the extent caused by the sole negligence or willful misconduct of the City, the Contractor shall indemnify and hold and save the City, its officers, agents and employees, harmless from liability of any kind, including all claims, costs (including defense) and losses accruing or resulting to any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Contract, and from any and all claims, costs (including defense) and losses accruing or resulting to any person, firm, or corporation that may be injured or damaged by the Contractor in the performance of this Contract. This representation and warranty shall survive the termination or expiration of this Contract.

The Contractor shall indemnify and hold and save the City, its officers, agents and employees, harmless from liability of any kind, including claims, costs (including defense) and expenses, on account of any copyrighted material, patented or unpatented invention, articles, device or appliance manufactured or used in the performance of this Contract.

9. Intellectual Property

Any information, data, instruments, documents, studies, reports or deliverables given to, exposed to, or prepared or assembled by the Contractor under this Contract shall be kept as confidential proprietary information of the City and not divulged or made available to any individual or organization without the prior written approval of the City. Such information, data, instruments, documents, studies, reports or deliverables will be the sole property of the City and not the Contractor.

All intellectual property, including, but not limited to, patentable inventions, patentable plans, copyrightable works, mask works, trademarks, service marks and trade secrets

invented, developed, created or discovered in performance of this Contract shall be the property of the City.

Copyright in and to any copyrightable work, including, but not limited to, copy, art, negatives, photographs, designs, text, software, or documentation created as part of the Contractor's performance of this project shall vest in the City. Works of authorship and contributions to works of authorship created by the Contractor's performance of this project are hereby agreed to be 'works made for hire' within the meaning of 17 U.S.C. 201.

10. Force Majeure

Except as otherwise provided in any environmental laws, rules, regulations or ordinances applicable to the parties and the services performed under this Contract, neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations by an act of war, hostile foreign actions, nuclear explosion, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Either party to the Contract must take reasonable measures and implement reasonable protections when a weather event otherwise defined as a force majeure event is forecast to be eligible to be excused from the performance otherwise required under this Contract by this provision.

11. Advertising

The Contractor shall not use the existence of this Contract, or the name of the City of Raleigh, as part of any advertising without the prior written approval of the City.

12. Acknowledgement of City Brand and Tree Logo Ownership and Restrictions

The City of Raleigh has developed proprietary branding (the "City Brand") centered around the Raleigh tree mark logo (the "Tree Logo"). The City's exclusive rights and ownership in and to the Tree Logo are protected under trademark and copyright, including U.S. Copyright Reg. No. VAu1-322-896, N.C. State Trademark Registration Reg. No. T-23070 and Federal Trademark Registration Reg. No. 5,629,347, as well as under other federal and state laws.

Contractor acknowledges and understands that the City is not conferring any license to Contractor under this Agreement to use or depict the Tree Logo or other aspects of the City Brand.

Contractor shall not make any use or depiction of the Tree Logo or other aspects of the City Brand without the prior express written approval of the City. In this regard, should any materials being produced by Contractor for the City under this Agreement contemplate use or depiction of the Tree Logo, including, but not limited to, printed materials, digital media, signage and/or display materials, Contractor shall proceed under the auspices and direction of the City's Communications Department and shall comply with all guidelines and restrictions governing use or depiction of the Tree Logo.

13. Communications

If communications to the public and/or City employees are required as part of the Contractor's scope of work under this Contract, then the Contractor shall work with the City in the development of a communications plan ("Communications Plan") that must

first be approved by the City in writing before any such communications are delivered to the public and/or City employees.

For purposes of this Section 13, such written approval by the City shall be provided by electronic mail by the applicable City Communications Department employee who is responsible for reviewing and approving the Communications Plan, such electronic mail to be sent to the electronic mail address listed in Section 5, above, as part of the contact information for the Contractor representative identified in Section 5, above.

Among other things, the Communications Plan must establish whether the City or the Contractor will be responsible for sending any such communications to the public and/or City employees as required either by this Contract or the Communications Plan. The Communications Plan also shall include, but not be limited to, communications objectives, target audience, and deliverables (print, video, website, social, direct, or digital). The Contractor shall comply with the Communications Plan when communicating to the public and/or City employees pursuant to this Contract and the Communications Plan. All such communications shall comply with the City's brand and communications guidelines, as the same may be amended or modified from time to time.

The City's current brand and communications guidelines are incorporated into this Contract by reference and can be found on the City's website here: <https://raleighnc.gov/doing-business/city-brand-guidance-vendors>.

For purposes of this Section 13, "Communications" is defined as any public or City employee facing information presented in channels such as, but not limited to, a website, mobile applications, social media, printed materials, vehicles, billboards, and videos.

a. Communications Plan Approval:

Any materials, messaging or outreach from the Contractor related to marketing and communications of any service or effort under this Contract must first be reviewed and approved by the City's Communications Department. This is to ensure that the Communications Plan: (i) complies with the City's brand and communication guidelines; (ii) integrates with the City's other communications channels and digital strategy; (iii) meets accessibility guidelines; and (iv) conforms to communications best practices with respect to general user experience.

b. Accessibility Requirements:

For web content that the Contractor is to make accessible to the public and/or City employees as part of an approved Communications Plan that is included in the Contractor's scope of work under this Contract, all web materials including, but not limited to, tools, mobile applications, and websites, generated by, or on behalf of, the Contractor must meet at least the mid-range conformance level, AA compliance of the current Web Content Accessibility Guidelines, as the same may be amended from time to time.

