



Olsson Associates Scanning Horizons for Opportunity

Full Service Firm Adds High Definition Scanning to Its Repertoire



The Organization

Olsson Associates offers comprehensive engineering and design solutions for public and private infrastructure projects. The full-service firm specializes in complex projects that involve multiple disciplines, including field services, environmental resources and compliance, water resources, water and wastewater utility design, transportation, power generation, automation and technology, building systems, and landscape architecture and urban planning. With over 750 employees, in more than 25 offices, Olsson ranks 139th on the *Engineering News Record's* 2014 list of Top 500 Design Firms.

The Challenge

Olsson Associates had been growing rapidly. Because they wanted to ensure that everyone on their team was on the same page—and that they were getting the most productivity gains from AutoCAD® Civil 3D®, Olsson contracted with their long-term partner IMAGINiT Technologies to conduct a Civil 3D Health Check. A Civil 3D Health Check reviews how an organization is using Civil 3D and provides ways to streamline workflows and increase collaboration. During this process, IMAGINiT reviewed standards and styles that Olsson had in place as well as gauged each user's level of proficiency with Civil 3D. While completing stakeholder interviews during the Health Check, it came to light that they were exploring the addition of high definition laser scanning to their services offerings to meet the needs of a project with a large public power utility. Beyond this need, the Health Check also revealed several key areas needing focus including the need to better integrate workflows between the engineering and scanning teams to ensure collaboration, that their new hires using Civil 3D could benefit from training and that some level of new scanning technology investment was needed as well.

"IMAGINiT experts showed us on the job how to work with the scanning equipment and the software to handle point clouds. And they gave us meaningful insight into how powerful an engineering tool scanning could be—leading to new revenue opportunities."

*- Steve Van Voltenberg
Survey Practice Group Leader,
Olsson Associates*

Since the need for competency around scanning was more pressing, Olsson had IMAGINiT switch the immediate focus onto high definition point cloud training and hardware recommendations, as well as defining the workflow between engineering and scanning teams. "Our large public utility client required specific deliverables that we knew we could only provide with the help of laser scanning," said Steve Van Voltenberg, Survey Practice Group Leader at Olsson Associates. "We did not have scanning equipment in-house, so we needed to rent. As well, we knew we needed help to get the most out of the high definition scanning technology and the point clouds it generates. IMAGINiT understood what we were trying to achieve with the client and our team, so were able to help quickly."

The Solution

The Olsson team started out renting the equipment along with licenses for Leica Cyclone's Register, Publisher and Cloudworx software from IMAGINiT—training was done in the field on the active public utility project. "It was very practical training because we were scanning a site for a real, paying client, instead of using a practice site that didn't mean as much to us," said Van Voltenberg. IMAGINiT experts worked in the field with Olsson

surveyors and showed them how to use the scanner and related software back at the office. One day of in the field scanning was followed by three days of training on the software back at the office.

“Scanning an actual client site was fantastic. We were learning and at the same time creating a billable deliverable,” said Van Voltenberg. “Our client was onsite as well and could see how superior the scanning technology was in comparison to traditional methods and how proficient we would be when using it thanks to IMAGINiT’s expertise.” The client was also able to learn from the IMAGINiT and Olsson teams about how the field data integrated with engineering work done back in the office.



Olsson also provided their client access to the IMAGINiT trainer during the scanning, which allowed feedback from an independent third party and enabled everyone to see the data at the same time, stay informed as data was shared and helped all project members receive a valuable education on the value of scanning during the process.

Because the IMAGINiT specialist assigned to Olsson came from a background in civil engineering, he could ensure that his instruction fit the particular project at hand. For example, he was able to show the Olsson team how a paving intersection could be incorporated in a topographic survey—including curbs, gutters, sewers and traffic poles. “The industry knowledge demonstrated by the IMAGINiT technical specialist was way more than that that would have been provided by someone knowledgeable on the hardware but lacking industry expertise. We all learned so much more than we expected about how scanning influences the final product,” said Van Voltenberg.

Results

Satisfied Client

“Our utility client is very pleased with our work for them. As we learn more and more about what the laser technology can do, the client has too, and that is leading to more ongoing business with an excellent customer,” said Van Voltenberg. “We are all learning what scanning can do, and it is opening up new revenue avenues for exploration.”

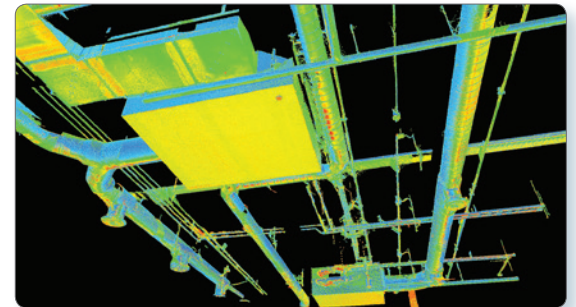
New Revenue Source

When the original project went so well, Olsson management decided to purchase their own scanner. “High definition scanning will open up new lines of business for us and we are working on how to leverage our new equipment in the future. With IMAGINiT’s help we have been able to see new possibilities,” said Van Voltenberg. “Now, other internal teams including MEP and structural are excited to work with the scanner and we’ll probably end up buying another one.”

Position for the Future

“With scanning as a method of acquiring landform and as-built data, we can attract more people to the organization who are forward thinking. It makes us more attractive to tech-savvy hires who are looking to develop their skills as survey and design professionals,” said Van Voltenberg.

“We went into scanning with only a vague idea of what it could achieve. Now we have considerable insight into its power and effectiveness. As usual, when learning a new technology there were many things we didn’t know that we didn’t know. IMAGINiT was a superb guide, and we would recommend them to any firm,” said Van Voltenberg.



161 WORCESTER ROAD, SUITE 401, FRAMINGHAM, MA 01701

@ [imaginit.com](https://www.imaginit.com)

800-356-9050

info@rand.com

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800-356-9050



info@rand.com

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