



INVITATION FOR SEALED BID

Bid 02-516

Description: SPECTROMETER

Department: PUBLIC WORKS DEPARTMENT

NIGP Commodity Code(s): 490-00-00-000-0

Total pages including this page is 13

NOTE: FAXING OF BID IS NOT ACCEPTABLE

Important Instruction – Read Carefully:

**If you have obtained these bid specifications from either of:
City of Tulsa's Fax-on-Demand (918-596-1171) or
City of Tulsa's Web-site : www.cityoftulsapurchasing.org**

you must notify the buyer Darlene Donica of your intent to bid by e-mail ddonica@ci.tulsa.ok.us in order to receive addenda. The buyer will always acknowledge your e-mail for your records. All addenda will be posted on fax-on-demand and the web-site.

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Pay special attention to those pages with a reference to the following notes:

Note #1: Signature of authorized agent required

Note #2: Signature of an authorized agent and notarized required

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Your bid response should follow the same format listed above plus any additional format requested in the body of the bid invitation.

GENERAL TERMS AND CONDITIONS OF BIDS

THESE ITEMS APPLY TO AND BECOME A PART OF THE BID.

NO EXCEPTIONS TO THESE TERMS & CONDITIONS WILL BE CONSIDERED.

1. **BIDS MUST BE SUBMITTED ON THIS FORM ONLY INCLUDING A SIGNATURE OF AN AUTHORIZED AGENT.** Each bid shall be placed in a separate envelope. Be sure envelope is completely and properly identified and sealed, showing the bid number and date in the lower left hand corner. Bids must be time stamped in the office of the City Clerk by 5:00 P.M. on the day before date of opening.
2. No bidder may withdraw his proposal for a period of thirty (30) days after the date and hour set for the opening of bids.
3. All prices shall be quoted F.O.B. Tulsa, Oklahoma, and delivery to City of Tulsa location shall be without additional charge.
4. The bidder shall attach the manufacturer's name of the equipment or material to be furnished, type, model numbers, manufacturer's descriptive bulletins and specifications. All guarantees and warranties should be clearly stated. This data shall be in sufficient detail to describe accurately the equipment or material to be furnished. Manufacturer's specifications, in respect to the successful bidder, shall be considered as part of his contract with the City of Tulsa.
5. The bidder shall show in the proposal both the unit prices and total amount, where required, of each item listed. In the event of error or discrepancy in the mathematics, the unit prices shall prevail.
6. Any exceptions or deviations from written specifications shall be shown in writing and attached to the bid form.
7. Each bidder agrees to comply with the terms of Title 5, Chapter 1, of Tulsa, Oklahoma Charter and revised ordinances relating to equal employment opportunity.
8. **THE ENCLOSED FORMS REGARDING NON-COLLUSION AND FINANCIAL INTEREST MUST BE SIGNED, NOTARIZED, AND RETURNED WITH THE BID.**
9. The City of Tulsa reserves the right to reject any and all bids, to waive any technicalities in the bidding, and to award each item to different bidders or all items to a single bidder.
10. All bids must be accompanied by bidders bond, cash, certified or cashier's check in the amount shown on the face of the bid form. This amount shall be retained by the City of Tulsa as liquidated damages in the event the successful bidder (or bidders) fails to execute a contract, if required. The bidder agrees that said amount is presumed to be the damages sustained by the City due to the impracticability and extreme difficulty in fixing the actual damages. The office of the City Clerk will return the bid deposits to the unsuccessful bidders, after a contract has been awarded or all bids have been rejected.
11. In the event cash discounts are offered by the bidder, the discount date shall begin with the date of invoice, the date of receipt of all material covered by the purchase order, or the date of receipt by the City of Tulsa of the original copy of the purchase order with properly executed Affidavit of Claimant, whichever is the later date.
12. Direct purchase of certain items of equipment or material by the City of Tulsa are exempt from Federal Excise Tax and Oklahoma Sales Tax. In such cases the bidder shall quote prices which do not include Federal Excise Tax and Oklahoma Sales Tax. The City of Tulsa will furnish executed exemption certificates upon presentation by the bidder at the time of purchase.
13. Bid must show number of days required for delivery under normal conditions. Failure to state delivery time obligates bidder to complete delivery in fourteen (14) calendar days. Unrealistically short or long delivery promises may cause bid to be disregarded. Contractor must keep Purchasing Department advised at all times of status of order. Default in promised delivery or failure to meet specifications authorizes the Purchasing Agent to purchase supplies elsewhere and charge full increase of cost and handling to defaulting contractor. Consistent failure to meet delivery promises without valid reason may cause removal from bid list.
14. Bidder agrees to defend and save City of Tulsa from and against all demands, claims, suits, costs, expenses, damages and judgments based upon infringement of any patent relating to goods specified in this order or the ordinary use or operation of such goods by City or use or operation of such goods in accordance with bidders direction.
15. If the bid requires a written contract, the successful bidder shall execute a written contract with the City of Tulsa and return the required bonds and insurance certificates within ten (10) days after submission of contracts to said bidder by the City.

