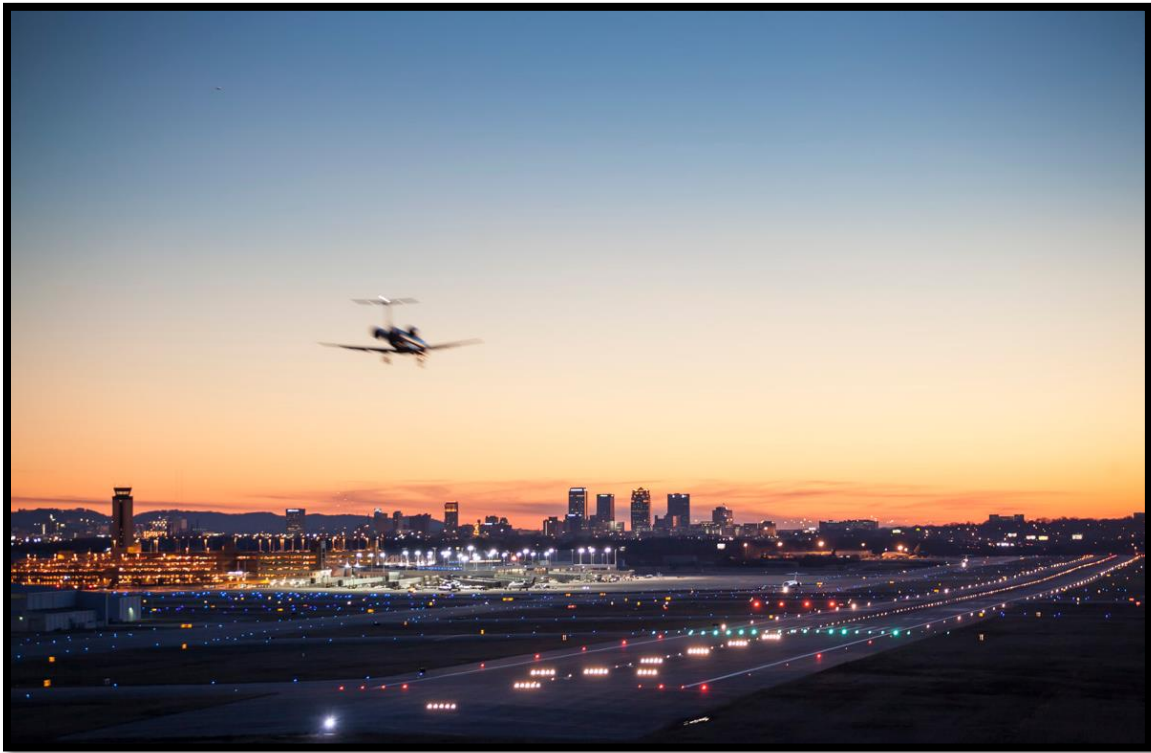


Request for Bid Runway Friction Tester



Birmingham Airport Authority

I. The Opportunity

Purpose

The Birmingham Airport Authority (the “Authority”) is requesting bids for a Runway Friction Tester.

The purpose of this document (the “Request for Bid” or “RFB”) is to provide interested vendors with the overview of the opportunity, as well as instructions on how to respond. A prospective (“Proponent”) shall submit its bid (“Bid” or Bid Package”) in conformity with the procedures and requirements set in this Request for Bids.

