



# Highland Spring

The Journey from Road to Rail

- ✓ Removal of 8,000 truck movements per year



# Highland Spring Group

Highland Spring natural source water is carefully drawn from protected land from the Ochil Hills in Scotland. The company is committed to providing healthy hydration in an environmentally sustainable way.

With a high volume of lorry movements in and out of the site each year, the business recognised that by delivering their products across the UK via rail, rather than road, they could significantly reduce their carbon emissions.

The Group's headquarters and bottling plant in Blackford is situated beside a national railway line, which meant that developing a freight terminal on land adjacent to the production facility could be a feasible option. This would enable the containers to be transported by rail freight to external warehousing in England.

However, the ground conditions on the site contained areas of peat and marshland which was unlikely to provide a sufficiently stable base for a railway terminal.

Luddon Construction, Highland Spring Group's civils contractor enlisted ATG Group's expertise to consider potential earthworks solutions for the site.



# The Challenge

From the off, the biggest obstacle facing our project management team was the land itself.

The new freight terminal included space for container storage, vehicle parking, two sidings, a loading facility, and a gantry crane to lift the containers onto the train. The working area is around 500m in length by 60-70m wide.

An early plan was to excavate around 25,000m<sup>3</sup> of soft, marsh soils and take these to a facility for disposal – replace the 25,000m<sup>3</sup> with imported aggregate and then import another 25,000m<sup>3</sup> to get the site to the required level to build the concrete base and sidings.

This option would have required 5,330 lorry movements.



# The Solution



Rather than disposing of the 25,000m<sup>3</sup> unsuitable soil in landfill, ATG Group proposed to stabilise the soil.

By stabilising the material, we could create (along with some imported aggregate) a solid base foundation to start building from.

We took samples from the site and carried out extensive testing and found that our in-house soil stabilisation technique would be an ideal solution for this site.

Over the course of 20 weeks, we carried out an in-situ ground stabilisation programme, significantly reducing the amount of offsite disposal.

We created a solid base for the freight terminal without removing materials from the site, using our cutting-edge technology and in-house expertise.

# The Outcome

By utilising our in-house soil stabilisation techniques, ATG Group developed a solid platform, strong enough to accommodate the requirement of the new facility

This facility will remove the need for 8,000 lorry movements per year, reducing their CO<sub>2</sub> emissions by 3,200 tonnes. This is the equivalent of 2,588 return flights from London to Los Angeles.

By re-using the soil on site:

- We prevented 38,871 tonnes of unsuitable soil from being sent to landfill.
- We removed 5,300 lorry movements during the construction phase of the project.
- We achieved the required California Bearing Ratio (CBR).
- A full validation report was completed by an independent technical engineering consultant and signed off by the client.



Get in touch



# ATG group

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