

Customer:
John Sisk & Son

Project:
Dublin's Capital Dock project

Solution:
Trimble S5 with ActiveTrack technology

Case Study



projects. Dylan therefore contacted KOREC to arrange a demonstration and following a successful trial, two Trimble S5 robotic total stations with Trimble ActiveTrack 360 targets (AT360) along with two TSC3 data loggers running Trimble Access software were purchased.

ActiveTrack technology

When surveying with an RTS it is imperative that the instrument has reliable and robust target recognition. On the busy Capital Dock site there are lots of reflective

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**Dylan Beirne,
John Sisk & Son**

objects like traffic signs, reflectors on safety vests or number plates and on similarly busy sites in the past there have been issues with some manufacturers' total stations locking onto flashing beacons and high vis jackets instead of their own prisms.

This was an issue that Dylan wished to avoid on the Capital Dock site particularly because he required both S5s to be used simultaneously and in close proximity. The performance of the AT360 target therefore played a large part in his decision to purchase the S5s. The AT360 has an integrated 360° active LED ring for tracking and reflective foil for distance measurements. These LEDs emit one of eight unique ID channels which can be selected from the panel to ensure that the correct target is tracked every time on a site where multiple targets are used. This unique technology also assists in maintaining target lock where adverse tracking conditions may exist and eliminates the potential for false lock onto other reflective surfaces.

“In the last two months we've been doing basement slab work with both S5s set up on the same level,” explains Dylan. “It's vital that we have no cross over and that everyone knows exactly where they are. We have a distance of just 20-30m between the instruments and thanks to the Trimble ActiveTrack technology, we've

Trimble ActiveTrack technology delivers on busy Dublin site

Trimble S5 robotic total stations provide the reliability and accuracy that John Sisk & Son demand for their survey work on Dublin's prestigious Capital Dock project.

Extending over 4.8 acres, Dublin's Capital Dock project is one of the biggest commercial development contracts awarded in the Irish market in recent years. Behind this venture is Los Angeles based real estate investment firm Kennedy Wilson which has appointed Irish contractor John Sisk & Son Ltd to build the 660,000sq ft mixed-use development. The contract is valued at €210m and will include Ireland's highest building in the 23 storey residential Landmark Tower which will overlook the point where the Liffey meets Grand Canal Dock. This is Sisk's fourth contract with Kennedy Wilson.

Capital Dock is bound on three sides by water and with delivery of the office element of the scheme expected by mid-2017 and the residential element due for completion in early 2018, the site is both compact and busy with around 500-600 people working at any one time.

For the thirteen strong Sisk engineering team, whose responsibilities include setting-out, the amount of activity on site and the need for fast, reliable and precise measurement means that they have to have complete confidence in both their robotic total stations and in these instrument's ability to lock onto the correct target.

Responsible for sourcing all survey equipment for this project is John Sisk & Son senior engineer Dylan Beirne who, along with Mariusz Razik in charge of calibration and monitoring, sought two well priced robotic instruments that could deliver the mm accuracy they required as well as reliable locking. Several instruments were considered and although Sisk was not a habitual user of Trimble equipment, Mariusz was familiar with Trimble's robotic total station technology and had been impressed by its performance on previous

had no problems whatsoever with locking onto the correct target. The reliability, convenience and peace of mind that his brings to our setting-out is key to our productivity on site. At no point have we had to set up again and reconnect."

The AT360 is an active-only device and therefore contains no glass prisms. Eliminating the prisms provides for a smaller, lighter weight target, while maintaining robustness and measurement accuracy. It also offers Trimble's new eBubble function – an electronic bubble displayed on the controller. This means you only have one place to look, which is especially useful when the pole bubble is hard to see. Connecting to the target via Bluetooth, allows the operator to see the plum of the pole on the handheld controller. This allows for better accuracy, especially when surveying in hard to reach areas or setting out using a short pole or point.

Dylan reports that the S5s are instruments that earn their keep on a daily basis delivering on basics such as ruggedness and even the design of the handy backpack style case to carry them the

400m + to the work area. He has also been impressed by their ease of use. He concludes "The Trimble Access software running on the TSC3 data loggers is user friendly and intuitive and it's been really easy to train our engineers quickly. The software was a big factor in our purchasing decision and with KOREC's assistance our decision to bring Trimble onto this site has been a rewarding and productive one."