II. Procedures and Requirements

Pre-Submittal Inquires

Each bid that is timely received will be evaluated on its merit and completeness of all requested information. In preparing bids, Bidders are advised to rely only upon the contents of this RFB and accompanying documents and any written clarifications or addenda issued by the Authority. If a Bidder finds a discrepancy, error, or omission in the RFB package, or requires any written addendum thereto, the Bidder is requested to notify Ed Seoane, VP of Purchasing, at eseoane@flybirmingham.com so that written clarification may be sent to all prospective Bidders. **THE AUTHORITY IS NOT RESPONSIBLE FOR ANY ORAL INSTRUCTIONS**

- 1) **PRE-BID INFORMATION AND QUESTIONS:** . All questions must be submitted in writing to Ed Seoane,, VP of Purchasing at eseoane@flybirmingham.com before the Pre-Bid Question Deadline.
- 2) **RFB MODIFICATIONS/ADDENDA:** Clarifications, modifications, or amendments may be made to this solicitation at the discretion of the Authority. Any and all Addenda issued by the Authority will be posted as noted in Exhibit 1. All interested parties are instructed to view the Airport Website, www.flybirmingham.com regularly for any issued addenda. It is the responsibility of the Bidder to obtain the available Addenda and acknowledge any issued

Addenda on the Bid Form for this solicitation, and further submit the Form as part of the required submittal documents for this solicitation. If any changes are made to this solicitation document by any party other than the Authority, the original document in the Authority's files takes precedence.

3) BID SUBMISSION:

- a) The Bidder must include the following items, or the bid may be deemed non-responsive:
 - i) All forms contained in this RFB, fully completed
 - ii) Evidence that the Minimum Qualifications listed in the Specifications/Scope of Work are met.
- b) Bids must be submitted via email to Ed Seoane, VP of Purchasing, at eseoane@flybirmingham.com.
- c) Submission of a bid establishes a conclusive presumption that the Bidder is thoroughly familiar with the Request for Bids (RFB), and that the Bidder understands and agrees to abide by each, and all of the stipulations and requirements contained therein.
- d) All costs incurred in the preparation and presentation of the bid are the Bidder's sole responsibility; no pre-bid costs will be reimbursed to any Bidder. All documentation submitted with the bid will become the property of the Authority.
- e) Bids must be held firm for a minimum of 120 days.

4) **EXCEPTIONS:** Bidder shall clearly identify any proposed deviations from the language in the Request for Bids (including its Form of Agreement). Each exception must be clearly defined and referenced to the proper paragraph in this RFB or its Form of Agreement. The exception shall include, at a minimum, the Bidder's proposed substitute language and opinion as to why the suggested substitution will provide equivalent or better service and performance. If no exceptions are noted in the Bidder's proposal, the Authority will assume complete conformance with this specification and the successful Bidder will be required to perform accordingly. Bids not meeting all requirements may be rejected. Bids taking exception to material terms/conditions in the Form of Agreement (i.e., indemnification, subrogation, insurance, ownership of documents, governmental requirements) will not be considered. The Authority reserves the right to accept or to allow the Bidder to withdraw any or all exceptions.

5) **DUPLICATE BIDS:** No more than one (1) bid from any Bidder, including its subsidiaries, affiliated companies and franchises will be considered by the Authority. In the event multiple bids are submitted in violation of this provision, the Authority will have the right to determine which bid will be considered, or at its sole option, reject all such multiple bids.

6) **WITHDRAWAL:** Bids may only be withdrawn by written notice prior to the date and time set for the opening of bids. No Bid may be withdrawn after the deadline for submission.

7) **REJECTION:** The Authority reserves the right to reject any or all bids, or to accept or reject any bid in part, and to waive any minor informality or irregularity in bids received if it is determined by the Chief Executive Officer or his designee that the best interest of the Authority will be served by doing so. If all Bids are rejected by the Authority, notice will be posted on the authority's website. No Bid will be considered from any person, firm or

corporation in arrears or in default to the Authority on any contract, debt, or other obligation, or if the Bidder is debarred by the Authority from consideration for a contract award, or if Bidder has committed a violation of the Authority's Ethics Ordinance which resulted in a termination of a contract or other material sanction within the two (2) years immediately preceding the date of issuance of this document.

