# **CONTRACT COVERSHEET**

NOTE: Shaded areas are for County Executive review.

	526
Sign	rcout

Land Information Office	CONTRACT/ADDENDUM #: 12850A	
This contract, grant or addendum: ☑ AWARDS ☐ ACCEPTS	Contract Addendum	
2. This contract is discretionary ☐ YES ☑ NO	original contract number  POS	
3. Term of Contract or Addendum: From: 9/1/2016 To: 12/31/2019	Co Lesse Co Lessor	
4. Amount of Contract or Addendum \$159,300.00	-, - <b>-</b>	
5. Purpose: This is an addendum to contract 12850 for the development of digital aerial-imagery and digital terrain data for Dane County and Fly Dane Partners.	Intergovernmental Purchase of Property Property Sale Other:	
6. Vendor or Funding Source: Ayres Associates		
7. MUNIS Vendor Code: 606		
8. Bid/RFP Number: <b>116040</b>		
9. If grant: Funds Positions?	atching funds? YES NO	
10. Are funds included in the budget? ☑ YES ☐ NO		
11. Account No. & Amount, Org. & Obj. LIO 57472  Account No. & Amount, Org. & Obj. Account No. & Amount, Org. & Obj. Amount \$ Amo		
12. Is a resolution needed: YES NO If "YES," please attach a copy of If Resolution has already been approved by the County Board, Resolution No. &		
13. Does Domestic Partner equal benefits requirement apply? ☑ YES ☐ NO	2000 arida	
14. Director's Approval		
CONTRACT REVIEW/APPROVALS	VENDOR	
Comporation Counsel   Comporation	Vendor Name & Address  Ayres Associates 5201 E Terrace Dr Suite 200 Madison, WI 53718  Contact Person Kirk Contrucci Phone No. 608.443.1213  E-mail Address ContrucciK@AyresAssociates.com	
Footnotes:		
	and Information Office  D Martin Luther King Jr Blvd, Rm 339	

	e attached contract: (Check as many as apply)			
$\checkmark$	conforms to Dane County's standard Purchase of Services Agreement form in all respects			
	conforms to Dane County's standard Purchase of Services Agreement form with modifications and is accompanied by a revision copy <sup>1</sup>			
	is a non-standard contract which has been reviewed or developed by corporation counsel which has not been changed since that review/development			
	is a non-standard contract previously reviewed or developed by corporation counsel which has been changed since that review/development; it is accompanied by a revision copy <sup>1</sup>			
	is a non-standard contract not previously reviewed by corporation counsel; it is accompanied by a revision copy			
	contains non-standard/indemnification language which has been reviewed or developed by risk management and which has not been changed since that review/development			
	contains non-standard insurance/indemnification language which has been changed since review/development or which has not been previously seen by risk management; it is accompanied by a revision copy			
	contains non-standard affirmative action/equal opportunity language which has been reviewed or developed by contract compliance and which has not been changed since that review/development			
	contains non-standard affirmative action/equal opportunity language which has been changed since the earlier review/development by contract compliance or which has not been previously seen by contract compliance; it is accompanied by a revision copy <sup>1</sup>			
Dat	re:Signed:			
Tel	Signed:Signed:Signed:			
	AJOR CONTRACTS REVIEW (DCO Sect. 25.20) This review applies only to contracts which both exceed 00,000 in disbursements or receipts and which require county board review and approval.			
\$10				
\$10 <b>EX</b>	00,000 in disbursements or receipts and which require county board review and approval.			
\$10 <b>EX</b>	DO,000 in disbursements or receipts and which require county board review and approval.  ECUTIVE SUMMARY (Attach additional pages, if needed).  Department Head  Contract is in the best interest of the County.  Describe any deviations from the standard contracting process and any changes to the standard Purchase of			
\$10 <b>EX</b>	Department Head  Contract is in the best interest of the County.  Describe any deviations from the standard contracting process and any changes to the standard Purchase of Services Form Agreement.  Signature:  Signature:			
\$10 EX	Department Head Contract is in the best interest of the County.  Describe any deviations from the standard contracting process and any changes to the standard Purchase of Services Form Agreement.  Date:  Director of Administration  Contract is in the best interest of the County.  Signature:  Director of Administration  Contract is in the best interest of the County.			
\$10 <b>EX</b> 1.	Department Head Contract is in the best interest of the County.  Describe any deviations from the standard contracting process and any changes to the standard Purchase of Services Form Agreement.  Director of Administration  Cuttor and which require county board review and approval.  Describe and approval.  Signature:  Director of Administration  Contract is in the best interest of the County.			

