



GeoAI: Digitizing the Built Environment

Black & Veatch has developed a cost-effective way to capture, organize, and analyze data from infrastructure around the world. We provide transformative street-level imagery on-demand.



BLACK & VEATCH



What challenges does GeoAI solve?

Drone and satellite imagery is widely available, but it doesn't provide sufficient resolution for ground-based engineering work. Manual ground-based data collection and LiDAR scans are prohibitively expensive for most projects. No one has successfully provided access to ground-based data imagery collection—until now. The following are key benefits of GeoAI:

- Increased efficiency and speed of capture. Faster than manual collection means less time on-site; capable of capturing 100x more poles per day than traditional processes
- Lower cost. One-third the cost of traditional manual collection or LiDAR processes
- Remote site survey capabilities. Survey-grade topography and measurement accuracy performed without deploying on-site personnel
- Virtual design. Increased safety and accuracy with virtual assessments of existing conditions



CAPTURE
Collect
continuous,
current data



ORGANIZE
Make data
accessible
and useful



ANALYZE
Create
meaningful
insights

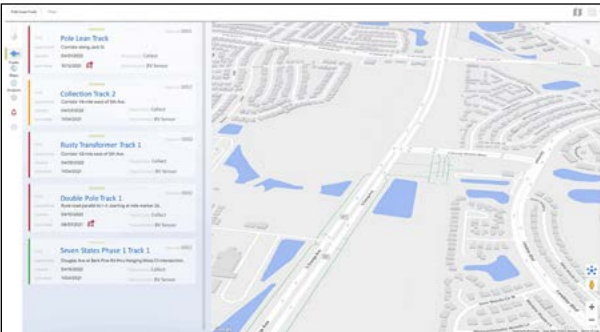
What is GeoAI and how does it work?

GeoAI creates high-resolution 3D images that allow you to measure anything within centimeter-level accuracy. “Data as a Service” products we offer include (but are not limited to):

2D and Panoramic Street Imagery

Imagery displayed through GIS mapping platform (Esri ArcGIS) and/or Black & Veatch’s online map platform for non-Esri users

- **Client types:** Any entities needing access to current street imagery licensed for commercial use
- **Sample use cases:** Site evaluation, machine learning models, research and analytics



Utility Pole Analysis

Tailored tool for performing analysis and measurements of distribution poles, lines, and equipment built upon 3D point cloud

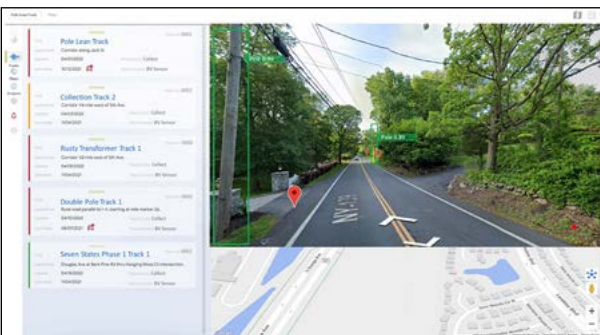
- **Client types:** Utilities/municipalities, third-party telecom/fiber installers, developers/EPC
- **Sample use cases:** 3rd party make-ready application review, pole loading programs, smart grid/distribution automation design



Roadside 3D Point Cloud

Street imagery and 3D point cloud provided in LAZ format; more affordable alternative to LiDAR road collection

- **Client types:** Road vendors, Department of Transportation (DoT), utilities/municipalities, third-party telecom/fiber installers, developers/EPC
- **Sample use cases:** Road conditions, easement/right of way analysis, clearance/sidewalk/ADA compliance, utility distribution, fiber deployment, roadside construction (pre/post inspections)



Geolocation and Asset Inventory

Geolocation, height measurements, and labelled 2D images for distribution pole asset inventory provided as map layer for Esri ArcGIS and database file

- **Client types:** Utilities/municipalities, third-party telecom/fiber installers, developers/EPC
- **Sample use cases:** Coordinate conflation, post-event fielding, preliminary site evaluation for deployments



Invisible. Invaluable.

The engineering industry is still using 20th century approaches to address 21st century problems, and data analysis is often an unseen hero in our modern world. Black & Veatch provides innovative solutions for today's engineering challenges, in ways that are affordable to a variety of clients. Contact us to learn how GeoAI can provide value to your business.

[Learn more @ bv.com](https://bv.com)

