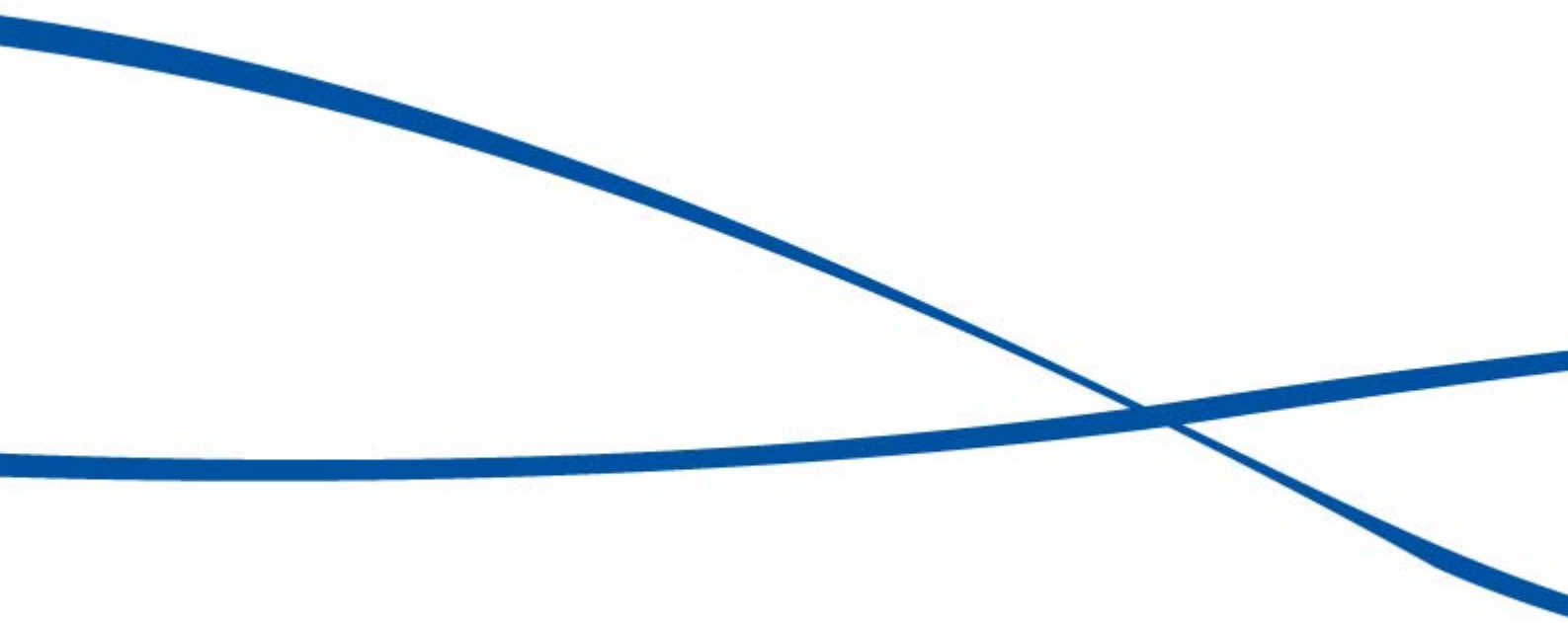


**Renaker Build Ltd**

## **CROWN STREET PHASE 2**



### **Site Waste Management Strategy**

**VN91388**

**February 2020**

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## REPORT CONTROL

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**Project:** Crown Street Phase 2

**Client:** Renaker Build Ltd

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|------------------|--------------|--------------------|----|

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| Dwg 10292-5-SHP-G000 PL 00 SK03 | Site Context Plan                         |
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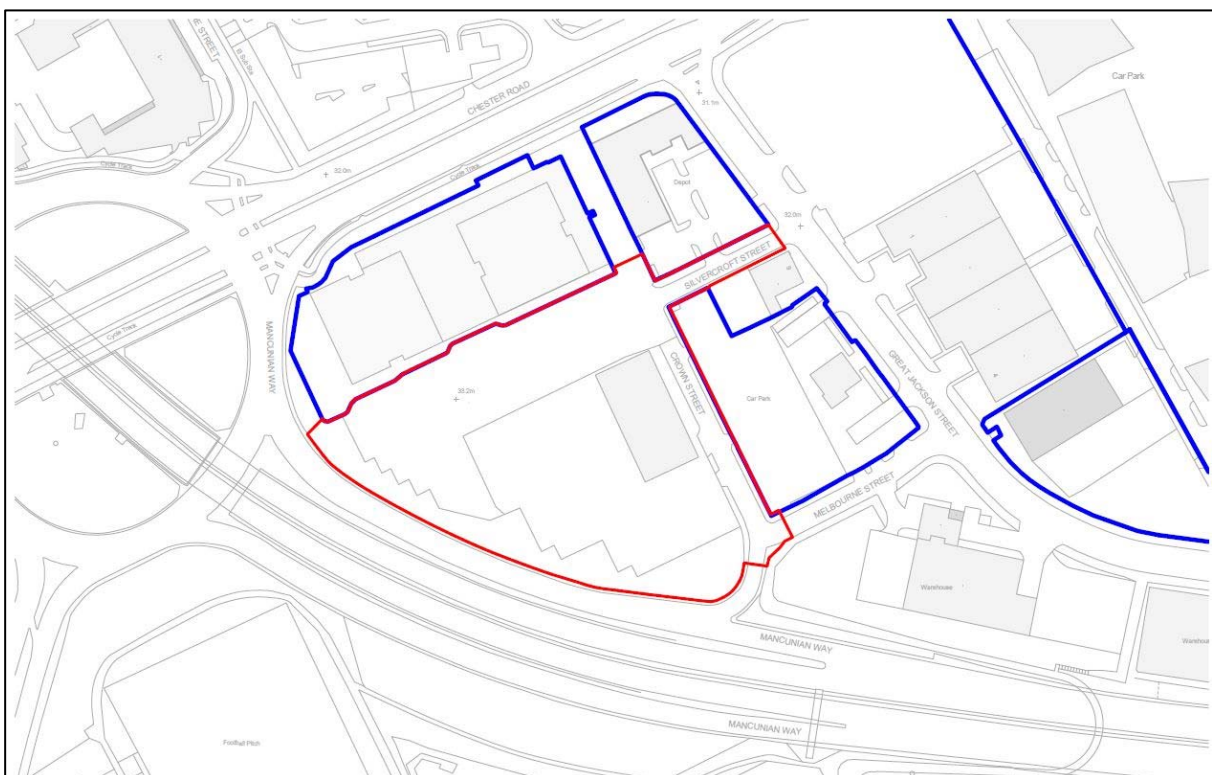
## APPENDICES

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## 1 INTRODUCTION

1.1.1 This Waste Strategy report is prepared by Vectos on behalf of Renaker Build Ltd in support of a hybrid planning application for a residential-led mixed-use development at Crown Street Phase 2 which forms part of the Great Jackson Street Regeneration Area. It forms part of Plot C, which will be delivered in three separate phases. This application is the second of the three phases.

1.1.2 The site as shown in **Figure 1.1** is 1.1 ha in size and is bound by Silvercroft Street, Crown Street, and the Mancunian Way. The Site is currently used as site compound for construction works on an adjacent development. However, previous to this, its established use was as a surface level car park.



**Figure 1.1 Crown Street Phase 2 Redline Boundary**

## **1.2 Development Proposals**

1.2.1 In summary, the proposals include the following elements for which full planning permission is sought:

- Erection of two 51-storey residential buildings (Use Class C3) incorporating a shared podium accommodating residential amenity facilities and ground floor commercial units (Use Class A1, A2, A3, A5 & D1)
- Each building has separate private car and cycle parking within a three-storey basement.
- A three-storey basement public car park with access on to Silvercroft Street.
- A new public park
- Landscaping and public realm works
- A highways and servicing route.

1.2.2 In addition, the proposals also include the following element for which outline planning permission (with all matters reserved) is sought:

- A single-form entry primary school (Use Class D1) which may accommodate c. 120 pupils.

1.2.3 The general layout is shown in **Dwg 10292-5-SHP-G000 PL 00 SK03** and the detail plan showing the Loading Bays, Bin Store layout and Access Routes is shown in **Dwg 10292- Z1 F800 PL 00 B5D804**.

1.2.4 MCC's Business Analyst for the Council's waste team has been consulted on the waste strategy and the frequency of collection in particular given the large scale nature of the site. That correspondence is given in **Appendix A**. In this MCC consider a weekly collection for General Refuse is practical and then an alternate recycling collection of one stream one week and one the next. Therefore, it is proposed that there would be a council arranged refuse collection

- 1.2.5 The proposed development's accommodation schedule is provided in **Appendix B** and is summarised below:

### **1.3 Buildings 4 & 5 Residential Towers**

- 1.3.1 In total 855 residential units will be provided according to the following mix:

#### **Building C4**

- 414 units
  - o 129 x one beds
  - o 262 x two beds
  - o 18 x three beds
  - o 5 x penthouses

#### **Building C5**

- 441 units
  - o 149 x one beds
  - o 252 x two beds
  - o 36 x three beds
  - o 4 x penthouses

### **1.4 Ancillary Commercial Uses**

- 1.4.1 There is commercial space for Building C4 of 264m<sup>2</sup> and Building C5 of 226m<sup>2</sup> available and on the ground / first floor levels. These units could be used for a variety of commercial uses, A1, A2, A3, A5 & D1 such as retail or ancillary commercial facilities and are included in the assessment. There are some residential amenity spaces on the first and second floor levels which is assumed to form part of the residential waste but is not specifically quantified as it is not expected to make a material difference to the forecasts.

### **1.5 School**

- 1.5.1 In the Waste Strategy we have excluded the school land use as we don't have the detail on that schemes bin storage provision or their collection frequency.

## **1.6 Scope of the Report**

1.6.1 This strategy establishes the means of recycling the material generated and sets out the following:

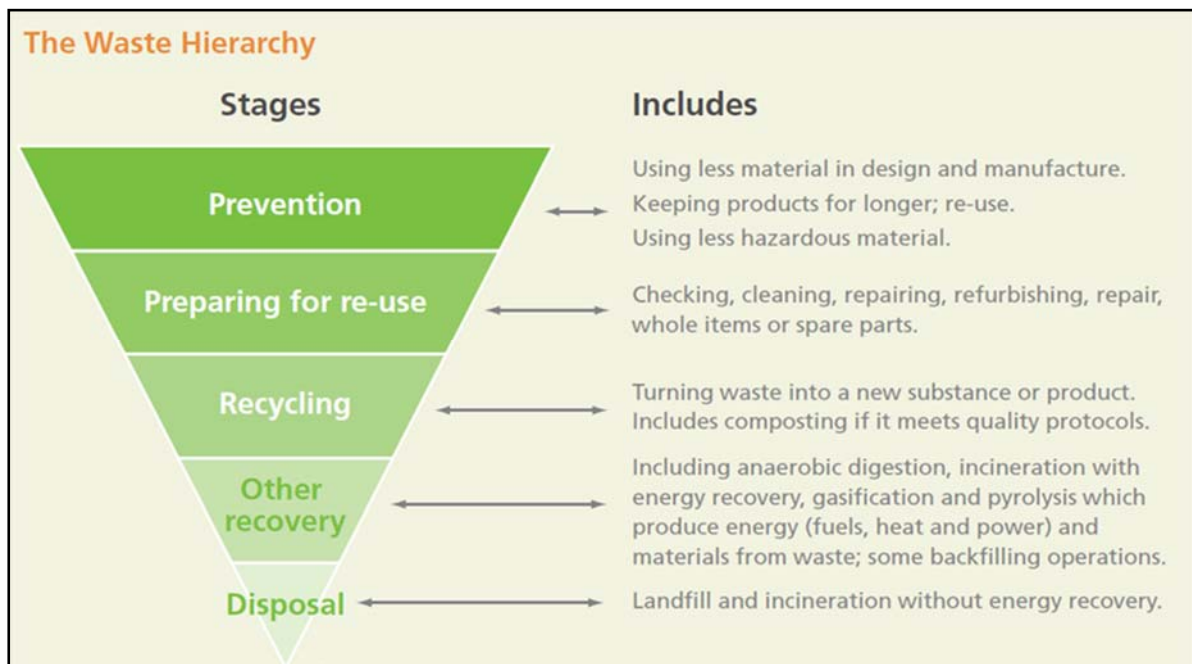
- Forecast waste generation & recycling rates;
- Proposed waste management strategy;
- Proposed waste storage facilities; and
- Forecast the refuse collection frequency.

1.6.2 This report sets out the policy context for waste management, forecast the waste generated, the number of bins required, the collection frequency, the management and oversight of the waste collection strategy.

## **2 WASTE STRATEGY**

### **2.1 Policy Context**

- 2.1.1 The development falls within the City of Manchester and MCC have published guidance on the design and management of buildings to produce waste management strategies that maximise the amount of waste that is recycled.
- 2.1.2 Manchester City Council requests that a Waste Pro Forma is completed to support development applications and this is presented in **Appendix C**.
- 2.1.3 To achieve high recycling rates, it states that all refuse should be separated at source and stored off the highway in purpose-built refuse stores minimising the distance to collection thus reducing the opportunity for spillage.
- 2.1.4 In accordance with Section 34 of the Environmental Protection Act 1990, the manager of the development has a legal 'Duty of Care' to ensure that waste is securely stored and disposed of legally. The most convenient way to achieve this is by using a registered waste carrier.
- 2.1.5 The Waste (England and Wales) (amendment) Regulations 2012 has introduced changes and updates that affect both waste producers and waste management companies alike. These include the need to separate wastepaper, metal, plastic and glass in different waste streams.
- 2.1.6 Another change will be the obligatory use of SIC codes in all documentation relating to waste management services and a compulsory commitment from waste producers to adhere to the waste hierarchy as described in **Figure 2.1**.



**Figure 2.1: Waste Hierarchy**

- 2.1.7 To demonstrate compliance with regulations, a Waste Transfer Note is required when that waste is collected by the waste carrier. This may be provided electronically. Many carriers are also able to provide environmental reports to inform on the waste management performance.
- 2.1.8 There will be food waste generated by the school, from the residential uses and also potentially from a commercial unit such as a café in the ancillary uses on site. Food Waste needs to be covered by the Animal By-Products (Enforcement) (England) Regulations 2011. The volumes of waste will be greater than 20kg and therefore need to be stored in a labelled container and collected by a licensed carrier and records kept.
- 2.1.9 Interventions are needed in all stages of the process to minimise waste going to landfill. The minimisation of waste and recycling interventions by occupiers and the management company can help meet MCC's and the government's aspirations.

2.1.10 All new developments must meet the requirements of Part H6 of the Building Regulations 2000 (solid waste storage) which states:

- Adequate means of storing solid waste shall be provided; and
- Adequate means of access should be provided for people in the building to the place of storage, and, from the place of storage to a collection point agreed by the waste collection authority.

## 2.2 Waste Forecasts

2.2.1 The forecasting of waste for the Residential and Commercial uses is given next. As the school is only described in outline, we have not made a forecast for the waste generated by that land use. The forecast waste expected to be generated by these land uses is now described.

### Residential Waste Forecast

2.2.2 The waste forecasts for Residential Waste is based on a rule of thumb calculation of 110 litres per apartment per week as shown below:

***Number of Dwellings x 110 = Weekly waste in litres***

2.2.3 Applying this to the development mix provides the following waste forecast:

***Building 4    414 x 110 = 45,540 Litres per week***

***Building 5    441 x 110 = 48,510 Litres per week***

### Flexible Commercial Use

- 2.2.4 The forecast for the commercial space (A1, A2, A3, A5 & D1) retail space, we have used a general retail rate derived from B25906:2005 of 10 litres of waste per m<sup>2</sup> per week and applied that to the areas. The waste forecast is therefore as follows:

|           |                                                               |
|-----------|---------------------------------------------------------------|
| <b>C4</b> | <b>264m<sup>2</sup> x 10 = 2,640 litres of waste per week</b> |
| <b>C5</b> | <b>226m<sup>2</sup> x 10 = 2,260 litres of waste per week</b> |

- 2.2.5 It is expected that that the waste will be stored within the unit's own demise in appropriate refuse containers and will be transferred daily for collection.

## **2.3 Waste Recycling Proportions**

- 2.3.1 Waste stream proportions vary according to land use. The data on expected office and commercial waste streams is derived from a variety of sources, including WRAP studies of waste, as well as surveys undertaken by Vectos.
- 2.3.2 The waste forecast and recycling proportions for the Residential and Commercial space are set out in **Table 2.1**.
- 2.3.3 It should be noted that the General Refuse Waste Stream can be further subject to recycling post collection depending on the collector's waste recovery strategy.

Table 2.1 Waste Generation &amp; Recycling Rates

Crown Street Phase 2 Waste Forecast 11.12.19 (v3)

Waste Forecast Based on Area Schedule '10292-C4\_5-A-2100-AS-001' Rev 01

**Building C4****RESIDENTIAL APARTMENTS**

|                 |   |     |
|-----------------|---|-----|
| Number of Units | = | 414 |
| 1 Bed           | = | 134 |
| 2 Bed           | = | 262 |
| 3 Bed           | = | 18  |

Weekly Waste Forecast @110 litres per Apartment

= 45540 litres per week

GD04 Bin Storage Requirement Residential

= 0.43 sqm per Apartment (+manoeuvring space) = 178 sqm

**Recycling Streams**

Assume Tri-Separator so Organic Waste goes into General Refuse

|                         | General Refuse     | Organic | Paper/ Card | Plastic/ Metal/ Glass | Total |
|-------------------------|--------------------|---------|-------------|-----------------------|-------|
| Waste Recycling %       | 49%                | 2%      | 24%         | 24%                   | 100%  |
| Waste storage based on: | 23276              | 1012    | 11132       | 11132                 | 45540 |
|                         | 1100litre Eurobins |         |             |                       |       |
|                         | 22                 |         | 11          | 11                    | 44    |

**Building C5****RESIDENTIAL APARTMENTS**

|                 |   |     |
|-----------------|---|-----|
| Number of Units | = | 441 |
| 1 Bed           | = | 153 |
| 2 Bed           | = | 252 |
| 3 Bed           | = | 36  |

Weekly Waste Forecast @110 litres per Apartment

= 48510 litres per week

GD04 Bin Storage Requirement Residential

= 0.43 sqm per Apartment (+manoeuvring space) = 190 sqm

**Recycling Streams**

Assume Tri-Separator so Organic Waste goes into General Refuse

|                         | General Refuse     | Organic | Paper/ Card | Plastic/ Metal/ Glass | Total |
|-------------------------|--------------------|---------|-------------|-----------------------|-------|
| Waste Recycling %       | 49%                | 2%      | 24%         | 24%                   | 100%  |
| Waste storage based on: | 24794              | 1078    | 11858       | 11858                 | 48510 |
|                         | 1100litre Eurobins |         |             |                       |       |
|                         | 23                 |         | 11          | 11                    | 45    |

**C4 Ancillary Commercial Space (A1/A2/A3/A4)****RETAIL**

BS5906:2005 10 litres per sqm per week

Area 264 sqm @ 10 litres per sqm per week  
= 2640 Litres of Waste per Week

**Recycling Streams**

\* Based on WRAP Waste Ratios

|                                             | General Refuse (inc Organic) | Paper/ Card | Plastic/ Metal/ Glass | Total |
|---------------------------------------------|------------------------------|-------------|-----------------------|-------|
| Waste /Recycling                            | 50%                          | 25%         | 25%                   | 100%  |
| Litres Per Week                             | 1320                         | 660         | 660                   | 2640  |
| Bin Storage with Collection every other day | 1                            | 1           | 1                     |       |

**C5 Ancillary Commercial Space (A1/A2/A3/A4)****RETAIL**

BS5906:2005 10 litres per sqm per week

Area 226 sqm @ 10 litres per sqm per week  
= 2260 Litres of Waste per Week

**Recycling Streams**

\* Based on WRAP Waste Ratios

|                                             | General Refuse (inc Organic) | Paper/ Card | Plastic/ Metal/ Glass | Total |
|---------------------------------------------|------------------------------|-------------|-----------------------|-------|
| Waste /Recycling                            | 50%                          | 25%         | 25%                   | 100%  |
| Litres Per Week                             | 1130                         | 565         | 565                   | 2260  |
| Bin Storage with Collection every other day | 1                            | 1           | 1                     |       |

### 3 WASTE STORAGE & COLLECTION FREQUENCY

3.1.1 The bin storage areas for Buildings C4 and C5 are shown in **Dwg 10292-Z1-SHP-F800 PL 00 B5D804**. The bin store sizing for the Residential and Commercial units are as follows:

**C4** General & Recyclable Refuse: 141.8 sqm Organic: 6.1 sqm **Total: 147.9 sqm**

**C4** Commercial: 11.0 sqm

**C5** General & Recyclable Refuse: 137.3 sqm Organic: 5.9 sqm **Total: 143.2 sqm**

**C5** Commercial: 13.4 sqm

3.1.2 It is assumed that the ancillary commercial units store their waste within their own demise. As described above we have excluded the School from this strategy given that the Bin Storage provision is not known.

3.1.3 The residential towers will benefit from a refuse chute which will efficiently transfer waste from the residential floor to the bin store. The waste chute will include a tri-separator splitting the waste into the following waste streams which will be colour coded:

General Refuse,

Pulpable Paper/Card and

Mixed recyclables of Metals Glass and Plastic

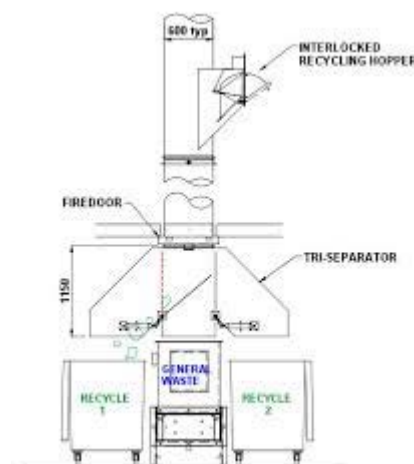


**Waste Chute Hatch**

3.1.4 Within each apartment will be provided three Bins colour coded to match the colour regime of the Waste Chute Hopper.

3.1.5 Residents would be given instructions on the use of the Waste Chute. On each floor, the development will provide a refuse chute lobby. This will contain colour coded buttons to identify what type of waste is being deposited. The refuse chute will then direct that waste to the appropriate bin within the bin store at the bottom.

3.1.6 It is important that the usage of the waste chute is supervised in order to ensure the efficient internal movement of waste within the development. Management will be present 24 hours a day and as part of the overall strategy, the building management team will monitor the use of the chute system using CCTV to ensure compliance and to monitor how full each bin becomes. This will be supported by an automatic alarm that will alert management as each bin approaches capacity.



3.1.7 The scale of development is significant and therefore it is proposed that the General Refuse and Recyclable waste is collected on a weekly basis as described below:

#### Waste Chute Tri-Separator

##### Building C4

|                                               |                         |
|-----------------------------------------------|-------------------------|
| ➤ General Refuse (including organic)          | 22 Eurobins once a week |
| ➤ Pulpable Waste (Paper & Card)               | 11 Eurobins once a week |
| ➤ Mixed Recyclables (Glass, Metals, Plastics) | 11 Eurobins once a week |

##### Building C5

|                                               |                         |
|-----------------------------------------------|-------------------------|
| ➤ General Refuse (including organic)          | 23 Eurobins once a week |
| ➤ Pulpable Waste (Paper & Card)               | 11 Eurobins once a week |
| ➤ Mixed Recyclables (Glass, Metals, Plastics) | 11 Eurobins once a week |

##### Ancillary Commercial In Buildings C4 and C5

|                                               |                             |
|-----------------------------------------------|-----------------------------|
| ➤ General Refuse (including organic)          | 1 Mid-Sized bin 3x's a week |
| ➤ Pulpable Waste (Paper & Card)               | 1 Mid-Sized bin 3x's a week |
| ➤ Mixed Recyclables (Glass, Metals, Plastics) | 1 Mid-Sized bin 3x's a week |

## **4 WASTE MANAGEMENT STRATEGY**

- 4.1.1 Waste collection for Crown Street Phase 2 will be supervised by the on-site building management team and involves bins being brought out immediately prior to collection and returned immediately after and to ensure areas are kept clean.
- 4.1.2 It is proposed that Residential Waste will be collected by the local Authority waste collection company and supplemented by private collection if required.
- 4.1.3 The waste from the ancillary Commercial units will be collected by a licensed waste carrier in accordance with government legislation requiring the appropriate documentation to ensure that waste is disposed of in a hygienic and environmentally sustainable way
- 4.1.4 The refuse containers will be wheeled a short distance from the refuse store to the collection vehicle.
- 4.1.5 The route will be step free and will have a minimum width of 1.54m, ensuring adequate space for a bin to pass.

## **5 CONCLUSIONS**

- 5.1.1 This document provides a Waste & Servicing Strategy for the Crown Street Phase 2 development incorporating 2 large residential towers with some additional ancillary commercial premises. There is also a primary School proposed although that is in outline only and is not included in this waste forecast.
- 5.1.2 This report has set out the policy context for waste management and has provided a calculation for the various waste streams generated by the development and associated the refuse storage provision by establishing a clear strategy for minimising waste generation.
- 5.1.3 It is concluded that the waste management and refuse collection strategy proposed is appropriate for this scale of development and that servicing and waste collection can be undertaken in an efficient manner.



## PLANS



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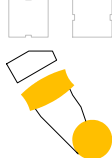
NOTE:



North

| Rev | Date       | Description                    |
|-----|------------|--------------------------------|
| P01 | 29-11-2019 | First Issue                    |
| P02 | 10-01-2020 | Podium and road layout updated |
| P03 | 15-01-2020 | Road Layout Adjustment         |

**DRAFT**



Project Title  
**Crown Street - Phase 2**  
Crown Street  
Manchester

Drawing Title  
**Temporary Conditions Plan**  
including proposed road layout  
ZZ

Status  
**For Information**

Job No  
**10292**

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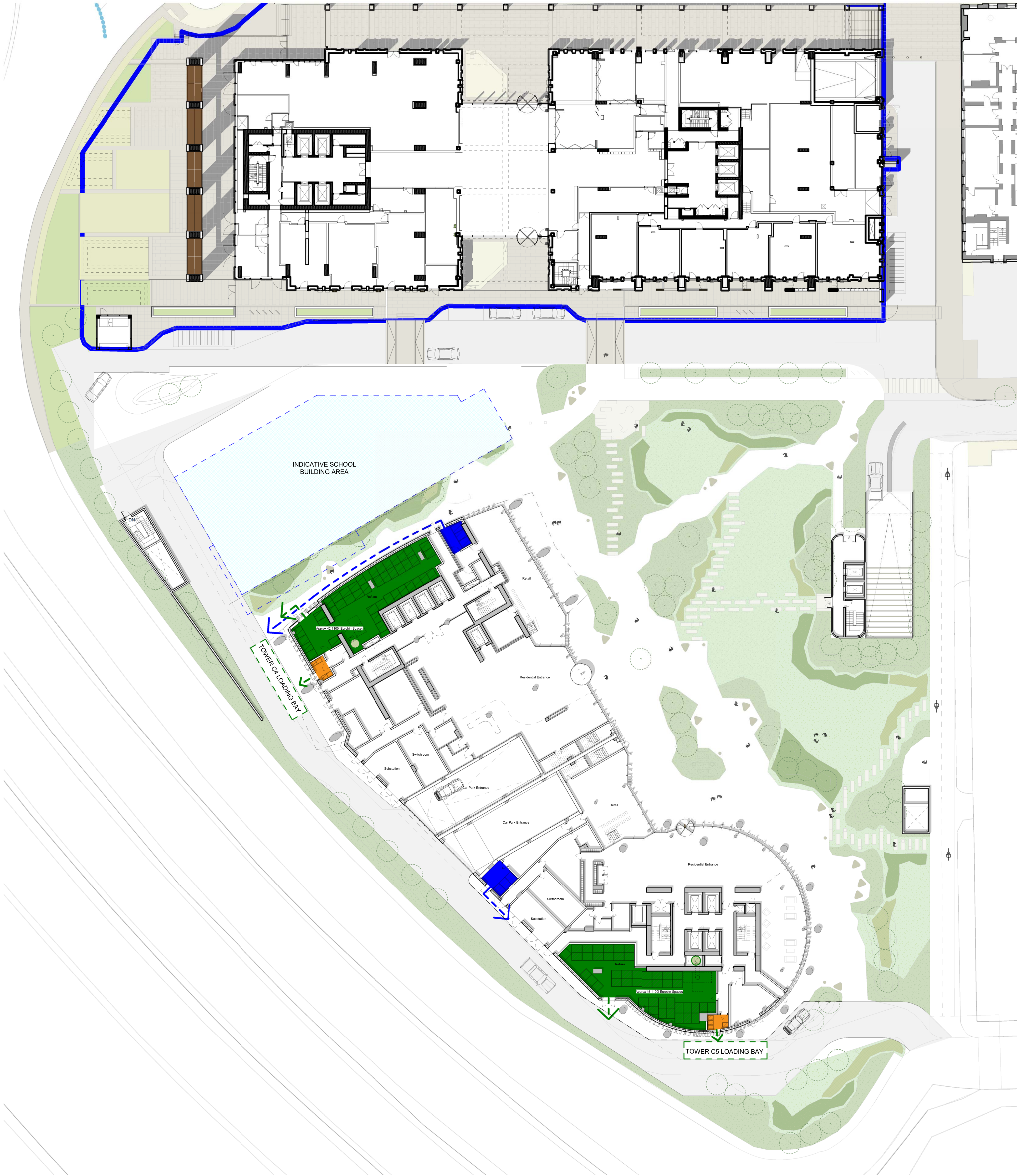
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Revision  
**P03**