<sup>&</sup>lt;sup>1</sup>A revision copy is a copy of the contract which shows the changes from the standard contract or previously revised/developed contract my means of overstrikes (indicating deletions from the standard language) and underlining (showing additions to the standard language).

#### ADDENDUM OF AGREEMENT

**THIS ADDENDUM,** made and entered into effective as of the date by which both parties hereto have executed this document, by and between the County of Dane (hereinafter referred to as "County") and Ayres Associates (hereinafter, "Provider").

#### WITNESSETH:

WHEREAS Provider and County, by a separate document (hereinafter, the "Master Agreement"), Purchase of Services Agreement No. 12850, have previously entered into a contractual relationship pursuant to which Provider for the purpose of acquiring photogrammetric services and products, and

**WHEREAS** County has been awarded a US Geological Survey, 3D Elevation Program (USGS 3DEP) grant for the development of enhanced digital terrain data and.

WHEREAS County and Provider wish to amend the Master Agreement in order to increase the project cost and amend the project specification to comply with the additional terrain data requirement specified by the USGS 3DEP grant award and

**WHEREAS** County and Provider wish to amend the Master Agreement in order to increase the project cost because additional imagery has been requested by a Fly Dane Partner and.

**NOW, THEREFORE,** in consideration of the above premises and the mutual covenants of the parties hereinafter set forth, the receipt and sufficiency of which is hereby acknowledged by each party for itself, the parties do agree as follows:

- 1. The Master Agreement shall remain in full force and effect unchanged in any manner by this addendum except as changes are expressly set forth herein. This addendum shall control only to the extent of any conflict between the terms of the Master Agreement and this addendum.
- 2. Maximum Cost is increased by \$159,300.00 to \$498,050.00.
- 3. Revise a portion of section A.2 AERIAL IMAGERY to the following
  - A.2.1 Base Project
    - A.2.1.13 All imagery will be referenced to WISCRS Dane County Coordinates, NAD83(11) horizontal datum.
- 4. Revise section A.3 TERRAIN DATA to the following and delete section A.3.2.
  - A.3.1 Base Project
    - A.3.1.1 LiDAR will be acquired in spring 2017, after snow melt (no ice on lakes), in leaf off conditions before leaves emerge on the trees, cloud free.
    - A.3.1.2 A LiDAR dataset that meets Quality Level 2 (QL2) specifications for point spacing and vertical accuracy.

- A.3.1.3 Nominal point spacing (NPS) of 0.7 meter, including overlap.
- A.3.1.4 LiDAR acquisition will be flown with an average of 30% overlap between swaths.
- A.3.1.5 All datasets will be referenced to WISCRS Dane County Coordinates, NAD83(11) horizontal datum and NAVD 88 (geoid 12B) vertical datum.
- A.3.1.6 County-wide, contour smoothing, cartographically pleasing 1-foot contours, tiled by section and edge matched. Delivery format will be Esri shapefiles.
- A.3.1.7 Process and classify the calibrated LiDAR data to support bare earth surface model generation. The point cloud format will be LAS format. The calibrated LiDAR point cloud will be classified to the following base classification scheme:

Class 1: Processed, but unclassified

Class 2: Bare-earth ground

Class 7: Low Noise

Class 9: Water

Class 10: Ignored ground (breakline proximity)

Class 17: Bridge Decks

Class 18: High Noise

- A.3.1.8 Add automated classification of LiDAR point cloud (.las) data to include high vegetation and building classes. No manual editing will be completed.
  - Use automated routines to classify vegetation points that exist 10 feet or greater above the ground. The high vegetation points will be placed in Class 5 of the classified point cloud.
  - Use automated routines to classify building points that exist 10 feet or greater above the ground. The building points will be placed in Class 6 of the classified point cloud
- A.3.1.9 County-wide, LiDAR point cloud of bare-earth points (.las) by tile.
- A.3.1.10 County-wide bare-earth terrain surface Digital Elevation Model (DEM) by tile.
- A.3.1.11 County-wide, LiDAR point cloud of first-return points (.las) by tile.
- A.3.1.12 County-wide first-return terrain surface Digital Surface Model (DSM) by tile.
- A.3.1.13 Prepare LiDAR intensity images using first return values within the LiDAR point cloud. The intensity images will be delivered as 8-bit, 256 color gray scale, GeoTIFF format images.
- A.3.1.14 Deliver calibrated Raw Swath Point Cloud (.las).
- A.3.1.15 Countywide hydrographic breaklines will be collected for all double line streams and rivers greater than 8ft wide.
- A.3.1.16 Countywide hydrographic breaklines will be collected for all ponds that are 1 acres are larger.
- A.3.1.17 2-D, countywide forest canopy polygon dataset will be created with an automated process on the LiDAR, no manual edits will be done.
- A.3.1.18 Tile the LiDAR deliverable products according to a 4,500-foot by 4,500-foot tile index across the project area. A tile schematic will be delivered in ESRI Shapefile format.
- A.3.1.19 Prepare FGDC compliant Metadata.
- A.3.1.20 Prepare reports for the LiDAR acquisition and processing phases of the project. Reports will include:
  - Data Collection report with flight logs.
  - Survey report detailing the collection of ground control for calibration.
  - Processing report detailing classification and breakline methodology, product generation, and QC procedures.

