Appendices to Chapter O
Waste

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Appendix 01
Outline Site Waste Management Plan

St James Group Limited

MILTON KEYNES EAST

Outline Site Waste Management Plan

REV1
MARCH 2021

PUBLIC

St James Group Limited

MILTON KEYNES EAST

Outline Site Waste Management Plan

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St James Group Limited

MILTON KEYNES EAST

Outline Site Waste Management Plan

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1. INTRODUCTION

1.1. BACKGROUND

1.1.1. WSP has been commissioned by St James Group Limited to prepare an Outline Site Waste Management Plan (SWMP) for Milton Keynes East (hereafter referred to as the 'proposed development').

1.1.2. SWMPs are required for planning applications by Milton Keynes Council (MKC), with the following details from their Local Validation List:

> '*Site Waste Management Plan*
>
> *Justification - To consider the waste hierarchy in respect of waste generated on site.*
>
> *NPPF (2019) paragraph 8; Plan:MK (2019) Policy SC1; National Planning Policy for Waste (2014); Waste Development Plan Document (2008) Policy WDC2.*
>
> *The plan should demonstrate that the required waste storage and waste collection arrangements can be accommodated on the site. Applicants should demonstrate that waste can be managed on-site including evidence of waste reduction, use of recycled materials and dedicated recyclable waste storage space. This should include refuse vehicle tracking plans where refuse vehicles will be collecting waste from site.*
>
> *Details on volume and type of waste to be stored and disposed of at site should be included both for the construction phase and once the development is implemented. It should highlight any potentially hazardous or polluting waste that will be generated, stored and disposed of at the site.*'

1.2. THE SITE

1.2.1. The site covers an area of approximately 437 hectares and is located to the east of Milton Keynes on the eastern side of the M1. To the east of the site is open countryside and the village of Moulsoe, to the north is the town of Newport Pagnell. To the west is the built-up area of Milton Keynes which exists beyond the M1 motorway which cuts through the site

1.2.2. The majority of the site is in agricultural use. There is an existing 'Holiday Inn' hotel on London Road and a travellers site on Willen Road. An area of land to the east of Willen Road and south of Caldecote Farm is currently used as a sand and gravel extraction site. There are small groups of dwellings existing and inset within the scoping boundary. These include those around Caldecote Farm and Pyms Stables, as well as a number of isolated dwellings including Hermitage Farm on Newport Road.

1.2.3. An area previously used for motocross is located in adjacent to the M1 motorway but this use is now abandoned.

1.2.4. The River Ouzel is a major existing feature of Milton Keynes East and forms the primary landscape corridor. It runs south-north through the site.

1.3. DESCRIPTION OF DEVELOPMENT

1.3.1. The scheme is a Sustainable Urban Extension with new residential and employment development to meet the long-term needs of Milton Keynes. The development will include the following:

- Approximately 4,000 homes up to 4,600 (maximum parameter tested);
- Up to 403,650 sqm employment floorspace;
- A community hub including a range of shops and services;

- Other facilities within the site such as allotments and burial space;
- A 10FE secondary school;
- 3 x 2/3FE primary schools;
- A linear park along the River Ouzel corridor;
- New Redways, pedestrian and cycle routes including a number of grade separated crossings;
- Strategic highway infrastructure, including a new bridge over the M1 motorway, a new bridge over the River Ouzel floodplain and a new bridge over the River Ouzel on Tongwell Street;
- Access roads and other transport infrastructure, including buses, connecting into Milton Keynes;
- The diversion of some existing Public Rights of Way and the Stopping Up of some lengths of Public Highway to facilitate development and delivery of the strategic highway infrastructure;
- A new bridge over the M1 motorway, access route and other transport infrastructure connecting into Milton Keynes; and
- Associated infrastructure, drainage and other works.

