



## Case

# STUDY

## BENTOTEX GCL

A465 Heads of the Valley  
Pond Lining



**MARKET SECTOR:**  
Environmental



**LOCATION:**  
Rassau Industrial Est  
Ebbw Vale, NP23 55D



**CONTRACTOR:**  
Carillion Plc



**CONSULTANT:**  
Arup

## The BACKGROUND

As part of the drainage and earthworks design on the 7.8 mile long dual carriageway, there was a requirement for the construction of seven drainage attenuation ponds.

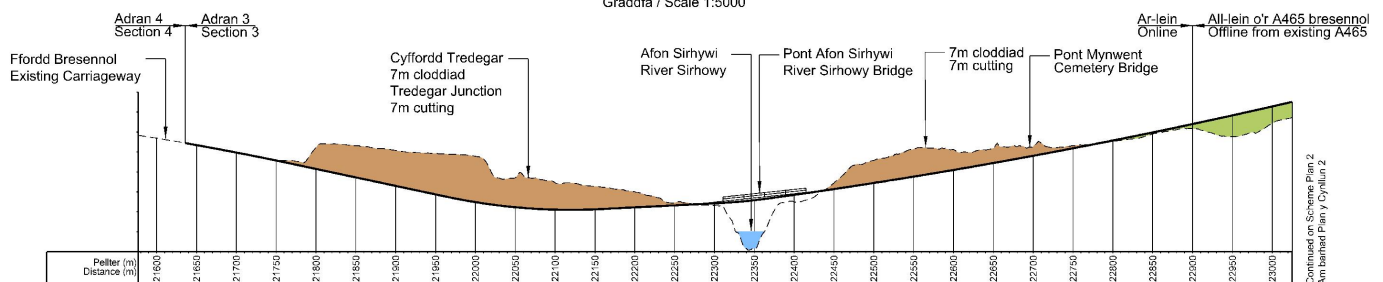
On completion the station will be the largest in the UK with a box structure 850m long, 70m wide and 20m deep. A subsurface structure of this kind requires extensive ground engineering works.

## Our Client's REQUIREMENTS

A sustainable solution for pond lining for water retention.

The nature of the underlying soils on the seven new drainage attenuation ponds, meant that the pond needed to be lined with **Bentotex® GCL** to retain the water within the pond.

Plan y Cynllun / Scheme Plan 1  
Graddfa / Scale 1:5000



Toriad hydredol yn dilyn llinell ganol y cynllun arfaethedig  
Longitudinal section following the centreline of the proposed scheme  
Graddfa llorweddol 1:5000 / Horizontal scale 1:5000  
Graddfa unionsyth / Vertical scale 1:1000

**Allwedd / Key**  
Lafel bresennol y tir  
Existing ground level  
Lafel arfaethedig y tir  
Proposed road level  
Ffordd mewn cloddiaid  
Road in cutting  
Ffordd ar glawdd  
Road on embankment  
Llinell ffinysys y briffordd  
Highway fence line  
Ffyrdd Cyhoeddus  
Public Rights of Way

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Graddfa 1:5000 (metrau) / 1:5000 scale (metres)  
0m 50m 100m 200m 300m 400m 500m  
0m 10m 20m 30m 40m 50m 100m

## Our Value Engineered **SOLUTION**

**Due to the nature of underlying soils, it was necessary to line the ponds to ensure water was retained within the pond. It was determined that Bentotex® GCL would provide an effective solution.**

The presence of a suitable cohesive soil on the site meant the GCL could be surcharged using site won materials. The ease of the installation meant that no specialist installation was required.



**“Having used Bentotex GCL on previous schemes, we were confident the material met our requirements”**

**CHRIS FRANCIS**  
Senior Buyer

