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Speaker Interview, Wissam Hijazi


Q) What trends do you see in investment in technology for the job site? How quickly is this area growing?

Field collaboration tools started to take a lot of momentum in the last 3 years. Project stakeholders understand the added value of bridging between virtual models in the office and actual models on construction sites. From a priority perspective, 3 main tools show promising results: BIM, Laser Scanning, Drones. BIM implementation on site ranges from coordination, estimation, planning, etc. to field management, project reports, QA/QC, etc. Laser scanning promise of importing field-accurate site conditions inside a 3D building information model is becoming a reality on construction sites. Moreover, drones can track progress and conduct site surveys, perform site inspection, and monitor overall project sites.

With the advancement of technology and increase in need of such tools for site use, we are seeing more and more adoption in the field and it's growing at a fast rate.

Q) Over the last decade, many contractors have focused their investment in design and modeling tools for the office, but there now seems to be a shift towards the job site. How much of a priority is the adoption of field technology today compared to other construction innovations for your team?

EllisDon embraced BIM technology more than 10 years ago and we had the opportunity to witness the evolvement of 3D tools technology on site. It's a fact that the real return on investment of implementing technology and R&D in construction comes from the project being built on site and not from any other virtual models. Regardless of how many hours spend to coordinate a model, it all comes to the installation and construction of the building components to deliver the needed product to clients. From that sense, more effort has been made to handle site and field engineers the master model that has been coordinated for months in the office. Now, our site superintendent relies on 3D virtual mock ups to better understand, define and plan the scope



“ Our site superintendent relies on 3D virtual mock ups to better understand, define and plan the scope of work with trades and suppliers. ”

of work with trades and suppliers. Also field engineers rely on robotic total stations to lay down control points extracted from 3D models. Those and many other BIM field tools are now becoming the normal trend that our company follows by default.

Q) Looking ahead for the next three years, which technology or process innovation do you see as offering the most potential – and why?

Job sites are mainly using BIM technology to enhance field management, planning tasks, issue project reports, punch list set up, etc. A master model on site serves as a document hub that can be accessible to multiple site personnel and managers and help improving field communications between clients, design partners and trades. Eventually, site supers spend more time managing critical project matters and less time managing project documentations.

Mobile applications are also driving the change in job sites. Such tools enable site personnel to track employees and equipment hours, track daily progress, analyze production rates, create punch list reports etc. ...

Q) What solution would you like to invest in which does not currently exist? What technology or service could a vendor develop that would most impress you?

More robust laser scanning units that can easily scan installed components, and effectively convert to 3D models were we can record as built information. Currently this process is time consuming and due to technical challenges, majority of subcontractors still submit their as built documents via markups on 2D layout drawings.


Q) To what extent is the adoption of new field technologies driven by the internal business case – such as reducing costs and time of delivery – compared to being driven by the client?

The primary interest for clients is the final product rather than the technology used to build the product. But, projects are becoming more complex and there is continuous need to deliver projects faster. Thus developers started to understand the importance of implementing field technologies on site and in some cases enforcing BIM usage as a project requirement. For general contractors, such tools can reduce the overall risk of a project and subsequently protect the investment of the client. It's a win-win game.

Q) What are you hoping to achieve from attending and presenting at this conference? What topics on the agenda do you feel will be most insightful?

This conference will provide us with a unique opportunity to share and learn from industry leaders the latest advancement and best practices in the area of construction field technology.

I am looking forward for the prefabrication and quality control sessions.



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