1.4. REPORT STRUCTURE

1.4.1. The report is set out in the following format:

- **Section 1: Introduction**
- **Section 2: Management of Construction, Demolition and Excavation Waste** - outlines the strategy that will be adopted to prevent, minimise and manage waste arising from the construction phase of the proposed development.
- **Section 3: Management of Operational Waste** - outlines the strategy that will be adopted to manage waste arising from the proposed development once operational.
- **Section 4: Summary & Conclusions**

2. MANAGEMENT OF CONSTRUCTION, DEMOLITION AND EXCAVATION WASTE

2.1. INTRODUCTION

2.1.1. This section outlines how overarching waste management processes and practices will be undertaken during the various construction phases of the proposed development.

2.2. CONSIDERATE CONSTRUCTORS SCHEME

2.2.1. The Principal Contractor(s), once appointed, will register their site with the 'Considerate Constructors Scheme'. This is a national initiative, set up by the construction industry. Sites that register with the Scheme sign up and are monitored against a Code of Considerate Practice, designed to encourage best practice beyond statutory requirements.

2.2.2. The Scheme is concerned about any area of construction activity that may have a direct or indirect impact on the image of the industry as a whole. The main areas of concern fall into three categories: the environment, the workforce and the general public. Waste management is a key area of focus and on-site considerations may include:

- How waste is avoided, reduced, reused, and/or recycled;
- Whether there is a Waste Management Plan/Strategy and how this is monitored; and
- The type of feedback received (if any) as to how much waste on-site is diverted from landfill.

2.2.3. It is expected that registered construction sites work in an environmentally conscious, sustainable manner.

2.3. DEMOLITION, SITE PREPARATION AND EARTHWORKS

2.3.1. The proposed development will involve demolition activities.

2.3.2. The specific quantities and types of demolition material have not been determined at this stage, as pre-demolition audits have not yet been commissioned. Therefore, it is not yet possible to generate an estimate of waste arising from the demolition phases of the proposed development.

2.3.3. The demolition and site clearance works will likely take place by reducing the buildings' height from the top down. It is most likely that the demolition works will be carried out in the following sequence, comprising:

- Removal of any ACM and other hazardous materials from the area, if applicable;
- Soft strip;
- Demolition of structures; and
- Removal of ground slabs.

2.3.4. Detailed pre-demolition audits will be undertaken by appointed contractors before such activities take place, to quantify the types of demolition waste materials.

2.3.5. Materials will be segregated into waste streams such as metals, timber and hardcore. The separated materials will be loaded as required for off-site recycling or disposal. The demolition contractors will work closely with the developers to ensure full compliance and deliverability of recycling targets.

2.3.6. Demolition arisings will be crushed on-site where possible and stored in central stockpiles for use in the construction process where practicable.

2.3.7. It is assumed that no earth will be removed from site, with surplus material (approximately 580,000m^3) proposed to be used in the creation of noise bunds and embankments for routes across the floodplain. A consolidation centre may be required which would be located within the south-west corner of the site. Further details are provided in Chapter I 'Ground Conditions' of the Environmental Statement.

2.3.8. A Materials Management Plan (MMP) would be developed which would include a specific soils management plan.

2.3.9. Waste arising from site clearance, primary infrastructure and earthworks phases is expected to comprise topsoil, rubble, tarmac from former hard-standings, gravel and clay material.

2.3.10. Any clean excavated material that cannot be reused on-site will be removed by licensed waste carriers and sent for reuse at another local development site or sent for disposal at appropriately licensed facilities (these are expected to be inert waste landfill sites).

2.3.11. Any contaminated material found that requires removal from the site will be collected by suitable waste carriers and sent for disposal at appropriately licensed hazardous waste facilities.

2.4. CONSTRUCTION WASTE

2.4.1. A Construction Environmental Management Plan (CEMP) will be prepared prior to construction to ensure the implementation of measures to reduce any significant adverse effects during the construction process. The Framework CEMP is outlined in Chapter C 'Site and Scheme Description' of the Environmental Statement.

