



Safety Alert

Reinforced Concrete Wall

16th April 2019

The following pages of this safety alert were issued by Highways England's supply chain partner:

Kier Highways

SHE ALERT

SHE H129 A 19
Issued by: Kier Highway SHE Department
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Reinforced Concrete Wall Quality Alert

Background

As part of the construction of a smart motorway project, several reinforced concrete walls are to be constructed to provide emergency refuges along the route for the public road users. The walls are constructed of concrete precast modular blocks.

The blocks are loaded on to the flatbed lorries at the manufacturer's depot with mechanical forks. When they arrive on site, the blocks are removed with an excavator and lifting equipment.

The modular blocks have two lifting points, one at the top and one at the side which are used to balance the lift.



What Happened



Whilst unloading a batch of blocks from a flatbed, the lifting point came away from the concrete as the block went under tension ready to lift. (See photos below)

On examining the block, it appeared that the lifting point had not been set correctly. It was evident that the lifting point had not been cast in the concrete at the correct depth and this caused it to pull away from the block when tension was applied as it was too close to the surface.

Corrective action taken

- All works with the blocks were suspended immediately
- The manufacturers were contacted and attended site to check the depth of the lifting point on delivered units.
- The manufacturers have assured Kier that each block will be scanned before delivery as part of their quality checks
- Two of the site's supervisors have been trained to double check each block before lifting, either at the yard or before it is unloaded from the flatbed if deliveries come straight to site.