



## Extensive Refurbishment of Mistley Maltings

The Mistley site in Manningtree, Essex is part of Crisp Malting Group and produces in excess of 35,000 tonnes of barley and wheat malt annually.

Over the years the high temperatures and moisture generated by the malting process led to the corrosion and deterioration of Mistley Maltings' concrete frame.

Gunite was appointed main contractor by Crisp Malting Group to carry out the extensive refurbishment of Mistley Maltings in a reduced contract period of 16 weeks.

Working alongside consultant engineers **MLM**, refurbishment works were undertaken 24 hours a day.

After carrying out hammer tests on all concrete surfaces, large areas of defective concrete were cut out using hydro-demolition.

In total over 55m<sup>3</sup> of defective concrete was removed from site.

Due to the volume of concrete removed from key locations, i.e. junctions between columns and beams, it was deemed necessary to install substantial propping to restrain the building and allow works to continue.

The beams were then shuttered and **sprayed concrete** was applied in order to reform the original profile.

Cathodic protection from **Concrete Preservation Technologies (CPT)**, in the form of DuoGuard and RebaGuard, was installed in the beams, columns and upper box walls to combat the high levels of chloride present in the concrete. In the soffits alone over 5,000 marginal capsules were installed.

Following completion of the concrete repairs we applied a cementitious coating from **Flexcrete** to help protect the concrete from the high temperatures and moisture.

Additional works included painting of the soffits with a food safe coating from Flexcrete, the repair of all walkways and the application of a non-slip waterproof coating capable of dealing with temperatures of up to 110°C.

**Client**  
Crisp Malting Group

**Value**  
£1M

**Duration**  
4 Months

**Sector**  
Commercial