- 8) **PROCUREMENT POLICY:** Procurement for the Authority will be handled in a manner providing fair opportunity to all businesses. This will be accomplished without abrogation or sacrifice of quality and as determined to be in the best interest of the Authority. The Chief Executive Officer has the vested authority to execute a contract, subject to Board approval where required.
- 9) **BID SIGNATURES:** Bids must be signed by an authorized official of the Bidder. Each signature represents binding commitment upon the Bidder to provide the goods and/or services offered to the Authority if the Bidder is determined to be the lowest Responsive and Responsible Bidder.
- 10) **CONTRACT AWARD:** The Authority reserves the right to award by item, group of items, or total bid to the lowest responsive, responsible Bidder. The Bidder to whom the award is made will be notified at the earliest possible date. Tentative acceptance of the bid, intent to recommend award of a contract, and actual award of the contract will be provided by written notice sent to the Bidder at the address designated in the bid if a separate Agreement is required to be executed. After a final award of the Agreement by the Authority, the Contractor must execute and perform said Agreement. All bids must be firm for at least 120 days from the due date of the bid. If, for any reason, a contract is not executed with the selected Bidder within 14 days after notice of recommendation for award, then the Authority may recommend the next lowest responsive and responsible Bidder.
- 11) **NO RFB RESPONSE:** Bidders who receive this RFB but who do not submit a bid should return this RFB package stating the reason(s) for not responding. Failure to return this form may result in removal of the Bidder's name from all bidder lists.

SPECIFICATIONS/SCOPE OF WORK

1. **INTRODUCTION:** Bids are being solicited from businesses who meet the minimum qualifications to provide one (1) Runway Friction Tester (RFT) which will be used by Birmingham Shuttlesworth International Airport to measure and record runway friction values, in accordance with the Federal Aviation Authority (FAA).

This RFT shall be a self-contained unit designed to traverse the length of a runway and accurately measure the runway coefficient of friction. RFT shall monitor loss of friction, due to the buildup of contaminants such as rubber deposits, oil/jet fuel spills, rain, snow, ice, de-icing fluids, etc. A two-axis force transducer shall be capable of accurately measuring both continuous longitudinal slip friction forces while also measuring variations in the vertical

force, caused by tire bounce due to runway profile variance. These changes in vertical force shall be measured and canceled, allowing continuous true and accurate slip friction measurement.

Operation shall be accomplished using a laptop computer to automatically process speed, distance, and force transducer output data. Driver shall only need to bring the RFT to the desired speed and press a handheld test start button. All test functions such as test wheel lowering, water application and friction measurement shall be sequentially controlled by the computer. System shall contain automatic calibration verification and self-diagnostics which are initiated at start up.

The RFT shall be mounted in a standard highway pickup to be included in the bid or equipped to be towed with a standard truck hitch.

Bidders must reference and abide by the following specifications when bidding on this item:

FAA Advisory 150/5200-30D

FAA Advisory 150/5320-12C

Calibration – ASTM E-556 Calibration a Wheel force of Torque Transducer Using a Calibration Platform.

2. **GENERAL INFORMATION:** By submitting a bid, the Bidder certifies that ALL parts and ALL componentry, either manufactured or purchased by the Bidder which are a part of the equipment bid upon, are NEW, and further, that NO USED and/or RECONDITIONED parts or componentry are incorporated in this equipment, unless otherwise specified.

All parts not sufficiently mentioned, but which are necessary in order to furnish complete units, will conform to the best standard known to trade, in strength, quality and workmanship. Whereby any part of the units contemplated by these specifications are not mentioned or not completely described, it is to be understood that the units proposed to be furnished be of the latest design and manufacture. Should the manufacturer's current published data or specifications exceed these, they will be considered minimum and must be furnished.

Each unit must meet all current State, Federal Safety Laws, Rules and Regulations, MIOSHA, and OSHA, and be completely operational and ready for immediate use upon delivery.

3. **MINIMUM QUALIFICATIONS:** Bidders (specifically, the business that will be contractually bound under the contract with the Airport Authority) will be deemed no responsible and rejected without any further evaluation if they do not meet the following qualifications:

- a) Must be a Manufacturer of the equipment being bid, or a Dealer who is certified by the Manufacturer to sell the equipment.

