01/30/2024



To: Scott County Board of Supervisors From: Ray Weiser, GIS Coordinator

Re: 2024 Regional Aerial Project

Scott County is not static. Human activities and natural forces continuously reshape our environment. As a tool to help manage this change, local governments across Iowa employ the use of aerial imagery, typically updating it in 2-5 year cycles. Scott County last flew aerials in April of 2019. It has been used to support the functions of several departments and is a key resource for constituents and local businesses.

In cooperation with the Bi-State Regional Commission, Scott County participated in a consortium of local governments to acquire new spring 2024 orthophotography and related photogrammetric products. Participation in the larger consortium provides savings due to economies of scale, shared costs for RFP development, adjacent community overlap, and joint funding opportunities.

DCI, Inc. provided RFP development and procurement services for the consortium and two firms responded to the RFP. After a thorough selection process including a technical ranking of RFP responses and on-site interviews, the consortium recommended the Surdex Corporation, the same firm that was hired by the consortium for the 2019 flight. In summary, Surdex scored very well with their 2024 technical proposal, offers lower pricing for the same services, and has a proven track record with the Consortium.

The photogrammetric products/services in the Surdex contract include:

- 3-inch (0.25 ft.) resolution natural color orthophotography.
- Ground control surveys including target paneling.
- QA/QC testing according to National Standard for Spatial Data Accuracy (NSSDA) guidelines.

For more information, please refer to the attached Contract Agreement. I respectfully recommend approval of the Contract Agreement with the Surdex Corporation in the amount of \$65,305 to acquire updated aerial imagery and related services.

Sincerely,

Ray Weiser GIS Coordinator

Encl: Contract Agreement, Letter of Resolution



Scott County, Iowa Geographic Information Systems Information Technology Department

CONTRACT AGREEMENT

Bi-State Regional Aerial Mapping Project – Spring 2024

Scott County, Iowa

Date

January 22, 2024



SUBMITTED TO

Darrel Inskeep Ray Weiser

darrell.inskeep@scottcountyiowa.gov ray.weiser@scottcountyiowa.com

SUBMITTED BY

Jack King

Business Development Representative Mobile: (601) 405-4070 Office: (636) 368-4400 Email: Jack.King@surdex.com

Physical address: 520 Spirit of St. Louis Blvd. Chesterfield, MO 63005 Mailing address: P.O. Box 3980 Chesterfield, MO 63006-3980



PROJECT AREA

The project area includes approximately 553 square miles located in Scott County, lowa, and the surrounding area. The exact area of interest (AOI) is shown on the boundary diagram later in this proposal. Prior to mobilization of acquisition assets and production, Surdex will require confirmation of the contractual project limits.

DIGITAL AERIAL PHOTOGRAPHY

Surdex aircraft will capture aerial photography of your area of interest. Each aircraft is equipped with high-precision digital aerial mapping sensors. The acquisition plan will be designed to achieve photogrammetric accuracies based on the known requirements in the Bi-State Regional Aerial Mapping Project – Spring 2024 contract and generally accepted industry practices. Surdex's image sensors are equipped with forward motion compensation and gyro-mount sensor leveling features. To supplement the required photogrammetric ground control, all aircraft and sensors are equipped with Global Navigation Satellite System (GNSS) navigation and Inertial Navigation System (INS) technology. Surdex's direct digital sensors capture Panchromatic (PAN), Red, Green, Blue (RGB) and near Infrared (IR) bands simultaneously. Processing and delivery of supplemental image bands is available upon request for an additional charge.

Acquisition Conditions: Surdex will acquire imagery when the sky is free of clouds, cloud shadows and atmospheric haze, generally between 10:00 a.m. and 2:00 p.m. and/or when the sun angle is greater than 30 degrees.

GROUND CONTROL SURVEYS

Surdex will perform ground surveys to support this geospatial data production project. This surveying will be performed to an accuracy and density required to support the mapping project requirements.

