



22c Leathermarket Street
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WASTE MANAGEMENT PLAN
DEVELOPMENT AT
SITE 2, IMAGE BUSINESS PARK,
KNOWSLEY

Prepared by Hale Architecture for Knowsley (Image Business Park) Ltd

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1.0 INTRODUCTION & SITE DETAILS

The proposed development at Imagination O2, Image Business Park will generate variable quantities and types of waste materials. This report involves an assessment of the potential environmental impacts from the waste generated for the proposed development.

The site is approximately 1.39ha, has had a long history of industrial use, see figure 2.1 below.



Figure 2.1 Existing Site

The proposals are for the redevelopment of the site for a single detached speculative industrial building, having 5,575m² of gross internal floor area for E(g)iii, B2, B8 uses together with associated services yard and parking area, see **Appendix B**

The existing Kodak office building on site was demolished in 2020 just leaving the floor slabs intact. These slabs will be broken up and re-cycled within the site to provide a base for the new build construction.

1.1. Objectives

This report describes the estimated waste streams and associated volumes arising from the construction works, and on completion and operation of the Development, and sets out the requirements for managing waste arising from the Development.

The overall objectives of this report are to assess the activities involved for the Development and determine the type, nature and estimated volumes of waste to be generated, to identify any potential environmental effects from the generation of waste at the Site, to recommend legislative and administrative requirements; and to categorise waste material where practicable (inert material / waste fractions) disposal considerations i.e. public filling areas / landfill. This report identifies any potential effects that the Development may have during construction and once complete. Appropriate mitigation and enhancement measures are outlined, and any residual effects identified.

The overall objectives of the waste management assessment are summarised below:

- I. to assess the activities involved for the proposed development and determine the type, nature and estimated volumes of waste to be generated;
- II. to identify any potential environmental impacts from the generation of waste at the site;
- III. to recommend appropriate waste handling and disposal measures / routings in accordance with the current legislative and administrative requirements; and
- IV. to categorise waste material where practicable (inert material / waste fractions) disposal considerations i.e. public filling areas / landfill.

2.0 WASTE MANAGEMENT AND ENVIRONMENTAL REGULATIONS

The main potential waste materials to be considered are the volumes of excavation and construction material, given that the demolition of the original derelict buildings had previously been completed earlier this year.

It is proposed to limit the impact of the material resulting from the breaking up of the remaining concrete slabs on site, which will be crushed, by re-using this excavation material on the site.

In the past, the excavation and re-use of soils on or from a site (either clean or contaminated) or a secondary site required the use of full Waste Management Licencing legislation. This was cumbersome, time consuming inappropriate and expensive. As such in 2008 the Environment Agency and the Contaminated Land: Applications in Real Environments (CL:AIRE) jointly developed a voluntary protocol known as the Waste Code of Practice allowing the re-use of soils in exactly this situation. In March 2011 an updated second version was produced. The Definition of Waste: Development Industry Code of Practice Version 2 (CoP -2)

The CoP is a methodology developed exactly for such a site as this, where the demolition and excavated material is to be reused. The excavated surplus soils never actually become 'waste' as their re-use is intended from the start and as such the process can be managed a lot more efficiently and cost-effectively.

The Environment Agency's statement regarding the CoP-2 can be found on their web site;

<http://www.environment-agency.gov.uk/static/documents/Leisure/PS006.pdf>

The remaining 'waste' issues on this site concern construction waste materials and more limited chemical and municipal wastes. These issues will be managed using a Site Waste Management Plan (SWMP).

In the past, under environmental legislation all construction projects over £300,000 in England must have a site waste management plan (SWMP). However, The Site Waste Management Plans Regulations 2008, were repealed with effect from 1st December 2013, with the government hoping that the de-regulation will save money for the businesses obligated by the law.

Although it is now not a legal requirement, the use of a SWMP is still considered best practice for effective management and control of 'waste' from construction sites.

The SWMP covers all aspects of construction work including preparatory work such as demolition and excavation as well as for civil engineering and engineering projects, maintenance and alteration of existing structures.

The plan will include details of what kind of waste the site produces; how the waste is disposed of; a waste carrier registration number; and details of the environmental permit or exemption number of where waste from the site is being sent to.



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An example of a SWMP template taken from the Waste Resources Action Programme (WRAP) is included as **Appendix A**.

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3.0 SITE WASTE MANAGEMENT PLAN

This section describes the estimated waste streams and associated volumes arising from the construction works, and on completion and operation of the Development, and sets out the requirements for managing waste arisings from the Development.

The overall objectives are to assess the activities involved for the Development and determine the type, nature and estimated volumes of waste to be generated, to identify any potential environmental effects from the generation of waste at the Site, to recommend appropriate waste handling and disposal measures / routings in accordance with the current legislative and administrative requirements; and to categorise waste material where practicable (inert material / waste fractions) disposal considerations i.e. public filling areas / landfill. This section identifies any potential effects that the Development may have during construction and once complete. Appropriate mitigation and enhancement measures are outlined, and any residual effects identified.