4. SCOPE OF SERVICES:

- a) The successful Bidder (Contractor) must provide a Runway Friction Tester (RFT), per the Specifications herein, to be delivered FOB Destination to the Authority at a location to be specified on the resulting Purchase Order.
- b) Contractor must provide manuals at the time of RFT delivery as follows: Two (2) complete Operators and Maintenance manuals including Maintenance Drawings.
- c) Contractor must provide a 12-month manufacturer's warranty from the date of delivery for repair or replacement at no expense to the Authority as may be required by reason of defective design, workmanship, or materials.
- d) Contractor must provide operator training to at least five Authority personnel and general maintenance and repair training to at least 10 equipment repairpersons.

- 5. PRODUCT MINIMUM SPECIFICATIONS:** The product must include all of the stated specifications in this section. The Bidder must identify if the product bid (the RFT, its components, and software) meets the stated specifications exactly or has a deviation in the spaces provided beneath each item of specification. Exceptions to the specifications that make it fall below the stated specifications are not acceptable deviations. Any deviations must be accompanied by a detailed explanation of how the product meets or exceeds the specifications. It is the Authority's sole right to determine whether or not a deviation is acceptable.

A. COMPONENTS

- i) Dash mounted display providing speed, digital mu and analog mu display for real time test monitoring.
- ii) Industrial hardened system electronics Vehicle Control Unit (VCU)
- iii) Operator console and Laptop Computer with Windows XP operating system, 60 gigabyte hard drive, Pentium IV processor, USB2 port, Ethernet port, USB 4 port hub.
- iv) Remote, handheld test switch with event marker buttons.
- v) Printer with color graphics
- vi) Keyboard
- vii) Overhead roof mounted LED lightbar.
- viii) Two (2) Remote control spotlights, one each side of RFT
- ix) Test equipment mounted below rear of truck
- x) Baffled, non-corrosive aluminum water tank
- xi) Digital water volume sensor to provide real time water level indication.
- xii) Water Flow Meter
- xiii) Low profile fiberglass pickup bed cover
- xiv) Inverter 12 V / 120 VAC power supply

_____ YES, MEETS ALL SPECIFICATIONS

_____ NO, LIST ALL DEVIATIONS AND DESCRIBE HOW THEY MEET OR EXCEED THE SPECIFICATIONS ABOVE: _____

B. SYSTEM SOFTWARE

- i) The software shall be Windows based software running in a Windows XP environment. Software shall have on-line help functions. Software shall be capable of operating in both Metric and US Standard units.
- ii) Software shall ensure that a calibration MUST be performed prior to testing, by locking out the test section of the software until field calibration has been completed.
- iii) Software shall allow the operator to calibrate the force transducers, distance encoders, flow meters and temperature sensors on the system. The screens shall provide details on the values determined by the calibration system.
- iv) Software shall allow for diagnostics of all digital encoders, analog devices, and analog to digital encoders and timers in the system.
- v) Software shall allow the operator to select and configure all devices on the system including selection of test type, test watering, test cycling, test cycle times, measurement units, data display options and formats, data storage and printer options.
- vi) Software shall provide for onboard printing of test data both during and after testing sequence is complete.
- vii) Software shall provide test information templates which are customizable by the operator, and allow multiple templates to be stored and recalled from the test screen. All information shall be stored with the test data.
- viii) Software shall allow for real time display of speed, MU, water tank volume, number of tests since water fill-up, temperature sensor output, test cycle completion, test data values such as MU average traction values and load values from the two axis transducer. User shall be able to select what data is displayed during test sequence.

_____ YES, MEETS ALL SPECIFICATIONS

_____ NO, LIST ALL DEVIATIONS AND DESCRIBE HOW THEY MEET OR EXCEED THE SPECIFICATIONS ABOVE:

C. MEASURED AND RECORDED PARAMETERS

- i) The RFT is a slip friction system. The recorded friction value shall be proportional to the ratio of the instantaneous longitudinal slip force to the instantaneous vertical wheel load.

