

## CASE STUDY

### Haslar Bridge - CP Consultancy and Monitoring

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**Type of Structure**

Reinforced Concrete Bridge

**Client**

Hampshire County Council

**Treatment Types**

Impressed Current Cathodic Protection

**Project Value**

£20,000

**Project**

Annual Monitoring & Contractor Support



In 2015 the bridge connecting Haslar and Gosport was subject to an extensive programme of concrete repair, which included applying Cathodic Protection to the support piers.

CES provided Cathodic Protection engineering support to the concrete repair contractor. The commission included site supervision, testing of work in progress and commissioning the system on completion. Since completion CES have been responsible for periodic monitoring and adjustment of the system, including end of period reporting. The cathodic protection system comprises mixed metal oxide coated titanium tube anodes inserted into the concrete piers, and silver/silver chloride monitoring sensors known as reference electrodes. Monitoring the system has required a strict regime of remote access, record keeping and on site verification of data.

The system is additionally complex as the piers are in a tidal area. CES have applied knowledge and expertise not only from cathodic in reinforced concrete, but also marine applications. CES has to analyse complex data to determine the correct settings to optimise protection and maximise the service life of the system. Special consideration of materials and methods was required to account for semi-marine conditions.

CES also provided design support to the contractor and client, to allow an amendment to the designed electrical distribution circuit when the original scheme was deemed too costly. CES proposed an alternative electrical design which saved time and money and avoided the need for extensive reworking.

The project required careful coordination and communication between contractors, the client organisation, structural engineers and the supply chain.