

10 Gun Battery Seawall Repairs

Client: Solent Coastal Partnership Scheme

Value: £56,000

Duration: 3 weeks

Project Detail

With current sea defenses reaching the end of their existing life (some dating as far back as World War II), the Solent Coastal Partnership Scheme has been put in place and seeks to adapt and improve the coastal defenses surrounding Portsmouth with the principle aim of reducing the flood risk in the future. The current flood defenses help to protect over 10,000 homes as well as hundreds of non-residential properties and in recent years have had two major failures during severe weather conditions such as winter storms and high tides. If these flood defenses are going to continue to protect these properties then improvement work is required to make sure they last long into the future. This improvement scheme is the UK's largest local authority-led coastal defences' project, stretching for 4.5km and helping to reduce the risk of flooding to more than 10,000 homes and 700 businesses.

One of the areas that required urgent repairs is 10 Gun Battery, where blockwork had been displaced damaging the integrity of the seawall.

The works on 10 Gun Battery aim to repair the seawall by:

- Resetting displaced blockwork to its original position and repointing with a natural cement
- Retrieving displaced blockwork from the foreshore and resetting in original position, securing with dowels, and repointing with a natural cement
- Injecting grout in the voids directly behind the blockwork.

Processes Used:

- Setting up Layher system Scaffolding
- Setting up a jacking system using RMD frame to reset the blockwork to its original position
- Repointing and Grouting

All of the repair methods that were used had been agreed in advance with Historic England as the seawall is a Nationally important Historic Structure and is designated as a Scheduled Ancient Monument under the 1979 Ancient Monuments and Archaeological Areas Act, which means that it is legally protected. Due to the location of the works the team on site had to work around the tide times.



Figure 1: Clearly showing the damage to the sea wall and the Layher system scaffolding



Figure 2: The original blocks that had been retrieved from the foreshore being reset in their original position

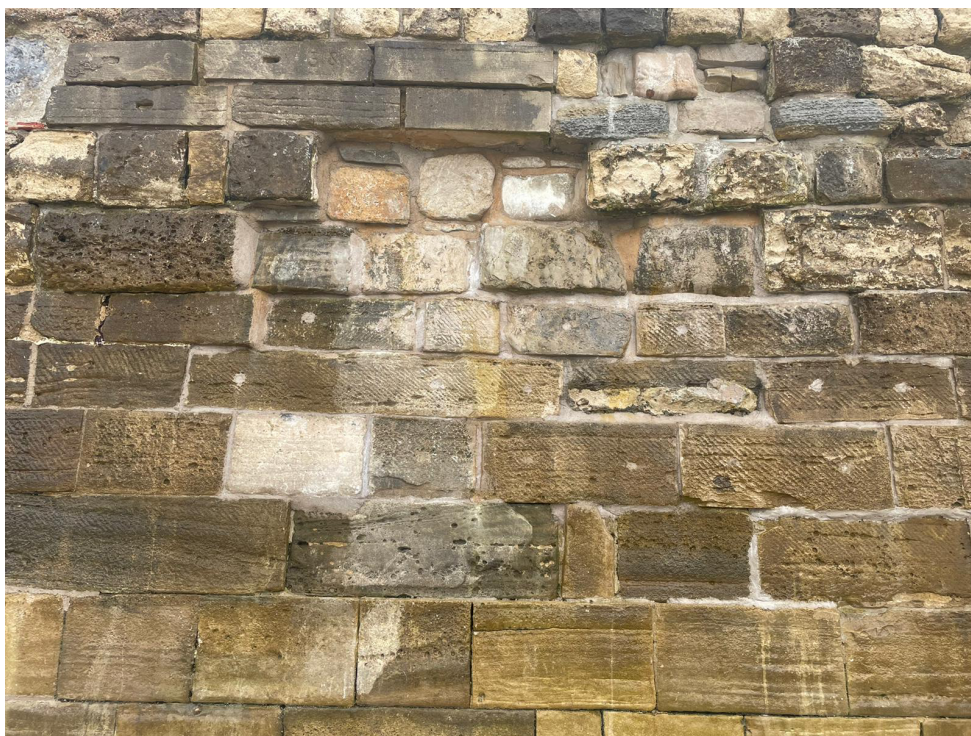


Figure 3: The repaired wall