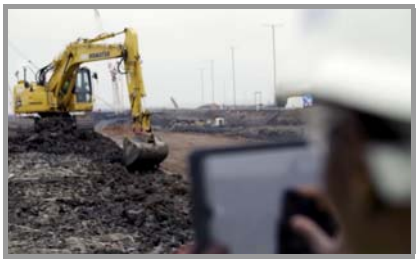
WALTERS

Driving Innovation to Deliver Major Highway Scheme



Project:

M6 / M1 Junction 19 Improvements

Client:

Skanska / Highways England

Value:

£9.8 million

At-a-glance:

- Early Contractor Involvement (ECI) to assist with design and buildability
- Bulk earthworks totalling over 1.1 million m³
- Machine control and real time data capture
- Haul distances of up to 20km
- Complex sequencing and traffic management phasing

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Challenges

Walters began assisting Skanska during 2013 under an Early Contractor Involvement (ECI) contract to assist them plan, price and develop the earthworks element of this nationally important infrastructure project. The project, worth £191 million to Skanska was being delivered for Highways England as part of their 2010-2015 Delivery Plan. The works involved complex improvements to junction 19 of the M1 motorway and related sections of the M6 motorway and A14 trunk road that sees over 142,000 vehicles pass through it every day. An important requirement was to design our works to minimise the interface between our heavy earthmoving plant and people, both members of the public, our own engineers and other members of the delivery team.

Solution

Walters, appointed by Skanska under a NEC Option C target cost contract, delivered the challenging and complex sequence of earthworks over 2 seasons from 2015 and 2016. The project came in under our target cost and 3 months ahead of schedule.

Also notable was the implementation of innovative machine control technologies in partnership with Skanska and Topcon that enabled real-time transference of setting out and as-built information using SiteLink3D.

Prime items of earthmoving plant were fitted with GPS machine control enabling 3D models of the proposed levels to be uploaded into the machine and displayed on a screen inside the cab.

The operator could then see exactly what level they were working at and how far from formation they were. This minimised the requirement for external setting out points, reducing the people and plant interface, improving safety and operational efficacy.

Remote devices were also used to monitor and implement survey roll outs in the field and communicate with machines to further reduce the people and plant interface.