Government Property Agency

AtkinsRéalis



MANCHESTER DIGITAL CAMPUS

Environmental Statement
Volume 4 - Appendix 15.1:
Site Waste Management Plan

NOVEMBER 2024

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1. Introduction

1.1. Project Overview

1.1.1. This Site Waste Management Plan (SWMP) has been developed on behalf of Government Property Agency (GPA) (the Applicant/Client) for the development of the former Central Retail Park (the Project) at Greater Ancoats Street in Greater Manchester. The GPA will be submitting an application for Full Planning Permission for the new Manchester Digital Campus (MDC), comprising of two multi-storey office buildings with ground floor commercial units (the 'Proposed Development') along Great Ancoats Street.

1.1.2. The former Central Retail Park is approximately 4 ha in total. The Proposed Development area is approximately 2.98 ha (herein referred to as the 'Site'). It is located in Manchester City Centre's north-eastern fringe, at Ordnance Survey (OS) National Grid Reference (NGR) SJ 85031 98455. The Site is bounded by Great Ancoats Street to the south, Cotton Field Park and Co-op Academy New Islington to the north, Rochdale Canal Towpath to the northwest and the Phase 2 development to the southeast. The Site will be separated from the Phase 2 development by a park. Phase 2 and the park will be developed by Manchester City Council (MCC) separately.

1.2. Purpose of the SWMP

1.2.1. This SWMP for the MDC (the Proposed Development) will be completed on an iterative basis by the Principal Contractor (PC) as the Proposed Development progresses through detailed design and construction and will describe the approach to managing construction, demolition and excavation (CD&E) waste.

1.2.2. In line with the environmental aspirations of the Proposed Development and the requirements specified in ES (Volume 2) Chapter 15 Materials and Waste, this document constitutes the SWMP at the preliminary design stage.

1.2.3. The purpose of this SWMP is to identify the key waste streams that are likely to be produced from the Proposed Development and it will also be used to record how waste is prevented (through the design process), minimised, reused, recycled or disposed of. It has been developed in draft format, based on the information available at the time of writing. This is intended to aid future updates and further development of the SWMP as further data becomes available.

1.2.4. All relevant legislation, regulations and guidance applicable to waste are covered ES (Volume 2) Chapter 15: Materials and Waste.

Context

1.2.5. The principal objective of sustainable resource and waste management is to use material resources more efficiently and to reduce the amount of waste requiring final disposal by landfill. Where waste is generated, it should be managed in accordance with the waste hierarchy as displayed in Figure 1-1.

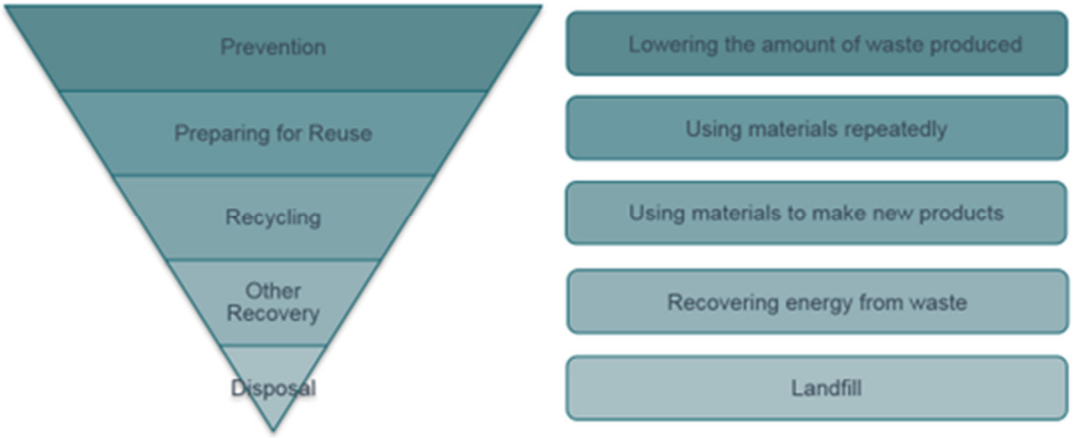


Figure 1-1 - Waste Hierarchy

1.2.6. This SWMP includes an accompanying SWMP spreadsheet which represents a working document that can be utilised to record estimated and actual waste arisings, and Duty of Care requirements throughout the Proposed Developments construction phase.

