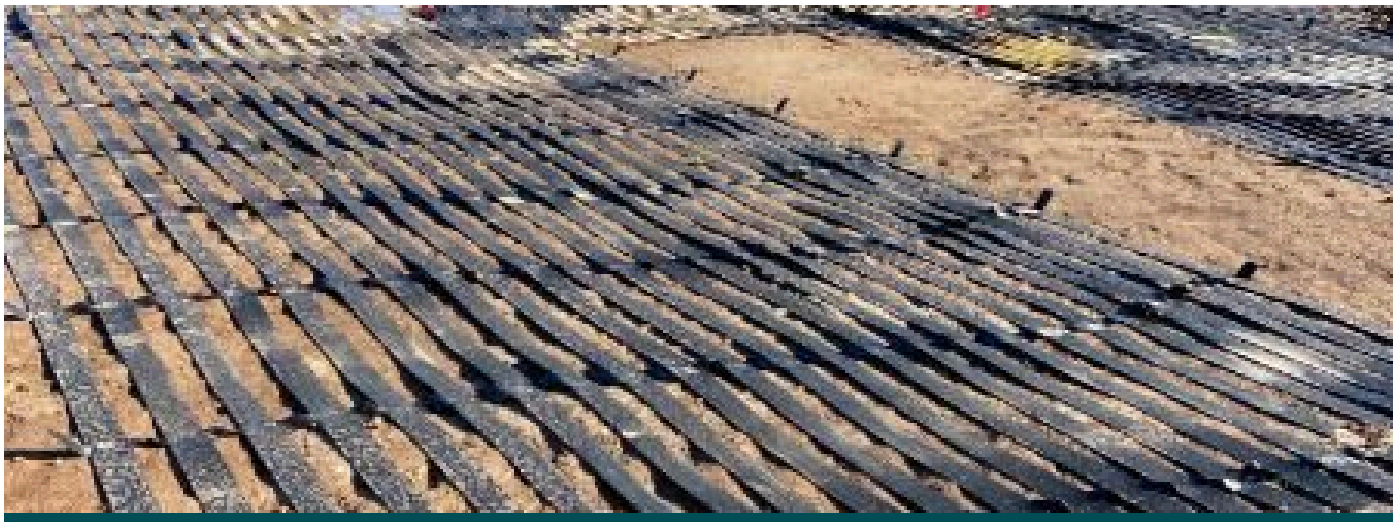
Pickford Green Interchange, Coventry Soft Ground Stabilisation Using High-Strength Geogrids

Coventry



TYPE OF PROJECT	YEAR OF CONSTRUCTION	CLIENT	CONTRACTOR	DESIGNER
Construction Over Soft Soils	**2022**	**Pell Frischmann**	**Breheny Civil Engineering Ltd**	**Pell Frischmann**

PROD. RELATED
MonoAxial GeoGrids (5600m2)

Challenge

The Pickford Green Interchange is a strategically important highway infrastructure project on the A45, west of Coventry, designed to enable significant residential and commercial development. The scheme will support the delivery of up to 2,400 new homes and a 15-hectare business park comprising R&D, light industrial, and distribution facilities. Central to the project is the construction of a new grade-separated interchange and overbridge, replacing two existing junctions to improve traffic capacity and safety.

A major geotechnical challenge was encountered along the northern approach embankment, where construction was planned over soft ground. These poor ground conditions posed a high risk of differential settlement, a common issue in highway embankment construction that can lead to structural deformation, reduced lifespan, and increased maintenance requirements. Without an effective ground stabilisation solution, the long-term performance and safety of the interchange would be at risk.

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Paralink being installed within the embankment footprint.



Granular fill being distributed over the Paralink basal layer.

Solution

To overcome these challenges, Maccaferri collaborated closely with Pell Frischmann in 2022 to design a high-performance basal reinforcement solution using Paralink 600 high-strength geogrids. This ground engineering approach was specifically developed to stabilise the soft ground and minimise differential settlement across the embankment.

In September 2022, Maccaferri supplied 5,600m² of Paralink 600 to Breheny Civil Engineering Ltd for installation. The geogrid was laid in a fanned configuration to maximise coverage of the weak ground while ensuring sufficient anchorage within the embankment footprint. This installation method improved load distribution, enhanced embankment stability, and significantly reduced the risk of uneven settlement.

Paralink geogrids are industry-leading geosynthetic reinforcement solutions, engineered with high-tenacity polyester yarns encased in a durable polyethylene sheath. This unique composition provides exceptional tensile strength, flexibility, and resistance to environmental factors. The monoaxial structure ensures optimal performance in load-bearing applications such as reinforced soil structures and highway embankments.

With a BBA-certified 120-year design life, Paralink geogrids are widely trusted in infrastructure and civil engineering projects worldwide. Their resistance to physical, chemical, and biological degradation makes them particularly suitable for soft ground stabilisation and long-term ground improvement. The solution delivered at Pickford Green Interchange ensures a durable, cost-effective, and sustainable foundation for this critical transport and development project.

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