Any such web content generated by, or on behalf of the Contractor, as part of a Communications Plan associated with this Contract shall meet all standards of good cognitive web accessibility, which include the following:

- i. Using proper headings and lists
- ii. Using unique links
- iii. Using alternative text and captions
- iv. Using more white space
- v. Dividing content into more manageable pieces
- vi. Making forms manageable by breaking them into multiple, sequential steps
- vii. Providing a logical reading order
- viii. Being consistent with fonts, colors and locations of page elements
- ix. Offering keyboard access
- x. Offering content in multiple formats
- xi. Understanding minimum contrast

c. Languages:

Digital sites/ tools that are for public use/consumption, including for use by City employees, under a Communications Plan associated with this Contract must have translation module (e.g., G-translate, Weglot) so that the service is available in all languages. At minimum, Spanish translation is required on all such digital sites/tools based on low English proficiency requirements:

- i. In most cases, entities that are recipients of federal financial assistance through U.S. Department of Health and Human Services (HHS) must provide language assistance services in order to comply with their legal obligation to take reasonable steps to ensure meaningful access to their programs by persons with [Limited English Proficiency \(LEP\)](#).

d. Content:

For any communications content that the Contractor is required to generate, or have generated, as part of its scope of work under this Contract, the Contractor shall send such content to City Communications Department staff in raw, high-resolution format for inclusion in communications materials to be made accessible to the public and/or City employees as set forth in the Communications Plan that arises from this Contract (i.e., websites, mobile applications, printed materials collateral, and social media). PDF attachments shall be used only as a last resort and only after written approval by the City, with such written approval to be provided by the City in electronic mail format as described elsewhere in this Section 13.

- i. Contractor shall only provide to the City communications materials for which the City has rights to use, with written documentation of such use rights being provided to the City as requested from time to time by the City in its sole discretion.
- ii. All working files agreed upon for the specific Communications Plan shall be provided to the City Communications Department, i.e., text, graphics, charts and data, infographics, and original native files such as Illustrator, Excel, ArcGIS, etc. Following are the file format specifications:
 1. Images: At least 300dpi for printing at actual size; 96dpi and at least 1920x1080px for digital/Web.
 2. Video: Any video should be no less than Standard HD (1920x1080) but preferable 4k.
 3. Text: Word document using accessibility best practices (heading structure, table of contents, and tables).

14. Cancellation

The City may terminate this Contract at any time by providing thirty (30) days written notice to the Contractor. In addition, if Contractor shall fail to fulfill in timely and proper manner the obligations under this Contract for any reason, including the voluntary or involuntary declaration of bankruptcy, the City shall have the right to terminate this Contract by giving written notice to the Contractor and termination will be effective upon receipt. Contractor shall cease performance immediately upon receipt of such notice.

In the event of early termination, Contractor shall be entitled to receive just and equitable compensation for costs incurred prior to receipt of notice of termination and for the satisfactory work completed as of the date of termination and delivered to the City. Notwithstanding the foregoing, in no event will the total amount due to Contractor under this section exceed the total amount due Contractor under this Contract. The Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of this Contract, and the City may withhold any payment due to the Contractor for the purpose of setoff until such time as the City can determine the exact amount of damages due the City because of the breach.

Payment of compensation specified in this Contract, its continuation or any renewal thereof, is dependent upon and subject to the allocation or appropriation of funds to the City for the purpose set forth in this Contract.

15. Laws/Safety Standards

The Contractor shall comply with all laws, ordinances, codes, rules, regulations, safety standards and licensing requirements that are applicable to the conduct of its business, including those of Federal, State, and local agencies having jurisdiction and/or authority.

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and

approved in a manner acceptable to the appropriate state inspector which customarily requires the label or re-examination listing or identification marking of the appropriate safety standard organization, such as the American Society of Mechanical Electrical Engineers for pressure vessels; the Underwriters' Laboratories and/or National Electrical Manufacturers' Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type(s) of devices offered and furnished. Further, all items furnished by the Contractor shall meet all requirements of the Occupational Safety and Health Act (OSHA), and state and federal requirements relating to clean air and water pollution.

Contractor must comply with *North Carolina Occupational Safety and Health Standards for General Industry 13 NCAC 07F (29CFR 1910)*. In addition, Contractor shall comply with all applicable occupational health and safety and environmental rules and regulations.

