

Proposed Method Statement

All works will be undertaken in accordance with Guidance for Pollution Prevention 5: Works and maintenance in or near water.

Access to the site is restricted with the adjacent quay walls having limited load bearing capacity. At low spring tides the worksite would be accessible to a wheeled excavator however the time available is restricted and access is also restricted due to steep gradient of the entrance ramp. The existing concrete slip ramp is not considered to be suitable for tracked vehicles. There is a height restriction at the bascule bridge which would require being open during excavations and this would need to be agreed with the harbour.

Mobilise and Site Set Up

1. Mobilise to site and establish site offices and welfare in location agreed with the Harbour Master.
2. Mobilise barge / work platform with suitable excavator and lifting equipment. The positions of the work platform required to carry out the works are to be agreed with the Harbour Master.
3. Mobilise dive contractor to work platform or dedicated dive vessel.
4. Install navigational buoys indicating extent of the works and any underwater hazards created during construction.

Adjacent Works

5. During the works the contractor will be required to accommodate vessels accessing and leaving the tidal Cromwell and Victoria Harbours.

Excavation

6. Carry out pre excavation survey of the bed levels.
7. Seabed material to be excavated down to rock using mechanical excavator located on work platform. Excavated material to be removed from the site and taken to landfill.
8. The contractor may consider the option to excavate from the end of the existing slipway at a low spring tide and place excavated material directly into transport if it is considered they can overcome the issues previously raised.
9. After mechanical excavations are completed the dive contractor will inspect the excavation and manually remove any leftover loose material or marine growth in area of the works to expose the rock surface using airlift equipment, shovel, brush and air lance.
10. Localised breakout of rock with hydraulic breaker at end of existing ramp is required to allow a smooth transition to be formed.
11. Carry out post excavation survey of the rock levels.

Installation

Installation works will be carried out underwater utilising divers. Divers may operate from the work platform or use a dedicated dive vessel.

12. Holes to be drilled to the perimeter of ramp for installation of steel dowels using a hydraulic underwater drill. Dowels to be placed in formed holes and set in an approved grout.
13. Mass concrete to be installed over the exposed rock to provide level work surface for formwork. Concrete to be placed underwater using a skip with a tremie pipe. The skip will be lifted into the required position from the work platform. The Contractor will follow industry standard guidance for placement of concrete and will not allow the concrete to freefall through the water column.
14. Set out the ramp onto mass concrete layer.
15. Install steel levelling rails between toe and top level dowelled to rock.
16. Temporary steel shutters to be lifted into place from the work platform and fixed into place by the dive contractor to form sides of the slipway.
17. Temporary steel shutters installed to top surface fixed onto the levelling rails and side shutters. Pours to be carried out to small sections to allow slopes to be formed. Size of pour to be determined by contractor.
18. The contractor may require welding the shutters underwater.
19. Shutters removed a minimum of 12 hours after pouring and reset in next position until complete.
20. Alternatively the contractor may install a permanent precast shuttering system lifted into place from the work platform. Concrete will be pumped under the precast shutters to fill all voids.
21. All shuttering to be lifted into place using the lifting equipment on the work platform or dive vessel.
22. All concrete to be delivered by ready mix lorry, delivered into skip and lifted onto work platform for placement.
23. On final inspection the contractor will carry out any remedial works required to the concrete surface.

Site Clearance and De-Mobilisation

24. Remove all temporary shutters and obstructions on seabed.
25. Remove any navigation buoys
26. Demobilise all equipment from site