DATE: May 9, 2005

TO: Aerial Photography Companies

FROM: Tim Gatz, Project Management Division

**SUBJECT:** Solicitation for Aerial Photography

At this time, the Department is soliciting the services of aerial photography companies to provide aerial photography services for the State Fiscal Year 2006. These services require qualifications, expertise, experience and/or equipment that are of a highly specialized nature. Please find attached the aerial photography specifications that the successful consultant will be expected to meet.

Your response will include the submission of one (1) unbound original and five (5) copies of a packet containing the following:

- 1. A Letter of Interest referencing the Engineering Contract Number (EC No. 1017)
- 2. A Table of Organization depicting the proposed project team
- 3. Any additional information you believe appropriate for the Department's use in determining your capabilities and qualifications to perform the type of work encompassed by this contract.
- 4. A statement of your qualifications (CAP 255 Form preferred)

Please remember that this is a SOLICITATION OF INTEREST and not a Request for Proposal. As such, you are only requested to provide information related to your qualifications to perform the work described. A cost proposal will be requested from the successful firm upon entering the negotiation phase of the Consultant Selection Process.

The deadline for the submittal of your response will be 4:30 p.m. May 20, 2005. The Department anticipates the selection process to be complete and the contract negotiated and approved by the Transportation Commission as soon as possible and not later than July 2005. As this contract is anticipated to be financed with Federal Fiscal Year 2005 funding, the Notice to Proceed is expected no later than August 2005.

As always, your assistance, cooperation and patience are greatly appreciated. Please do not hesitate to make us aware of any questions, comments or concerns that you may have or to offer suggestions for process improvement.

04/29/05	CONSULTANT CONTRACT SOLICITATION OF INTEREST LIST Specialized Bridge Related Services Page 1		Page 1	
Contract No.	EC No. 1017	Services Description: Aerial Photography		
ODOT Division	Survey	The Successful Aerial Photography Company will be responsible fo providing aerial photography, ABGPS and IMV/POS data and shall be		
County	Statewide	responsible for the post process of all data. At a minimum will provide the Frame Number, X, Y, & Z, Omega, Phi, Kappa, with GPS coordinates of the prospective photo centers, and the time stamp information for each frame of project photography. Processed data will be delivered in an ASCII format on appropriate media within a timely manner after date of photography. Contractor will retain a Professional Land Surveyor, holding a current registration in the State of Oklahoma		
State Job Piece No.	TBD			
Federal Aid Proj. No.	TBD			
	by the State Board of Registration for Professional Engine Land Surveyors, for the direct supervision and certification above stated data. Note: For additional information see the Aerial Photography Specifications.		tification of the	

# STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION

# **AERIAL PHOTOGRAPHY SPECIFICATIONS**

April, 11, 2005

# THE CONTRACTOR AGREES:

To furnish all materials, labor and equipment necessary to produce aerial photography of the areas specified, and to deliver to the Department of Transportation the materials specified in Section 14. All work shall be executed to the satisfaction of the Department of Transportation in complete accord with these specifications.

# 1. COORDINATION OF PHOTOGRAPHY WITH GROUND TARGETING

On certain projects where the ground control points are targeted prior to photography, photographic operations must be coordinated with the ground crew so that a minimum of time elapses between the targeting and photographic flight. ODOT will notify the contractor when the projects can be photographed.

# 2. AIRCRAFT

Aircraft used on this contract shall be maintained and operated in accordance with the regulations of the Federal Aviation Administration and shall be suitable for the aerial photography tasks specified.

#### 3. PRECISION AERIAL MAPPING CAMERA

Cameras utilized in conjunction with this contract must meet or exceed the current minimum standards set by the United States Geological Society (USGS) for precise mapping cameras. A 6-inch (153 mm) nominal focal length camera will be utilized unless otherwise specified.

# 3.1 CAMERA SYSTEM "REPORT OF CALIBRATION"

A camera system "report of calibration" will not be acceptable if dated more than three years prior to the scheduled bid opening date. When there is any reason to believe that the dimensional relationship of the lens, fiducial marks, and film plane have been disturbed by partial disassemble or unusual mechanical shock, the camera must be submitted for re-calibration before additional photography is taken.

