![USGS science for a changing world]

Project Definition: The entire collection for a contracted area.

Work Unit Definition: A production block of data defined by the National Geospatial Technical Operations Center due to expediency, priority or resource allocation. There can be one or many work units per project.

Project Information

Lidar Base Specification: Lidar Base Specification 2023 rev. A	**Primary Contractor:** NV5 Geospatial, Inc
Las Version: 1.4	**Contract Mechanism:** GPSC
P Method: 7 - Linear-Mode Lidar	
Collection Start Date: 04-20-2023	**Collection End Date:** 04-20-2023
The National Map Email: tnm_help@usgs.gov	

Vertical Accuracy Results

The U.S. Geological Survey evaluates absolute vertical accuracy of the lidar and lidar-derived bare earth DEM data at the project level

Lidar Point Cloud	Required NVA RMSEz (cm)	**Tested NVA RMSEz (cm)**	Required NVA at 95% confidence level (cm)	**Tested NVA at 95% confidence level (cm)**	Required VVA at 95th percentile (cm)	**Tested VVA at 95th percentile (cm)**
	5.0	**1.73**	9.8	**3.38**	N/A	**11.66**

Digital Elevation Model	Required NVA RMSEz (cm)	**Tested NVA RMSEz (cm)**	Required NVA at 95% confidence level (cm)	**Tested NVA at 95% confidence level (cm)**	Required VVA at 95th percentile (cm)	**Tested VVA at 95th percentile (cm)**
	5.0	**1.63**	9.8	**3.19**	15.0	**11.05**

Please see the vertical_accuracy folder within the project metadata for more information.

Classifications Used

Classification verification is limited to the minimum required by applicable Lidar Base Specification. Classifications beyond the minimum are not verified by USGS.	
Classification ID	**Classification Type**
1	Unclassified
2	Ground
4	Medium Vegetation
7	Low Point (Noise)
9	Water
17	Bridge Deck
18	High Noise
20	Ignored Ground

Sensor(s) Used

Sensor

Project Name: CA_SanFrancisco_B23

Report Date: 2024-07-23

Work Unit Information

CA_SanFrancisco_1_B23		Work Unit ID: 300449	Quality Level: 0
Horizontal EPSG Code: 7131		Vertical EPSG Code: 5703	Geoid Model: GEOID18
DEM Ground Sample Distance: 0.25		Hydro Treatment: hydro-flattened	
Collection Start Date: 2023-04-20		Collection End Date: 2023-04-20	

Project Name: CA_SanFrancisco_B23

Report Date: 2024-07-23