

SYLWRAP Case Study



Corroded Porth Pipe Bridge Refurbishment

A dilapidated pipe bridge crossing the Rhonda River in Porth is repaired and refurbished, saving Dwr Cymru Welsh Water from an expensive replacement



Corrosion had breached the pipe in several places

Defect

The gravity-fed bridge was made up of a 300mm, 20-metre long steel pipe rested inside an angle-iron structure for support and protection.

Dwr Cymru contacted Sylmasta for repair advice and appointed Arch Services as contractors. An inspection by Arch revealed the pipe to be covered in corrosion, leaving large holes in several places.



Liquid Metal was painted onto the pipe, curing to form a new, impermeable metallic outer surface

Solution

The holes were too big and the pipe too brittle to be repaired with putty, so Arch layered large fibreglass patches over the cracked sections to seal the leaks.

Several layers of **Liquid Metal Epoxy Coating** were then painted onto the pipe and the steel hoops and beams holding it in place, using a roller.

Once cured, Liquid Metal formed a hard-wearing, smooth, metallic, impermeable skin around the pipe. This new outer surface would prevent further corrosion and ensure fluids could no longer escape.

To further reinforce the pipe and reinstate integral strength, the line was wrapped with four layers of **SylWrap CR Corrosion Protection Wrap**, which formed an impact-resistant protective shell.



SylWrap CR was carefully applied to the whole line, providing further reinforcement and protection

Result

The repair took three days to complete. It left a smart-looking, refurbished pipe bridge fully protected from future corrosion and breaches.

Repair instead of replacement saved Dwr Cymru a significant expenditure. Arch are now an approved Sylmasta contractor for similar projects due to their excellent application and attention to detail.



The finished repair left the pipe fully refurbished