# 3.2 GPS CAMERA REQUIREMENTS

The camera utilized on the portions of this contract requiring GPS coordinates of the prospective centers of each negative shall be interfaced to a GPS receiver capable of computing coordinates with accuracies acceptable for use in ODOT analytical adjustment programs. ODOT personnel will operate GPS ground receivers during the project flight.

# (ABGPS) Airborne GPS

Contractor will provide, aerial photography, ABGPS and IMV/POS data and shall be responsible for the post process of all data. At a minimum will provide the Frame number, X, Y, & Z, Omega, Phi, Kappa, with GPS coordinates of the prospective photo centers, and the time stamp information for each frame of project photography. Processed data will be delivered in an ASCII format on appropriate media within a timely manner after date of photography. Contractor will retain a Professional Land Surveyor, holding a current registration in the State of Oklahoma by the State Board of Registration for Professional Engineers and Land Surveyors, for the direct supervision and certification of the above stated data.

# 4. **AERIAL FILM**

Aerial film shall have a dimensionally stable base as Eastman Kodak no. 2405 and be delivered with film container and spool standard size for a 500 foot roll.

# 5. TIME FOR UNDERTAKING PHOTOGRAPHY

- 5.1 Photography shall not be taken when the sun is less than three hours above the horizon.
- 5.2 Photography shall not be taken when streams are at flood conditions or snow cover is on the ground.
- 5.3 Clouds or cloud shadows shall not exceed five percent of any negative.

# 6. FILM PROCESSING

- 6.1 The photography shall have sharp definition, be of uniform density, and free from developer streaks and stains.
- 6.2 Aerial negatives shall be so exposed and processed that the minimum density, as measured with a densitometer with a scale range of 0 to 3.0, will not be less than 0.3 and no greater than 1.5; the gamma factor shall not exceed 1.0 nor be less than 0.6.

6.3 All splices shall be of permanent nature and the film shall not be trimmed closer than eight inches to an acceptable negative.

# 7. FILM LABELING

- 7.1 All lettering and numbering on the negatives shall be 0.2 inch high and shall result in sharp and uniform letters and numbers on all reproductions printed from the negatives.
- 7.2 The film shall be labeled in the following manner:
  - 7.2.1 Predominate north-south flights

Labeling shall be on the north edge of exposure. Numbering shall increase from south to north with exposures for each line beginning with the numeral 1. If line 2 is a continuation of line 1, the numbering of line 2 will begin with the numeral 1 at the end of line 1.

# 7.2.2 Predominate east-west flights

Labeling shall be on the east edge of exposure. Numbering shall increase from west to east with exposures for each line beginning with the numeral 1. If line 2 is a continuation of line 1, the numbering of line 2 will begin with the numeral 1 at the end of line 1.

- 7.3 The focal length and flight altitude above ground shall be shown on the first and last exposure only of each flight line.
- 7.4 Information to be shown on aerial film as shown by the following example:

FLIGHT DATE	FOCAL LENGTH	CONTRACT NUMBER AND AREA NUMBER	SCALE	EXPOSURE
11-15-01	152.73	01-15-11	1:3000 2	-25

- 7.5 The two-part number at the extreme right of the exposure shall be as follows:
  - 7.5.1 the first part designates the line number in each area.

7.5.2 The second part designates the exposure number on each line and shall always begin with the numeral 1 at the beginning of each line.

# 8. FILM CONTAINER LABELING

Each film container and spool shall be standard size for 500' roll. Each film container label shall show each flight line in the order as it appears on the film and shall be labeled according to the following example:

# STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION 200 NE 21<sup>ST</sup> STREET OKLAHOMA CITY, OKLAHOMA 73105

CONTRACT NO.\_\_\_\_\_

DATE	<b>SCALE</b>	LINES	AREA
11-15-01	1:3000	1-1-1 TO 2-1-25	5

1-1-1 10 2-1-25 2-219 TO 2-2-1

PHOTOGRAPHED BY:	
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# 9. FLIGHT LINES

- 9.1 The center of the first and last exposure shall be outside the limits of the designated flight line.
- 9.2 A horizontal deviation from the designated flight line of more than ten percent of the flight height shall be cause for rejection.

# 10. SCALE

Negatives showing a departure from the specified scale of more than plus or minus five percent in excess of that caused by variations in relief within the area covered by the individual photographs shall be cause for rejection.

