

Risca Pipe Repair

Overview:

Site Location:	>> Risca, South Wales
Client:	>> Dwr Cymru
Contract Value:	>> £120,000
Duration:	>> 8 Weeks



As part of DCWW planned capital maintenance programme LCE were allocated this scheme which involved the removal of an existing 900mm diameter concrete sewer which was acting as a weir across the River Ebbw.

The fact that the concrete sewer was acting as a weir put the DCWW asset at risk of collapse from years of river erosion.

Following our early involvement to work with the designers and EA, a syphon solution was proposed as the optimum design. below river bed level.



This required us to excavate and lay a new 900mm dia Ductile Iron pipe across the river at a depth of 2m below bed level.

To undertake the works we agreed to leave the existing weir in place whilst we installed a new pipeline parallel before making the final connections.

Entry to the river was gained by constructing clean stone ramps into the river for our 20t excavators, who then banded off half the river using blockstone, clay and jumbo sandbags.

Once we completed the excavation, the installation of temporary works and pipework followed. We then backfilled and repeated the process for the second half of the river crossing.

To minimise discolouration of the river, silt mats were be laid across the river bed downstream and ground water encountered in the excavation would be pumped out into silt busters using 2no 4"Hydraulic pumps.

Manholes were constructed in the river banks prior to making the final connections.

Once the existing sewer flows were diverted through the new pipeline, we removed the redundant concrete sewer and weir before fully reinstating the river banks with blockstone revetments.

The existing woodland footpath that had been allowed to deteriorate over many years and via which we gained access was also reconstructed to the appreciation of local Councillors.



Lewis Civil Engineering Ltd, Mwyndy Cross Industries, Cardiff Road, Pontyclun, Rhondda Cynon Taff. CF72 8PN

Telephone: 01443 449 200 Fax: 01443 449 201

Website: www.lewis-ltd.co.uk E-mail: enquiries@lewis-ltd.co.uk