1.2.7. While work on site is carried out, the actual waste arisings and how the waste has been managed will be recorded by the PC in the SWMP spreadsheet.

1.2.8. Following completion of the Proposed Development, a review will be undertaken and recorded within the SWMP, to compare the estimated waste arisings and management options with the actual waste arisings and management options employed. The review will establish where actual waste arisings differ in volume or composition to that estimated and where different management options have been employed and provide explanation for the deviation in order for lessons to be learnt for future developments.

1.2.9. It is important to re-iterate that the SWMP is a working document that requires the relevant sections completing at different stages throughout the Proposed Development. Final completion will not take place until the Proposed Development is completed. Therefore, at any point during the Proposed Developments design and construction phase, sections of the SWMP will be incomplete.

1.3. Relevant legislation and guidance

1.3.1. Table 1-1 below summaries the legislation and regulations applicable.

Table 1-1 - Legislation and guidance

Legislation / regulation	Summary of requirements
National	
The Environmental Protection Act 1990 (as amended)	The Environmental Protection Act 1990 (as amended) establishes legal responsibilities for the duty of care for waste, contaminated land and statutory nuisance. The Project will generate wastes from demolition, earthworks and construction activities and the preferred contractor will have a duty of care for its safe keeping, transport and subsequent recovery.
The Environment Act 2021	The Environment Act 2021 makes provision for targets, plans and policies in relation to resource efficiency and waste. The Act will drive the UK to an increased circular economy, encouraging people to recycle more, simplifying household

Legislation / regulation	Summary of requirements
	recycling, requiring businesses to use sustainable packaging and restricting the export of plastic waste to developing countries. The Act repeals the Environment Act 1995 section 93 to 95. In relation to the Project and construction waste there is currently limited legislative requirements.
Waste Framework Directive	The United Kingdom left the European Union (EU) on 31 January 2020 however existing EU environmental laws will continue to operate in UK law including the Waste Framework Directive. The Waste Framework Directive, as it has been incorporated into UK to take the necessary measures to ensure that waste is recovered or disposed of without endangering human health or causing harm to the environment and includes permitting, registration and inspection requirements. The Directive as incorporated into UK Law also requires the UK to take appropriate measures to encourage firstly, the prevention of waste production and its harmfulness, and secondly the recovery of waste by means of recycling, re-use or reclamation or any other process with a view to extracting secondary raw materials, or the use of waste as a source of energy. The requirement of the Directive includes a target for the construction industry to re-use, recycle and recover 70% of construction and demolition waste.
The Waste (England and Wales) Regulations 2011	The Regulations transpose the EU Waste Framework Directive into English law and require organisations to manage waste in alignment with the waste hierarchy to prevent waste going to landfill.
The Environmental Permitting (England and Wales) Regulations 2016	The Environmental Permitting Regulations 2016 put in place requirements to ensure that sites that produce certain materials and undertake certain activities (such as the storage, use or treatment of waste) have a permit or exemption from the regulator (i.e. the Environment Agency).
Waste Management Plan for England 2021	The Plan focuses on the importance of driving waste up the waste hierarchy with a focus on waste arisings and their management and states the importance of considering the Government's ambition of achieving a zero-waste economy. The Plan puts a strong emphasis on waste prevention through making products with fewer natural resources by setting out plans for preventing products and materials from becoming waste, including by greater reuse, repair and remanufacture supported by action to ensure better design to enable this to be done more easily.
Circular Economy Package	The principles of the European Commission Circular Economy (CE) Package shall also be applied where relevant during assessment and reporting. Despite the UK leaving the EU, the government has implemented the CE measures. The Hazardous Waste (England and Wales) Regulations 2005 (as amended) establish the legislation defined in the Waste Framework Directive (Council Directive 2008/98/EC).

