

Forder Valley Viaduct Bridge Plymouth

Client

Plymouth City Council

Contractor

Balfour Beatty

Consultant

AECOM

Works Completed

2023

The Forder Valley Link Road is a new link between the A38 highway and the area north of Plymouth. The roadway serves as a key infrastructure project, unlocking growth and accommodating the new residential, leisure, retail, and health facilities planned over the next 15 years.

A significant bridge was required to span the Forder Valley floor, AECOM designed a 140m long 4-span integral structure which was supported at each abutment on concrete columns, the columns would be sleeved through Reinforced Earth walls to isolate the loads generated from column displacement.

Reinforced Earth Co. Ltd. (RECo) designed and supplied the 11m high abutment walls using its polymeric soil reinforcing strap system (GeoStrap). Due to the discrete nature of the soil reinforcement it is easy and cost effective to pass the straps between the bridge support columns without effecting the structural capacity of the system.

High tenacity polymeric soil reinforcement and the 140mm thick precast concrete facings of the structure combine to provide a considerable reduction in CO2 emissions over other options for the retaining walls.

Shortly after completion the scheme was named Transportation Project of the Year in the CIHT (Chartered Institution of Highways and Transportation) South West Regional Awards.

(photographs courtesy of Jamie Haigh)