_____ YES, MEETS ALL SPECIFICATIONS
_____ NO, LIST ALL DEVIATIONS AND DESCRIBE HOW THEY MEET OR EXCEED THE SPECIFICATIONS ABOVE:

D. SPEED RANGE

- i) When conducting friction measurements, the speed for the RFT shall be within FAA regulations.

_____ YES, MEETS ALL SPECIFICATIONS
_____ NO, LIST ALL DEVIATIONS AND DESCRIBE HOW THEY MEET OR EXCEED THE SPECIFICATIONS ABOVE:

STANDARD TERMS AND CONDITIONS OF AGREEMENT

- 1) **Assignment/Transfer:** Assignment or transfer of this contract without written consent of the Wayne County Airport Authority (Authority) may be construed by the Authority as a breach of contract sufficient to cancel this agreement at the discretion of the Authority.
- 2) **Inspection:** All goods and services shall be subject to inspection and approval by Purchaser at all reasonable times including inspection during manufacture. Inspection and approval by Purchaser at Seller's plant does not preclude rejection for defects upon discovery by subsequent inspection. Any goods and services rejected by Purchaser shall be promptly repaired or replaced at Seller's expense. Any and all costs incurred by Purchaser in connection with the return of goods rejected by Purchaser as defective shall be at Seller's risk and expense.
- 3) **FOB and Risk of Loss:** All items must be FOB Destination and all freight charges must be included in the Bid unless otherwise indicated in this document. Regardless of FOB point, Seller agrees to bear all risks of loss, injury or destruction of goods and materials ordered herein which occur prior to delivery and acceptance; and such loss, injury or destruction shall not release Seller from any obligation hereunder.
- 4) **Warranty:** Seller warrants that it has good and merchantable title to the goods sold hereunder and that said goods shall conform to the descriptions and applicable specifications and samples. Such goods shall be of good merchantable quality and fit for the known purposes for which sold, and are free and clear of all liens and encumbrances. Seller and Purchaser agree that this order does not exclude, or in any way limit, other warranties provided for in this agreement or by law.
- 5) **Excise and Sales Tax:** The prices herein must not include any Federal excise taxes or sales taxes imposed by any State or Municipal Government. Such taxes, if included, must be deducted by the Seller when submitting invoice for payment.
- 6) **Invoices:** Invoices for Goods must be submitted on date of complete shipment. Invoices for Services must be submitted within 45 days after completion of Services. Payment will be delayed if the invoice fails to reference PO number, ordering department, unit prices, quantities, totals, and a full description of the order that matches the PO.
- 7) **IRS Form W-9:** Seller must have on file with the Authority an IRS Form W-9 before Purchaser will issue any payment to Seller.
- 8) **Compliance with Laws:** Contractor represents and warrants that the performance of this order and the furnishing of goods or services required shall be in accordance with the applicable standards, provisions and stipulations of all pertinent Federal, State or Authority laws, rules, regulations, resolutions, and ordinances including but not limited to the Fair Labor

Standards Act, the Equal Employment Opportunity rules and regulations, the Transportation Safety Act and the Occupational Safety and Health Acts.

