



## HIGHWAY WIDENING - N18 BUNRATTY BYPASS. CO. CLARE, IRELAND



The N18 was constructed in 1990 over soft subsoils which were thought to be where the local river used to flow. The west bound section of the dual carriageway had settled quite substantially in five areas along the stretch adjacent to Bunratty Castle. Leca® LWA 10-20mm was used to replace the heavy road construction

materials originally installed to the underside of sub-base.

The LECA® LWA was delivered by a 5000m<sup>3</sup> capacity ship directly into the port of Foynes, not far from the site, and then transported over a period of two days in 60m<sup>3</sup> high sided articulated tipper vehicles and loose tipped into a storage bund local to site.

Whilst the repairs were taking place, the westbound N18 traffic was temporarily moved onto the east bound carriageway reducing the N18 into a single carriageway. For this reason, time was limited and speed of installation was essential.

Once Clare County Council had excavated the first of the five areas that needed to be re-levelled, the LECA® Lightweight Expanded Clay Aggregate was transported from the storage bund and tipped directly into the void. The Leca® LWA was then compacted in one metre layers using a 360° excavator, the same equipment that was being used to distribute and level the Leca® LWA across the sub-formation. The use of LECA® LWA provided a simple lightweight solution. The design is expected to achieve a minimum of 20 year sustained design life.

The installation was very quick and simple and the contractor, Clare County Council Works Department, was happy with the speed in which they were able to carry out the works and re-open the busy N18 to traffic.

## FACTS

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**Amount of material:** 5000m<sup>3</sup> of [LECA LWA \(10-20mm\)](#)

**Interesting Fact:** Leca® LWA 10-20mm was used to replace the heavy road construction materials originally installed to the underside of sub-base.

**Delivery Method:** 4-Wheel Articulated Tippers

**Main Customer:** Clare County Council