A Code of Practice on Site Waste Management Plan (SWMP) has been introduced by the Department for Trade and Industry (DTI) that has been incorporated into UK law. These tackle problems associated with the illegal deposit of construction and demolition waste by requiring contractors to identify waste streams and management procedures in advance of works. A SWMP is to be prepared in full before any construction activities are started. In relation to the Development, it would be a key driver in identifying opportunities to reuse arisings that would otherwise have been sent for landfill in addition to the identification of all treatment and disposal routes to accommodate all waste arisings that would be generated.

A review of the baseline conditions in terms of waste for the Site has been undertaken to evaluate the existing conditions of the Site and surrounding area.

1.2. Site Works

Site works are expected to commence in the summer of 2022. Demolition of existing structures has already been carried out. Grubbing out of any remaining external concrete yards and building slabs along with foundations will be carried out during the construction works. Waste which would be generated during the construction phase of the Development would include waste spoil from Site preparatory works (e.g. top soil / vegetation) excavated sub-soils material (e.g. cutting and filling to create development platforms; general construction waste (e.g. wood, scrap metal, concrete); chemical wastes generated by general Site practices (e.g. vehicle and plant maintenance / servicing); and sewage and municipal wastes generated by Site workers.

As noted earlier in this report, it is intended that excavated material, including any topsoil, will be re-used on the site for the development. The slab material to be excavated would be clean and acceptable for reuse on the site based on the Site Investigation Assessment produced by Delta Simons.

Environmental effects that may be generated during handling, storage and re-use of the excavated materials would need to be controlled. The principal adverse environmental effects relate to dust, visual effects and water quality. These issues would be covered in the CEMP and SWMP. Stockpiled soils would be sampled and sent to UKAS accredited laboratories for analysis.

The majority of the material to be excavated would be clean and acceptable for reuse on site as base material. A cut and fill exercise has been undertaken resulting in the amount of cut from the site being re-used with 298m³ of fill material being brought into the site. This process has helped derive the proposed floor levels for the unit.

Laboratory results showing the total contaminant concentrations within the soils indicate that the soils across the site can generally be classified as not hazardous for waste disposal purposes. Should there be any excess sub-soils, all natural soils except topsoil can be deemed, by default, to be suitable for disposal at an inert facility, if required, subject to agreement with the receiving facility.

Excavated materials would be reused on site as soon as it is generated in order to minimise the potential for dust or sediment-laden runoff. It is recognised that stockpiling of material would be required in some instances. Any stockpiles would be clearly segregated in terms of material type.

The majority of earth movement would take place during the first phase of works programme. The total volumes of any waste material to leave the site by road are anticipated to be very minimal if there are any at all.

The excessive generation of construction wastes increases disposal costs and may take up valuable landfill space. Implementation of good site management, planning and design considerations would be in place to reduce over-ordering and waste generation. Where possible, construction wastes such as wood and metal would be separated out from other wastes for recycling. All recyclable material would be clearly segregated and stored in appropriate skips / containers or stockpiled. Segregation of material would aid in the potential for re-use of material and in final disposal, if necessary. Material recycling or re-use reduces the requirement for new construction materials together with overall collection, transport and disposal costs. Only when material cannot be reused would it be disposed of to a public filling area (<20% non-inert materials) or, as a last resort, landfilled.

Overall, construction-related waste materials have the potential to cause adverse environmental effects during generation, storage, transport and disposal. Provided that there is strict management and control of all wastes generated on site during the works, and that material is collected handled, stored, transported and disposed of in an appropriate manner, no significantly adverse residual environmental effects would be unlikely to arise and the effects of waste generated during the Site preparation and construction phases is therefore assessed as being insignificant.

3.2 **Site Use**

The proposed end use for the Site comprises a speculative industrial premises and associated infrastructure. Therefore, without knowing what type of tenant is likely to take a lease on the building at this time and the exact processes to be carried out it is difficult to define the type and quantity of wastes generated, beyond the standard sewage and municipal wastes.

At this stage a detailed assessment of the quantities of waste materials generated has not been carried out and would be largely dependent (but not solely) upon the population of the site and the eventual uses of the unit when it has been let.

Recycling rates of the uses proposed in the Development would be dependent on the procedures implemented by the future occupant. On completion of the development, the future occupant would be provided with information on reducing, re-using and recycling waste. This information would highlight to the tenant and their staff the potential cost savings of waste management.

Recycling rates associated with the unit would be dependent on the procedures implemented by the future occupant. However, as shown on the proposed development plan, Appendix B there are two bin stores proposed (one for use from the service yard and the other for use from the office area of the unit) each capable of holding four bins which will allow for the segregation of the domestic waste produced by the occupier to facilitate recycling in accordance with the waste hierarchy and best practice requirements. Information would also be provided to site users to promote recycling and waste reduction and outline the cost savings associated with it.

