

# Open stone asphalt revetment Expert Review

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UK



Client: Private Developer

Services provided:

- design review
- construction review
- advice on how to proceed with repairs

Loss of the open stone revetment revealing the Essex blocks beneath, April 2016

A developer had undertaken a large mixed-use development on the coast. Outline planning permission for the development was on the basis that improvements were made to the coastal defence fronting the development, prior to handover of the coast defence to the local council, who would then be responsible for its future maintenance. Historically, the sea defence had been armoured with concrete blocks (“Essex” blocks). Due to the poor state of this old structure it was restored in 2014 by the addition of an asphaltic cover protection system. The latter measures comprised overlaying the existing block revetment with lean stone asphalt (LSA) followed by a layer of open stone asphalt (OSA), the latter acting as an armour layer. Within two years after the asphaltic works were completed, several failures of the OSA and LSA occurred. Before undertaking a whole scale repair to the LSA/ OSA revetment, the developer was keen to ensure that the next proposed works and maintenance measures would provide a satisfactory solution.

ENBE was appointed to review the events that had occurred leading up to the 2016 failures and to provide advice for future works.