2.4.2. During each stage of the construction process there is the potential to generate waste from a variety of means, including the over-ordering or on-site damage of raw materials and construction process waste, such as material off-cuts, packaging and chemical residues.

2.4.3. Opportunities for minimising construction waste are discussed in this section, considering issues such as reducing waste through selection of more sustainable raw materials and the implementation of effective on-site waste management practices.

ESTIMATED CONSTRUCTION WASTE

2.4.4. The Building Research Establishment (BRE) has developed indicators to aid in the calculation of construction waste arisings at the design of a new development. The Environmental Performance Indicator (EPI) measures tonnes of waste/100m^2 of gross floor area.

2.4.5. **Table 2-1** shows the relevant EPI for the proposed development.

Table 2-1: Construction Waste Benchmarks

Project Type	Tonnes/100m^2 Gross Floor Area
Residential	16.8
Public Buildings	22.4
Leisure	21.6
Industrial Buildings	12.6
Healthcare	12.0
Education	23.3
Commercial Offices	23.8
Commercial Retail	27.5
Commercial Other	7.0

Source: BRE Waste Benchmark Data (issued June 2012)

2.4.6. The indicators applicable to the proposed development have been used to measure construction waste generation and relate to rates where no minimisation, reuse or recycling of materials has taken place. This will provide the baseline figure against which a reduction in waste arisings would then be planned.

2.4.7. **Tables 2-2** and **2-3** show the estimated construction waste arisings for the residential and non-residential elements of the proposed development respectively, based on the indicative average floor areas per residential unit type and indicative floor areas of non-residential buildings, together with the relevant EPI from the BRE.

Table 2-2: Estimated Construction Waste Arisings (Residential)

Description	Type	No Units. (Baseline)	No. Units (Max.)	Indicative Floor Area per Unit (sqft)	Indicative Floor Area per Unit (sqm)	Indicative Total Floor Area (sqm) (Baseline)	Indicative Total Floor Area (sqm) (Max.)	Tonnes / 100sqm Floor Area (BRE)	Estimated Construction Waste (Tonnes) (Baseline)	Estimated Construction Waste (Tonnes) (Max.)
Apartments	1 bed	224	507	557	52	11,591	26,236	16.8	1,947	4,408
	2 beds	320	976	735	68	21,839	66,609	16.8	3,669	11,190
Houses	2 beds	544	600	818	76	41,328	45,583	16.8	6,943	7,658
	3 beds	1,102	941	1,055	98	108,010	92,230	16.8	18,146	15,495
	4 beds	1,102	903	1,439	134	147,283	120,686	16.8	24,743	20,275
	5 beds	548	489	2,004	186	102,013	91,029	16.8	17,138	15,293
Extra Care Apartments	1 bed	128	147	557	52	6,624	7,607	16.8	1,113	1,278
	2 beds	32	37	976	91	2,902	3,355	16.8	487	564
Total		**4,000**	**4,600**	**-**	**-**	**441,589**	**453,335**	**-**	**74,187**	**76,160**

Table 2-3: Estimated Construction Waste Arisings (Non-Residential)

Description	Assumed BRE Project Type	Estimated Max. Total Floor Area Sought (sqm)	Tonnes / 100sqm of Floor Area (BRE)	Estimated Max. Construction Waste (Tonnes)
Employment	Industrial Buildings	403,650	12.6	50,860
Secondary School	Education	35,400 *	23.3	8,248
Primary Schools (x3)	Education	40,500 **	23.3	9,437
Commercial	Commercial Retail	10,500	27.5	2,888
Community Space	Public Buildings	1,000	22.4	224
Total	-	-	-	**71,656**

