

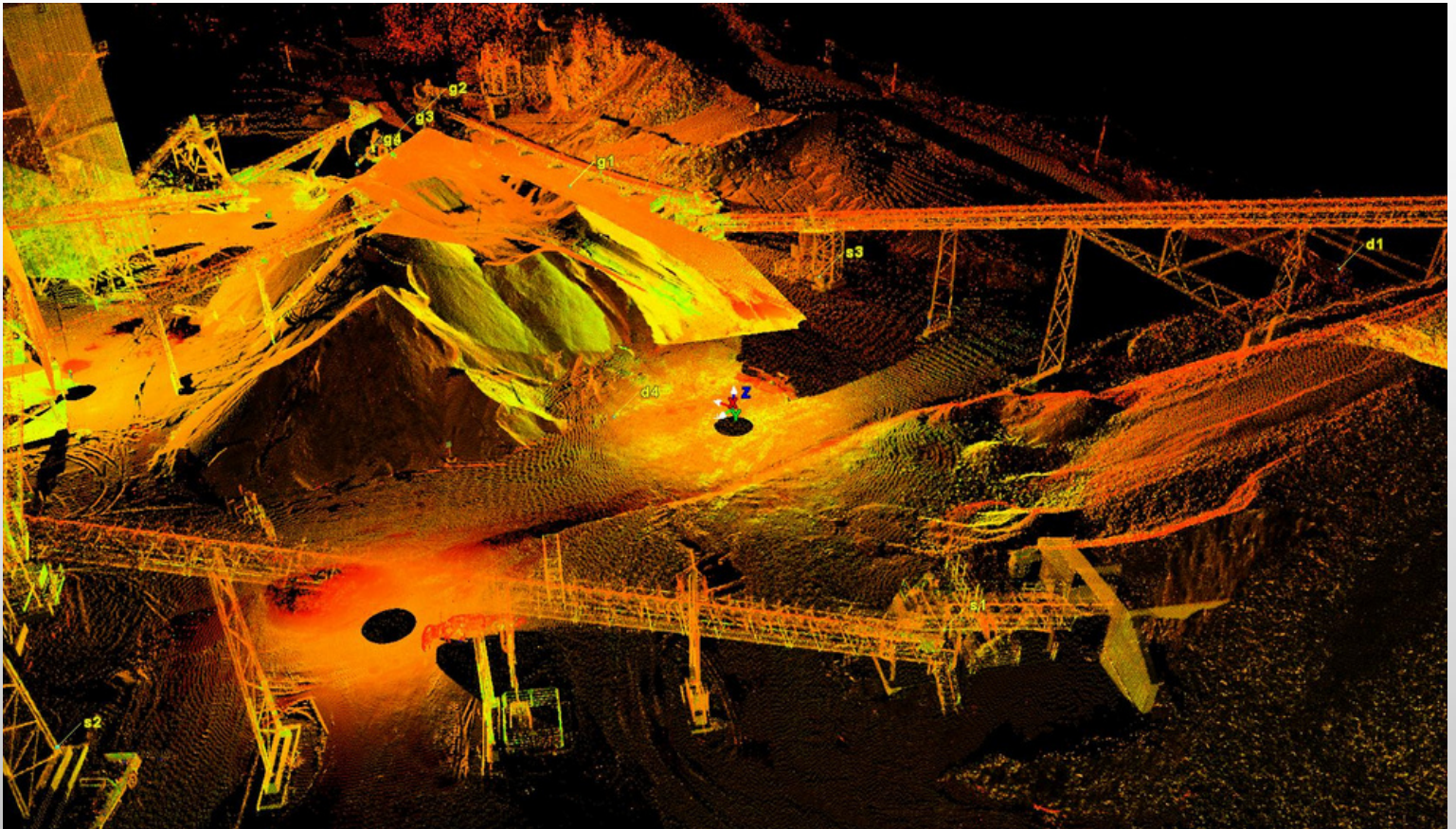


# LiDAR

Light Detection and Ranging

**Better and Faster survey  
data through leading  
technology.**

Save time and money mapping projects.



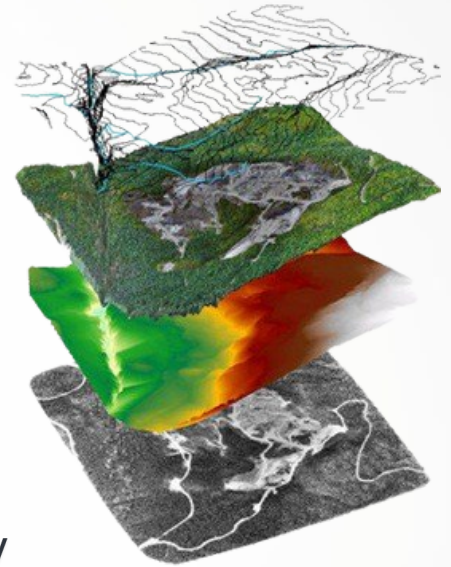
## The LiDAR Evolution

Over the last few years, the field of Land Surveying Industry has advanced faster than most other fields. There is still need for the surveying we all know of, collecting data with a pole, the industry is changing and has provided builders options never before imagined.