1.3.2. Table 1-2 below summaries the Technical Standards and Guidance applicable to this SWMP.

Table 1-2 - Technical standards and guidance

Technical standards / guidance	Summary of requirements
Duty of Care Code of Practice	The duty of care legislation makes provision for the safe management of waste to protect human health and the environment. The code applies to anyone who imports, produces, carries, keeps, treats, disposes of, or are a dealer or broker that has control of, controlled waste.

2. Responsibilities

2.1. Principal Contractor

2.1.1. The Proposed Development will be constructed by a PC. In relation to the Duty of Care requirements the PC will be considered as the producer of waste generated by the Proposed Development and will therefore be responsible for ensuring that steps are taken to:

- Prevent unauthorised or harmful deposit, treatment or disposal of waste;
- Prevent a breach (failure) by any other person to meet the requirement to have an environmental permit, or a breach of a permit condition;
- Prevent the escape of waste from your control;
- Ensure that any person you transfer the waste to has the correct authorisation; and
- Provide an accurate description of the waste when it is transferred to another person.

2.1.2. The PC will be responsible for the monitoring and implementation of the SWMP.

2.1.3. The SWMP will be refined by the PC as works progresses. Once work commences onsite the collection of waste data, including actual waste arisings and waste management methods, will be recorded in the SWMP spreadsheet by the PC (as shown in Appendix A, Table Actual Waste Arisings (example)).

2.1.4. The updated SWMP will contain the following:

- Forecasted amount of construction waste listed by waste type and waste code estimated from the design stage.
- The actual amount of construction waste listed by waste type and code.
- Final destination for all wastes as well as the offsite management, e.g. re-use, recycling, recovery or disposal.
- Appropriate data in the SWMP to estimate the re-use of site-won materials.
- Appropriate Duty of Care information (waste carrier registration, receiving site environmental permit details, waste transfer documentation etc).

2.1.5. The PC's Project Manager (or individual with the delegated duties) will undertake duties such as environmental co-ordination, instructing site staff, monitoring, supervising, collating and recording information for inclusion in the SWMP. The onsite Safety, Health, Environment and Quality (SHEQ) team or equivalent will monitor the effectiveness and accuracy of the Duty of Care documentation during site visits and scheduled audits.

2.1.6. The PC will nominate a designated Waste Manager at all stages of the Proposed Development who will have sufficient authority and clear responsibilities.

Site Induction and Toolbox Talks

2.1.7. The PC will provide general information on waste and specific information relating to the SWMP in site inductions and Toolbox Talks. This training will include information on the waste segregation strategy and recovery targets in place for the Proposed Development.

2.1.8. Toolbox talks will be carried out on waste issues as appropriate, and all relevant staff and sub-contractors will be expected to attend. The SWMP will also be communicated to relevant parties during the site induction process and where relevant, during the daily briefing process. Any changes to the SWMP will be communicated at Toolbox Talks.

Environmental Training for Key Staff

2.1.9. The PC will implement a programme of environmental training for key staff at the site, including required training in relation to waste and materials management, and waste licensing. This will enable them to train other operatives through Toolbox Talks and gather feedback from site personnel.

Sub-Contractors

2.1.10. The PC will establish agreements with sub-contractors for the management of waste. These agreements will be contractually binding and will include minimum standards and targets for diversion from landfill.

Waste Management Facilities

2.1.11. The PC will identify waste management facilities for the management of all waste streams arising from the Proposed Development whilst achieving compliance with all relevant legislation. The waste management facilities, where feasible, will be as close to the Proposed Development as possible, in line with the proximity principle for waste treatment and disposal. The proximity principle is the aspiration to treat and/or dispose of wastes in reasonable proximity to their point of generation.

Waste Management Contractors

2.1.12. The PC will engage with waste management contractors to identify opportunities for recycling waste generated by the Proposed Development. The PC will review the evidence of the waste management contractors registration and environmental permitting prior to waste departing the site. The PC will verify the waste management contractor through the Department for Environment, Food, and Rural Affairs (DEFRA) website. The PC will also store documentation provided by the waste management contractors such as waste transfer notes (this may be in electronic format to save paper).