BIDDER AFFIDAVIT - TITLE 74 O.S. (1974 SUPP.) 85.22-85.25

STATE OF _____ COUNTY OF _____

_____, of lawful age, being first duly sworn on oath says
Authorized Agent

1. (s)he is the duly authorized agent of _____, the bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and municipal officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached.
2. (s)he is fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and
3. neither the bidder nor anyone subject to the bidder's direction or control has been a party;
 - a. to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding,
 - b. to any collusion with any municipal official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract, nor
 - c. in any discussions between bidders and any municipal official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

SIGNATURE OF AUTHORIZED AGENT

Subscribed and sworn to before me this _____ day of _____, 20_____.

Signature of Notary Public

MY COMMISSION EXPIRES

My Commission # _____

The Bidder Affidavit must be completed, signed by an authorized agent, and notarized.

CONTRACTOR/BIDDER INFORMATION SHEET
To be completed by all Bidders
For Contracts with the City of Tulsa
(Please print or type)

Project No. or Description _____

Full Name of Bidder _____

Legal Identity
(Corporation, Partnership,
Individual, etc.) _____

Address _____

Telephone No. _____

FAX No. _____

Taxpayer Identification Number _____

Contact Person _____

Phone No. _____

Fax No. _____

E-mail address _____

Webpage Address _____

Price Sheet Summary

Vendor Name: _____ Signature: _____
Date: _____

You will be able to obtain a copy of the Bid Summary on the City of Tulsa's Purchase-Net Fax-on-Demand and Website shortly after bid opening.

BID 02-516

<u>Qty.</u>	<u>Description</u>	<u>Unit Cost</u>
1	Spectrometer System	\$ _____

Make & Model: _____

System must include ICP system, spectrometer, gas flow controls, sample introduction system, autosampler, instrument controller system of high end computer with RW CD, Ethernet card, Monitor, color/inkjet printer, keyboard, mouse and operational software. Water recirculating cooling system purchase option must be included. Instrument warranty must be at least one year. Three (3) days installation/familiarization/training must be included. Installation must include spare kits and consumables for operational checkout. Comparable system bids accepted

NOTE: BIDDERS MUST SUBMIT ONE (1) ORIGINAL BID AND TWO (2) COPIES, EACH WITH ATTACHMENTS AS NECESSARY TO SHOW COMPLIANCE WITH BID SPECIFICATIONS.

For questions or more information please contact: Jo Brown @ 918-669-6477

BID 02-516
SPECTROMETER SYSTEM
PUBLIC WORKS DEPARTMENT

INTENT:

It is the intent of this bid to secure, on a competitive basis, a source of supply for furnishing an **ICP Spectrometer System** for the City of Tulsa, Public Works Department.

Inasmuch as some designs of equipment vary among different manufacturers, the City of Tulsa may accept bids on equipment with minor deviations to the written specifications. Generally, a minor deviation is defined as a deviation which does not: (A) materially affect the ability of the product to achieve or accomplish a necessary function or task in the manner required by the specifications; (B) compromise the safety of the user thereof; and, (C) produce higher latent or patent costs to the City in any of a multiplicity of ways. The City of Tulsa specifically reserves the right to make the final judgement concerning what is or is not a minor deviation and to award to the bidder(s) whose bid(s) best suit the City's need for the product being purchased.

