



CROSSRAIL INFORMATION PAPER

D3 – EXCAVATED MATERIAL AND WASTE MANAGEMENT STRATEGY

This paper outlines the strategy for managing surplus materials that will arise from the construction of Crossrail.

It will be of particular relevance to those in the vicinity of the proposed Crossrail works.

This is not intended to replace or alter the text of the paper itself and it is important that you read the paper in order to have a full understanding of the subject. If you have any queries about this paper, please contact either your regular Petition Negotiator at CLRL or the Crossrail helpdesk, who will be able to direct your query to the relevant person at CLRL. The helpdesk can be reached at:

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1. Introduction

1.1 This Information Paper outlines the strategy for managing surplus materials that will arise from the construction of the Crossrail project. Surplus materials have been categorised as excavated materials and demolition and construction waste.

1.2 The construction of Crossrail is expected to generate approximately eight million cubic metres of surplus material. The majority of this will be clean material excavated from the tunnel sections of the Crossrail route, the remainder mainly being construction and demolition waste. The anticipated breakdown of surplus materials is provided in the following table. These figures estimate the bulked volume of material allowing for the increase in volume of material following extraction.

Clean excavated material (non-contaminated):	6.0 million m ³
Construction material:	1.2 million m ³
Contaminated material:	0.5 million m ³
Demolition material:	0.3 million m ³

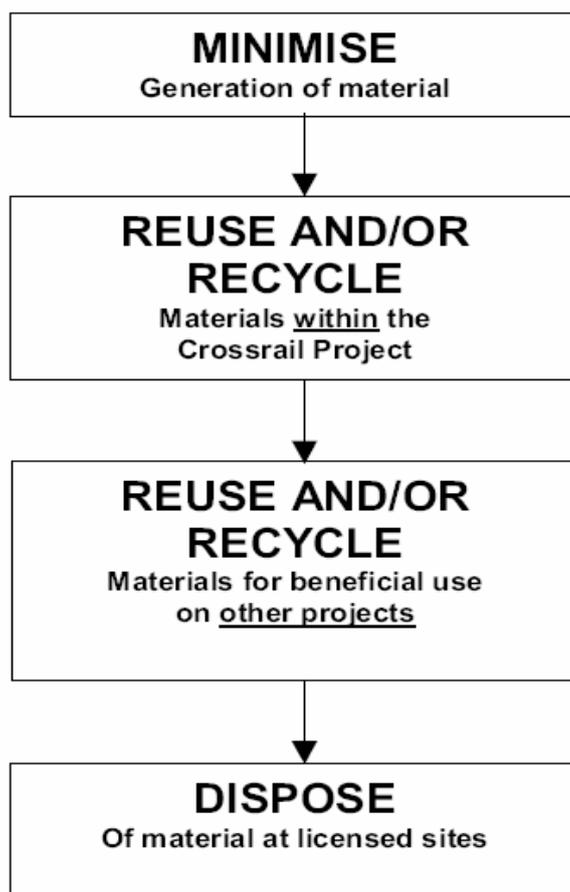
1.3 The project design is continuing to minimise the generation of excavated material by keeping to a minimum:

- the size of tunnels, shafts and stations; and
- building demolition, without compromising the functioning of the railway.

1.4 Contaminated material is material that will have been contaminated by previous activities or events and will require particular attention in handling and disposal. It includes hazardous and non-hazardous material. The Environmental Memorandum provides more information on the treatment of contaminated land (see also Information Paper D4, Treatment of Contaminated Land).

2. Materials Management Hierarchy

2.1 The nominated undertaker and any contractor will use the national hierarchy for sustainable waste management for surplus materials management. The diagram below illustrates the hierarchy in order of preference from the most desirable option at the top, to the least desirable option at the bottom:



3. Minimisation of Excavated Materials and Waste

- 3.1 Through the design process, the project has sought to reduce the amount of waste that will be produced, within the constraints of the project specification.
- 3.2 A well run construction site will minimise waste and its effect, for example, by ensuring the correct amount of construction materials are ordered and by minimising and/or recycling packaging where possible. Contractors will be required to adhere to appropriate industry standards in this respect so that construction waste will not have a major impact on the overall disposal requirements.
- 3.3 The nominated undertaker will minimise waste from construction activities as far as reasonably practicable. The successful application of waste minimisation techniques and on-site segregation of surplus materials and packaging for recycling should reduce the residual waste from construction sites to a level that will be comfortably absorbed into the existing materials recovering and transfer infrastructure in London without a major impact on the waste management strategy.

4. Re-use of Excavated Materials and Waste

4.1 The nominated undertaker and any contractors will re-use as much of the excavated material as practicable within the project area and on or near to the sites where it will be generated.

4.2 Suitable projects or other opportunities for reuse of the excavated material will be identified as the detailed construction planning of the project is progressed, preferably within the Greater London area. Demolition waste will similarly be reused, where practicable. Any contaminated material that is reused will be decontaminated prior to reuse, or if reuse is not practicable, will be transported to appropriate treatment facilities or appropriate licensed landfill sites.

5. Transportation of Excavated Materials

5.1 The revised tunnelling strategy, presented in Supplementary Environmental Statement 3 published in November 2006 (see also Information Paper D24, Tunnelling Duration and Construction Strategy), comprises fewer but longer drives in the central section as compared with the original tunnelling strategy. A key objective of the Crossrail construction strategy is to remove, where reasonably practicable, excavated material by rail and water transport.

5.2 On this basis, material would be transported by rail from railheads at:

- Royal Oak, the site of the western most portal close to Paddington; and
- Bow Midland Yard which will take material from the north-eastern portal at Pudding Mill Lane, although the tunnel drive from Pudding Mill Lane may be reversed in which case the material would be transported by conveyor to the Limmo Peninsula for removal by barge.

5.3 Excavated material would be transported by barge from worksites close to the Thames at the Limmo Peninsula shaft; Isle of Dogs station and Manor Wharf (serving Plumstead portal and the Woolwich station area).