# Why Does the UC Synergetic Team Cross the Road?

***Thanks to IKE 3* they don't!***

## Customer

UC Synergetic is a national engineering, technical services and consulting company based in Fort Mill, S.C. It has 34 offices located in 28 states including major cities such as Atlanta, Austin, Boston, Columbus, Dallas and Denver. It provides a wide array of engineering and project management services in all areas of electric and communication within the utility industries. UC Synergetic prides itself on being innovative in creating an engineered solution for it's clients and is not afraid to "think outside the box" when identifying the best solution.

## Challenge

A large electrical utility in the southeast United States, developed a program to upgrade its limited-access highway distribution line crossings along several major interstate highways running through North and South Carolina. There are approximately 1,200 such crossings that include on/off ramp areas. The primary concern is clearance over the travel lanes since new minimum clearances have been instituted by the local state government in its Utility Accommodation Manual.

Also of concern is the span length, or distance between two poles. The poles needed to meet "Grade B" construction requirements, which is a sturdier build to ensure the pole is stable in harsh weather conditions. However, these thoroughfares are very busy and have high-speed activity 24/7. Being able to send a team into the field to measure over-head conductors using the traditional methods of a Hasting Stick was not practical and very dangerous to the field crew.

### *Challenge*

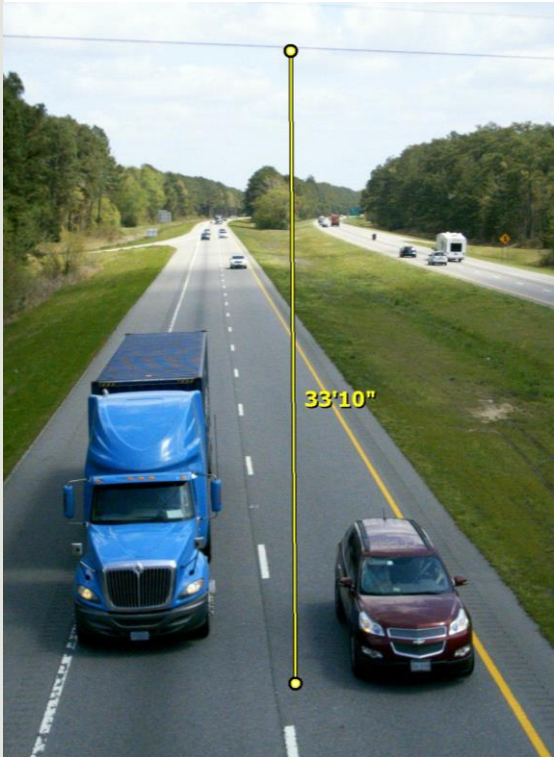
- Capture measurements on a busy interstate
- Collect accurate data without being next to the target

### *Solution*

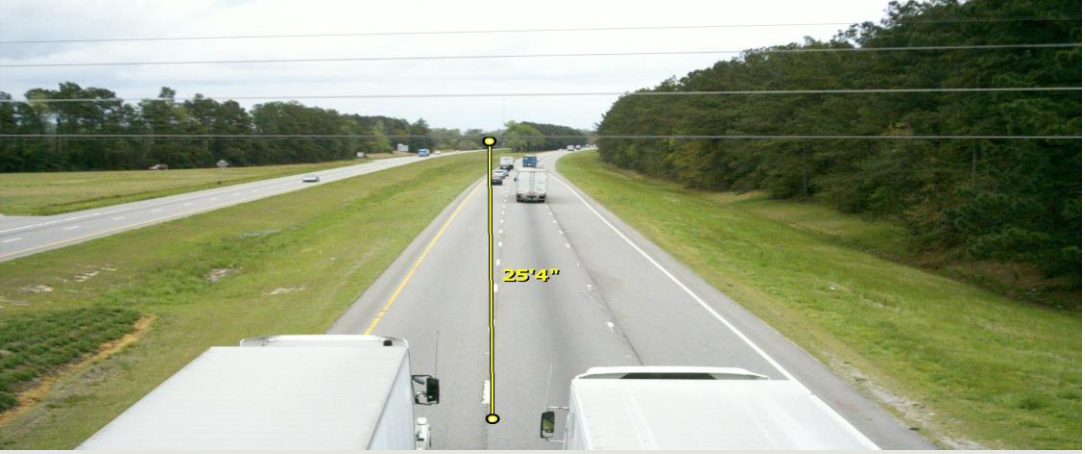
- One piece of equipment serves many functions
- Ability to capture needed data without affecting traffic flow

### *Results*

- Project on schedule
- Field team able to work safely




* IKE 3, *formally branded as GE MapSight™*




## Solution

UC Synergetic responded to the request from its client with the concept of using IKE, a digital field-data collection solution that combines a digital camera, sub-meter GPS, laser-range finder and compass into a single device. This unique blend of technology allows the user to stand at a safe distance from the pole and capture a calibrated image that provides height and width measurements of the object. It also has the capability to capture cable spans between poles and cable to the ground measurements within the context of an image.

The device offers the ability to create standardized forms when capturing data so that different team members using the device always follow the same format, and the workflow process ensures no information required for the project is accidentally skipped during the data capture process.

Even more importantly, once the data capture is complete, the information can be extracted into a number of report formats including XML, TWZ, SHP and KMZ, which could then be loaded into engineering software or back-end systems to help with the development of Make-Ready plans.

## Result

UC Synergetic is currently on schedule, within the second year of a six-year project, using the IKE technology to capture the needed field data in an accurate and safe manner. Use of IKE ensures there is minimal danger for the field team, and there is no need to close roads and impact traffic flows. The field team has designed its workflows to capture height, elevation, grade, full-pole and top-pole data. Using the pre-set form ensures that the data is captured correctly and completely the first time.

Once the field data is brought back to the office, engineering teams can use the IKE Desktop software to calculate additional attachment measurements and make annotations within the time-stamped IKE TrueSize image. Should there ever be a question about the compliance of a particular pole, this calibrated image can provide verifiable evidence relating to this particular asset and attachments.

Finally, the ability to extract the data in various reporting features allows for the contents to be uploaded digitally. This expedites what previously had been a very arduous and manual process that left a wide margin for human error. Make-Ready plans can be created quicker for any of the poles that don't meet compliance and safety specifications.

Learn more about IKE or download a free software trial at www.ikegps.com.

Have additional questions or prefer to see a live demo?

**303-222-3218**

**1-844-4-IKEGPS**

*"The real value of IKE is the option of measuring mid-span clearance from a safe location without putting our field techs in the travel lanes of the highway."*

**Ray Pigott, PE**
**Engineering Manager**
**UC Synergetic**