Contractor shall effectively manage their safety and health responsibilities including:

a. Accident Prevention

Prevent injuries and illnesses to their employees and others on or near their job site. Contractor managers and supervisors shall ensure personnel safety by strict adherence to established safety rules and procedures.

b. Environmental Protection

Protect the environment on, near, and around their work site by compliance with all applicable environmental regulations.

c. Employee Education and Training

Provide education and training to all contractors employees before they are exposed to potential workplace or other hazards as required by specific OSHA Standards.

16. Applicability of North Carolina Public Records Law

Notwithstanding any other provisions of this Contract, this Contract and all materials submitted to the City by the Contractor are subject to the public records laws of the State of North Carolina and it is the responsibility of the Contractor to properly designate materials that may be protected from disclosure as trade secrets under North Carolina law as such and in the form required by law prior to the submission of such materials to the City. Contractor understands and agrees that the City may take any and all actions necessary to comply with federal, state, and local laws and/or judicial orders and such actions will not constitute a breach of the terms of this Contract. To the extent that any other provisions of this Contract conflict with this paragraph, the provisions of this section shall control.

17. Miscellaneous

The Contractor shall be responsible for the proper custody and care of any property furnished or purchased by the City for use in connection with the performance of this Contract and will reimburse the City for the replacement value of its loss or damage.

The Contractor shall be considered to be an Independent Contractor and as such shall be wholly responsible for the work to be performed and for the supervision of its employees. Nothing herein is intended or will be construed to establish any agency, partnership, or joint venture. Contractor represents that it has, or will secure at its own expense, all personnel required in performing the services under this Contract. Such employees shall not be employees of or have any individual contractual relationship with the City.

This Contract may be amended only by written agreement of the parties executed by their authorized representatives.

18. Right to Audit and Access to Records

- a. The City may conduct an audit of any services performed and fees paid subject to this Contract. The City, or its designee, may perform such an audit throughout the contract period and for three (3) years after termination thereof or longer if otherwise required by law.
- b. The Contractor and its agents shall maintain all books, documents, papers, accounting records, contract records and such other evidence as may be appropriate to substantiate costs incurred under this Contract. The City, or its designee, shall have the right to, including but not limited to: review and copy records; interview current and former employees; conduct such other investigation to verify compliance with contract terms; and conduct such other investigation to substantiate costs incurred by this Contract.
- c. "Records" shall be defined as data of every kind and character, including but not limited to books, documents, papers, accounting records, contract documents, information, and materials that, in the City's sole discretion, relate to matters, rights, duties or obligations of this Contract.
- d. Records and employees shall be available during normal business hours upon advanced written notice. Electronic mail shall constitute written notice for purposes of this section.
- e. Contractor shall provide the City or its designee reasonable access to facilities and adequate and appropriate workspace for the conduct of audits.
- f. The rights established under this section shall survive the termination of the Contract, and shall not be deleted, circumvented, limited, confined, or restricted by contract or any other section, clause, addendum, attachment, or the subsequent amendment of this Contract.
- g. The Contractor shall reimburse the City for any overcharges identified by the audit within ninety (90) days of written notice of the City's findings.
- h. Contractor shall, upon request, provide any records associated with this engagement to the North Carolina State Auditor that are necessary to comply with the provisions of G.S. § 147-64.7.

19. E – Verify
Contractor shall comply with E-Verify, the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law and as in accordance with N.C.G.S. § 64-25 et seq. In addition, to the best of Contractor's knowledge, any subcontractor employed by Contractor as a part of this contract shall be in compliance with the requirements of E-Verify and N.C.G.S. § 64-25 et seq.
20. Iran Divestment Act Certification
Contractor certifies that, as of the date listed below, it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. § 147-86.55, *et seq.* In compliance with the requirements of the Iran Divestment Act and N.C.G.S. § 147-86.59, Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List.
21. Companies Boycotting Israel Divestment Act Certification
Contractor certifies that it has not been designated by the North Carolina State Treasurer as a company engaged in the boycott of Israel pursuant to N.C.G.S. § 147-86.81.

APPENDIX VI

EXCEPTIONS TO THE RFP

CHECK ONE:

- ☐ NO EXCEPTIONS, PROPOSER COMPLIES WITH ALL DOCUMENTS IN RFP.
- ☐ EXCEPTIONS ARE LISTED BELOW:

#	RFP Page #, Section, Name, Title, Item #	Exceptions (Describe nature of Exception)	Explain Why This is an Issue	Proposed Alternative	Indicate if exception is Negotiable (N), or Non-negotiable (NN)
1					
2					
3					
4					
5					
6					
7					
8					

9					
10					
11					
12					

FAILURE TO IDENTIFY ANY EXCEPTIONS WILL INDICATE ACCEPTANCE OF ALL TERMS AND CONDITIONS, AND REQUIREMENTS OF THE RFP AND ANY CORRESPONDING ADDENDUM ISSUED. THE CITY, AT ITS SOLE DISCRETION, MAY MODIFY OR REJECT ANY EXCEPTION OR PROPOSED CHANGE.

Firm:	Authorized Signature:	Title:
Printed Name of Signer:		Date: