

Oxford Property Trading Ltd & Bruntwood

**PHASE 1B, FORMER BBC SITE
OXFORD ROAD, MANCHESTER**

**Building 2, 3 and 4
Planning Application No:
111025/FO/2016**

**Waste and Servicing Strategy
Addendum Report**

VN50526/Building 2,3 and 4

April 2016

REPORT CONTROL

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1 CIRCLE SQUARE - BUILDINGS 2,3&4 WASTE PRO FORMA

1.1 Introduction

1.1.1 This Waste and Servicing Strategy Addendum has been prepared by Vectos in support of the planning application by Oxford Property Trading Ltd for Buildings 2, 3 and 4 which form part of the proposed Phase 1B development of the former BBC Site on Oxford Road, Manchester now named Circle Square.

1.1.2 The Waste and Servicing Strategy for the whole of Phase 1B including Buildings 2, 3 & 4 was submitted with the planning application and this document set out the combined servicing strategy. This combined strategy is considered essential in reducing the number of refuse vehicles arriving. In effect a refuse vehicle will conduct a collection round picking up at the various collection points.

1.1.3 It is therefore considered essential that this Addendum be considered within the context of the site-wide Waste and Servicing Strategy submitted with each application, which encapsulates the information included within the attached report and accurately reflects how these buildings will operate together.

1.2 Proposed Uses of Buildings 2, 3 and 4

1.2.1 This report will present the waste management strategy for Buildings 2, 3 and 4. Building 2 will provide 18 storeys and Building 4 with provide 14 storeys comprising offices (Class B1) with ground and mezzanine floor commercial uses (Class A1, A2, A3, A4, B1, D1, D2). The development will also include all associated access and servicing, alongside development of public realm, including public green space with pavilion building at basement level.

1.2.2 Building 3 is located central to the site and consists of a pavilion incorporating land use Classes A1, A3, A4, D1, D2 with associated access and servicing.

1.2.3 The retail land uses, A1, A3, A4, D1 and D2 offer flexibility for occupiers. The waste calculations vary between these types of land use. Therefore the developer has provided a likely occupier forecast that is focused on the location within the site and the attractiveness of each unit. This has been used to forecast the waste generation.

- 1.2.4 The report next presents a completed Waste Proforma as described in Manchester City Council's **Appendix E** for Planning Applications and goes onto predicting various waste streams generated by the occupiers of Buildings 2, 3 and 4, the refuse storage provision and sets out the strategy for minimising and the collection of waste.

WASTE PROFORMA



**MANCHESTER
CITY COUNCIL**

Planning Application – Waste Management Strategy

Planning Application Number: 111025/FO/2016
Date Submitted: 29th March 2016

Estimated volumes and types of waste produced by the development

Low Rise Domestic N/A

Waste Types	Capacity Required (litres)	Number of Bins required	To be provided ?
General refuse	240	1 x 240 litre bin	☐
Pulpable Recycling	140 / 240	1 x 140 litre bin 1 x 240 litre bin	☐ ☐
Mixed Recycling	140 / 240	1 x 140 litre bin 1 x 240 litre bin	☐ ☐
Garden Waste	240	1 x 240 litre bin	☐
Food Waste	23	1 x 23 litre caddy	☐

High Rise Apartment Developments N/A

N = Number of Apartments

Waste Types	(V) Volume of Waste Generated	Capacity Required (litres)	Number of Bins required	Number of Bins proposed by applicant
General refuse	$V = N \times 110$	$V =$	$V / 1100 =$	
Pulpable Recycling	$V = N \times 55$	$V =$	$V / 1100 =$	
Mixed Recycling	$V = N \times 55$	$V =$	$V / 1100 =$	
Food Waste	$V = N \times 5$	$V =$	$V / 240 =$	

Commercial Developments

Please state number and capacities of bins you propose, showing calculations where appropriate. Please ensure collection frequencies are included.

Building 2 31 x1100 litre Eurobins
Building 3 5 x1100 litre Eurobins
Building 4 19 x1100 litre Eurobins

Estimated at 5 Collections per week. Collections combined with other Buildings in Circle Square.

Waste Calculations & Assumptions

Office Use

The waste forecast for Office land use is derived from BS5906:2005 which forecasts a waste generation of 50 litres per employee per week. In this analysis we have assumed that there would be one employee per 10m² GEA of B1 office space.