TRIANGULATION

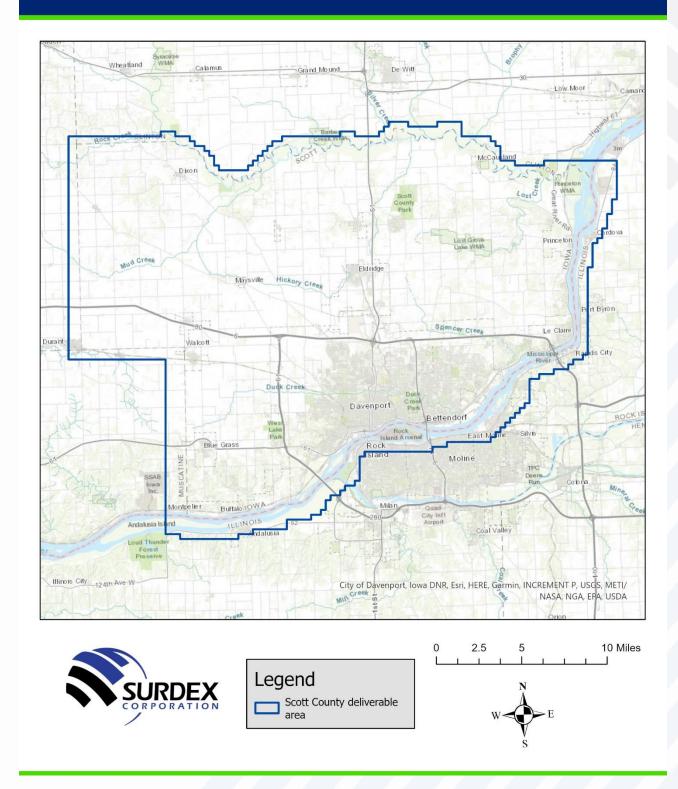
All aerial imagery collected for this project will be processed through an analytical triangulation solution that is controlled to ground survey points.



Bi-State Regional Aerial Mapping Project - Spring 2024



BI-STATE REGIONAL AERIAL MAPPING PROJECT - SPRING 2024 SCOTT COUNTY, IOWA





ORTHOIMAGERY MAPPING

Surdex will produce digital orthorectified aerial image tiles consistent with the shapefile area of interest (AOI) and tile layout provided by Scott County. The orthoimage tiles will be provided at a horizontal scale of 1"=50' at a ground resolution of 0.25'. Unless specifically requested in writing, Surdex reserves the right to utilize, if available, any existing elevation model deemed suitable for orthorectification to meet the contractual accuracy requirements as stated. If suitable elevation data is not available, Surdex will generate a new elevation model using manual and automated photogrammetric techniques. If requested, Surdex will deliver the elevation model used in the orthorectification process. To improve efficiency of client acceptance, Surdex may provide, at its discretion, seamline data for reference. Standard image format shall be GeoTIFF and JPEG 2000. Additional image formats are available. An additional charge may be required for additional formatting or processing.

PRODUCT ACCURACY

The products provided under this proposal will meet or exceed the horizontal and/or vertical accuracies as listed below.

IMAGERY ACCURACY REQUIREMENTS				
GSD	HORIZONTAL ACCURACY	CONFIDENCE LEVEL		
0.25'	1.5'	95%		

Scott County, Iowa

Bi-State Regional Aerial Mapping Project - Spring 2024



SCHEDULE

	SCHEDULE		
TASK	START DATE	END DATE	
	ORTHOIMAGERY		
SURVEY PLANNING / CONTROL	February 15, 2024	March 1, 2024	
FLIGHT ACQUISITION	March 15, 2024	April 20, 2024	
AEROTRIANGULATION	March 20, 2024	April 30, 2024	
ORTHO PRODUCTION	April 30, 2024	October 31, 2024	
ORTHO PILOT DELIVERABLES	May 20, 2024		
PRELIM DELIVERY + CLIENT REVIEW	August 31, 2024	September 30, 2024	
ORTHO FINAL DELIVERABLES	October 1, 2024	October 31, 2024	
	LIDAR		
SURVEY PLANNING / CONTROL	February 15, 2024	March 1, 2024	
FLIGHT ACQUISITION	February 1, 2024	February 28, 2024	
LIDAR PRODUCTION	March 1, 2024	May 15, 2024	
LIDAR PILOT DELIVERABLES	March 15, 2024		
PRELIM DELIVERY + CLIENT REVIEW	April 1, 2024	April 30, 2024	
LIDAR FINAL DELIVERABLES	May 1, 2024	May 15, 2024	

