

REQUEST FOR BOARD ACTION
HENDERSON COUNTY
BOARD OF COMMISSIONERS

MEETING DATE: 20 March 2013

SUBJECT: Advancement of costs of digital aerial mapping of Seven Falls subdivision site

PRESENTER: Charles Russell Burrell

ATTACHMENT(S): Yes

1. Proposal for digital mapping
2. Budget Amendment

SUMMARY OF REQUEST:

William Lapsley, the engineer working with the County for the Seven Falls subdivision guarantee project, recommends that the County immediately advance the funds necessary (\$14,800.00) to obtain digital aerial mapping of the site as it now exists. This will enable the engineer a far greater degree of precision in describing the work (for contract bidding purposes) and in estimating the costs of the work to be done on the site as it now exists (as opposed to how it existed prior the degradation that has occurred since the developer stopped work). The greater precision in describing the work will likely save more funds (in future change orders) than expended here.

It is anticipated that the Courts will ultimately allow reimbursement of the County for this expenditure from the surety bond proceeds, such that this should be viewed and accounted for as an advancement of funds, and not as a final expenditure.

Immediate approval of this proposal is recommended so as to allow remedial work (stabilizing the site) to be proposed to the Court and accomplished (once approved) at the earliest possible time, allowing site stabilization to be obtained during the optimum season for the same, ultimately lowering the total expenditures required (that is, enabling more of the work to be done from the bond proceeds).

County staff will present further information on this matter.

BOARD ACTION REQUESTED:

Approval of the advancement.

If the Board is so inclined, the following motion is suggested:

I move that the Board approve the proposal attached to this agenda item, and make payment of \$14,800.00 for the work to be done, as an advancement against the surety bond proceeds collected in the Seven Falls subdivision matter.



1008 Hutton Lane, Suite 109
High Point, NC 27262
Phone: (336) 841-1247
Fax: (336) 841-1248
www.spatialdc.com

February 8, 2013

Mr. William G. Lapsley, P.E.
William G. Lapsley & Associates, PA
214 North King Street
Hendersonville, NC 28792

RE: Seven Falls Subdivision (SDC REF # I-13009)

Bill:

Spatial Data Consultants, Inc. is pleased to submit the following proposal.

GROUND CONTROL

Targeting and GPS control survey will be accomplished using appropriate techniques to provide horizontal and vertical control. This control will be in accordance with the configuration on the attached project flight and control point diagram and will be furnished by Spatial Data Consultants, Inc.

DIGITAL AIRBORNE IMAGERY

Digital aerial imagery will be obtained using an Intergraph DMCI-140 Digital Airborne Sensor with forward motion compensation. Upon notice to proceed and weather permitting, 3 flight lines totaling 21 exposures of color (RGB) aerial imagery will be flown of the site at 4,200' AMT (ground sampling distance of 0.33'). Upon completion of the photographic mission, the digital imagery will immediately be processed and reviewed to verify that flight tracking and coverage are correct.

ANALYTICAL AERO-TRIANGULATION

Fully analytical aero-triangulation will be performed to both verify the existing ground control and extend the ground control network for absolute orientation of the stereo-models. This task will be accomplished utilizing our Intergraph Image Station Softcopy Workstations with Image Station Photogrammetric Manager (ISPM) and Image Station Automatic Triangulation (ISAT) software. Tolerances for the final RMSE of the control points will be 1/10,000 of the flying height above mean terrain elevation.

DIGITAL MAPPING

Digital mapping of the area indicated the attached diagram will be captured at a scale of 1"=100' with a 2' contour interval as requested by William G. Lapsley & Associates, P.A. This digital mapping will be accomplished utilizing our Image Station Softcopy Workstations with Image Station Stereo Display (ISSD), Image Station DTM Capture (ISDM) and Image Station Feature Collection (ISFC) software. All visible planimetric features appropriate for this scale of mapping will be captured.

OPTIONAL: DIGITAL ORTHOPHOTOGRAPHY

Color-RGB Digital Orthophotography of the area designated on the attached diagram can be produced at 0.5' pixel resolution. This Digital Orthophotography will be produced utilizing our Intergraph Image Station Softcopy Workstations using Image Station OrthoPro (ISOP), GeoMedia Pro and Inpho OrthoVista software.

DELIVERABLES

- 1) Digital files delivered in AutoCAD Format (Separate DTM and Plan-Topo files)
- 2) Optional: Digital Orthophoto Tiles and or Mosaic in TIFF and MrSID Formats

STANDARDS OF ACCURACY

Mapping will conform to National Map Accuracy Standards. Ninety percent of all well-defined planimetric features will be plotted to within 1/40 inch of their true coordinate position. No well-defined feature will be in error by more than 1/20 inch.

Ninety percent of all contours on well defined, non obscured surfaces will be within 1/2 of the contour interval. In areas where the ground is obscured, dashed or shaded lines will represent contours indicating questionable accuracy. Ninety percent of all spot elevations will be correct within 25% of the specified contour interval and none shall be in error by more than 50% of the contour interval.

All digital mapping compiled under this scope will comply with North Carolina Administrative Code 56.1606 (21 NCAC 56.1606). SDC shall include as part of the final mapping deliverables a certification statement.

