



Champaign County
City of Champaign
City of Urbana
University of Illinois
Village of Rantoul
Village of Mahomet
Village of Savoy
Village of St Joseph

EagleView Project Quality Expectations & Image Specifications

Quality Expectations

1. Completeness

Imagery covers the specified geographic extent, with no omissions or corrupt data.

2. Ground Pixel Resolution

Ground pixel resolution must meet the specified resolution for the project.

3. Tonal Balancing

Ortho-imagery should have uniform contrast and tone across the image tiles of the entire project. Changes in color balance across the project, if they exist, should be gradual and minimal. Abrupt tonal variations between tiles are not acceptable.

4. Saturation

Ortho-imagery should be free from oversaturation or undersaturation as a result of image processing or histogram manipulation.

5. Cloud/Smoke/Haze

No clouds or cloud shadow should appear in the ortho-imagery. Smoke or exhaust from man-made structures may be unavoidable but should be minimized whenever possible.

6. Shadows

The length of shadows should be minimized by capturing during periods of sun angle ≥ 30 degrees. Any shadows which are present in ortho-imagery must not be so dark that they obscure image content.

7. Building Lean/Tilt

Building or other features exhibiting lean may not extend over adjacent roadways, sidewalks or parking lots.

8. Seamlines/Feature Clipping

Mosaic seamlines which run through buildings and above-ground transportation structures should be avoided to the greatest extent practical. Structures impacted by a seamline may not result in any misalignment of roof features or breaks in the roof outline.

Features on the ground should also be evaluated for gaps and feature alignment along seam lines and at tile boundaries. Misalignment, especially those present in transportation features such as roads, highways, and rail between adjacent images, must be corrected.

9. Warped/Wavy Features

Ortho-imagery should not contain any warped features. Building/structure, bridge, or road features that which deviate from their apparent path may indicate bad elevation data.

10. Smearing/Blur/Distortion

Ortho-imagery should be free of smears, blurs, excessive glare or noise.

11. Image Artifacts/ Data Corruption/Void Areas

Image artifacts, corruption, compression artifacts, and void areas including those which are introduced during the production process must not appear in the final ortho-imagery.

Image Specifications

Absolute Horizontal Accuracy

Produced to meet American Society for Photogrammetry and Remote Sensing (ASPRS) - https://www.asprs.org/wp-content/uploads/2015/01/ASPRS_Positional_Accuracy_Standards_Edition1_Version100_November2014.pdf

GSD	RMSE _{xy}	Max Seamline Mismatch
6in (15cm)	12in (30cm)	24in (60cm)
4in (10cm)	8in (20cm)	16in (40cm)
3in (7.5cm)	6in (15cm)	12in (30cm)
2in (5cm)	6in (15cm)	12in (30cm)
1in (2cm)	6in (15cm)	12in (30cm)

Project Reporting

- Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) compliant metadata.
- Project report in accordance with state and local requirements including signed & sealed “produced to” accuracy statement

Seam Artifacts

- There will be no obvious seam edges between two adjacent orthophotos
- Ortho-mosaic will have edits to eliminate feature misalignment caused by seamlines which pass through features above the elevation surface including roads. Feature alignment across seamlines will be 3px or better.

Building and Bridge Lean

- Correction of bridges
- Correction of major buildings obstructing roadways