tmsMaritime

Project Case Study

TMS Maritime is a leading UK specialist in marine civil engineering, ancillary floating plant and diving services

Client: Morgan Sindall
Project: Saundersfoot Outfall Replacement

Duration:10 Weeks
Project Value: £650,000

Requirement:

The existing 435m Outfall Pipe that ran across Saundersfoot Beach in South West Wales had been exposed by weather and sea conditions which had caused damage to the pipe. The damage caused meant that there was a requirement for the existing pipe to be removed and replaced by a new 289m long 355mm OD HPPE SDR17 pipe weighted into position with a combination of concrete collars & mattresses.

Solution:

Working as a sub-contractor for Morgan Sindall, on behalf of Welsh Water, TMS were awarded the contract to remove and replace the Welsh Water Outfall. Working around the challenging tidal conditions, TMS began by removing the existing pipeline, before replacing it with the new pipe in 25-40m sections. Three different design details were utilised throughout the installation, depending on ground conditions. In the upper beach zone, there were two design details used for shallow rock zones and deep rock zones. In areas classified as the shallow rock zone, the pipe was laid in the trench accompanied with concrete collars at 3.6m centres, and then back filled to match the existing beach level. In areas classified as the deep rock zone, the new pipe was laid to the line and level before being covered in a 200mm concrete cap and then backfilled. In the lower beach zone, the pipe was laid with concrete collars at 6.6m centres, backfilled to the top of the collars and then covered with concrete mattresses to weigh the pipe down. The area was then backfilled. 30T excavators were used throughout the installation, to excavate around the existing pipe, remove and load the old pipe and sheet pile foundations into dumpers for disposal, and lift and lower the new sections of the pipe into position. The final stages of the project involved the installation of a bespoke diffusor to the end of the pipeline and the relocation of the existing marker buoy from the end of the existing pipeline to the end of the new one.

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