# 11. TILT

Tilt shall in no case exceed three degrees from the vertical and shall not average more than one degree for the flight line. Relative tilt between any two successive negatives exceeding four degrees may be cause for rejection.

# 12. OVERLAP

The overlap in the line of flight shall average approximately sixty percent. Any overlap of less than fifty-five percent or more than sixty-five percent shall be cause for rejection of the entire flight line.

# 13. CRABBING

Any series of two or more consecutive photographs crabbed in excess of three degrees as measured from the line of flight shall be cause for rejection of the entire flight line.

# 14. ITEMS TO BE DELIVERED

- 14.1 All processed aerial film pertaining to this agreement.
- 14.2 One set of contact prints.

# 15. TIME OF COMPLETION

Ground targeted projects have to be coordinated with the ground survey crews. On these projects, the contractor will notify ODOT by phone or fax as soon as the phot mission is completed and the photography will be delivered within five days after the photography was taken.

On non-targeted projects of twenty flight line miles or less, the photography will be delivered within fifteen days from the date that the purchase order was received.

On non-targeted projects over twenty flight line miles, the photography will be delivered within thirty days from the date that the purchase order was received.

ANY DEVIATION FROM THESE SPECIFICATIONS, MUST BE SPECIFICALLY AUTHORIZED BY THE SURVEY DIVISION.

ANY DEVIATION FROM THESE SPECIFICATIONS, UNLESS SPECIFICALLY AUTHORIZED BY THE SURVEY DIVISION, SHALL BE SUFFICIENT CAUSE FOR THE REJECTION OF ANY PART OF THE WORK PERFORMED.

A DESIGNATED OFFICIAL FROM THE CONTACTING STATE AGENCY WILL REPRESENT THE STATE OF OKLAHOMA DURING THE WORKING STAGES OF THIS CONTRACT AND ALL WORK WILL BE RECEIVED, CHECKED, APPROVED OR REJECTED BY HIM/HER.

SEPARATE PURCHASE ORDERS WILL BE ISSUED AGAINST THE CONTRACT AND WILL RELATE TO EACH SEPARATE PROJECT.

THE STATE OF OKLAHOMA RESERVES THE RIGHT TO DELETE ANY PORTION OF A PURCHASE ORDER AT ANY TIME. IN THAT INSTANCE, THE TOTAL PURCHASE ORDER AMOUNT SHALL BE RE-COMPUTED FOR THE REDUCED SCOPE OF WORK IN THE SAME MANNER USED FOR DETERMINING THE ORIGINAL PURCHASE ORDER AMOUNT AND A CHANGE ORDER WILL BE ISSUED.

IN THOSE INSTANCES WHERE THE ENTIRE PROJECT IS TO BE DELETED, BUT WHERE THE CONTRACTOR HAS ALREADY BEGUN THE WORK PRIOR TO NOTIFICATION, THE CONTRACTOR SHALL BE PAID ON THE BASIS OF THE ESTIMATED PERCENTAGE OF COMPLETION.

ANY DISPUTE CONCERNING A QUESTION OF FACT IN CONNECTION WITH THE CONTRACT SHALL BE REFERRED FOR DETERMINATION TO THE CONTRACTING DEPARTMENT, THE AGENCY DIRECTOR OR HIS DULY AUTHORIZED REPRESENTATIVE WHOSE DECISION IN THE MATTER SHALL BE FINAL AND CONCLUSIVE ON THE PARTIES TO THE CONTRACT.

# THE STATE OF OKLAHOMA AGREES:

TO GRANT A REQUEST FOR A REASONABLE EXTENSION OF TIME FOR COMPLETION OF WORK BEGUN, IF THE CONTRACTOR SUBMITS A REQUEST IN WRITING SHOWING THAT HE IS UNABLE TO COMPLETE THE WORK IN THE TIME SPECIFIED. UNDER NO CIRCUMSTANCES ARE PURCHASE ORDERS TO BE ISSUED AFTER 6/30 OF THE CURRENT FISCAL YEAR, AND IN THOSE INSTANCES WHERE A PURCHASE ORDER HAS BEEN ISSUED, BUT NO PORTION OF THE PROJECT HAS BEGUN, THE PURCHASE ORDER IS TO BE CANCELED AND RE-ISSUED UNDER THE APPLICABLE CONTRACT.