Accuracy Report (ft)

ROCK Ultra - Stillwell Construction Site (08/12/2025)

Date:	2025-08-26 04:02:21
Project Date:	2025-08-12 05:16:52
Location	28.321384917156, -82.33501621525
Lidar	ROCK Ultra

Powered by ROCK robotic

Overview

This accuracy report describes the relationship between the ground control points and the LiDAR data. Each GCP is placed on the LiDAR data and a Z deviation is determined. The RMS takes into account the roughness of the LiDAR data to give a higher weight to GCP points on smoother surfaces.

Project Description

ROCK Ultra — Plan simpler. Fly higher. Map faster.

Experience the ROCK Ultra in action during our Demo Tour—mapping unique industrial features alongside natural landscapes. At this Central Florida mixed-use site, the Ultra captured open pasture, dense tree cover, and a massive grain silo with its conveyor system rising nearly 180 feet. Unlike previous flights with lower-altitude systems, the Ultra cleared obstacles effortlessly while still delivering sharp detail on both structures and ground features.

By flying higher and faster, the ROCK Ultra eliminated concerns about clipping obstacles like silos or transmission lines—while still delivering crisp, survey-grade data. The result is a safer, faster, and more flexible workflow, with no compromises in accuracy.

Dataset Highlights:
→ Collected By: D.C. Johnson & Associates – dcjohnson.com
→ Flight Height: 120+ meters (well above the silo)
→ Flight Speed: ~9 m/s (20 mph)
→ Capture Area: 77 acres
→ No optimization on final point cloud
→ Site: Grain silo + surrounding vegetation and pasture
→ Key Feature: Complete 3D modeling of tall industrial structures without flight path risk
→ Deliverables: Survey Grade surface Model via ROCK Pro Services

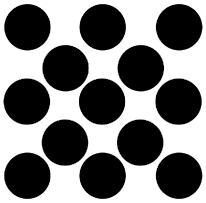
ℹ️ Learn more about the Ultra

Talk to a ROCK LiDAR expert

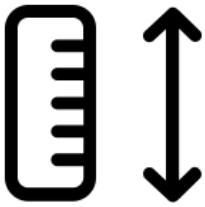
Horizontal Projection:	Vertical Projection:
NAD83 / Florida West (ftUS)	**NAVD88 height (ftUS)**
EPSG: 2237 **Unit:** ft	**EPSG:** 6360 **Unit:** ft

View the data: Click here or go to https://cloud.rockrobotic.com/project/118791.

GCP Accuracy Summary

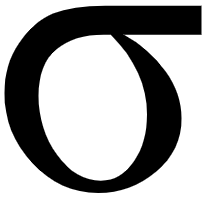


Point Density
50 points per sq ft

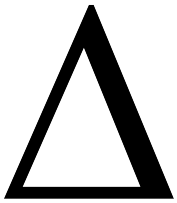


Vertical Accuracy
RMS
0.06 ft

Coverage
77 Acres



Standard Deviation
Elevation Delta
0.053 ft



Mean delta
in elevation
-0.028 ft

Ground Control Points

GCP Name	X	Y	Z-GCP (ft)	Z-LiDAR (ft)	Delta-Z (ft)	Disabled	Description
93010	547696.702	1449382.186	110.44	110.441	-0.001	No	AT ARROW GOOD ELEV
93011	547748.8	1450154.889	105.587	105.568	0.019	No	AT ARROW GOOD ELEV
93012	547780.13	1450527.253	101.402	101.504	-0.102	No	AT CHEV GOOD ELEV
93014	547781.38	1450566.45	101.171			Yes	AT CHEV GOOD ELEV
93015	547889.519	1450823.961	100.628			Yes	AT ARROW GOOD EL
93016	548919.44	1450835.966	99.629			Yes	AT ARROW GOOD EL