- 9) **Amendments:** No amendment, modification or supplement to this contract shall be binding unless it is in writing and signed by authorized representatives of the parties.
- 10) **Termination:** When in Authority's best interest, Authority may unilaterally cancel this agreement at any time, whether or not Contractor is in default of any of its obligations hereunder. Under any such cancellation, Contractor agrees to waive any claim for damages, including loss of anticipated profit on account hereof. However, the Authority agrees that Contractor shall be paid for items and/or services already accepted by Authority, but in no event shall the Authority be liable for any loss of profits on the order or portion thereof so terminated. Either party may terminate this agreement at any time for the failure of the other to comply with any of its material terms and conditions.
- 11) **Waiver of Breach:** No waiver by either party of any breach of any of the covenants or conditions herein contained performed by the other party shall be construed as a waiver of any succeeding breach of this same or of any other covenant or condition.
- 12) **Complete Agreement:** The parties agree that the conditions of purchase stated herein and all statements on the reverse side hereof or attachments hereto set forth their entire agreement and there are no promises or understandings other than those stated herein, and that any prior negotiations between the Purchaser and Seller or terms or conditions of sales set forth in the Seller's quotation or order or sales acknowledgement shall not constitute a part of the agreement between the Purchaser and Seller concerning this purchase. The term "agreement" as used in this clause shall include any future written amendments, modifications, or supplements made in accordance herewith.
- 13) **Liability and Indemnity:** Contractor agrees to protect, defend, reimburse, indemnify and hold the Authority, its officers, affiliates, employees and agents harmless at all times from and against any and all claims, liabilities, expenses, losses, demands, damages, fines and causes of action of every kind and character made, incurred, sustained or initiated by any party hereto, any party acquiring any interest hereunder, any agent or employee of any party hereto, any third or other party whomsoever, or any governmental agency, arising out of, incident to, or in connection with this contract, or in the performance, nonperformance or purported performance of the work or services or breach of the terms hereof, except when Authority is solely at fault.
- 14) **Records:** The Authority reserves the right to inspect all vendor documents relating to this agreement for up to three (3) years after expiration.
- 15) **Insurance:** Contractor, at its own expense and in its own name, must provide and keep in force during the term of this Agreement, the following insurance coverages, provided by a company(s) licensed to conduct business in the State of Michigan, acceptable to Authority,

with limits not less than indicated for the respective items or as otherwise agreed. Types of coverages and limits of liability shall be as set forth in the Special Instructions, Terms and Conditions.

- 16) **Noncompliance:** Failure to deliver in accordance with specifications will be cause for the Authority may cancel the contract or any part thereof and purchase on the open market, charging any additional cost to the Contractor.

REQUIRED FORMS

[BID FORM](#) 12
[PRICE PAGE](#) 14

BID FORM

Failure to complete this form shall result in your bid being deemed nonresponsive and rejected without any further evaluation.

OFFER

TO: Birmingham Airport Authority:

The Undersigned hereby offers and agrees to furnish the goods and/or services in compliance with all terms, scope of work, conditions, specifications, and addenda in the Request for Bid.

ADDENDA:

The undersigned has read, understands and is fully cognizant of the Information to Bidders, Offer and Form of Agreement, all Exhibits thereto, together with any written addendum issued in connection with any of the above. The undersigned hereby acknowledges receipt of the following addendum(s): _____, _____, _____, _____ (write "none" if none). In addition, the undersigned has completely and appropriately filled out all required forms.

OBLIGATION:

The undersigned, by submission of this Bid Form, hereby agrees to be obligated, if selected as the Contractor, to provide the stated goods and/or services to the Authority, for the term as stated herein, and to enter into an Agreement with the Authority, in accordance with the

Conditions, Scope and Terms, as well as the Form of Agreement, together with any written addendum as specified above.

COMPLIANCE:

By submitting this Bid Form, the Bidder represents that: 1) the Bidder is in compliance with any applicable provisions of the Authority's Ethics Ordinance, and 2) if awarded a contract to provide the Construction, Goods or Services required in the RFB, the Bidder will comply with the Authority's Ethics Ordinance.

NONCOLLUSION:

The undersigned, by submission of this Bid Form, hereby declares that this Bid is made without collusion with any other business making any other Bid, or which otherwise would make a Bid.

BID PRICE:

The undersigned agrees to abide by the pricing contained on the Price Page.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

contact:
Company Name

For clarification of this offer,

Address

Name: _____

City State Zip

Phone: _____

Signature of Person Authorized to Sign

Fax: _____

Printed Name

Title

Federal Tax ID

Date

PRICE PAGE

Failure to complete this form shall result in your bid being deemed nonresponsive and rejected without any further evaluation.