3. Waste Targets

3.1.1. As identified in the ES (Volume 2) Chapter 15 - Materials and Waste, the following waste target is in place for the Proposed Development and will be achieved through on and offsite management:

- At least 70% (by weight) of all Construction, Demolition and Excavation waste (CD&E) and non-hazardous waste will be subjected to material recovery in accordance with the Waste Framework Directive.

3.1.2. At detailed design or during construction further targets and/or Key Performance Indicators may be added to those above.

4. Waste Forecast

CD&E Waste

4.1.1. The potential CD&E waste types that could arise during the construction phase are summarised in Table 4-1 below.

Table 4-1 - Potential waste sources during construction phase

Construction phase	Potential wastes produced	Classification of waste
Construction	Construction materials, such as concrete, bricks, plastics, metals, plasterboard, timber, paint, etc.	Inert; and/or, Non-hazardous; and/or, Hazardous.
	Made ground, soil and sub-soils.	Non-hazardous, and Hazardous if it contains sufficiently high levels of heavy metals.
	Waste products arising from the presence of construction staff onsite e.g., effluent from portable toilets, food waste and packaging, as well as waste from surplus materials and spillages.	Inert; Non-hazardous and potentially Hazardous.
Demolition	Demolition activities will generate a range of waste streams which will include building materials, such as concrete, bricks, plastics, metals, plasterboard, timber, paint, etc. Demolition activities will also generate a range of potentially hazardous waste streams which will include but not limited to: Made ground, soil and sub-soils. Asphalt and bituminous products. Existing structures containing asbestos.	Inert; and/or, Non-hazardous; and/or, Hazardous. Non-hazardous, and Hazardous which will include but not be limited to: ▪ Made ground, soil and sub-soils if it contains sufficiently high levels of heavy metals. ▪ Asphalt if it contains coal tar. ▪ Asbestos if it is confirmed in existing structures.
Excavation	Made ground, soil and sub-soils.	Inert; and/or, Non-hazardous; and/or, potentially Hazardous if it contains sufficiently high levels of heavy metals.

4.1.2. The estimated types and quantities of CD&E waste expected to be generated through the construction of the Proposed Development are displayed in Table 4-2 below. These were estimated using design information that was available at the time of the assessment (contained in the Bill of Quantities). However, they will be updated as the design and construction programme become more advanced. The table also details the expected final destination and use of these estimated wastes, demonstrating the quantity of CD&E and non-hazardous waste that will be diverted from landfill via re-use, recycling and recovery based on a landfill diversion rate of 70%.

Table 4-2 - Estimated CD&E waste

Waste Type	Forecast amount (m3)	Forecast Waste Destination		
		Recycled/Reused onsite (m3)	Recycled/Reused offsite (m3)	Disposal offsite (m3)
Concrete	400	400	N/A	N/A
Asphalt	88	88	N/A	N/A
Aggregate	12,041	12,041	N/A	N/A
Excavated Soil	42,822	N/A	42,822*	N/A
Wood	12	N/A	12	N/A
Mixed CD&E	2,725	N/A	2,725	N/A

*The designer to consider reuse on site where possible

4.1.3. During the construction phase the PC will update the construction waste forecast in the SWMP with actual waste arisings as set out above.

5. Designing out waste

5.1.1. A key objective for the design phase will be to design out waste generation where possible. The ES (Volume 2) Chapter 15 – Materials and Waste details specific mitigation measures including designing for re-use and recovery, materials optimisation, offsite construction, future (deconstruction and flexibility), as detailed below.

5.1.2. Waste that cannot be recycled or recovered, such as hazardous wastes, including any contaminated soil will be identified, segregated, and kept separate from other construction wastes, to avoid contamination. It would then be removed from site by a licensed contractor and taken to a licensed facility for appropriate management.

