

## Early Strength Concrete Barrier Saves Lives!



**On Friday 9th March 2018, a serious breach of traffic management was encountered on the M62 J30 to 31 scheme when an HGV collided with newly installed Concrete Barrier. The incident had the potential to result in significant injury or even fatality.**

The incident had the potential to result in significant injury or even fatality. At the time of incident, the temporary safety barrier had been removed from the central reserve works by Aone+, localised finishing works were being undertaken utilising double cone and roped safety zone protection.

The HGV was travelling along the Westbound carriageway within the hard shoulder. This was the temporary lane 1 as narrow lanes had been installed to facilitate the construction of the central reserve works.

For reasons unknown to Extrudakerb, the HGV crossed all 3 narrow lanes and breached cones entering the work area. Upon entering the work area, the HGV collided with the newly installed Concrete Barrier and continued to impact the barrier intermittently for approximately 1km.

At the time of the incident, there were multiple operatives working on the Eastbound carriageway. Thankfully the operatives were protected from the errant HGV thanks to the presence of the newly installed Concrete Barrier.



Following the incident, Extrudakerb were asked to attend site to undertake a full survey of the Concrete Barrier to ascertain if any damage had been caused during the impact(s).

Upon investigation, it was determined that no visible structural damage was present to the Concrete Barrier; although there were several areas along the 1km length that had been subject to minor scratching and tyre marks where the HGV had impacted the Concrete Barrier.

Importantly, the Concrete Barrier performed as required under impact and although the concrete was yet to reach its 28-day compressive strength, it was demonstrated that early loading of the barrier system can be achieved and, in this instance, prevented a much more devastating incident occurring and/or serious injury or even fatality.

As the incident occurred in an immediate vicinity of site operatives, it is classified as a high potential near miss (HPNM), under the Highways England IAN 128/15/Ar and as such will need to be discussed with them by the overseeing road authority; in this case Aone+.

Whilst in this instance everyone lives to tell the tale, the incident reinforces the importance of ensuring a temporary barrier is installed and maintained (in line with IAN 142/11 and Road Restraint Risk Assessment Process (RRRAP) for the duration of the works and is not removed until ALL works have been completed to ensure the workforce is provided with a safe environment to work.

*Story by Andrew Cottam Contracts Manager*

## In House Concrete Delivery

**Extrudakerb's Operations team have identified that all too often concrete delivery has prejudiced performance. Frequently major concrete supply chain partners hire in additional trucks to meet the high demand of an Extrudakerb slipform paving project and as a result the quality and rate of supply of concrete can suffer**



After extensive research and proactive discussions with our concrete supply chain partners, Extrudakerb decided to procure bespoke 8m<sup>3</sup> capacity concrete mixer trucks but not just any mixer; a mixer that would revolutionise our performance.

The base unit chosen was a Hymix P2 mix master. However, Hymix were keen to work with us and innovate this technology to develop new features that would specifically improve slipform paving concrete.

The trucks are fitted with a bespoke and unique "auto-slump" feature which allows automated re-tempering of the concrete both in transit and immediately prior to discharge. This technology is being calibrated on site and a database of information collated to allow further development and improvement.

Improving safety was a key focus and the trucks are fitted with 360 degree FORS safety standard accredited cameras that can be viewed remotely. A further camera was fitted to allow inspection of the concrete from both the cab and the rear of the truck, removing the need for operators to inspect at height.

Truck drivers are now specifically trained to access, egress and travel through highway reconstruction projects as well as delivering high quality consistent concrete to slipform pavers.

*Story by Adrian Pickard Concrete Technology Manager*

# Back to Work 2018 – Internal Training Review

Over the course of the first 3 days back to work in 2018, Extrudakerb held internal Back to Work training, which saw 6 topics being delivered to over 40 site personnel.



• **HSQE – Tom Ashworth**  
Health, Safety and Quality Manager.

• **Product Technical Awareness –**  
Adam Pollard Technical Engineer

• **Commercial Awareness – David Austerberry**  
Managing Quantity Surveyor

• **Small Plant Maintenance –**  
Tom Spencer Service Engineer

• **Lean Management Awareness –**  
Stephen Lee Group Lean/Works Manager

• **Overview of Transport Operations –**  
Colin Bamford Transport Manager

During the training, there were opportunities for the site team members to provide feedback.

This feedback was then converted into 26 different actions and logged in to an action tracker.

The tracker was initially reviewed on 10th January 2018 by Tom Ashworth with all the relevant presenters to formulate solutions and owners to the issues. A fortnightly meeting has been setup to review the current progress of all actions.

*Some of the actions for example are -*

• **The addition of a secondary scraper which would assist in preventing the loss of excess concrete from the conveyor system.**

- Secondary scraper investigated, designed and fitted on site.

• **Water filling for paver operations,**

- Filling the paver is taking several hours per shift due to filling at the front of the paver.

- Water Delivery System designed and developed to allow water to be filled at the rear - 1400hr per year saved.

• **Small plant issues,**

- General issues relating to small plant.

- Improved two stroke oil inclusive of Cut-Off system and carried out further internal training.

• **Task lighting.**

- Task lighting can be improved on the Pavers.

- 'Old Style' Balloon Lighting removed and replaced with LED lighting, with eight task lighting points which has increased overall lighting conditions when working in hours of darkness.

The feedback from the site team with regards to the training was very positive, and all groups were receptive and proactively involved in discussing the topics.

It was a pleasure to see Tom Spencer assist Pete Carrington Service Supervisor to create a Small Plant Maintenance Presentation and then deliver the training himself.

Based upon Tom Spencer's efforts during the training delivery Tom Ashworth HSQE Manager & Stephen Lee Group Lean Manager spoke with Tom Spencer and advised him that as a management team we have recognised his efforts and it would be a productive step forward to allow him to complete the Managers Safety Training course and ask him to support briefings and promote safety within the Service workshop.

*Story by Tom Ashworth Health and Safety Manager*

## New Concrete Technology Manager

It has been recognised by industry for many years that concrete technology plays a critical part in successful slipform paving and that expertise in the field is highly focused and extremely valuable.



It was felt that Extrudakerb could improve both performance and valued relationships with major suppliers by taking a more proactive approach to mix specification, design, batching, transportation and testing.

During the interview process a first class candidate stood out and on 3rd January 2018 Extrudakerb were delighted to welcome Adrian (Ade) Pickard to the company.

Ade has over 30 years of experience testing and analysing construction materials, having spent the last 9 years working for a construction chemical company. In his previous role he supervised the manufacture and development of concrete admixtures and

“ Ade has over 30 years of experience testing and analysing construction materials, ”

undertook research into their effect on all types of cementitious products, from the more standard ready-mix concretes through to bespoke high quality precast concrete elements.

Ade will be reviewing all existing and future concrete mix designs and supplier capabilities to oversee improvement and development.

In addition, Ade will be working with the Operations Team to best integrate and develop the new fleet of mixer trucks with their auto-slump technology.

*Story by Stewart Cousins Technical Director*