Scott County, Iowa

Bi-State Regional Aerial Mapping Project – Spring 2024



FEE SCHEDULE

FEE SCHEDULE		
Services	SPECIFICATIONS AND DELIVERABLES	PRICE
AERIAL IMAGE ACQUISITION	For 0.25' GSD imagery	\$28,543
COLOR DIGITAL ORTHO TILES	0.25' GSD color orthoimagery 1"=50' mapping scale	\$33,611
NGS DATUM CHANGE (2026)*	For 0.25' GSD color digital ortho tiles (above)	\$2,400
	Base product	\$0
ESRI ARCGIS TILE CACHE	NGS datum change (2026)*	\$500
MRSID COMPRESSED IMAGERY	Base product	\$0
	NGS datum change (2026)*	\$250
TOTAL		\$65,304

*To be paid after completion

**Total to be determined based on final service selections

Proposal is good for Sixty (60) days from date of proposal.

DELIVERY ITEMS

The following delivery items are included in the fee schedule. Additional acquisition and/or QA/QC reports, as well as ground control data, can also be provided as appropriate.

Digital Orthoimagery

- Aerial triangulation report (including ASCII file of all points, two hardcopy reports, and one PDF report)
- Flight photo index in geo-referenced AutoCAD and Esri shapefile formats
- Surface model in Esri 3D shapefile and ASCII formats (upon request)
- Orthoimagery tiles in uncompressed GeoTIFF and compressed JPEG 2000 formats
- MrSID gen 4 compressed imagery (OPTION)
- Esri ArcGIS tile cache (OPTION)
- FGDC-compliant metadata in XML and HTML formats

Scott County, Iowa

Bi-State Regional Aerial Mapping Project – Spring 2024



SURDEX CORPORATION

SCOTT COUNTY, IOWA

A	R. C. Hoffmann	
Signature		Signature
Date	1/22/2024	Date

HELP US PREVENT PAYMENT FRAUD – Surdex will adhere to the original payment processing method in our contract. Surdex will not contact you to change payment processing methods. Surdex requests all questions or concerns be directed to Surdex Corporation, Accounting.

Scott County, Iowa

Bi-State Regional Aerial Mapping Project – Spring 2024



TECHNICAL PROPOSAL

SURDEX CORPORATION

Bi-State Regional Aerial Mapping Project - Spring 2024

Section 10: Cost Proposal Forms

10.1 2024 Scott County COST PROPOSAL FORM

Vendors are requested to submit costs per Item as listed below considering and incorporating all specifications, considerations, and requirements previously set forth in this document.

After the final project vendor selection has been made; Scott County may modify their scope of services to negotiate a revised contract amount.

See Attachment "11.2" for the 2024 Scott County extents.

Base Cost	<u>Cost per Sq/mi</u>	Total Cost
 Item 1: Aerial Image Acquisition 3,000ft AMT flights. See Section 3.10 for Deliverables. 	_{\$} 70.69	_{\$} _28,543
 Item 2: Color Digital Ortho Tiles 0.25ft GSD pixels Flight Coverage – 403.78 sq mi (5,003 tiles). Deliverable area – 553.36 sq mi (6,856 tiles). See Section 4.7 for Deliverables. Uncompressed GeoTIFF & Compressed JPEG 2000. Rural Ortho Pilot Project. (See Section 7.1) 	_{\$} 83.24	_{\$} 33,611
 Item 3: NGS Datum Change (2026) Work to be completed after NGS releases NATRF2022 mid See Section 1.4 and Section 4.3.3 	l-year 2025.	\$ <u>2,400</u>
Options		
 Item 4: ESRI ArcGIS Tile Cache Countywide including Davenport and Bettendorf Deliverable area – 553.36 sq mi (6,856 tiles). See Section 4.7.7 for Deliverables. 		\$ <u>0</u>
NGS Datum Change (2026)		_{\$} 500
 Item 5: MrSID Compressed Image Countywide Including Davenport and Bettendorf Deliverable area – 553.36 sq mi (6,856 tiles). 		\$ <u>0</u>
 See Section 4.7.5 for Deliverables. NGS Datum Change (2026) 		_{\$} 250

Please note: All digital products shall be delivered on USB 3.0 external thumb drives.