PRICES:

Prices bid shall be firm and based on new, unused, current production models.

**DESCRIPTIVE LITERATURE, BROCHURES,
SPECIFICATION SHEETS:**

Bidders must provide descriptive literature, brochures, and/or specifications sheets on the units bid. This information is to be part of your bid and included with your bid package. Failure to comply could result in rejection of your bid.

ALTERING BIDS:

Bids cannot be altered or amended after submission deadline. Any interlineation, alteration, or erasure made before opening time and date must be initialed by the signer of the bid, guaranteeing authenticity. Bids must be submitted in ink or typewritten. Pencil will not be accepted.

PRICING:

Bid prices, unless otherwise specified, must be net, including transportation and handling charges fully prepaid by vendor to destination and subject only to cash discount for prompt payment of invoice.

DELIVERY:

Delivery time must be stated in days in the appropriate spaces of the cover sheet. Indefinite terms such as “promptly”, “without delay”, etc., will not be given consideration. Failure to indicate delivery time shall be cause for rejection of the bid.

BIDDER AFFIDAVITS:

Each bidder shall accompany his bid with a fully executed and notarized copy of the attached **Non-Collusion Affidavit** and the **Interest Affidavit**. Failure to do so shall be cause for rejection of the bid.

ADDENDA AND INTERPRETATIONS:

If it becomes necessary to revise any part of this bid, a written addendum will be provided to all the bidders. The City of Tulsa is not bound by any oral representations, clarifications, or changes made in the written specifications by City of Tulsa employees unless such clarification or change is provided to bidders in written addendum form from the Purchasing Division.

AWARD OF BID:

The bid shall be awarded to the firm whose proposal is responsive to the bid and is most advantageous to the City, considering the factors identified in the bid and Section 406E of Title 6, The Purchasing Ordinance set forth below:

406E. AWARD OF CONTRACT

1. Authority in the Mayor. The Mayor shall have the authority to award Contracts within the purview of this chapter.
2. Lowest Secure Bidder. Contracts shall be awarded to the lowest secure Bidder meeting specifications. Bid Specifications may include a point System for evaluating the lowest secure bid. In determining “lowest Secure bidder”, in addition to price, the following factors shall be considered:
 - a. The ability, capacity and skill of the bidder to perform the contract or provide the service required;
 - b. whether the bidder can perform the contract or provide the service promptly or within the time specified, without delay or interference;
 - c. the character, integrity, reputation, judgment, experience and efficiency of the bidder;
 - d. the quality of performance of previous contracts or services;
 - e. the previous and existing compliance by the bidder with laws and ordinances relating to the contract or service;
 - f. the sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;

- g. the quality, availability and adaptability of the supplies or contractual services to the particular use required;
- h. the ability of the bidder to provide future maintenance and service for the use of the subject of the contract;
- i. where an earlier delivery date would be of great benefit to the requisitioning agency, the date and terms of delivery may be considered in the bid award, and
- j. the number and scope of conditions attached to the bid.
- k. If a point system has been utilized in the bid specifications, the number of points earned by the bidder.

TECHNICAL SPECIFICATIONS

This bid specification covers a solid state detector based ICP Spectrometer. It should meet or exceed the following specifications (comparable systems bid will be acceptable):

Spectrometer:

The instrument shall be equipped with an Echelle Cross Dispersion Spectrograph. Emission spectra shall be dispersed by wavelength and order in a 2 dimensional array. The optical path shall be purged with argon or nitrogen to allow determination of elements in the low UV.

Wavelength Range:

The instrument must be able to measure all important element emission wavelengths in the range from 165 to 1050 nm. Additionally, it must cover the wavelength range from 175 to 315 nm without any interruption. All elements must be represented by at least 3 sensitive lines and 3 secondary lines to satisfy the requirements of various sample types and to provide defensible confirmatory results.