Consequently, it is envisaged that the development would recycle or reuse a significant proportion of waste, which would be a significant amount of the waste generated.

4.0 CONCLUSIONS

The redevelopment works at Imagination 02, Image Business Park are expected to generate a number of waste materials. These include:

- site clearance works (limited quantities);
- fill from site preparatory works;
- construction waste materials;
- chemical wastes (limited quantities); and
- municipal / sewage wastes

These can be divided into two broad categories;

- The construction and municipal waste, and;
- Any surplus demolition waste and topsoil (limited quantity)

All of the potential impacts and mitigation measures will be managed by the site waste management plan (SWMP) in accordance with the WRAP principles, see attached for standard template, while the latter will be covered by the materials management plan within the Waste Industry Code of Practice.

Site Works:

The potential impacts of waste arisings from the construction and post construction phases of the development have been assessed. In order to suitably manage the potential environmental effects, the re-use of surplus clean material generated as part of the redevelopment of the site.

The majority if not all of the material to be excavated would be clean and acceptable for reuse on the site. The applicant's aim is to minimise the need to transport material off site or import granular material onto the site.

There will be a strict management and control of all wastes generated on site during the works to ensure that material collected, handled, stored or transported is disposed of in an appropriate manner with no significantly adverse residual environmental effects arising and therefore the effects of waste generated during the site preparation and construction phases are therefore assessed as being insignificant.

Site Use:

- The proposed development plan, **Appendix B** includes a bin store located in the service area which is capable of holding four bins, so allowing for the segregation of the domestic waste produced by the occupier to facilitate recycling in accordance with the waste hierarchy and best practice requirements.
- Consequently, it is envisaged that the development would recycle or reuse a significant proportion of waste, which would give rise to a likely overall insignificant residual effect on the quantity of waste generated.

All mitigation measures outlined within this section should be in place to control or eliminate the potential impacts to the environment from waste generation for the development site.

APPENDIX A SITE WASTE MANAGEMENT PLAN



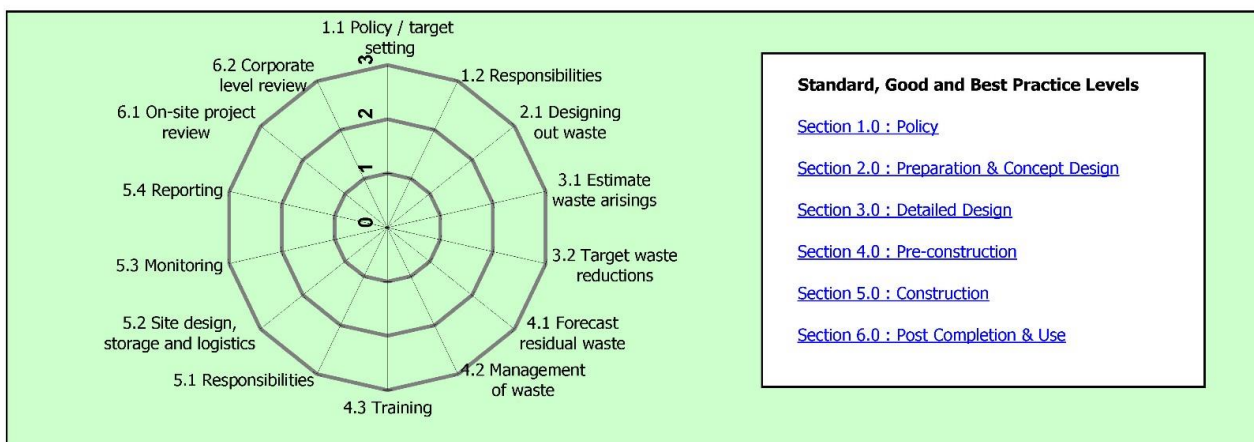
Site Waste Management Plan

Version 2.1



Project Stage	SWMP Section	Guidance	Compliance
Policy and setup	1 Enter Basic Details	Section 1.0	Pre- Construction Status: Not compliant
Preparation and concept design	2 Record Waste Prevention Actions	Section 2.0	Non Compliances: 11 / 11 Review >
Detailed design	3 Forecast Waste Record Waste Reduction Actions	Section 3.0	
Pre-construction	Specify Waste Carriers 4 Plan Waste Destinations Record Waste Management and Recovery Actions	Section 4.0	
Construction	5 Enter Actual Waste Movements	Section 5.0	Construction Status: Not compliant Non Compliances: 16 / 16 Review >
Post completion and use	KPI's 6 Reporting Sign Declaration	Section 6.0	Post Completion Status: Not compliant Non Compliances: 2 / 2 Review >

Standard, Good and Best Practice Levels



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