DELIVERY SCHEDULE

All digital mapping will be delivered within 30 days after receiving the aerial photography and appropriate ground control.

COST SCHEDULE

The lump sum fee for providing the services described above and deliverable products is:

Thirteen Thousand Eight Hundred Dollars **(\$13,800.00)**

The lump sum fee for providing the optional services described above and deliverable products is:

Four Hundred Dollars **(\$400.00)**

INVOICE AND PAYMENT TERMS

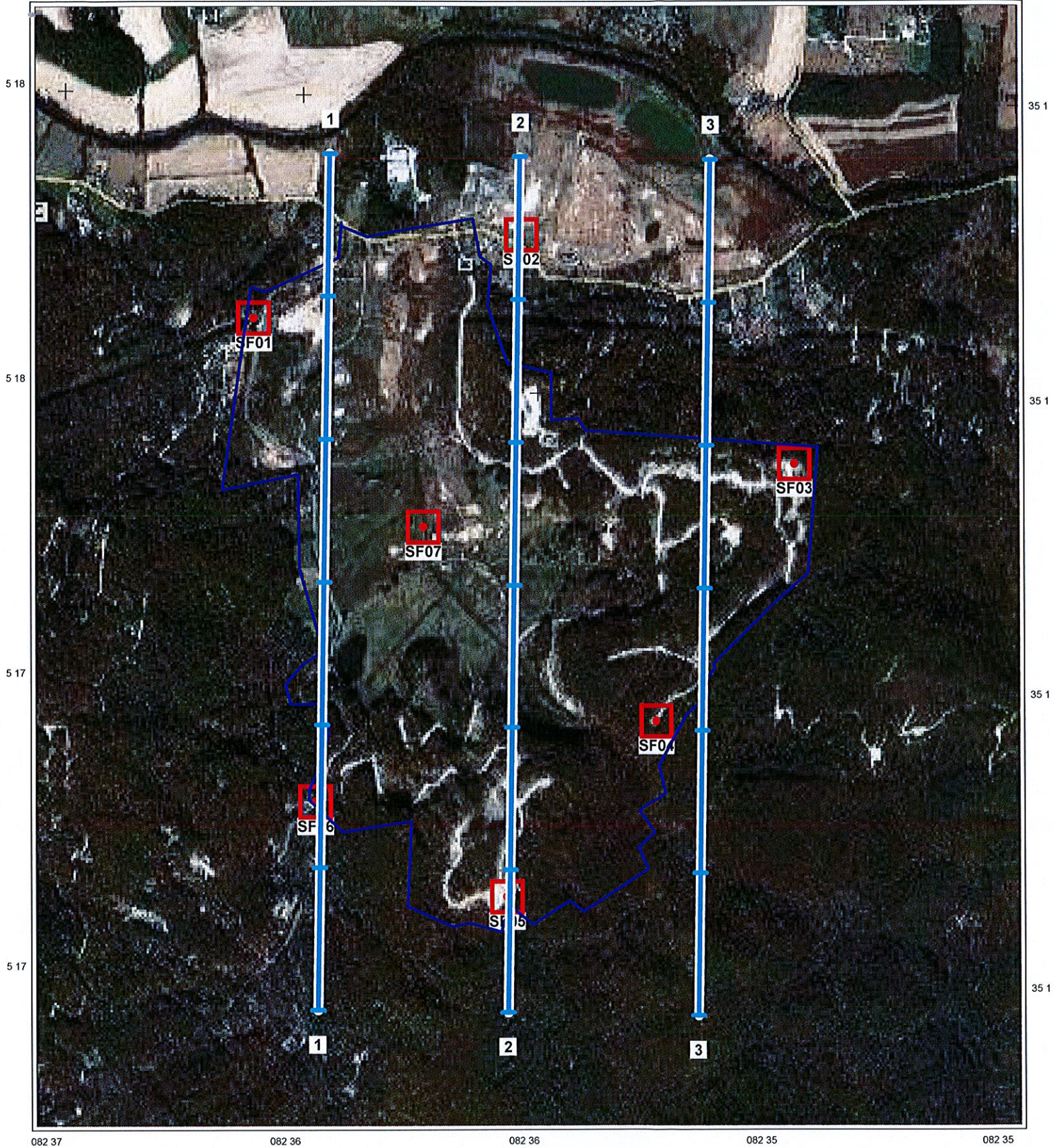
Invoice payment terms are net due in 30 days. A late fee of 1.5% of the unpaid balance will be charged after 30 days (18% per annum). Fees for aerial photography, photographic lab products, and ground control services will be invoiced as the work is performed. Mapping work in progress will be invoiced monthly based on percent of work completed. Progress reports or interim deliverables will accompany invoices as appropriate.

We look forward to working with you and your staff on this project. Please feel free to call with any questions or to discuss the particulars of this project.

Best Regards,



Mark S. Schall, CP, PLS, PPS, SP
Chief Professional Officer



I-13009

I-13009_FP-DMCII_4200_V2

Project No:	Seven Falls Subdivision	Lateral overlap:	50%
Client name:	-	Forward overlap:	60%
Plot scale:	1/16000	Total lines:	3
Altitude:	4199 feet	Total models:	18
Photo scale:	1/13915	Total photos:	21

Date planned: 2/7/2013



