Bridge Quay Essential Works

Reference Number 221089

February 2023

PRELIMINARY METHODOLOGY

Site preparation

Erect the protective hoardings around the site compound boundary.

The Works

1. Demolition of top slab by circa 10m – slab to be saw cut into sections and hydro demolished around the existing portal frames to expose reinforcement at portal frame locations. Contractor to protect the works to avoid any debris falling off into the harbour bed. Works above MHWS.

Figure 1 – Example of slab demolition at Kilkeel Harbour

2. Concrete repairs to portal frames. Works within the walls of the existing structure and dry, no contact with the sea.

Figure 2 – Portal frame to be repaired

3. Installation of steel beams between portal frames. Works within the walls of the existing structure and dry, no contact with the sea.

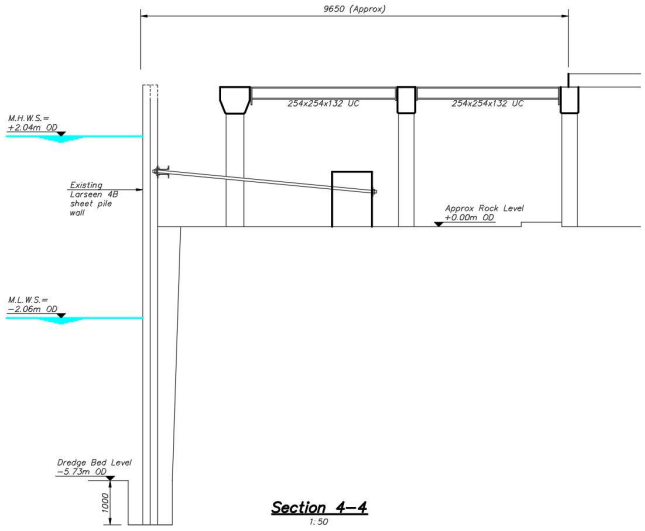

Figure 3 – Installation of steel beams between portal frames

4. Part demolition of the damaged wall - circa 4.5m length x 3.5m high. Soffit of the extent to be demolished is 1.8m above MLWS. Wall to be saw cut into sections. Contractor to protect the works to avoid any debris falling off into the harbour bed. Works to be done at low water intervals.

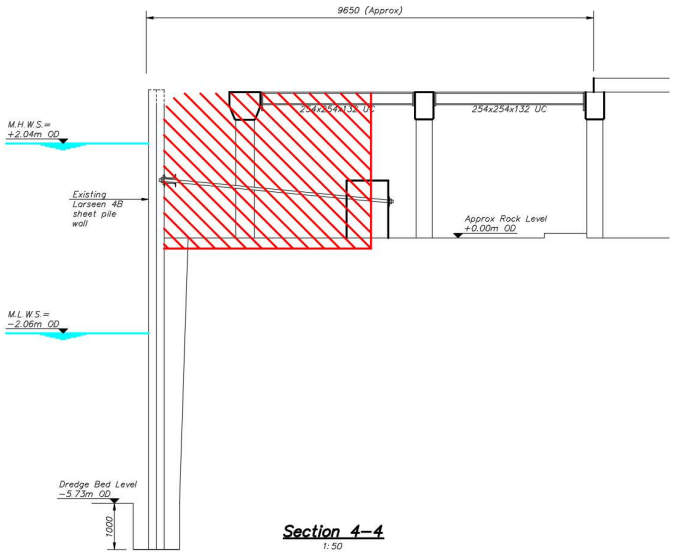

Figure 4 – Part demolition of the damaged wall

5. Cast new wall, with post installed dowels to existing structure. Works to be undertaken at low tide with sufficient time to allow the initial curing of concrete. Contractor to have mitigation measures in place to avoid concrete spills.

Figure 5 – Example of in situ concrete formwork from Kilkeel

6. Backfill inside the walls with lightweight/foam concrete in 1m lifts. Concrete to be delivered either by lorry driving over Bridge Quay or with boom pump.

Figure 6 – Example of wet foam concrete from Good Concrete Guide 7, a report from the Materials Standing Committee of The Concrete Society

7. Cast new in situ concrete slab and reinstate furniture. Works above MHWS.

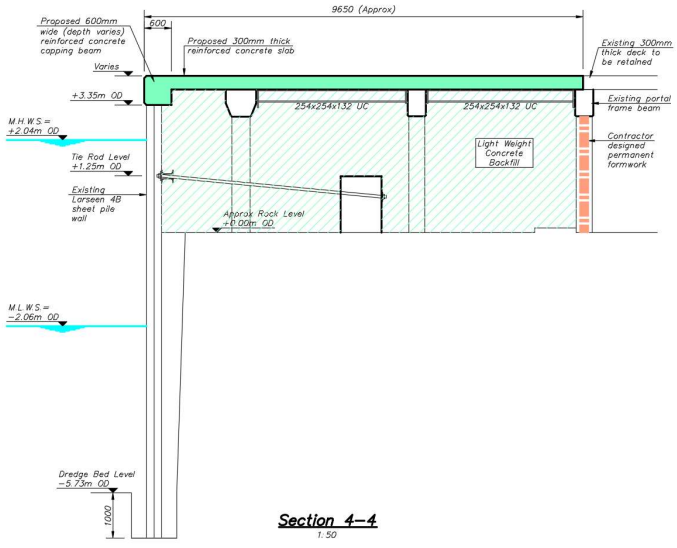

Figure 7 – Finished section