



Borough Green Gardens, Kent

Overview

The Borough Green Gardens is a 16-hectare site located in Kent. Developers were proposing to develop a new 'Garden Village' with circa 3,000 new homes, a new relief road, associated infrastructure and public open space. JNP Group was commissioned to undertake a range of geo-environmental and geo-environmental services including an outline earthworks strategy and proposed phased geotechnical and geo-environmental investigation and assessment to establish the viability of the development. The first phase of ground investigation and assessment was undertaken at the first area of the site known as Celcon Bowl.

Case Study

Client: Barton Willmore

Design Services Provided

- Technical review of previous data and reports.
- Production of earthworks and GI strategy report.
- Supplementary ground investigation in Celcon Bowl area.
- Contamination/groundwater/leachate and groundwater testing.
- Project Management
- Generic human health, controlled waters and gas risk assessments.
- Outline of potential remediation measures.
- Production of contaminated land local plan representatives
- Liaison with the Environment Agency.
- Regulator attendance at project meetings.



Project Solutions

The site was home to a working quarry, excavating various material including sand and gravel for local use. In addition, it was subdivided into six land parcels at different states of quarry extraction and restoration, resulting in working with multiple landowners. The quarry site posed potential risks such as soil contamination, unknown backfill material composition, areas of steep sloping ground and plant access safety issues.

Our engineers conducted regular project meetings with the client and landowners to enable our team and subcontractors to have suitable access routes and determine the ground investigation locations that were agreeable to all, as well as produce extensive RAMS.

The site was located over sensitive strata and in close proximity to a groundwater source protection zone, with various surface water courses running through. We worked with the Environment Agency to develop a suitable ground investigation scope for the intended works.

The ground investigation included a combination of trial pits, cable percussive boreholes, windowless sampler boreholes, cone penetration testing. Follow on gas and groundwater monitoring was also undertaken.



Case Study

Project Challenges

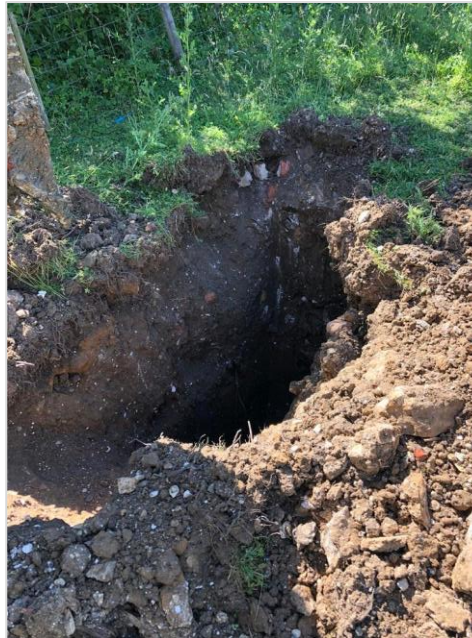
- Potential contaminated land
- Steep sloping ground
- Unknown backfill material composition
- Plant access safety issues
- Multiple landowner involvement
- Sensitive Strata
- Proximity to groundwater source protection zone
- Numerous water courses

Project Solutions

- Agreeing ground investigation scope with the Environment Agency.
- Liaising with multiple landowners to determine suitable access points and ground investigation sites.
- Regular project meetings with multiple key stakeholders

Summary

During this project JNP Group reviewed previous data and reporting that had been carried out on site and subsequently scoped, procured, and undertook a supplementary ground investigation, including contamination, groundwater and leachate testing. Our engineers consulted with the Environment Agency along with the various landowners and the client to be able to provide qualitative risk assessments for risks to health, water, and ground gases and provided guidance on geotechnical matters like foundations, slope stability, and settlement.



Case Study

JNP Group Project Team

Project Manager:

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Project Team:

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