

CASE STUDY – CIPP Lining, Brokerstown, Northern Ireland

Another amazing job by iLine Technologies, culvert renovation specialists; successfully installing the largest & thickest UV CIPP liner in the UK at DN1800 x 21mm wall thickness. This same team have been installing UV liner since 2002 and are the most experienced large diameter UV CIPP installation team in the UK



In January 2020, after extensive technical & practical negotiations with the client Translink Northern Ireland & framework contractor Mclaughlin & Harvey Ltd, iLine were awarded the contract to rehabilitate Brokerstown stream culvert located at the Coca-Cola HBC Plant near Lisburn, Belfast.

The 1800mm diameter single span masonry arch culvert carries the main Belfast to Dublin railway line. After a major flooding event in June 2012 and subsequent other periods of heavy rainfall, sections of the culvert had been washed away causing concerns for structural failures.

iLine's in-house design team working with consultants Amey, proposed a fully structural UV GRP cured in place liner of 21mm thick Alpha 1800H liner supplied by Reline Europe capable of achieving an industry leading

100-year design life.

After some initial preparation works to reform the invert of the culvert, the installation and curing of the 1.8m diameter liner was all completed in only one day. The small annulus between the masonry arch and liner was then grouted over the following days.

Civils work including the construction of a reinforced concrete headwall, wingwall & apron slab unit at the northern end of the existing culvert and installation of a new precast concrete pipe at the southern end were completed prior to lining work. This enable the liner to connect to the new proposed precast concrete pipes to complete the flood relief scheme.

The resulting liner provided a fully structural standalone solution and improved the flow through the culvert by 125% of its original capacity.