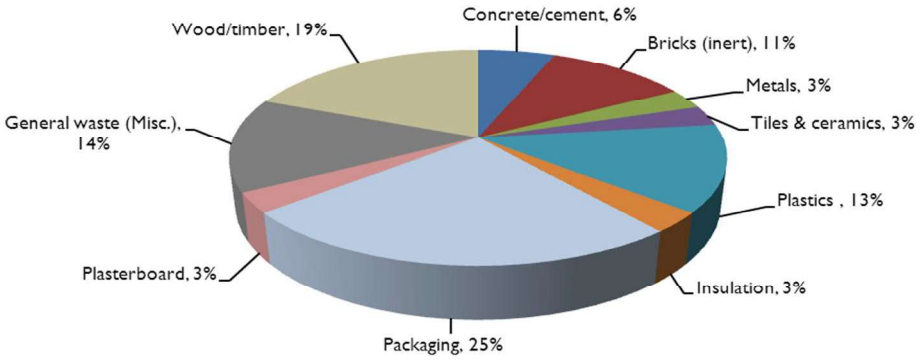
* Assumption that 30% of total area sought for the Secondary School (11.8 ha, 118,000 sqm) is built on.
** Assumption that 50% of total area sought for the Primary Schools (8.1 ha, 81,000 sqm) is built on.

2.4.8. It is estimated that approximately 74,187 to 76,160 tonnes of construction waste from the residential elements and an estimated maximum of 71,656 tonnes from the non-residential elements will be generated. The total construction waste arisings from the proposed development are therefore estimated to be 145,843 to 147,816 tonnes. Over the duration of the construction works (26 years), this equates to an average of approximately 5,609 to 5,685 tonnes per year, although this is likely to vary significantly according to the construction programme and phasing.

2.4.9. The information based in **Tables 2-2** and **2-3** above is based on standard waste management practices in the UK and the estimated volumes identified have significant potential to be reduced through best practice on-site waste minimisation and management. The estimated waste arisings data can be used as an indicator for measuring and monitoring waste generated. This will enable the setting of realistic and attainable waste minimisation and management targets.

2.4.10. **Figure 2-1** illustrates the estimated composition of construction waste arisings for the proposed development, based on data from UK construction projects of a similar nature.

Figure 2-1: Estimated construction waste composition (Source: SmartWaste)



2.4.11. **Table 2-4** shows the typical recovery rates of construction materials.

Table 2-4: Recovery rates of construction materials

Material	Standard recovery* %	Good practice recovery* (quick win) %	Best practice recovery* %
Timber	57	90	95
Metals	95	100	100
Plasterboard	30	90	95
Packaging	60	85	95
Ceramics	75	85	100
Concrete	75	95	100
Inert	75	95	100
Plastics	60	80	95
Miscellaneous	12	50	75
Electrical Equipment	Limited information	70**	95
Furniture	0-15	25	50
Insulation	12	50	75
Cement	Limited information	75	95
Liquids and oils	100	100	100
Hazardous	50	Limited information***	Limited information***

* Proposed waste management actions

'Reuse' and 'recycling' are forms of waste recovery.

** This is a required recovery target for the type of Waste Electrical and Electronic Equipment (WEEE) likely to be produced from construction sites, e.g. lighting (the WEEE Regulations).

***This cannot be 100% as most hazardous waste streams (e.g. asbestos) must be landfilled.

2.4.12. Hazardous waste materials will be stored in secure bunded compounds in appropriate containers which are clearly labelled to identify their hazardous properties and are accompanied by the appropriate assessment sheets.

2.4.13. Any fuels, oils and chemicals that are used will be stored in appropriate containers within secure bunded compounds in accordance with good site practice and regulatory guidelines and located away from sensitive receptors.

2.5. RAW MATERIAL AND WASTE STORAGE

2.5.1. Emphasis will be placed on the provision of appropriate storage conditions for raw materials and key waste streams relating to each development plot. This will include the segregation of material for reuse or recycling on-site. Where this is not practicable, materials will be segregated for off-site recycling.

