

REMEDIATION STRATEGY

7A COLGATE CRESCENT

MANCHESTER

1. Introduction

This remediation strategy has been prepared in response to the findings of the Phase 2 Site Investigation conducted at 7A Colgate Crescent, Manchester. The investigation identified elevated concentrations of polycyclic aromatic hydrocarbons (PAHs), including Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, and Dibenzo(ah)anthracene at a depth of 0.50m below ground level (bgl) in area DS02. The contamination appears to be present within the Made Ground and represents a potential risk to human health. The purpose of this strategy is to outline measures to mitigate potential risks to human health and the environment to ensure the site is suitable for residential use.

2. Summary of Contamination

The detected contaminants are PAHs, commonly associated with historical industrial activity or the presence of made ground. Given the residential end use of the site, these contaminants must be appropriately managed to prevent exposure through ingestion, dermal contact, or inhalation of dust. The Phase 2 report has identified a pollutant linkage, and the risks to human end users, construction workers, and the general public are currently considered to be high.

It is likely that past activities on-site, including the burning of materials, have contributed to the contamination. The combustion of organic materials can generate PAHs, which may have subsequently been deposited into the Made Ground.

Additionally, a soakaway test was carried out but failed to drain, indicating that infiltration-based drainage solutions may not be viable. This must be taken into consideration when designing surface water drainage and mitigation measures.

3. Remediation Objectives

The primary objectives of the remediation strategy are:

- To mitigate potential risks to human health from identified PAH contamination.
- To ensure compliance with relevant regulatory guidelines.
- To facilitate safe development of the site for residential use.
- To consider alternative drainage solutions due to the failed soakaway test.

4. Proposed Remediation Measures

The following remediation measures are proposed:

4.1 Excavation and Disposal

- Excavate contaminated soil from the identified hotspot in DS02 and an appropriate surrounding area to ensure the removal of impacted Made Ground.
- Transport and dispose of contaminated material at a licensed waste disposal facility in accordance with Environmental Agency guidelines.

4.2 Clean Cover System

- Install a clean capping layer across all garden and soft landscaping areas where contamination is identified.
- As per the standard 'clean cover' remediation, a minimum of 600mm of clean materials to be placed over the affected area, with a minimum of 150mm of clean topsoil.
- All imported soils must be certified as suitable for residential use.

4.3 Dust and Exposure Control Measures

- Due to the potential high risk to construction workers and the public, all site workers will be required to wear appropriate PPE, including latex gloves and dust masks.
- Provisions will be made for water on-site to damp down dust in dry conditions.

4.4 Surface Water Drainage Considerations

- Due to the failed soakaway test, alternative drainage solutions will need to be considered, such as connection to existing surface water drainage systems or the implementation of a below ground water storage area or attenuation tank.
- The final drainage design should comply with local authority and Environment Agency requirements to prevent surface water pooling or run-off contamination.

4.5 Verification and Validation

- A verification statement will be produced upon completion of remediation.

5. Regulatory Compliance and Monitoring

- All works will comply with relevant UK environmental and health regulations, including the Contaminated Land Statutory Guidance and Environmental Protection Act 1990.

6. Conclusion

The proposed remediation strategy ensures that all identified risks associated with PAH contamination at the site are appropriately managed. The remediation measures, including excavation, capping, dust control, and drainage considerations, will be implemented to ensure the site is safe for residential use.