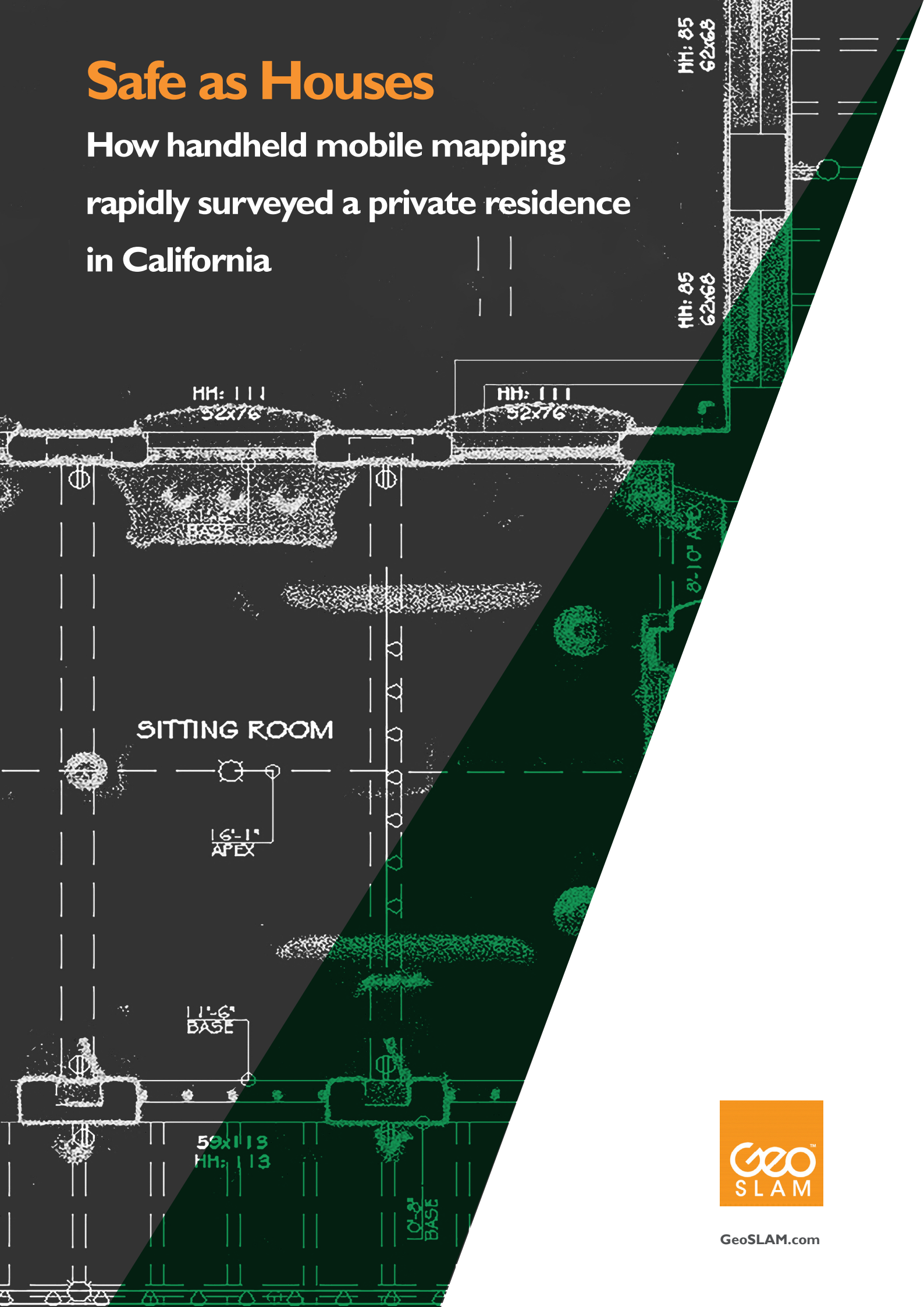


Safe as Houses

How handheld mobile mapping
rapidly surveyed a private residence
in California



GeoSLAM.com

Utilizing handheld, mobile mapping to rapidly survey a private residence in California

California-based Precision Property Measurements (PPM) were tasked with surveying a vast private house in order to generate accurate as-built construction drawings for renovation. The unique challenge was that the 20,000 sq. ft Santa Barbara residence was occupied at the time, requiring the survey to be completed quickly and in an unobtrusive manner.