2.5.2. The locations of the waste storage areas will be clearly labelled, identifying the materials that can be received. Provisions that will be made include:

- Temporary offices and work compounds on-site will retain all details relating to the waste strategy for the site, health and safety and monitoring and reporting details.
- Storage areas for raw materials and assembly areas for construction components will be located away from sensitive receptors;
- Clearly identified containers for segregated waste streams for reuse and recycling; and
- Dedicated skips will be provided for any construction waste that requires off-site disposal.

2.5.3. In addition, the provision of effective and secure storage areas for construction materials is important to ensure that potential loss of material from damage, vandalism or theft is avoided. These measures will be supported by ensuring well-timed deliveries to the site, providing on-site security and installing temporary site security fencing.

2.5.4. Implementation of good practice measures in terms of on-site storage and security practices will assist in reducing unnecessary wastage of material and ensure that high standards are maintained throughout the development process.

2.6. SETTING TARGETS

2.6.1. Appropriate targets and objectives will be set in relation to the minimisation and recycling of any waste materials during earth works and construction. This will ensure that a clear action plan is generated for the management of specified types and quantities of materials identified for each of the construction stages. These targets will be agreed at the inaugural meeting between the Principal Contractors, the contractors and MKC.

2.6.2. To ensure that the system of waste prevention, minimisation, reuse and recycling is effective, consideration will be given to the setting of on-site waste targets and a suitable programme of monitoring at regular intervals to focus upon:

- Quantifying raw material wastage;
- Quantifying the generation of each waste stream;
- Any improvements in current working practices;
- Methods by which the waste streams are being handled and stored; and
- The available waste disposal routes used, e.g. landfills, waste transfer stations.

2.6.3. The Principal Contractors on each development plot will be responsible for the setting and review of waste targets from the outset of the development process to ensure that high standards are maintained with the emphasis being on continual improvement. Specific waste quantification and monitoring will assist in determining the success of waste management initiatives employed on each construction site and progress against these targets should be relayed back to the appropriate stakeholders.

2.7. PROMOTION OF BEST PRACTICE

2.7.1. As part of the encouragement of on-site best practice, there will also be a need to ensure that suppliers of raw materials to the proposed development are committed to reducing any surplus packaging associated with the supply of any raw materials. This includes the reduction of plastics (i.e. shrink wrap and bubble wrap), cardboard and wooden pallets. This may involve improved procurement and consultation with selected

suppliers regarding commitments to waste minimisation, recycling and the emphasis on continual improvement in environmental performance.

2.7.2. **Table 2-5** summarises the most important mitigation measures to minimise the potential waste of on-site materials during construction. It is important to note, however, that not all construction materials will be provided by local suppliers.

Table 2-5: Measures to reduce the wastage of on-site construction materials

Ordering	**Delivery**
Avoid: Over-ordering (order 'just in time') Ordering standard lengths rather than lengths required Ordering for delivery at the wrong time (update programme regularly)	Avoid: Damage during unloading Delivery to inappropriate areas of the site Accepting incorrect deliveries, specification or quantity
Storage	**Handling**
Avoid: Damage to materials from incorrect storage Loss, theft or vandalism through secure storage and on-site security	Avoid: Damage or spillage through incorrect or repetitive handling

2.7.3. Where practicable, waste streams that have the potential to be reused on-site or transported off-site for recycling will need to be segregated. Although every effort will be made to retain all suitable materials on-site, it is possible that some of these materials cannot be reused or recycled during the construction process. In these situations, the Site Managers will work to identify a nearby Transfer Station or suitably licensed facility in order for material to be redistributed as fill on other suitable sites. This represents the most sustainable alternative to landfill disposal.

2.8. TRANSPORT AND TRAFFIC INPUTS

2.8.1. The logistics associated with construction waste are affected by a wide range of factors. The quantity and types of waste materials generated will fluctuate during the construction phases and the resulting number of waste collections will be dictated by a range of variables, including the amount of storage space for waste, the capacity of waste containers used, the materials segregated for recycling and whether any on-site processes are used for reducing the volume of waste (e.g. compactors / balers / shredders etc.).