5.1.3. Further to the above measures, consideration should be given to reuse of materials, as opposed to purchasing new materials, where possible and construction methods and use of materials should also be considered to reduce the amount of waste from the Proposed Development. The following are some best practice measures that could be implemented to further reduce waste generation in line with the waste hierarchy and are considered good practice for the minimisation of waste during construction phase, these include:

- Enabling the purchase of materials in shape/dimension and form that minimises the creation of off-cuts (waste).
- Avoiding over-purchasing as this can lead to significant wastage. Ensuring materials are ordered for delivery shortly before they are used on the Proposed Development should also avoid possible damage and therefore wastage.
- Secure storage to minimise damaged materials/theft. Keeping deliveries packaged until they are ready to be used and the inspection of deliveries on arrival helps to reduce damage and wastage.
- Consideration should be given to what will happen to the materials specified when they reach the end of their useful life. Where possible, elements should be designed for repair, modular repair, recycling at the end of life or safe disposal. The use of hazardous materials should be minimised.

5.1.4. During construction the PC will also take into consideration the waste hierarchy displayed in Figure 1-1 with a view to minimising the overall volume of waste arisings and maximising efficient use of materials, ultimately to prevent and minimise waste sent to landfill.

5.1.5. To support the recycling and recovery aspect of the waste hierarchy, the PC will adhere to a target to recycle or recover 70% of CD&E wastes and non-hazardous wastes that leave site, therefore diverting them from landfill.

5.2. Waste Minimisation

5.2.1. In designing the Proposed Development, consideration should be given to re-use of materials, as opposed to purchasing new materials, where possible. Construction methods and use of materials should also be considered to reduce the amount of waste from the project.

5.2.2. A key objective for the design phase will be to design out waste where possible. The ES (Volume 2) Chapter 15: Materials and Waste details specific mitigation measures including designing for re-use and recovery, materials optimisation, offsite construction and future deconstruction and flexibility, as detailed below.

5.2.3. Waste that cannot be recycled or recovered, such as hazardous wastes, including any contaminated soil, will be identified, segregated, and kept separate from other construction wastes, to avoid contamination. It would then be removed from site by a licensed contractor and taken to a licensed facility for appropriate management.

5.2.4. Further to the above measures, consideration should be given to re-use of materials, as opposed to purchasing new materials, where possible and construction methods and use of materials should also be considered to reduce the amount of waste generation in line with the waste hierarchy:

- Enabling the purchase of materials in shape/dimension and form that minimises the creation of off-cuts (waste);
- Avoiding over-purchasing as this can lead to significant wastage;
- Ensuring materials are ordered for delivery shortly before they are used on the Proposed Development should also avoid possible damage and therefore wastage;
- Secure storage to minimise damaged materials/theft. Keeping deliveries packaged until they are ready to be used and the inspection of deliveries on arrival helps to reduce damage and wastage; and
- Consideration should be given to what will happen to the materials specified when they reach the end of their useful life. Where possible, elements should be designed for repair modular repair, re-use or recycling at the end of life. The use of hazardous materials should be minimised as this will generate hazardous waste.

6. Waste Storage onsite

6.1.1. The PC will follow good practice onsite to ensure waste is stored and managed effectively. While reduction of waste will remain the highest priority, different waste streams produced must be segregated and store separately. Therefore, different skips should be provided to store the different waste streams generated. This will allow materials to be reused or recycled and ultimately reduce the amount of waste that has to be finally disposed of.

6.1.2. The PC will establish waste storage and recycling areas for the safe storage of waste to ensure that opportunities for reuse are maximised. As a minimum this must include the following:

- An appropriately sized waste segregation areas within the Proposed Development to store wastes. This waste storage areas shall include impermeable surfaces with appropriate drainage. The PC will identify the appropriate drainage which would include temporary interceptors or bunded areas.
- Waste streams will require segregation into separate, adequately sized containers and be removed to a suitably licensed waste facility at regular frequencies to manage the quantities produced.
- Each container is to be kept clean and will require clear labelling, indicating the type of waste contained within to avoid contamination of wastes.
- Waste must be stored in a safe and controlled manner, without causing harmful impacts to human health and the environment. Containers used to store waste must prevent leaks or spills.
- The PC will also develop a programme of checks of the waste storage area to ensure waste is appropriately stored, containers are free from any leaks or spills and that site staff are segregating waste effectively. Where contamination of a skip is identified, the item of waste in the incorrect container will be removed and transferred to the correct container following the appropriate Health and Safety procedures.