Retail

The standard non-food retail operation is assumed to generate waste at a rate of 10 litres per square metre per week based on a rate for shopping centres given in BS5906:2005.

Restaurant

The restaurant units are assumed to generate waste at 75 litres per cover per week based on BS5906:2005.

Bars/Wet Led Unit

The volume from this type of use can be variable. We have used a City Centre Bar/Pub as a representative example and obtained the waste forecasts from the *Pubs, Clubs & Licensed Premises – Study of Waste Arising and potential for Recycling. Final Report. Renew Tees Valley Ltd*). These types of premises typically generate one 660litre bin for glass per week, and 1 x 1100litre bin for food and two x 1100litre Eurobins for Paper /Card and an extra 1 x Eurobin for General Waste.

Public Realm/Multi-Storey Car Park

Waste from public waste bins in the public realm and multi-storey car park are assumed to generate the equivalent of 1100 litres or one Eurobins worth of waste per week.

BUILDING 2

A proportion of the total floor area of Building 2 is made up of 852m² A1, A3 and A4 retail uses and 12,942m² of commercial B1 office space. Considering the A1, A3 & A4 uses first:

A1, A3 AND A4 USES

Restaurant Unit at 330m², 100 covers = 7500 litres of waste per week

Bar at 121m² = 4x1100litres & 1x660litres Glass

A1 Retail Unit 65m² = 650 litres of waste per week.

A1 Retail Unit 122m² = 1,220 litres of waste per week.

A1 Retail Unit 214m² = 2,140 litres of waste per week.

In total, Building 2 the A1, A3 & A4 units generate a weekly volume of **11,510 litres** of waste and require a total of **16 bin lifts** per week. It is predicted that there would be **5 collections per week**.

Recycling of A1, A3, A4 Waste

The WRAP Study of Waste in the Hospitality Sector gives the waste recycling rates for Restaurants and pubs and are presented below. These recycling rates assume best practice is applied:

Restaurant 7500 litres waste

- General Refuse (10%) = 781 litres
- Paper Card (22%) = 1687 litres
- Mixed Recycling (7%) = 497 litres
- Glass (21%) = 1573 litres
- Organic (39%) = 2962 litres

Bar 4400 litres waste +660 litres Glass

- General Refuse (13%) = 798 litres
- Paper Card (17%) = 1072 litres
- Mixed Recycling (8%) = 506 litres
- Glass (no % applied) = 660 litres
- Organic (33%) = 2024 litres

Retail 4010 litres waste

Retail waste equates to 4010 litres. When the recycling proportions for A1 Retail are applied to the given amount of waste the following percentages are calculated:

- General Refuse (50%) = 2,005 litres
- Paper/Card (25%) = 1,002 litres
- Co-Mingled Glass/Metal/Plastics (25%) = 1,003 litres

BUILDING 2

B1 OFFICE USE

Total B1 Office Waste Generated

A total floor area of 12,942m² of Building 2 is made up of commercial office space. The volume of waste generated by this land use is calculated based on 50 litres of waste per employee per week.

Assuming 10 sqm per employee, the total number of employees anticipated in Building 2 is 1,294. This therefore equates to a total of **64,700 litres of waste per week**.

This equates to 59 bin lifts per week. It is predicted that there would be **5 collections per week**.

Recycling of B1 Office Waste 64,700 Litres Waste

The total volume of commercial waste equates to 64,700 litres. When the recycling proportions for office land use are applied to the given amount of waste the following percentages are calculated:

- General Refuse (30%) = 19,410 litres
- Paper Card (50%) = 32,350 litres
- Plastics and Packaging (3%) = 1,941 litres
- Metals (10%) = 6,470 litres
- Glass (2%) = 1,294 litres
- Organic (5%) = 3,235 litres

BUILDING 3

A1, A3, A4, D1 & D2 USES

Building 3 comprises a flexible space which is primarily anchored by a 200 cover restaurant space plus exhibition space. That exhibition space is assumed to host events and this is assumed to offer the equivalent of 100 covers.

As previously outlined, the expected volume of waste is calculated as 75 litres of waste per cover per week. For Building 3 this equates to:

- 300 covers = 22,500 litres of waste per week

Total Number of Bins Required for Retail Waste

It is anticipated that Building 3 will require 21 bin lifts per week. It is predicted that there would be **5 collections per week**.

Recycling of A1,A3, A4, D1 & D2 Retail Waste

The total volume of the Restaurant waste equates to 22,500 litres. When the recycling proportions for A3/A4 Bar/Restaurant are applied to the given amount of waste the following percentages are calculated:

- General Refuse (10%) = 2,343 litres
- Paper Card (22%) = 5,061 litres
- Co-Mingled (7%) = 1,490 litres
- Glass (21%) = 4,719 litres
- Organic (39%) = 8,887 litres

Public Realm/Multi-Storey Car Park

The Waste Collected from public waste bins in the public realm or Multi-Storey Car Park is estimated as **1100 litres of waste per week**

BUILDING 4

Building 4 comprises of 1,198m² of A1 retail space and 16,673m² of commercial office space.

A1 USES

4X A1 Retail Units

The A1 retail space is assumed to be made up of the following types of uses; fashion, electronics, furniture and coffee shops.

As previously stated, the waste generation of A1 retail is based on 10 litres of waste per square metre. Therefore the breakdown for the A1 sales areas of Building 4 are as follows:

A1 331m² = 3,310 litres of waste per week (3 bin lifts per week)

A1 296m² = 2,960 litres of waste per week (3 bin lifts per week)

A1 341m² = 3,410 litres of waste per week (3 bin lifts per week)

A1 230m² = 2,300 litres of waste per week (2 bin lifts per week)

In total, Building 4 therefore generates a weekly volume of **11,980 litres** of retail waste and require **11 bin lifts per week**. It is predicted that there would be **5 collections per week**.

Recycling of A1 Retail Waste

The total volume of A1 Retail waste equates to 11,198 litres. When the recycling proportions for A1 Retail are applied to the given amount of waste the following percentages are calculated:

- General Refuse (50%) = 5990 litres
- Paper/Card (25%) = 2995 litres
- Co-Mingled Glass/Metal/Plastics (25%) = 2995 litres

BUILDING 4

B1 Commercial Office Use

A total floor area of 16,673m² of Building 4 is made up of commercial office space. The volume of waste generated by this land use is calculated based on 50 litres of waste per employee per week.

Assuming 10 sqm per employee, the total number of employees anticipated in Building 4 is 1,667. This therefore equates to a total of **83,350 litres of waste per week**.

This equates to **76 bin lifts per week**. It is predicted that there would be **5 collections per week**.

Recycling of B1 Office Waste

The total volume of commercial waste equates to 83,350 litres. When the recycling proportions for office land use are applied to the given amount of waste the following percentages are calculated:

- General Refuse (30%) = 25,005 litres
- Paper Card (50%) = 41,675 litres
- Plastics and Packaging (3%) = 2,501 litres
- Metals (10%) = 8,335 litres
- Glass (2%) = 1,667 litres
- Organic (5%) = 4,168 litres

Has / will a contract be obtained with a licenced waste carrier?	Y
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Mixed Use Developments

Are the stores for residential and commercial separate from each other?	N/A
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Internal Stores (Residential and Commercial)

Please provide details of internal stores / segregation of waste and recycling.

The occupiers of Buildings 2, 3 & 4 would all initially have bins stores within their own demise. They would typically have bins for 80litre sacks for general refuse, paper/card, co-mingled recyclables (glass/metal/plastic) and organic waste.