One (1) Runway Friction Tester (including delivery), per specifications: \$_____

Delivery guaranteed no later than _____ calendar days after receipt of order.

SUBMISSION REQUIREMENTS:

Bidders must submit via email to Ed Seoane, VP of Purchasing, at eseosne@flybirmingham.com their bid including any equipment literature or additional information.

AND

2) Bidders who are Dealers must submit **with their Bid**, a current copy of their certification by the Manufacturer, identifying the Bidder as a certified Dealer.

DBE Goal for this Contract

This contract has no federal funds associated and as such does not have a DBE goal.

SUBCONTRACTOR FORM

Failure to complete this form may result in your Bid or Proposal being deemed nonresponsive and rejected without any further evaluation.

Are there any subcontractors to be utilized under this contract?

YES - You must complete both pages.

NO - You must complete only this page.

ACKNOWLEDGED BY:

Firm: _____

Name: _____

Title: _____

(Authorized Representative)

Signature: _____

Date: _____

SUBCONTRACTOR FORM Continued

(If you have more than one Subcontractor, make additional copies as needed)

Prime Contractor _____

State relationship, if any, between Prime Contractor and each Subcontractor: _____

NOTE: Both the Prime Contractor/Consultant and Subcontractor must sign this form appropriately.

Subcontractor: _____
_____ Fed Tax ID _____

Address: _____
_____ P.O. Box _____

City: _____ County _____
_____ State _____ Zip: _____

Phone:(_____) _____
_____ Fax:(_____) _____

Owners/Partners/Corporate Directors/Principal Stockholders (>5% stock holdings): _____

Work to perform: _____

Subcontract Amount \$ _____ Percent of Contract _____
_____ %

ACKNOWLEDGED BY:

I acknowledge that all the above information has been completely filled out and is true.

SUBCONTRACTOR

Name & Title Authorized Date Signature

I acknowledge that all the above information has been completely filled out and is true.

PRIME CONTRACTOR _____

Name & Title Authorized Date Signature

Submittal Requirements

Each Proponent shall submit Quotation Package via email to Ed Seoane, VP of Purchasing, eseoane@flybirmingham.com.

Selection Process/Criteria

Each Bid will be evaluated based on the following criteria:

1. Cost
 2. Specification per this RFB
 3. Proposed alternative if any
 4. Delivery time of unit
-
2. All financial information must be presented in U.S. dollars.
 3. The cost of preparing the Bid or providing additional information is the sole responsibility of the Proponent. The Authority will not be responsible for or pay or reimburse any fees or expenses to any Proponents or their agents.
 4. The Proponent assumes all responsibility for complying with all applicable laws and regulations. Further, the Proponent is responsible for obtaining all permits required by law or local authorities to allow it to provide the EUVs to the Authority.
 5. All Bids become the property of the Authority and will not be returned to Proponents unless a written request to withdraw, signed by an authorized signatory of the Proponent, is received prior to the Bid Due Date.

Request for Bids Schedule

The schedule for the preparation and evaluation of Bids is provided in the following Exhibit I:

Exhibit I. Request for Bids Schedule

Request for Bids Documents Available	June 3, 2022
Written Inquiries Accepted Through	June 10, 2022
Bid Due Date	June 17, 2022
Target Award Date	August 2022

Bids are due no later than **2:00 p.m. Central Time on June 17, 2022**, by which time all Bids shall be recorded. Bids will not be accepted after this date and time for any reason.

Bids are to be sent via email to Ed A Seoane, VP of Purchasing.
Email address: eseoane@flybirmingham.com.

The Authority reserves the right to extend the Bid Due Date and the RFB Schedule. All changes or clarifications to the schedule will be distributed to all registered Proponents in the form of addenda.

END OF REQUEST FOR BIDS