

REMEDIATION OF METALS, BULK EARTHWORKS & SITE REPROFILING

AT A GLANCE

Client

Regional Developer and Affordable Housing Provider

Remediation Value

Circa £600, 000

Site Overview

Former agricultural land. Naturally elevated lead and arsenic associated with shallow geology. Remediation works, bulk earthworks and extensive site reprofiling were required to provide a suitable platform for the planned development consisting of 38 residential properties

Figure 1 - Reprofiting Works



Figure 2 - Final earthworks formation levels.



CHALLENGES

- Management of traffic entering/exiting site on a busy public highway with a school adjacent to site. Up to 50 loads of material were disposed from site daily.
- Successfully achieving the complex and intricate earthworks formation levels, using a combination of GPS enabled plant and setting out.
- Delivering the works ahead of programme despite periods of prolonged heavy rainfall.
- Maintaining good public relations with neighbours, despite former opposition to the development

SUCCESSES

- Development of conceptual site model, waste classification and cut/fill analysis to pre-classify all surplus materials to provide a lump-sum cost to the client.
- Development of earthworks formation model, taking into account construction make-ups below finished floor level. Targeted excavation of hazardous and non-hazardous materials unsuitable for retention on site, and subsequent off-site disposal to licensed facilities.
- Management of ecological constraints such as slow worms and nesting birds.
- Bulk excavation to earthworks formation level. Placement of clean cover system in rear gardens of contaminated area, in accordance with the approved Remediation Strategy.
- Placement of site-won suitable material in areas of fill, in accordance with the Specification of Highways Works, Series 600. This included engineered fill beneath roads to achieve an 8% CBR.
- Submission of Verification Report to regulators to gain discharge of planning conditions.