

Sterte Channel Refurbishment Works

Client: BCP Council

Value: Circa £560,000

Duration: 12 weeks

Issue:

Sterte Channel in Poole is a vital drainage asset that conveys surface water and land drainage flows into Holes Bay. Prolonged exposure to the marine environment had caused significant corrosion to the steel sheet piles, particularly at lower levels, resulting in material loss and reducing the long-term durability of the structure.

To preserve the channel's drainage function and structural integrity, refurbishment works were required along approximately 400 metres of sheet piling. The project also needed to be carefully managed to maintain water flows, minimise disruption to surrounding infrastructure, and protect the local environment throughout the works.

Solution:

The refurbishment works were delivered through a carefully planned, phased approach. Vegetation was cleared to provide safe access before a temporary dewatering system was installed, using temporary dams and pumping arrangements to create controlled dry working areas while maintaining the channel's flow.

Once access had been established, ultra-high pressure (UHP) water jetting was used to remove corrosion and prepare the steel sheet piles for repair. Areas of severe deterioration and any holes identified during the works were repaired through welding and the application of specialist filler materials to restore the integrity of the structure.

Following the repairs, a protective cementitious epoxy coating system was spray-applied to the sheet piles, with interlocks also filled to provide long-term corrosion protection and extend the operational life of the asset. Additional activities included debris removal, silt management to maintain access, and localised cutting of corroded sheet piles at the outfall structure to eliminate unsafe edges.

Throughout the project, careful planning ensured environmental considerations, stakeholder requirements and operational constraints were effectively managed, allowing the works to progress safely and efficiently.

Outcome:

The refurbishment works successfully restored the condition of approximately 400 metres of sheet pile wall, extending the operational life of this critical drainage asset and helping to protect the surrounding infrastructure from future deterioration. By refurbishing the existing structure rather than replacing it, the project delivered a more sustainable solution, reducing material consumption and maximising the lifespan of the asset. The carefully phased dewatering strategy and specialist repair techniques demonstrated the creativity required to work safely within a live drainage environment while maintaining channel flows. Efficient planning and coordination enabled the project to progress smoothly with minimal disruption, reflecting our commitment to productivity, while the high standard of workmanship and durable corrosion protection system reinforced the reliability our clients expect when delivering long-term infrastructure maintenance solutions.

Photographs:



Figure 1: A temporary dam used to create a dry working area.

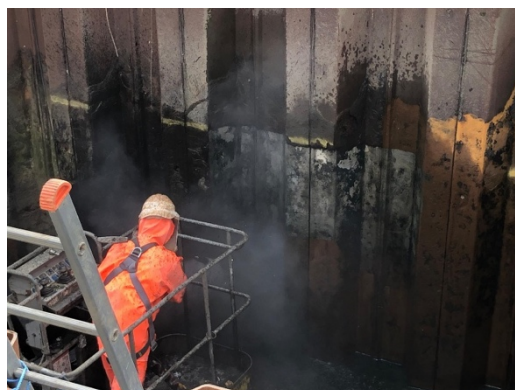


Figure 2: Ultra-high pressure (UHP) water jetting was used to remove corrosion and prepare the steel sheet piles for repair.



Figure 3: The protective cementitious epoxy coating system being spray-applied to the sheet piles



Figure 4: The refurbished sheet piles