



PERFECTION MADE POSSIBLE

Balfour Beatty has completed a series of enhancements on the M4 and M5, coming in £2m under the £30m budget and with a perfect safety record

By **Dominic Browne**, editor

After 14 months of work, a Balfour project to deliver enhancements along a six-mile section of the M4 and M5 around Bristol had roadworks removed ahead of this year's Easter getaway.

Though somewhat delayed from the original date of winter 2023, the project was certainly something to boast of – across 140,000 worker hours, there were zero safety incidents let alone any injuries. The work between junctions 19 and 20 on the M4 and between junctions 16 and 17 on the M5 included:

- upgrading four miles of steel barrier to concrete in the central reservation of the M4 around the Almondsbury interchange
- three new emergency areas on the M5
- upgrading traffic signs
- drainage work
- renewing lighting
- additional CCTV cameras.

The works were part of a programme to upgrade older Dynamic Hard Shoulder motorways to the latest safety standards, including the extra emergency refuge areas. Another key element is the concrete barriers, which significantly reduce the risk of vehicles crossing over from one carriageway to another.

Speaking about the approach to site safety on the scheme, strategic

development director at Balfour Beatty Christian Jackson tells *Highways*: 'We involved a company called Cleartrack Performance, which has some ex-forces people who've been in combat. They brought their experiences and their approach to how you make decisions when you're under pressure. The first part of it is understanding that you're in a pressured situation. So for our workforce that could be when something might have changed on the project, or there may be pressure to get work done for whatever reason, such as weather constraints. The main thing is you should take a step back before you make decisions or carry on.'

'Anyone in the team could stick their hand up and say something like: "Look, I think we're under pressure here; we're in a situation where we should just stand back and think about what we're doing." So it's very much behavioural training.'

'The message is to "take five". That's been an initiative on this scheme, and it's gone something like 140,000 hours with no incidents at all, so it's done really well.'

Mr Jackson adds: 'Another thing that stands out is the use of technologies like human form recognition for plant people interface issues – we now have that as standard across Balfour Beatty Group.'

'Using digital technologies is important. We have also made heavy investments in logistics and planning on site. If you can plan the site logistics well – where you work, how material deliveries come to the site, how you co-ordinate activities every day – I think it really boosts safety.'

Mr Jackson reveals that Balfour's site management is supported by a system known as AIMS. 'It's a productivity tool that we've taken from the gas sector, where you can look at daily activities, what's happening on your project, and monitor productivity from that aspect. It's a digital system that I think is helping us improve productivity and deliver safely.'

Another factor in the project's £2m savings on its £30m budget was co-ordination. For instance, the major projects team saved hundreds of thousands of pounds by co-ordinating with operational delivery teams, which did bridge deck improvement works at the same time: 'The company that runs the area contract is Ringway and we managed to co-ordinate with them to come and do the works, which not only speeds up the process, it saved about £400,000 through efficiencies and traffic management. For a small scheme like this to come so under budget, it's done phenomenally well.'