Resolution:

The instrument shall have the capability to perform measurements in routine operation at a resolution of better than 0.0087 nm at 200 nm, 0.017 nm at 400 nm and 0.026 nm at 600 nm. Quoted detection limits shall be as measured at the instrument's quoted resolution.

Detection System:

The instrument shall be equipped with a solid state charge transfer device capable of high contrast/low noise imaging and quantification of all wavelengths in the analytical range with no blooming or blind spots. The detector must be photo-active over the entire surface area for continuous wavelength coverage. It must contain a minimum array of 512 x 512 detector elements (pixels).

Detector Operating Modes:

The detector must be able to operate in the following modes:

Analysis:

User selected analytical wavelengths are simultaneously integrated in a manner whereby the signal to noise ratio is optimized while the photo-generated charge level is maintained in the linear range of the device. This should be accomplished by allowing for the observation of the signal level on any pixel at any point in the exposure. If a pixel is determined to be nearing saturation, it shall be read out, cleared, the counts stored and the integration allowed to continue if the user selected time has not expired. If the detector pixel being interrogated is not nearing saturation, then it shall not be cleared, but allowed to continue accumulating counts until the next cycle, at which time the process shall be repeated. The clearing of any pixel shall not affect any other pixel. In this way, both very low and very bright lines can be measured during an analysis run.

For every selected wavelength interval, peak and background measurements should be taken simultaneously.

The detector must be capable of simultaneously measuring a set of elements together with multiple internal standard lines so that each analyte element can be paired with a suitable internal standard line. A minimum of 7 lines shall be selectable for use as internal standard lines.

Full Frame Imaging:

Allows for the spectrographic imaging of the entire spectrum in a matter of seconds for qualitative analysis and methods development. Additionally, the image shall be capable of being interrogated for the presence of any element and providing semi-quantitative data on the concentration of any element capable of being determined by ICP spectroscopy, whether or not that element was initially desired. The system must have the Intelliframe option which allows all lines to be presented in a single image without saturation.

Plasma Viewing:

Plasma shall be viewed axially. Auxiliary optics shall be available to automatically switch between axial and radial viewing for all lines. All optics shall be housed in purged enclosures for corrosion resistance and high performance in the vacuum UV spectral region.

Plasma Source:

The plasma source shall be an Inductively Coupled Argon Plasma operating in one of the internationally approved ISM (Industrial Medical Scientific) radio frequency bands of 27.12 MHz \pm 0.01% or 40.68 MHz \pm 0.01%, selectable at the time of purchase. The source shall be crystal-controlled to ensure frequency stability to the specified tolerance, and comply with FCC regulations. RF power settings must be selectable from 250 settings within the normal operating range.

The source shall provide for fully automated ignition, tuning and operation. It shall be directly coupled and required no impedance matching circuitry. Power regulation shall be better than 0.1%

The generator shall have a minimum rated output of 2.0 kW and the power supplied to the load coil shall be selectable from the computer keyboard in at least 250 steps.

Sample Introduction System:

The instrument shall be equipped with a glass cyclone spray chamber and concentric nebulizer. Optional sample introduction systems must be available for operation with aqueous solutions containing high concentrations of dissolved salts, organic solvents and solutions containing HF.

Sample shall be supplied to the nebulizer by a direct drive peristaltic pump equipped with a minimum of 4 channels to accommodate sample, drain, and supply of rinse solution to an optional autosampler and an additional line for use by either an internal standard solution or to accommodate a hydride generation accessory. The pump shall have a minimum of 8 rollers.

Waste solution shall be removed by a pumping system to ensure constant removal unaffected by external conditions such as the liquid height in the receiving bottle.

The instrument shall be supplied with a demountable torch that can be equipped with a variety of center tubes to accommodate various sample types. An alternative single piece torch capable of being cleaned in a muffle furnace shall also be available.

Gas Flow Controls:

Gas flows shall be selectable under computer control. The nebulizer pressure shall be continuously variable between 15 and 45 psi or 0 to 2 L/min with an optional mass flow controller. Auxiliary flow shall be selectable in 4 steps between 0 and 1.5 L/min.