- Vertical accuracy assessment of the raw swath point cloud and the DEM.
- Boundaries of product extents.

## 5. Add section A.7

### A.7 **GRANT FUNDING**

The COUNTY and PROVIDER agree that if State or Federal grant funding, for elevation data development are not provided, they will renegotiate the terms, conditions and deliverables specified in this contract addendum.

6. Revise section B.2 TERRAIN DATA to the following and delete section B.2.2.

#### B.2.1 Base Products

Total Fees not to exceed ......\$400,550.00

The following price breakdown is for the county wide project (1,253 miles<sup>2</sup>)

Product:	Unit:	Fee:
Classified LiDAR point cloud (.las) data	1 mile <sup>2</sup>	\$250.00
County-wide contour smoothed, cartographically pleasing 1-foot contours	County- wide	\$15,000.00
County-wide LiDAR cloud for bare-earth, classified points (.las)	1 mile <sup>2</sup>	Included
County-wide LiDAR cloud for first-return, classified points (.las)	1 mile <sup>2</sup>	Included
County-wide bare-earth digital elevation model (DEM)	1 mile <sup>2</sup>	Included
County-wide first-return digital surface model (DSM)	1 mile <sup>2</sup>	Included
Intensity image	1 mile <sup>2</sup>	Included
Automated building & high vegetation classification	County- wide	\$40,000.00
Countywide 8ft streams and 1 acre ponds hydro break lines	County- wide	\$28,200.00
County-wide forest canopy (polygons)	County- wide	\$4,100.00
USGS data submittal and documentation		Included
Dane County documentation		Included

- 7. Revise section C.1 STUDY REPORTS to the following.
  - C.1.3 The PROVIDER will supply COUNTY with reports for the LiDAR acquisition and processing phases of the project. Reports will include:

- Data Collection report with flight logs.
- Survey report detailing the collection of ground control for calibration.
- Processing report detailing classification and breakline methodology, product generation, and QC procedures.
- Vertical accuracy assessment of the raw swath point cloud and the DEM.
- Boundaries of product extents

# 8. Revise section C.3 TIMELINE to the following.

# C.3.1 The PROVIDER will complete the project on the following schedule.

Task	Approximate Time Frame
Fly Dane Partner Meeting	February 2017
Imagery flight plan finalized	February 2017
Control Layout	February 2017
Establish ground control and targeting (imagery)	February-March 2017
Imagery Acquisition	March-April 2017
Establish ground control and targeting (LiDAR)	March-April 2017
LiDAR Acquisition	April 2017
SBET development	April 2017
Surface Model Comparisons	April 2017
Analytical aero-triangulation	April 2017
Imagery acquisition acceptance	<b>M</b> ay 2017
Orthophotography production 6-inch, *3-inch	May-August 2017
Automated LiDAR Processing	<b>M</b> ay 2017
Ortho-rectification surface development from updated surface	May 2017
LiDAR acquisition acceptance	June 2017
Pilot area imagery production	June 2017
Pilot area imagery delivery and review	June 2017
Imagery quality review by the county	July-August 2017
Pilot area LiDAR production	July-August 2017
Final orthophotography delivery of 6-inch	August 2017
Pilot LiDAR tiles delivery and review	August 2017
Processing of LiDAR data and derivative products production	August 2017 – January 2018
Final delivery of LiDAR and derivative products	February 2018
Submittal to USGS for data review and acceptance.	February 2018

**IN WITNESS WHEREOF,** the parties, by their respective authorized representatives, have set their hands and seals as of the dates set forth below.

	FOR COUNTY:
Date Signed:	JOSEPH PARISI, County Executive
Date Signed:	SCOTT MCDONELL, County Clerk
Date Signed: 2/4//7	FOR PROVIDER:  KIRK M CONTRUCCI, Vice President