2.8.2. The Principal Contractors will be expected to provide construction waste logistics forecasts, which will be discussed with waste contractors and MKC following appointment of relevant parties.

2.8.3. The impact of traffic associated with the movement of construction and waste materials on surrounding neighbourhoods and the local road network will be minimised by a combination of factors. These include reducing the need to import / export materials; and minimising off-site removal of waste to landfill. Dedicated haulage routes will be agreed with MKC to minimise disturbance to local communities.

3. MANAGEMENT OF OPERATIONAL WASTE

3.1. INTRODUCTION

3.1.1. This section outlines the strategy which will be adopted to manage the waste arising from the proposed development once operational.

3.1. LOCAL WASTE MANAGEMENT SERVICES

3.1.1. **Table 3-1** outlines the waste management services that are currently provided by and on behalf of MKC.

Table 3-1: Waste management services

Service	Details
Refuse collection	Black sacks
Recycling collection	Clear sacks for paper, card, cartons, cans, tins, foil trays, aerosols, plastic bottles, plastic trays and pots Blue box for glass bottles and jars Battery bag for household batteries
Garden and food waste collection	Green wheeled bin
Bulky waste collection	Chargeable service
Household Waste Recycling Centres	Bleak Hall, Chesney Wold, MK6 1NE New Bradwell, Newport Road, MK13 0AH Newport Pagnell, North Crawley Road, MK16 9HG

3.2. GENERATION OF HOUSEHOLD WASTE

3.2.1. **Table 3-2** outlines how the average annual waste generation rate per household was established using Milton Keynes waste data for 2018-19.

Table 3-2: Average household waste generation for Milton Keynes

Total household waste generated within Milton Keynes in 2018-19 (tonnes)[1]	117,272
Total number of households within MKC boundary (September 2020)[2]	116,510
Estimated average waste generation per household per year (tonnes)	1.01

[1] Defra (2018) *ENV18 - Local authority collected waste: annual results tables* https://www.gov.uk/government/statistics/local-authority-collected-waste-management-annual-results

[2] MKC (2020) *Housing Stock* https://www.milton-keynes.gov.uk/assets/attach/67535/Comp3_20.xls

3.2.2. The average household waste generation rate per household per year was therefore 1.01 tonnes.

3.2.3. The calculation of future household waste generation has been estimated using MKC waste statistics. The figures can only be considered indicative as a variety of factors, such as the on-going national and local promotion of waste prevention, minimisation and recycling, consumer habits and population changes, will affect waste generation rates in future years.

3.2.4. The average household waste generation rate calculated in **Table 3-2** above was used to provide an estimate of the waste arisings from the future residents of the proposed development. This is outlined in **Table 3-3**.

Table 3-3: Estimated household waste arising

Description	No. Units	Estimated average waste generation per household per year (tonnes)	Tonnes / year	Tonnes / week *
Baseline	4,000	1.01	4,040	78
Maximum	4,600		4,646	90
* Figure has been rounded				

3.2.5. At this stage it is estimated that if current waste generation levels remained constant, the proposed development could potentially generate 4,040-4,646 tonnes of household waste per year (78-90 tonnes per week) from the residential units. This would be the equivalent to an additional 3.4-4% on Milton Keynes' household waste generation from 2018-19 (117,272 tonnes).

3.3. STORAGE OF RESIDENTIAL WASTE

INTERNAL STORAGE

3.3.1. Each of the residential properties will be provided with a segregated waste bin, which will be fixed into an appropriate kitchen unit and enable the separation of recycling from refuse.

3.3.2. An example of a segregated bin is shown in **Figure 3-1**.

Figure 3.1: Example segregated bin[3]

EXTERNAL STORAGE – HOUSES

3.3.3. Each house will be provided with a suitable hard surface within the curtilage of the property of sufficient size on to which the required external storage containers will fit (**Table 3-1** above).

