

The Sanborn Map Company, Inc. 1935 Jamboree Drive, Suite 100 Colorado Springs, CO 80920 www.sanborn.com

March 18, 2025

Mr. Gary Zaepfel Technology Coordinator / Technology Services Washoe County, Nevada 1001 E. Ninth Street, Building C. 200 Reno, NV 89512-2845

Re: Sanborn Scope of Work

Dear Mr. Zaepfel:

Please find the Scope of Work (SOW) below for insertion into the contract.

Ortho Imagery Collection Project and Ground Control

The project collection is planned to take place in the Spring of 2025, 2027, and 2029. Project Area-A Area of Interest (AOI) is approximately 1,556 square miles of 6-inch ortho imagery in State Plane Coordinate System, Nevada West Zone. There will be 20 ground control points collected. The project area, flightlines and ground control points are depicted below.



Project Area-A Year 2025, 2027, and 2029 totaling approx. 1,556 sq. mi.

2-Foot Contour and Spot Elevation

2-foot contours, spot elevations, break lines, and Z-values in ESRI shapefile, and AutoCAD DWG formats will be generated for Project Area-C for 24 square miles depicted below. For the ESRI format, every fifth contour shall be attributed as an index contour, intermediate contours shall be attributed as such, and depression and obscured contours shall be attributed as such. In the AutoCAD DWG format, every fifth contour shall be labeled and symbolized as an index contour. Index contour labeling is to be read from lower elevations looking upwards. Intermediate contours shall be symbolized differently from index contours. Depression and obscured contours shall be distinctly symbolized.

Coordinate System, Datums, and Unit of Measure

- Coordinate System: All contours, and spot elevation data must be in the State Plane Coordinate System, Nevada West Zone.
- Horizontal Datum: All contours, and spot elevation data must be referenced horizontally to the North American Datum (NAD) 1983 HARN.
- Vertical Datum: All contours, spot elevations, and other vertically referenced information must be referenced to the North American Vertical Datum of 1988 (NAVD88).
- Unit of Measure: U.S. Survey Foot for horizontal and vertical units.

<u>Accuracy</u>

The 2-foot contours will meet a vertical accuracy over open terrain of 1.19 feet at 95% confidence interval and the spot elevations will meet a vertical accuracy over open terrain of 0.6 feet at 95% confidence interval as specified in the FGDC's Geospatial Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA).



Project Area-C

Orthophoto Accuracy

The orthophoto product for Project Area A will meet or exceed a horizontal accuracy of 3.8 feet at 95% confidence interval (2.2 feet RMSE) as specified in the Federal Geographic Data Committee's (FGDC) Geospatial Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA).

Orthophoto File Naming Convention

TIFF format example:

- T17NR19ESec18.tif Township // 17N, Range 19E, Section 18 TIFF image
- T17NR19ESec18.tfw // World file associated with the TIFF image

ECW format example:

- T17NR19ESec18.ecw // Township 17N, Range 19E, Section 18 ECW image
- T17NR19ESec18.eww // World file associated with the ECW image

List of Deliverables

- Natural color digital orthophotos at 6-inch pixel resolution of Project Area-A in GeoTiff format
- Natural color digital orthophotos at a 6-inch pixel resolution of Project Area-A in ECW format
- 2-foot contours, spot elevations, and break lines with Z-values in Esri file geodatabase and AutoCAD DWG formats over the ~24 square miles of Project Area-C
- Required reports
- Data can be provided via Hard Drive and/or FTP

Additional Web Based Services Include

- Sanborn Flight AnalystTM Software Service
- QuickView Webservice Software Service
- Sanborn Image QCTM Software Service

Estimated Delivery Schedule

The delivery schedule is below. Please note: this schedule is dependent on the execution of contract, final SOW, weather, and ground conditions appropriate for imagery acquisitions. The quick view of the georeferenced unprocessed vertical imagery will be available within 14 days of the imagery being collected.

Project Schedule				
Project Kickoff				
Contract executed	TBD			
Project kickoff meeting	14 days			
Flight plan approval	7 days			
Aerial Acquisition & Ground Survey				
Imagery and survey Acquisition (Weather dependent)	25 days			
Process & QC Aerial Imagery (reflight calls)	25 Days			
Orthoimagery, contours, and DEM Production - 1,556 square miles				
Auto Triangulation (AT) & Ortho DEM Generation	65 days			
County review of ortho AT and survey reports	5 days			
Full orthoimagery & products production	65 Days			
County review of orthoimagery	20 Days			
Final correction and delivery of orthos, contours, and DEM (if needed)	20 Days			
County approval	10 Days			
Reporting & Status Updates				
Project status updates (email)	Weekly			
Check-in meetings (Conference call)	Weekly or bi-weekly, as requested			
Acquisition and control report	30 days following acquisition			
Final project report	15 Days following County acceptance of final delivery			

Project Fees

Flight Year Spring 2025			
Product	Sq. Miles	Cost	
6-Inch Ortho Imagery	1,556	\$101,140.00	
DEM	1,556	\$0.00	
ECW Mosaic	1,556	\$0.00	
2ft Contour	24	\$18,586.32	
	Total Cost	\$119,726.32	

Flight Year Spring 2027 (5% Discount)			
Product	Sq. Miles	Cost	
6-Inch Ortho Imagery	1,556	\$96,083.00	
DEM	1,556	\$0.00	
ECW Mosaic	1,556	\$0.00	
	Total Cost	\$96,083.00	

Flight Year Spring 2029 (10% Discount)			
Product	Sq. Miles	Cost	
6-Inch Ortho Imagery	1,556	\$91,026.00	
DEM	1,556	\$0.00	
ECW Mosaic	1,556	\$0.00	
	Total Cost	\$91,026.00	

<u>Terms</u>

Sanborn's proposal is valid for acceptance for 90 calendar days from the date of submittal. Payment terms shall be 30 days following receipt of Sanborn's invoices. Sanborn proposes a milestone invoice schedule in coordination with the delivery schedule:

- 10% upon survey and flight plan approval
- 30% upon acquisition completion
- 20% upon AT report delivery
- 30% upon initial orthophoto imagery delivery
- 10% upon final acceptance

Sanborn is willing to negotiate other terms for invoicing if the above is untenable to the County.

<u>Quality</u>

As a company with ISO 9001:2015 certified quality control procedures, Sanborn will ensure that all deliverables provided to the County adhere to both high aesthetic quality and spatial accuracy standards.

Data consistency and quality is of critical concern for every project. All Sanborn offices are ISO 9001:2015certified and adhere to the strict Total Quality Management (TQM) system, ensuring a production workflow that produces exceptional quality. This is accomplished through rigorous quality testing of the interim dataset(s) at all phases of the production process, and closed loop feedback communications with production staff to ensure our staff meet customer expectations and understand the County's specifications. Sanborn places an emphasis on problem prevention rather than dependence on detection after occurrence. Sanborn management will exercise tight control over the project, and coordinate our efforts with those of the County's management and staff to ensure that this project is completed on time, to specification, and within budget.