

Project Information:

Employer's Representative	Graham Harris (Shepway Council)
Blackwell Role	Main Contractor
Form of Contract	NEC3 Option A
Contract Value	£540K

Blackwell Site Management:

Contracts Manager:	Rob King
Construction Manager:	Keith Tate
Quantity Surveyor:	Marcus Welland



Services Include:

Civil Engineering **Earthworks** Geotechnical Remediation



Contract Summary:

The concrete sea walls that protect the coastal frontage from Hythe to Folkestone Harbour were originally constructed in the 1930s and were showing signs of wear and tear.

Blackwell's extensive beach replenishment work to replace sand and shingle dispersed by natural coastal processes was carried out to reduce the risk of sea wall failure and coastal flooding. The long shore drift had transported sediment along part of the coastline, requiring beach material to be moved from east to west to maintain the desired beach profile.



Assessing progress accurately using conventional surveying methods was difficult on this project, as some of the material moved by Blackwell during low-tide periods was moved again by the sea during high-tide periods. To overcome the challenge of assessing progress, the Blackwell team implemented a Bell Fleetmatic II telematics system. This involved fitting the company's fleet of Bell 30t and 40t dump trucks with a Global Positioning System (GPS) transmitter and receiver unit, which allowed data to be gathered and stored on the onboard memory module using satellite navigation technology.

Through implementing this system, the company was able to gather operational and production data as well as identifying the location and movements of each dump truck. This data provided useful production and performance statistics, which Blackwell was able to access via the Fleetmatic website. After Blackwell suggested this more accurate system for monitoring and measuring production to Shepway District Council, this data gathering and retrieval system was used for the remainder of the contract.



Key Processes:

The main elements of the scheme involved the excavation of 65,000 tonnes of beach shingle from the eastern end of the beach using 45t excavators and the haulage of material with 30t and 40t dump-trucks to the western end. The material was then pushed out and reshaped with a bulldozer.