The TensarTech EcoCrib reinforced soil retaining wall increased the area of developable land on the former colliery.

Make mine an EcoCrib

TensarTech® EcoCrib enabled the use of mining waste in a reinforced soil wall to maximise space for the Poppy Grange housing development in Yorkshire.

CLIENT'S CHALLENGE

Taylor Wimpey needed to build a 220m long, up to 6.6m high reinforced soil structure bounding the second phase of its housing development in Glasshoughton, Castleford, Yorkshire. Low quality mining waste, excavated from another part of the site, was to be used to form the structure, which had to have a crib style finish to tie-in with the scheme's first phase.

TENSAR SOLUTION

Tensar's TensarTech EcoCrib reinforced soil system enabled the 76° wall to be built over a very wet winter, which made using the moisture sensitive fill particularly challenging.

Poppy Grange housing development

Reinforced soil retaining structure

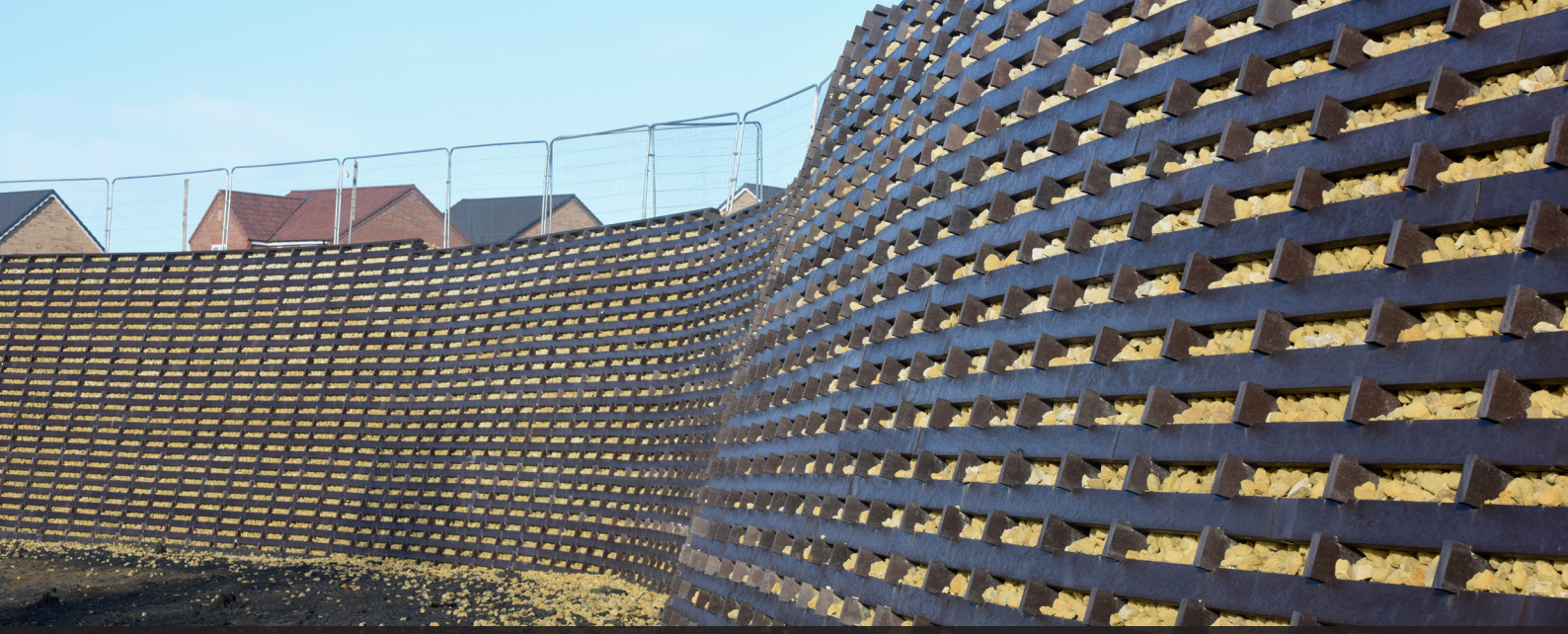
Castleford, UK

BENEFITS

Saving costs
by enabling use of poor quality site-won fill

Speeding up construction
in very wet winter weather

Reducing environmental impact
by using 100% recycled and recyclable EcoCrib wall facing units



The TensarTech EcoCrib wall was built in just 30 days over an extremely wet winter.

PROJECT BACKGROUND

Poppy Grange, in Castleford's Glasshoughton area, is a development of more than 160 homes, being built as part of the Glasshoughton regeneration scheme, which includes an indoor ski centre and a retail village, all located on the former site of Glasshoughton Colliery.

Specialist contractor PC Construction had designed and installed low height EcoCrib gravity retaining walls to maximise the development area for phase one of Poppy Grange. Tensar was brought in to design and supply materials for the 220m long, 6.6m high reinforced soil wall running along the edge of, and maximising the space for phase two of the development.

Tensar, working with PC Construction for main contractor Waystone, proposed its TensarTech EcoCrib reinforced soil system to form the crib style walls, with slope angles of 76°, using colliery spoil recovered from another part of the site.

Tensar uniaxial geogrid reinforced the colliery spoil fill behind the wall face, joined to the durable recycled polymer EcoCrib facing units using a secure bodkin connection. Both EcoCrib facing units and Tensar geogrids have BBA HAPAS certificates.

Construction of the 1,106m^2 wall was completed in just 30 days over the wet winter of 2017, which meant handling the sensitive colliery spoil particularly challenging, ready for the start of house building in early 2018.

Specialist installer:
PC Construction

Principal contractor:
Waystone

Principal designer:
AECOM

Client:
Taylor Wimpey Homes

"Using TensarTech EcoCrib allowed the client to quickly get a wall finish consistent with the first phase and saved money by enabling the reuse of non-standard colliery spoil, which has a high pH, ruling-out many alternative solutions."

Craig Roberts
Product & Technology Manager
Walls and Slopes

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