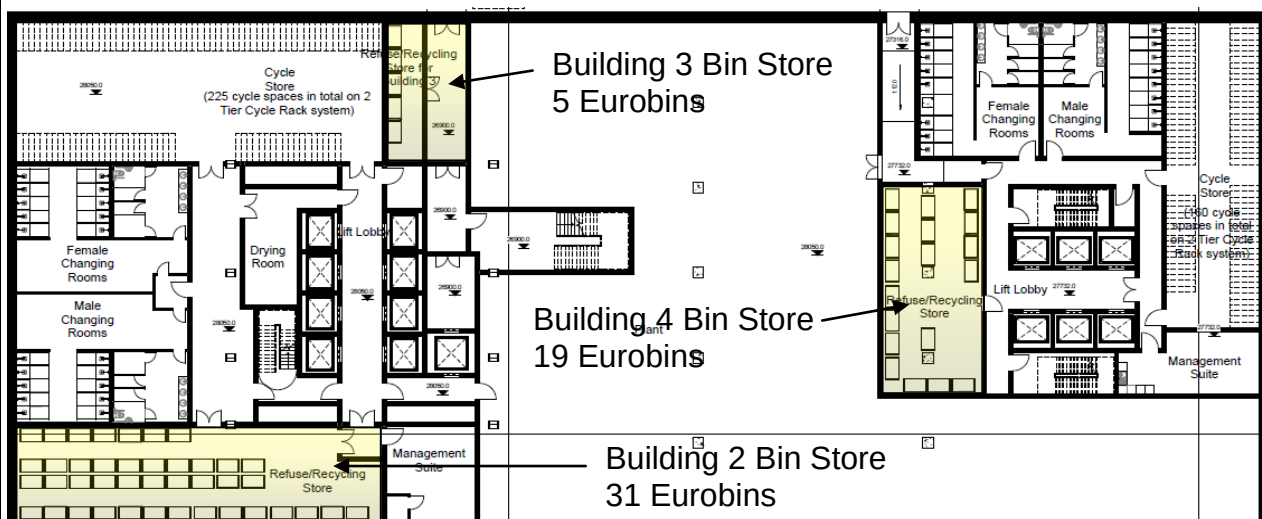
Some occupiers may generate more specific waste streams depending on the type of use. Bars or other occupiers that generate significant volumes of glass waste will use a wheeled bottle skip to transfer glass waste to the bin store. Large volumes of organic waste would be collected in food caddys and transferred by hand.

It will be the responsibility of the occupier to separate the waste at source and put that into the appropriate bin. That waste would then be transferred to the bin store by the occupiers staff or their cleaner under their direction. This transfer of waste may with refuse sacks, bins with handles or wheeled depending on the size and weight of the waste to be moved. This waste transfer would typically use the goods lift to access the bin store.

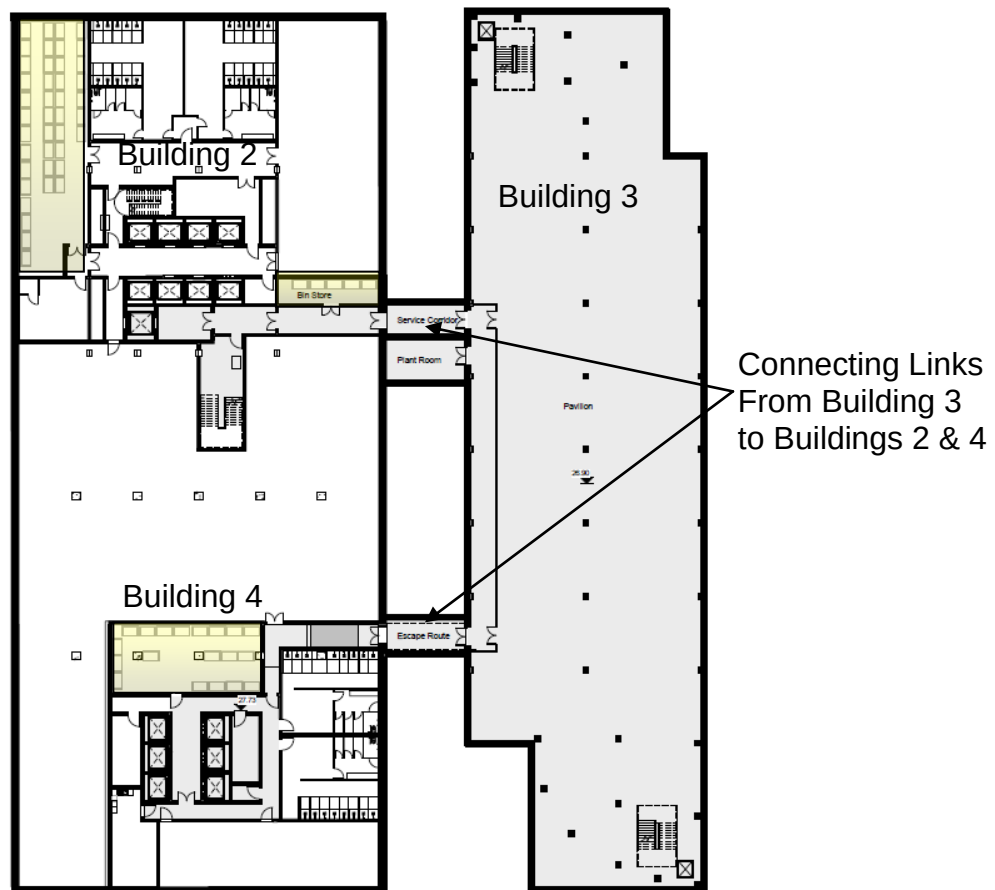
Storage Areas for Waste Containers (Residential and Commercial)

