



**TETON COUNTY**  
**BOARD OF COUNTY COMMISSIONERS**  
**AGENDA • AUGUST 30, 2019**

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**Special Meeting**

**1st Floor Meeting Room**

**9:00 AM**

**150 Courthouse Dr, Driggs, ID 83422**

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**1. CALL TO ORDER**

Approve Agenda

**2. SPECIAL TOPIC**

A. Action Item: Approval of Short-term GIS Intern

B. ACTION ITEM: Approval of Aerial Imagery Contract with Aero-graphics Geospatial Services

**3. ADJOURNMENT**

Adjourn



August 27, 2019

Rob Marin  
**Teton County Idaho**  
 150 Courthouse Drive, Room 107  
 Driggs, Idaho 83422

Subject: Orthorectified Imagery for Teton County, Idaho

Dear Rob,

Per our recent conversations, I have prepared the following brief proposal to provide 4-band color orthorectified imagery for the entire County limits.

### **SCOPE OF SERVICES**

Aero-Graphics will furnish the following services and products:

- Ground control survey.
- Digital 4-band color aerial photography acquisition flown at a ground sample distance (GSD) of 15cm.
- 4-band color orthorectified imagery in .TIF format at a 0.5' pixel resolution, furnished on portable hard drive.

### **TECHNICAL POINTS**

#### Target Placement and Control Surveying

Prior to photography, Aero-Graphics will target and survey the 11 aerial control points shown in RED in the attached KMZ file. Control will tie to Idaho State Plane Coordinates. Horizontal datum shall be NAD 83 (2011); Vertical datum shall be NAVD 1988. Working units shall be in US Survey Feet. Targets will be 1' wide x 6' arms. Targets will be in contrast with the ground and clearly visible from the air. Monuments will be flush with the ground (or otherwise noted in the control listing). Photo-IDs may be used in lieu of targets if necessary.

Horizontal and vertical control for all points will be accurate to within 5 cm. Aero-Graphics will provide a Survey Control Report to Teton County in XLS format with the following information included: NAD83 Latitudes, NAD83 Longitudes, Project Eastings, Project Northings, and Elevations

#### Digital Aerial Photography Acquisition

A turbocharged Cessna T310R aircraft equipped with an UltraCam Eagle digital camera will be used for this project. This camera is equipped with forward motion compensation, high-resolution optics, airborne GPS capability and an Applanix inertial measurement unit. It also is equipped with a computer controlled GPS guidance system. Digital 4-band color imagery will be acquired at a ground sample distance (GSD) of 15cm. Nominal overlap will be 60% forward and 30% side. To support the airborne GPS flight, Aero-Graphics will utilize Trimble's Centerpointe PP-RTX technology. Accurate ground data will be used to post process the airborne GPS data to yield air point coordinates for each exposure accurate within  $\pm 0.2'$ .

Analytical Aerotriangulation

Fully analytical digital aerotriangulation will be used to extend full control for each stereomodel.

Orthoimagery Compilation

High-end Dell 64-bit workstations will be used to process the orthorectified imagery. To ensure horizontal accuracies commensurate with the requirements of this solicitation, the surface model used on previous projects will be used as a basis for image rectification. We will make modifications to improve any part of the surface that would not produce an ortho meeting project specifications. Some of these improvements would include removing points from buildings and generally correcting surfaces that would warp the ortho and adding breaklines where necessary, especially on bridges and overpasses.

Upon completion of QA/QC of the surface modeling, the digital imagery will undergo automatic orthorectification in a one-step batch process using Inpho's OrthoMaster software. Aero-Graphics takes great advantage of Inpho's distributed processing features. This allows multiple idle workstations to process vast amounts of ortho tiles simultaneously, which greatly expedites turnaround time.

Orthorectified imagery will be manipulated in OrthoVista software to compute subtle radiometric adjustments that compensate for visual effects within individual images. Furthermore, OrthoVista performs a block-wide color balance by adjusting adjacent images to match in color and brightness. Tonal differences are not detectable between individual images.

Multiple orthophotos are combined into one seamless, color balanced and geometrically-perfect ortho mosaic. 4-band color RGBI image files will be delivered for the 451-square mile area at a 0.5' pixel resolution in uncompressed 24-bit TIFF and MrSID formats, with associated world files, on portable hard drive. Imagery will be clipped per a predefined tile schema. Files will be tone matched to optimize image quality throughout the project. An overall MrSID mosaic of the project area will also be delivered at a 1' pixel size.

**ACCURACY**

Well-defined planimetric features discernable and visible in the imagery will be accurate to within ± 5' horizontally.

**SCHEDULE**

Data acquisition ..... Completion within one week after award, weather/backlog permitting  
Ortho imagery ..... Completion within 6 weeks after photography

**PRICING**

Lump sum ..... \$31,000.

Pricing is valid for 90 days. Terms are Net 30 with monthly invoices submitted for completed work.

In the event any party to this agreement defaults in the performance of any of its obligations and duties hereunder, including without limitation the payment of any fees due hereunder, such defaulting party agrees to pay all costs and expenses, including reasonable attorney's fees and expenses, incurred by the non-defaulting party in exercising, pursuing, or protecting any right or

remedy available to it as a result of such default, or in interpreting or enforcing any term of this Agreement, whether such costs and expenses are incurred prior to, during, or subsequent to any arbitration, litigation, bankruptcy, reorganization, receivership, appellate, or other proceeding.

If you are in agreement with this proposal, and would like Aero-Graphics to proceed with this project, please sign and return this proposal, keeping a copy for your records.

Should you have any questions or require further information, please call me at 801-428-3102.

Yours truly,

AERO-GRAPHICS, INC.



Kelly Francis, CP, PMP  
President

Accepted by:

Date: \_\_\_\_\_

By: \_\_\_\_\_ (Name) \_\_\_\_\_ (Signature)

PO #: \_\_\_\_\_

Attachment: Aero-GraphicsContract \_2019 (Aero-graphics Aerial Imagery Contract Approval)