HS2

The pile cropping method was so effective and efficient that the process was rolled out widely across the framework with Clancy going on to be recognised at EKFB's C23 Awards ceremony that were held in November 2023.

Delivering a low carbon concrete pour for HS2

MULTIPLE CONCRETE POURS TOTALLY **3,000m3** AT AYLESBURY

H&S CLANCYS FIRST PRIORITY

Background

As part of our wider capital programme work with HS2 on the phase between Old Oak Common to Birmingham, we have delivered multiple concrete pours totalling an impressive 3,000m3 at a site in Aylesbury, Buckinghamshire. The pours were part of a key bridge substructure which laid the groundwork for a bridge to be built allowing the construction of the high-speed rail line route.

By leveraging our civil engineering expertise, Clancy was well-placed to complete this crucial work – safely and efficiently with sustainability firmly in mind.

Contact us: 01895 823 711 enquiries@theclancygroup.co.uk

Clancy

Case Study | Aylesbury - Concrete Pour

Solution

Clancy needed to support the building of a bridge that would go over the future HS2 tracks, by installing the pile caps for the structure.

Our first priority was safety. The team was firmly focused on reducing hand arm vibrations (HAVs) on site when breaking out excess concrete that needed to be cropped following the main pour. The awareness of the risk of HAVs has dramatically increased and Clancy is committed to investing to prevent the long-term health challenges that it can bring. The team deployed a new drill and spilt system that utilised a hydraulic burster to more effectively remove surplus concrete. We also brought in excavator mounted drills, which have a specialised case that holds the drill, meaning the operative's hands are protected and not exposed to the vibration.

The pile cropping method was so effective and efficient that the process was rolled out widely across the framework with Clancy going on to be recognised at EKFB's C23 Awards ceremony that were held in November 2023.

Our team then choreographed ten separate concrete pours for pile cap foundations, with three of these being an impressive 540m3 each – the largest pours in our history. To ensure the integrity of the bridge's pile caps, 500 tonnes of reinforced steel was tied into cages, formwork was installed to provide structure, before the concrete pours were undertaken.

Benefit

Alongside safety, we were able to prioritise sustainable working practices, introducing Maturix technology. Using probes, we were able to evaluate and optimise curing times and temperatures, while also accurately predicting the strength of concrete. This avoids the wasteful process of making sample cubes and crushing them, which can negatively impact a project's carbon output.

By combining safety and efficiency, we've helped ensure a vital infrastructure project can be completed to the greater benefit of the country. Going forward, we will also be integrating Maturix technology into our work in other key sectors as we look to leverage this innovative tool to the help wider projects.

Contact us: 01895 823 711 enquiries@theclancygroup.co.uk

Clancy