Please provide details of container stores, attaching plans if appropriate.

The layout of bin stores for Buildings 2, 3 and 4 are shown in the attached plan below.



There is a connecting basement link from Building 3 to Buildings 2 and 4 over which the bins would be transferred ready for collection. This is shown below:



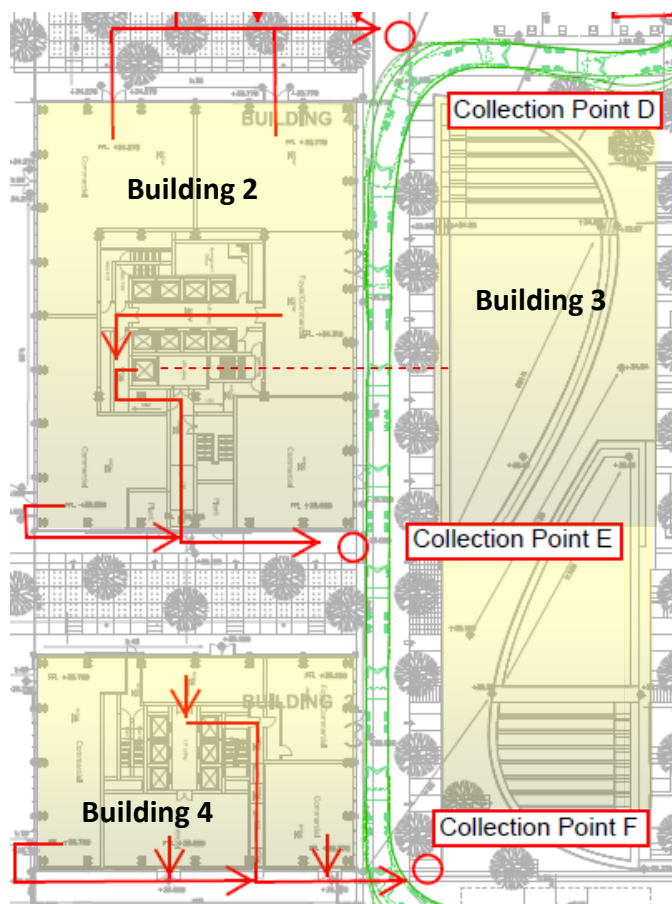
Bins will be collected from numerous dedicated collection points from Buildings 2, 3 and 4 as shown on the attached plan below.

In summary, the following buildings will be served by their respective collection points:

- Buildings 2 Retail Units would have their bins collected at Collection Point D.
- The rest of the occupier waste for Building 2 and also Building 3 will be served by Collection Point E.
- Building 4 will be served by Collection Point F.