This document was prepared by Dan Corbin, Inc. for use by the Bi-State Regional Commission

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Bi-State Regional Aerial Mapping Project - Spring 2024



TERMS AND CONDITIONS

The following terms and conditions are incorporated in and together with the proposal become a part of the contract between Client and Surdex Corporation ("Surdex"). Both parties agree as follows:

REQUEST FOR PROPOSALS: BI-STATE REGIONAL AERIAL MAPPING PROJECT SPRING 2024

The specifications and requirements of both the 08/30/2023 Request for Proposals (RFP), Bi-State Regional Aerial Mapping Project Spring 2024 and the Surdex Proposal submitted on 09/29/2023 for the referenced RFP are all included in the terms and conditions for this contract.

This contract includes a one-year warranty period following the final deliveries.

ACCESS

Client shall arrange for access to and make all provisions for Surdex to enter upon all public and private lands as required for Surdex to perform its services.

INVOICES / PAYMENT SCHEDULE

Client is solely responsible for payment of services; payment will in no way be conditional upon Client receipt of payment from another party. Payment schedule is to be:

- Payment due within 30 days of invoice date.
- 60% due upon completion of acquisition, 40% due upon final delivery.

TERMS / INTEREST / LATE PAYMENT

Payment shall be due 30 days after receipt of an invoice. Interest shall accrue on past due invoices at the rate of 1½ percent per month (18% per annum), or the maximum rate allowed by law, whichever is less, from the date that payment was first due.

Payments shall be applied first to accrued interest and then to unpaid principal. Client agrees to pay Surdex's fees, costs, and other reasonable expenses, including attorney's fees, incurred in any efforts to enforce any provision of this Agreement, including efforts to compel payment of past due amounts.

If a project is inactive for more than 45 days, Surdex may suspend the services and bill Client for all services performed to date.

TAXES

If Client does not provide evidence of tax exempt status prior to commencement of any services by Surdex, then Client shall be responsible for any and all taxes in connection with such services.

SURDEX'S INSURANCE REQUIREMENTS

Surdex shall maintain in force throughout the term of this Agreement insurance of the types and in the minimum amounts set forth below.

- WORKERS COMPENSATION: Statutory Coverage, including Employer's Liability with minimum limits of \$1,000,000.
- COMMERCIAL GENERAL LIABILITY: \$2,000,000 Combined Single Limit per occurrence for Bodily Injury, Personal Injury, and Property Damages, including Contractual Liability covering Surdex's indemnification obligations in this Agreement.
- COMPREHENSIVE AUTOMOBILE LIABILITY: \$1,000,000 Combined Single Limit per accident including any auto, all owned autos, hired autos and non-owned autos.
- 4) PROFESSIONAL LIABILITY: \$2,000,000.

5) AIRCRAFT LIABILITY: \$10,000,000, if aircraft are employed.

6) VALUABLE PAPERS: \$150,000.

INDEMNITY

Surdex agrees to indemnify, defend and hold Client harmless from and against any and all claims, demands, suits, damages, and costs (including attorney' fees and cost of defense) due to bodily injury or property damages arising directly out of Surdex's negligence, but only to the extent that such indemnity is covered by Surdex's CGL or Professional Liability insurance.

As a material part of the consideration to Surdex, Surdex assumes all risk of damage to its property or injury to persons, including its agents, contractors and employees in performance of Services hereunder, and Surdex hereby waives all claims in respect thereof against Client, except for any claim arising out of Client's negligence or willful misconduct. As used in this Section, the term "Client" shall include Client's employees, agents and contractors, if applicable, and "Surdex" shall include Surdex's employees, agents and contractors, if applicable.

Client agrees to indemnify, defend and hold Surdex harmless from and against any and all claims, demands, suits, damages, and costs (including attorney' fees and cost of defense) due to bodily injury or property damages arising directly out of Client's negligence.

Scott County, Iowa

Bi-State Regional Aerial Mapping Project – Spring 2024

TESTING

This contract includes a minimum 9-month window after completion of the services to perform field testing.

Client shall independently verify the accuracy of Surdex's services prior to using or relying on the same (or providing the same to others for any reason), and in an event no later than six (6) months after completion of the services (the "Claim Period").

If Client fails to take commercially reasonable efforts to verify the accuracy of Surdex's services as required herein, then Client shall be deemed to have waived all claims and rights of recovery against Surdex.

