



## Case Study

# Pyramat /Armormax

### Location:

Tilney-Cum-Islington  
Norfolk

### Client:

Middle Level  
Commissioners

### Project:

Saint Germans Pumping  
Station



### Contractor:

COSTAIN



### Geosynthetics Limited

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**HISTORICALLY, the English Fens were wetlands, they were virtually all drained by the 19th Century. The Fens are slowly sinking due to the drainage systems and shrinkage of the peaty ground; to date they have sunk up to 4 metres in the last 150 years.**

This in turn has meant that the drainage system needs to work harder, and so the original 1934 pumping station now needs replacing. To enable the new-pumping station to be built and tested the tidal drain channel needed temporary realignment, and the associated spilling needed scour protection. The Pyramat was used with percussion anchors as a cost effective alternative to the more traditional concrete mattress specified. In addition to the spillway, the Pyramat was also approved for use along the water margins of the tidal drain upstream from the new pumping station. Here the product had to be installed along a tidal bank with a curved profile and up to a 9m tidal range, the flexible nature of the materials made for a neater finish. The employer's designer acknowledged this as more in keeping with the surrounding environment it is green to the eye and



encourages vegetation which ultimately creates a stronger more stable solution. On the 8th May, 2012 the new St Germans Pumping Station won the Borough Council of Kings Lynn & West Norfolk Mayors Award for 'Design in the environment commercial new build' and also received the overall 'Gold Award' as competition winner topping approximately fifty entries in numerous classes.

*We acknowledged this (Pyramat) as more in keeping with the surrounding environment; it is green to the eye and encourages vegetation which ultimately creates a stronger product.*

**Quote from designer**

*For soft bank construction, I would certainly use this again.*

**Mark Tootle CENG MICE MSc Beng, Costain Limited**