The project team opted to use GeoSLAM's mobile mapping technology, as Director of Survey Technology Greg Davies explains;

“We chose the ZEB-REVO over other terrestrial scanners for our residential projects because of the speed and volume of data acquisition at exactly the level of accuracy required by our clients”

In order to keep disruption to residents to a minimum, the PPM team decided to tackle the task in two swift scans over two days. The first scan consisted of data collection of the extensive ground floor and communal areas, and took around 90 minutes to complete. The private, bedroom wing was off limits on this day.

The second scan incorporated these sleeping quarters, as well as gathering plenty of overlap



The survey team had limited time on site to undertake the full survey of the occupied residence

from the lower floors to enable the 2 scans to be merged. After just 140 minutes of scanning, the entire house had been surveyed.

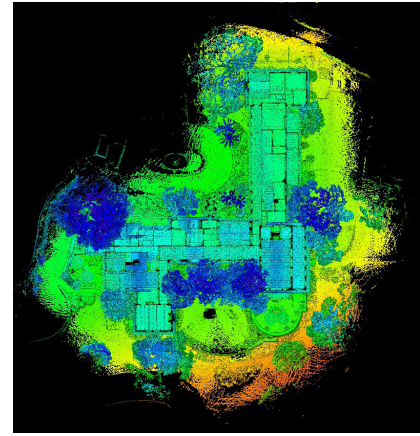
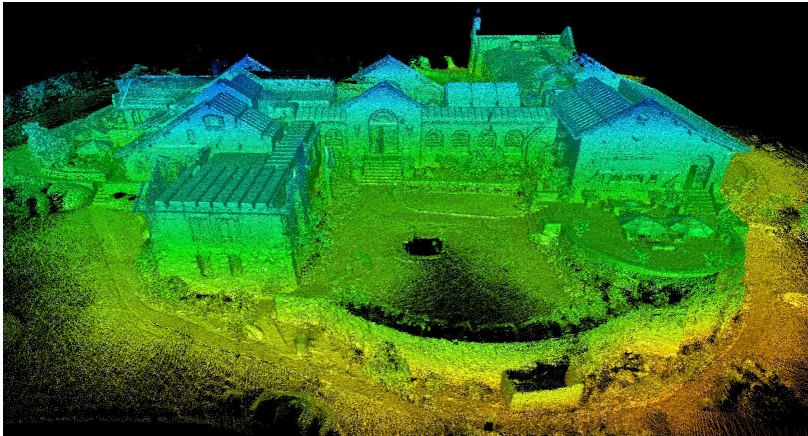
A typical residential property of this size would have usually taken around 4 days on-site for one surveyor. PPM were able to slash this time and complete the majority of the survey work in less than 2 and a half hours with the ZEB-REVO.

The use of GeoSLAM Hub software for post-processing and merging of the two datasets allowed the project team to generate a complete digital twin of the complex structure. The question was, would the GeoSLAM solution be suitable for the level of accuracy expected of PPM?

GeoSLAM's cutting edge mobile mapping technology was able to deliver an accuracy down to the nearest inch.



View of residence hallway with intricate structural framework



Point cloud perspective view and plan view of residence from data collected in less than 2 and a half hours using the ZEB-REVO viewed in CloudCompare

“We’ve always been confident in our ability to keep our projects to the nearest inch or less.

In bringing the ZEB-REVO into our arsenal of tools, we’ve kept the accuracy we’ve always had, but introduced an efficiency that allows our experts to get out there and do more for our clients”

Greg Davies, PPM

About Precision Property Measurements

Precision Property Measurements is a US based company which creates As-Built architectural drawings for clients who are looking for a “Worry-Free” renovation process.

The company completes over 2,000 As-Built survey projects per year, for a large array of clients ranging from architects to asset managers to property owners, and has worked with big names such as McDonalds, Chipotle, Walgreens, Marriott and many more.

Precision Property Measurements pride themselves with their ability to supply high-quality As-Built services and support. GeoSLAM’s technology slots perfectly into these values by providing solutions for PPM client’s need for quick and accurate sets of As-Built plans, without loss of quality to begin their construction designs.

About GeoSLAM

Headquartered in the UK, GeoSLAM is a global market leader in “go-anywhere” 3D mobile mapping technology. Our unique handheld technology is highly versatile and adaptable to all environments – especially spaces that are indoor, underground or difficult to access, providing accurate 3D mapping without the need for GPS.

Our technology is easy to use and within minutes’ customers can build a highly accurate 3D model of their environment. GeoSLAM was founded in 2012 as a joint venture between CSIRO (Australia’s National Science Agency and the inventors of Wi-Fi) and 3D Laser Mapping. Serving the surveying, engineering, mining, forestry, facilities and asset management sectors, GeoSLAM has an expanding network of over 78 distributors, with a presence in 57 countries across 6 continents.

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