Our newest technology is more accurate, insightful, and processes much faster. This has allowed surveyors to better provide higher quality data faster, saving both time and money.

Smarter data produces smarter decision making, meaning that whatever the challenges you are facing, transforming data into actionable information is the answer. Wilson & Associates is structured to solve complex problems and maximize the application of smarter data.

Our clients deserve a partner that provides cutting edge technology now and in the future. Allow us to invest into the next generation of data collection so you can focus on growing your business.





## WA Leading LiDAR

Utilizing LiDAR (Light Detection and Ranging), Wilson & Associates can collect millions of 3D data points in real time to collect high-quality, accurate models of each project.

With this industry leading technology, we have many ways to collect any terrain your project may call for. This can be Aerial LiDAR to map large areas of land. Our mobile LiDAR units collect data at highway speeds. With Hydrographic units allow us to capture rivers, lakes, streams and harbors. Static LiDAR collection gives objects precise geospatial location to create design-quality surveys and densified point cloud data.

All of this allows for better, faster and much more efficient information.



## Aerial LiDAR goes beyond others

LiDAR can be used on unmanned aerial vehicles (UAV) to collect a larger data set. With our Aerial UAV fleet we have the ability to capture hundreds of acres at a time. Aerial LiDAR UAV mapping now makes surveying a possibility where it would have been extremely difficult or impossible in the past.

Wilson & Associates has been actively working in Aerial UAV Photogrammetry since 2014. The first company in the industry to obtain an F33 exemption in the state of Tennessee, W&A has four FAA Section-107 pilots who operate our four UAVs throughout the Southeast. We have flown hundreds of lane-miles of roadway projects for original ground and volume calculations, hundreds of stock piles for quarries and asphalt plants, and many sites for predesign information.

Our QA/QC process insures accurate topographic information is delivered to our clients on time and within budget. Our field tests, utilizing terrestrial-based LiDAR compared to Aerial UAV Photogrammetry, indicate the accuracy in volume of the UAV data to be within one to five percent of the terrestrial LiDAR.

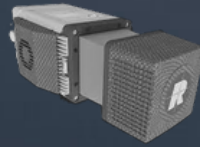
Combining Mobile LiDAR and Aerial data collection quickly and accurately gathers information to creates options and a complete frame work of your project.





"With Wilson & Associates' industry-leading drone mapping capabilities, the sky is the limit for you and your project."

-Eric Jager,  
Senior LIDAR Surveyor



### Riegl miniVUX-3UAV

The RIEGL miniVUX-3UAV is an extremely lightweight airborne laser scanner, designed specifically for integration with UAS/UAV/RPAS.



### Riegl miniVUX-1DL

The new RIEGL miniVUX-1DL is a sister device to the miniature UAV laser scanner RIEGL miniVUX-1UAV. The added indicator "DL" means "downward-looking"



## Drones

Wilson & Associates uses a group of M600 Pros carrying two different types of Riegl units.

## Riegl Scanner





## Mobile LiDAR is a driving force

Wilson & Associates uses Terrestrial Mobile LiDAR extensively for an array of roadway projects because it allows our teams to collect detailed survey data from a vehicle traveling along the highway at the posted speed limit.

The LiDAR system is easily mounted atop any of WA's fleet of vehicles. Because of the challenging environment, this structure allows our teams to scan vertically and horizontally with a level of detail that is unmatched compared to conventional land surveying. This is a powerful time saving strategy, which can be especially beneficial in schedule-critical jobs.

The Terrestrial Mobile LiDAR in summary is a powerful asset to utilize in an environment many projects are located.







## Hydrographic LiDAR Scanning

Hydrographic surveying is the practice of surveying physical underwater features of rivers, streams, lakes and harbors.

The echo sounder is mounted to a boat both large and small.

In other instances we have used weighted steel tapes and long rods with flat plate mounted on the bottom to physically measure the bottom of the water body. This method is ideal for smaller bodies of water like rivers and some reservoirs.

The ability to collect accurate, complete hydrographic information is especially critical, as below the-surface environments are always changing.



# We can help you!

For over 50 years, Wilson & Associates is a leader in implementing technology in the Land Surveying Industry. Our experience and industry veteran staff allows us to supply real value to our clients, ensuring the highest quality data, collected safely in less time, and frequently at a more cost-effective price for our clients.


To learn more about using the most cutting-edge geospatial technologies to save you both time and money, or to simply speak with Wilson & Associates leaders, please contact:



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Wilson & Associates has a culture of strategically investing into state-of-the art software and equipment. We continually assess and incorporate new technologies to ensure our clients' have available to them the cutting edge in surveying technology for completing projects accurately and in the most efficient manner.

Our culture is one of dedication, not being afraid to try new things and hard work. We are dedicated to safety by utilizing industry leading approaches and technologies to minimize all errors, supply the most complete and accurate results, and to ensure the safest work environment for all staff.

By our implementation of portfolio technologies, perpetual training, and self-auditing, we are always prepared for efficient data collection to keep all staff safe.



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**WILSON&ASSOCIATES, P.C.**



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Engineering & Surveying

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