6.2. Hazardous Waste

6.2.1. Any hazardous waste identified will be correctly labelled, will not be mixed with non-hazardous waste, will be securely contained. and disposed of by a registered waste carrier for hazardous waste.

6.2.2. The Duty of Care (DoC) applies to hazardous wastes and as such the PC will retain all consignment notes detailing the waste collection and transfer by an approved supplier before they are sent for appropriate and permitted treatment/recovery/disposal.

7. Waste Licencing

7.1.1. Any waste that is to be treated or reused on site will require an environmental permit or a registered exemption under the Environmental Permitting (England and Wales) Regulations 2010 or management in accordance with the CL:AIRE Definition of Waste Code of Practice (DoW CoP). This will need to be considered by the PC and appropriate authorisations sought and applied for.

The PC will need to ensure that all waste facilities used to send waste offsite for recovery and/or treatment are in possession of an appropriate waste management licence that allows the facility to accept, process and/or treat the waste types and quantities being sent to the facility. Documentation that these checks have been carried out should be stored on site (this may be in an electronic format to save paper).

8. Waste Transportation

8.1.1. Any wastes requiring off-site management must be transported from the Proposed Development by a waste carrier registered under the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

8.1.2. The PC must ensure that any company used to transport waste from site is a registered waste carrier and will complete a Waste Transfer Note or a Hazardous Waste Consignment Note (this may be in digital format), as appropriate.

9. Waste Documentation and Monitoring

9.1.1. The PC will ensure that all waste management is undertaken in accordance with the current waste regulatory framework, following appropriate 'Duty of Care' procedures and that waste management contractors are operating under the appropriate procedures and or licences, in accordance with Section 34 of the Environmental Protection Act 1990. This includes:

- Preventing unauthorised or harmful treatment, placement or disposal of waste;
- Preventing the escape of waste from their control; and
- Ensuring the transfer of waste is only to an authorised person or a person for authorised transport purposes where there is a written description of the waste to avoid a contravention of any environmental permits.

9.1.2. Monitoring and measurement of waste will be undertaken on a regular basis by the PC, with regular interpretations to identify trends and rectify wasteful practices. The results of monitoring will be included in regular site meetings.

9.1.3. Detailed records will be kept onsite and reviewed periodically by the PC (biannually as a minimum). These records include:

- The SWMP, updated throughout construction when required;
- Environmental permit, registered exemption or CL:AIRE DoW CoP documentation, as appropriate;
- Copies of licences, registration numbers and/or permit numbers obtained from each waste contractor;
- A register of all named waste carrier and management facilities. No waste carrier or management facility will be used unless they are listed in the SWMP, and their licensing and documentation checked and verified;
- Records of checks and or audits carried out on waste management procedures and details of any changes implemented as a result;
- Waste transfer notes and/or consignment notes to include all the following details:
    - The type of waste;
    - Amount (by estimated volumes and calculated weight where applicable) of waste;
    - List of waste (low) code;
    - Type of container waste is in;
    - Name of company collecting the waste;
    - Waste transfer and or consignment note number;
    - Carrier licence number and vehicle registration;
    - Date, time and location where the waste was collected; and
    - Name of the licensed facility to which the waste has been transferred (including contact details and licence number).
    - Waste transfer notes must be kept for a minimum of 2 years and consignment notes must be kept for a minimum of 3 years (this can be in digital format to prevent waste paper).

10. Acronyms

Table 10-1 – Acronyms

Term	Definition
CD&E	Construction, Demolition and Excavation Waste
DEFRA	Department for Environment, Food and Rural Affairs
ES	Environmental Statement
EU	European Union
GPA	Government Property Agency
MDC	Manchester Digital Campus
PC	Principal Contractor
SHEQ	Safety, Health, Environment and Quality
SWMP	Site Waste Management Plan

Appendix A.

Table 1 Actual Waste Arisings (example)

Waste Type	Forecast amount (t)	Actual amount (t)	EWC code	Actual Waste Destination		
				Recycled/Reused onsite (t)	Recycled/Reused offsite (t)	Disposal offsite (t)
Asphalt	400					
Concrete	88					
Metal	12,041					
Mixed	42,822					
Excavated Soil	12					
Timber	2,725					

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