About John Sisk & Son

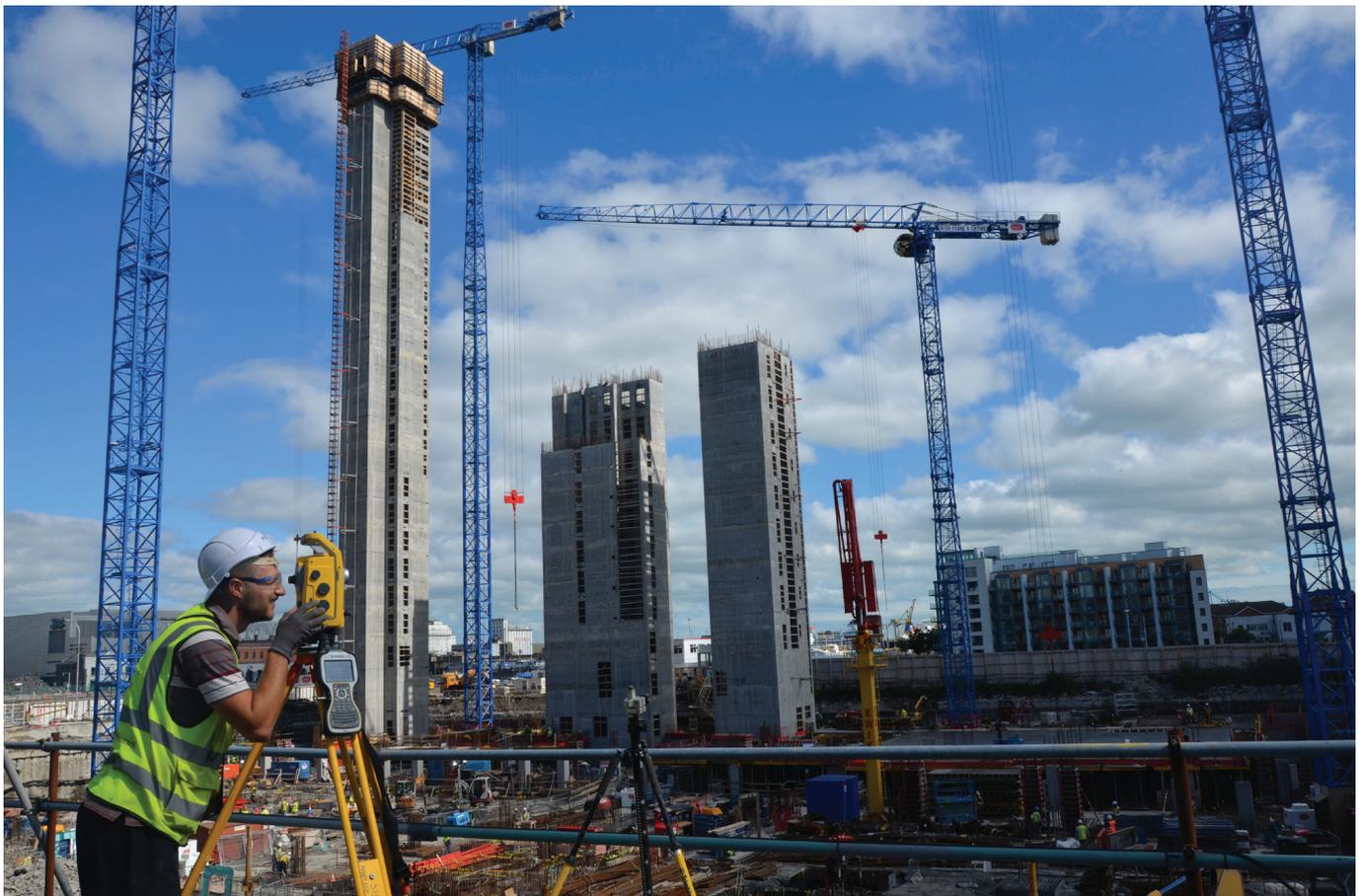
John Sisk & Son is recognised as one of the largest Construction Companies in Europe.

The company is highly regarded for the trust and long term relationships it holds with clients and for the certainty and value it brings to the delivery of construction projects across a wide range of sectors – be it a new build, refurbishment or restoration scheme.

www.johnsiskandson.com



▲ Trimble's AT360



▲ John Sisk & Son's Mariusz Razik with the Trimble S5 on site at Capital Dock

Contact us:

Please do get in touch for further information on any of the products or services mentioned in this case study, a demonstration, support or just a chat about your requirements.

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