3.3.4. The preferred location for the waste storage areas is at the rear of the property within a designated area. To ensure safe usage, sufficient space will be allocated to allow each container to be individually accessed and removed by residents.

3.3.5. Storage of waste containers within front gardens or driveways would be generally avoided, unless it can be designed as an integral part of the building and architectural design.

3.3.6. Where practicable, space will be provided in private gardens for the installation of home composting units by residents.

3.3.7. For bulky waste, residents will make arrangements with MKC for collection and temporarily store the waste in an agreed location on their property.

EXTERNAL STORAGE – FLATS

3.3.8. Waste storage for flats will comprise high quality communal bin stores for the separate collection of refuse, recycling, and food waste.

3.3.9. In accordance with good practice, residents would not be required to transport their waste more than 30 metres from their front doors to their nearest communal bin store.

3.3.10. Waste stores would be designed to the standards within *BS5906:2005 Waste management in buildings - Code of practice*.

3.3.11. All waste storage areas will be clearly labelled to ensure cross contamination of refuse and recycling is minimised.

[3] Source: http://www.thecodestore.co.uk/shop/details/1536/213/waste/was1-storage-of-non-recyclable-waste-and-recyclable-household-waste/built-in-kitchen-bins/code-66-litre-tandem-waste-bin,-1x34,-2x16-litre.html

3.3.12. Floor surfaces will be of a smooth, continuous finish and free from steps or other obstacles. Any steps will incorporate a drop-kerb.

3.3.13. For bulky waste, it has been assumed that residents will make arrangements with MKC for collection and temporarily store the waste in an agreed location at ground floor level.

3.4. COLLECTION OF HOUSEHOLD WASTE

Collection from Houses

3.4.1. The distance from the curtilage of properties (or the agreed collection point for wheeled bins) to the Refuse Collection Vehicle (RCV) should not exceed 15 metres.

3.4.2. Where properties are located off the main and secondary collection routes (i.e. those with private driveways), residents will be required to take their wheeled bins to agreed collection points. These will be established with MKC at the detailed design stage.

3.4.3. Cul-de-sacs would be avoided where RCVs would need to reverse more than 12 metres. Collection routes would permit RCVs to continue mainly in a forward direction.

3.4.4. Swept path analyses for RCVs have not yet been undertaken, however they would accompany future detailed planning applications.

Collection from Flats

3.4.5. In accordance good practice, the distance from communal waste stores to the RCV should not exceed 10 metres, as it is assumed that 4-wheeled containers will be the primary storage option.

3.5. GENERATION OF COMMERCIAL WASTE

3.5.1. **Table 3-4** identifies the estimated waste generation from the non-residential elements of the proposed development, based on floor area and appropriate benchmarks from British Standard *BS5906:2005 Waste management in buildings - Code of practice*, unless otherwise stated.

Table 3-4: Estimated commercial waste arising

Description	Estimated Max. Total Floor Area Sought (sqm)	Weekly waste arising (Tonnes)	Annual waste arising (Tonnes)	Comments on methodology and assumptions
Employment	403,650	92	4,770	Volume per m2 of floor area [5 l] × floor area [a]
Commercial	10,500	4	186	Volume per m2 of sales area [10 l] × sales area
Community Space	1,000	0.2	12	Volume per m2 of floor area [5 l] × floor area
Description	No. Pupils	-	-	-
Secondary School	1,500 [b]	1	33	Volume arising per pupil: secondary school (22kg) [c]
Primary Schools (x3)	1,680 [d]	1	76	Volume arising per pupil: primary school (45kg) [c]
Total	**-**	**98**	**5,077**	**-**

Assumptions:

[a] 75% of the total floor area is sales area.

