

MARINE AGGREGATES IN CONSTRUCTION

BRIGHTON & HOVE WASTE WATER TREATMENT WORKS



Source: Southern Water

BACKGROUND

Southern Water's £300million investment in a waste water treatment scheme to bring cleaner seas to Sussex.

This scheme, which includes a major new waste water treatment works and 11 kilometres of new sewer tunnel, will treat the 95 million litres of waste water generated each day by coastal residents.

The works require the design, construction and commissioning of a major new treatment facility. This includes two underground pumping stations, to help move waste water to the new treatment works, as well as an 11km sewer - tunnelling between 8 and 40 metres below ground level.

One pumping station will be on existing Southern Water land at Portobello Treatment works. Covered with a grass roof, this has been sensitively designed so as not to affect sea views. The other pumping station will be in a traffic island in the middle of Marine Drive - surrounded by a domed structure designed to integrate with the landscape, and also minimise the effect on sea views.

CONSTRUCTION NOTES

In excess of 47,000 cubic metres of ready mixed concrete was supplied between 2010 and 2011 using marine aggregate.

Various concrete mixes were required in addition to sprayed concrete.

A chloride class of 0.2 was specified.

CONSTRUCTION CATEGORY

Structural concrete, visual concrete

USAGE CATEGORY

Built environment, water utilities