

## Vivergo Fuels Depot, Hull

### Our Services

- Interpretation of Site Investigation Data
- Geotechnical Design of Vertical Band Designs
- Settlement Prediction
- Verification
- Supporting Investigation



### Ground Improvement Design

**CGL** undertook geotechnical design work as part of the development of the Vivergo Fuels Depot in Hull, on behalf of specialist contractor, Cofra UK, and Aker Solutions Limited.

**CGL** assessed the site investigation data and provided a vertical band drain design utilising in-house designed software. The vertical band drains provide preferential flow paths through the very soft alluvial clays and silts to dissipate pore water pressures due to applied surcharging of the ground, enabling an enhanced rate of consolidation to be achieved. The drainage and surcharging contributed to a reduced construction programme and also permitted a ground bearing slab design in preference to a fully piled solution.

**CGL** subsequently provided verification of the completion of the consolidation, utilising third party level monitoring data. **CARD** also undertook numerical ground modelling to support the band drain design and verification utilising PDisp, part of the Oasys suite of software, which models the ground conditions and different stages of construction. This further confirmed that the required 95% consolidation was achievable within the 3 month programme.

Residual settlements under the design loadings are predicted as being less than 30mm.

Client: Vivergo Fuels  
Contractor: Cofra UK / Aker Solutions Ltd