RIGHT TO CURE

If Client discovers errors in the deliverables within the Claim Period, Client shall promptly notify Surdex, and Surdex shall have the right to correct or repair for ninety (90) days after receipt of Client's notice (or such longer period if 90 days is insufficient) at Surdex's sole cost.

LIMITATION OF LIABILITY

To the fullest extent permitted by law, Surdex's total aggregate liability to the Client arising out of this Agreement, whether arising in contract, warranty, tort (including negligence), strict liability, or otherwise, is limited to the Total Price paid to Surdex for this contract.

In the event of timely notice of any deficiencies, Surdex's liability extends only to correcting Surdex-related deficiencies and will in no case exceed the original fee, nor will it include any subsequent costs incurred by the client or others; said warranty does not extend to services, data, or control information provided by the client.

NOTWITHSTANDING ANYTHING TO THE CONTRARY, NEITHER CLIENT NOR SURDEX SHALL BE LIABLE TO THE OTHER FOR, AND EACH EXPRESSLY WAIVES THE RIGHT TO RECOVER, CONSEQUENTIAL, INDIRECT, PUNITIVE, SPECIAL OR EXEMPLARY LOSSES OR DAMAGES, WHETHER ARISING IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO LOSSES OF USE, PROFITS, BUSINESS, REPUTATION OR FINANCING.

OTHER

Any services being provided to Client by Surdex may be terminated by either party upon ten (10) business days' prior written notice, and in such event Surdex shall be paid by Client for all services performed up to and including the termination date, including reimbursable expenses.



FORCE MAJEURE

Neither Client nor Surdex shall be liable to the other for damages or delay in performance caused by acts of God, weather, strikes, labor disputes, accidents or any other event beyond the control of the other or its employees and agents.

ARBITRATION

All disputes arising out of or relating to this Agreement shall be decided by arbitration, in accordance with the rules of the American Arbitration Association. The prevailing party shall be awarded attorneys' fees and costs.

OWNERSHIP OF WORK PAPERS

Surdex agrees that all materials, reports, drawings, studies, specifications, estimates, maps, computer data tapes, computations and other materials prepared by or for Client under the terms of this Agreement shall upon proper payment by Client to Surdex become the property of the Client. However, any processes, procedures, programs, software, or similar practices of Surdex, whether developed prior to or during the project, shall remain the property of Surdex until sold or licensed to Client for its use or use by others for separate compensation. Client shall not alter the same in any manner and shall waive any claim against Surdex and shall, to the fullest extent permitted by law, indemnify, defend, and hold Surdex harmless from any claim or liability for injury or loss arising from unauthorized alteration of Surdex's work product.

CONFIDENTIALITY

Surdex shall keep confidential all information obtained from and designated as confidential by Client and shall not divulge any confidential information concerning the Project to any person or entity (other than Surdex's subcontractors, employees or other persons or entities to the extent necessary to complete the services) unless written approval is granted by the Client or as ordered by a court of competent jurisdiction.

GOVERNING LAW

This Agreement shall be governed by and construed in accordance with the laws of the State of Iowa. Should a conflict of terms arise from agreed to provisions, the terms of this agreement shall prevail.

EXECUTION

Upon signing of this document, this Agreement shall be binding upon and inure to the benefit of the parties hereto, their successors and assigns.

THE COUNTY AUDITOR'S SIGNATURE CERTIFIES THAT THIS RESOLUTION HAS BEEN FORMALLY APPROVED BY THE BOARD OF SUPERVISORS ON

DATE

SCOTT COUNTY AUDITOR

RESOLUTION

SCOTT COUNTY BOARD OF SUPERVISORS

FEBRUARY 1, 2024

APPROVAL OF CONTRACT WITH SURDEX CORPORATION FOR ACQUISITION OF 3" DIGITAL ORTHOPHOTOGRAPHY.

BE IT RESOLVED BY the Scott County Board of Supervisors as follows:

- Section 1. That the contract in the amount of \$65,304 with the Surdex Corporation for acquisition of 3" countywide orthophotography products and services is hereby approved.
- Section 2. That the Chairman is hereby authorized to sign said agreement.
- Section 3. This resolution shall take effect immediately.