



LONDON BRIDGE BEST PRACTICE



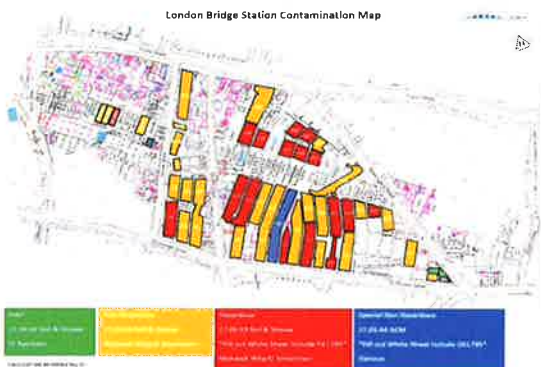
Muck Management

Overview

The London Bridge Station Redevelopment project is faced with an excess of 200,000 tonnes of soil that requires removal from site. Adding to the complexity of this task, the station is situated on the top of many Victorian arches. These arches were used in various ways over the decades, resulting in the ground beneath having different contamination profiles. Profiles range from inert to hazardous, with contaminants including lead, hydrocarbons and asbestos fibers. So far the project has produced in excess of 120,000 tonnes of soil waste with a similar amount remaining to be excavated.

On site management

Due to the complexity of the site there was a high risk of different soils being mixed thus potentially costing the project hundreds of thousands of pounds. If inert or non-hazardous soils are mixed with hazardous soil they automatically become contaminated and are then classified as hazardous. To prevent mixing of soils, a thorough testing regime and proper segregation of soils was necessary. Additionally, the amount of testing on site was increased to allow for a more accurate identification of localized hazardous hot spots.



To ensure everyone on site was aware of each arch classification and to maximise segregation, the project produced a Contamination Map. This map, which is located across site, splits the site into inert, non-hazardous, hazardous and special non-hazardous (containing trace amounts of asbestos fibers) soils. Using this map the site team has successfully maximised the segregation of soils which has enabled large cost savings for the project.

Soil Treatment

Once removed from site, Keltbray take both the non-hazardous and hazardous soil to their treatment facility. At this facility, depending on the level and type of contamination, the soil is treated using a number of methods including soil stabilisation and bioremediation.

Once treatment is complete, the soil is then placed onto a barge and taken down the River Thames too where it is then incorporated into a number of land reclamation schemes. Each barge carries 1,000 tonnes of soil; the equivalent to 50 lorry loads and generates approximately 60% less carbon emissions than if the material was transported by road.

This method of treatment ensures that 100% of non-hazardous and hazardous soils are reused/recycled.



Benefits:

- Less hazardous soil waste
- Reduced muck away costs
- Legal compliance
- 100% recycling rate for non-hazardous and hazardous soils

Objectives and Targets:

- Ensuring the project beats its target of >95% of waste diverted from landfill
- CEEQUAL – Contaminated land and waste