[b] The Secondary School is 10FE, has 30 pupils per form and five year groups (i.e. no Sixth Form)

[c] Source: *Recycle Now - How Much Does Your School Waste?*

[d] Two Primary Schools are 3FE and one Primary School is 2FE, they have 30 pupils per form and seven year groups

3.5.2. It has been estimated that the proposed development could therefore generate up to 5,077 tonnes of commercial waste per year (up to approximately 98 tonnes per week), assuming that the maximum gross floorspace will be constructed and occupied. It should be noted that these figures should be considered as indicative as the application is at the outline stage and so to determine the worst-case effect, maximum numbers have been considered.

3.6. STORAGE AND COLLECTION OF COMMERCIAL WASTE

3.6.1. The commercial elements of the proposed development will be provided with dedicated or shared waste storage areas to facilitate the segregation of recyclable materials.

3.6.2. All waste storage areas will be clearly labelled to ensure that cross contamination of refuse and recycling is minimised.

3.6.3. Retailers and commercial tenants will be encouraged to undertake their own waste audit and create an Action Plan to set targets for reducing, reusing and recycling their waste streams.

3.6.4. It is assumed that collection of commercial waste will be undertaken via external waste management contractors. It will be the responsibility of the occupiers to arrange for refuse and recycling to be collected from their premises.

3.6.5. The frequency of waste collection will be dependent upon several factors including the volume of waste generated; the storage method (i.e. whether balers and waste compactors are used); and the schedule of the appointed waste contractor.

3.6.6. The opportunity for the segregation and off-site composting of organic waste generated from any landscaping and grounds maintenance activities will be provided by the external company contracted to undertake this work.

3.6.7. Typically, the collection of non-residential waste would be undertaken via private waste management contractors (or MKC's trade waste service), with the tenants being responsible for making arrangements to suit their own requirements.

3.6.8. The proposed development's internal vehicular access routes will be designed to ensure that Refuse Collection Vehicles (RCVs) can access bin storage areas in accordance with the requirements of *BS5906:2005 Waste management in buildings – Code of practice*.

3.6.9. Surfaces that waste containers need to be moved over would be of a smooth, continuous finish and free from steps or other obstacles. Any steps would incorporate a drop-kerb. Measures would be taken by the tenants to ensure that access to the agreed collection points would not be restricted on collection days.

4. SUMMARY AND CONCLUSION

4.1. SUMMARY

Construction Waste

4.1.1. The Principal Contractor(s), once appointed, will register their site with the 'Considerate Constructors Scheme'.

4.1.2. Pre-demolition audits will be undertaken by appointed contractors before such activities take place, to quantify the types of demolition waste materials.

4.1.3. Hazardous waste materials will be stored in secure bunded compounds in appropriate containers which are clearly labelled to identify their hazardous properties and are accompanied by the appropriate assessment sheets.

4.1.4. Emphasis will be placed on the provision of appropriate storage conditions for raw materials and key waste streams relating to each development plot. This will include the segregation of material for reuse or recycling on-site.

4.1.5. Appropriate targets and objectives will be set in relation to the minimisation and recycling of any waste materials during earth works and construction.

Operational Waste

4.1.6. Each of the residential properties will be provided with a segregated waste bin, which will be fixed into an appropriate kitchen unit and enable the separation of recycling from refuse.

4.1.7. Each house will be provided with a suitable hard surface within the curtilage of the property of sufficient size on to which the required external storage containers will fit.

4.1.8. Waste storage for flats will comprise high quality communal bin stores for the separate collection of refuse, recycling, and food waste.

4.1.9. The commercial elements of the proposed development will be provided with dedicated or shared waste storage areas to facilitate the segregation of recyclable materials.

4.1.10. All waste storage areas will be clearly labelled to ensure that cross contamination of refuse and recycling is minimised.

4.2. CONCLUSION

4.2.1. This Outline SWMP has taken into account the need to lessen the overall impact of waste generation through the construction and operational phases of the proposed development.

4.2.2. The proposals set out in this statement meet the requirements of relevant waste policy and follow applicable guidance.

4.2.3. Means by which to further reduce the waste arisings and increase recycling rates from the proposed development have been identified, to ensure that it can achieve an improved waste management performance.

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