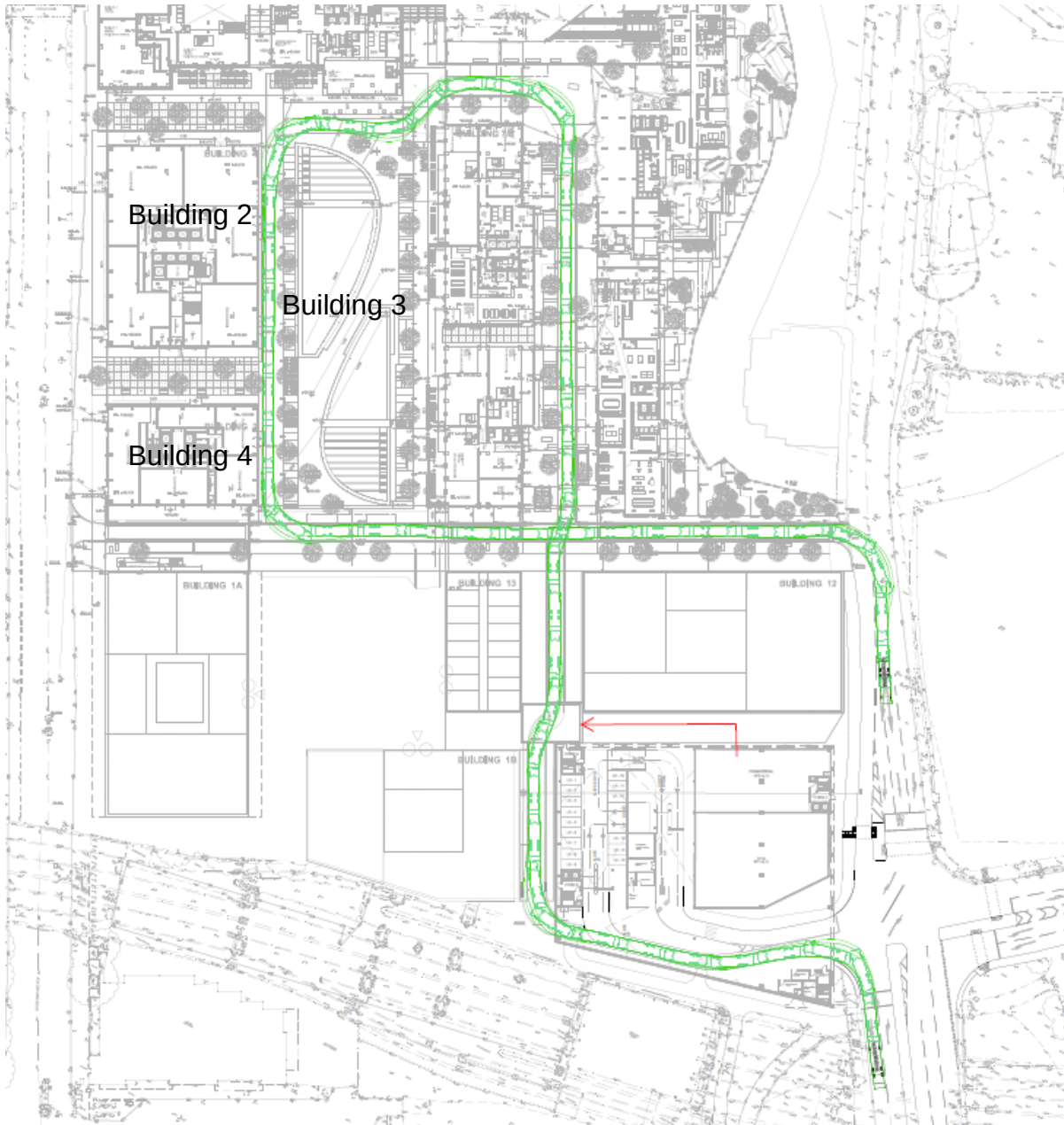
The attached plan also shows the route from the relevant ground floor units or the goods lifts to the relevant Collection Point.

Bins would be brought out immediately prior to collection and returned immediately after. This process may be undertaken by the waste operatives ensuring that the bins are not left out on street.



The southern area of Building 3 will be served by Collection Point F whereas the northern area of Building 3 will be served by Collection Point D.

The Route of Refuse vehicles accessing the collection points is shown below.



Are all bins in the store accessible?	Y
Are recycling facilities as easy to access as general refuse?	Y
Has consideration been given to ventilation and hygiene?	Y

Please provide details of who will be responsible for placing the bins at the collection point and returning them to the store / property promptly e.g. resident / management company

The Management Company has responsibility but may employ the Refuse Collection operators to undertake this operation. The bins would be taken out immediately prior to and returned immediately after collection.

Please ensure that you have attached:

Detailed plans of waste stores	Y
Location plans showing stores	Y
Location plans showing the proposed collection point and the route the collection vehicle will take	Y

Please ensure that you have completed this form in accordance with our Guidance document: GD04 Waste Storage and Collection Guidance for New Developments