**simpsonhaugh**

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KEY



Residential Refuse Store



Residential Food Waste Store



Residential Access Route



Residential Refuse Chute



Commercial Refuse Store



Commercial Access Route

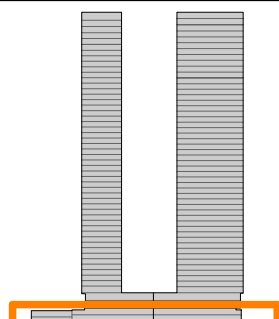
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**DRAFT**



Project Title  
Crown Street - Phase 2  
Crown Street  
Manchester

Status  
Planning Issue

Drawing Title  
Refuse Strategy  
Level 00

Job No  
10292

SHP Drawing Code  
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Scale  
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1000 @ A1

Revision

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## **APPENDIX A Correspondence with MCC Waste Team**

## Gareth Davis

---

**From:** Sam Davies <s.davies7@manchester.gov.uk>  
**Sent:** 21 January 2020 10:05  
**To:** Gareth Davis  
**Cc:** Elliot Read; Tom Reader  
**Subject:** Re: Crown Street Phase 2 Development

Hi Gareth

Thanks for getting in touch.

I do think weekly general waste collections at this site would be more practical than fortnightly.

Regarding the recycling collections, we don't currently operate a weekly system for all streams, instead we have an alternate system of one stream one week and another stream the next.

Regarding the number of containers to be presented per collection, I have it slightly higher. 414 units should generate 21 GW bins per week, plus about the same number of recycling (so 42+ per week) - but we could look to do the recycling on a different day to the GW. 441 units would generate slightly more than this.

Kind regards,  
Sam Davies  
Business Analyst  
Waste, Recycling & Street Cleansing Team  
Neighbourhoods Directorate  
Manchester City Council

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On Mon, 20 Jan 2020 at 16:35, Gareth Davis <[gareth.davis@vectos.co.uk](mailto:gareth.davis@vectos.co.uk)> wrote:

Sam

I am working on the next phase of the Renaker development at Crown Street, Phase 2. I attach a sketch plan and this Phase 2 scheme offers two Residential Towers (Blocks C4, 414 units and C5, 441 units) on top of Phase 1 which will provide 664 apartments. Separately the site has the option for a school but that would be developed by the Education Authority so doesn't fall under this waste strategy.

We are working on the bin store sizing which we expect to be well in excess of the 0.43sqm per apartment criteria. Block C4 is forecast to generate ~45000 litres of waste per week and C5 ~48000 litres per week.

We propose to use a Tri-Separator chute in each building but to also offer an organic bin in the Bin Store which residents could bring their waste down to deposit.

Given the v large scale of development (including that with Phase 1), we suggest a weekly collection of General Refuse and also a weekly collection of Recyclables. That would mean from each block that we have around 20-23 bins being pulled out at a time for collection from Block C4 and then Block C5.

Does this strategy sound reasonable? If so I can work up a bin store layout with the architect and get that over to you for comment.

Separately you asked about Tri-separators and contacts with Building Managers. I will call you separately on that.

Best regards

Gareth

Gareth Davis  
Director



0161 228 1008 (T) 07772 827 539  
[gareth.davis@vectos.co.uk](mailto:gareth.davis@vectos.co.uk)

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**From:** Sam Davies <[s.davies7@manchester.gov.uk](mailto:s.davies7@manchester.gov.uk)>

**Sent:** 11 November 2019 09:48

**To:** Gareth Davis <[gareth.davis@vectos.co.uk](mailto:gareth.davis@vectos.co.uk)>; Elliot Read <[elliott.read@vectos.co.uk](mailto:elliott.read@vectos.co.uk)>

**Subject:** Tri-chute Waste Separators

Hi Gareth, Elliot

I hope you're well. We are looking to identify a few high rise residential schemes that have had permission for a tri-chute waste separator and are now using them. I remember a couple of the schemes you've submitted in the past contained this kind of chute. Circle Square jumps to mind. Do you know if any of them have been constructed and occupied?

And if so, do you have contact details of the relevant building managers please?

Kind regards,  
Sam Davies  
Business Analyst

Waste, Recycling & Street Cleansing Team

Neighbourhoods Directorate

Manchester City Council

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## **APPENDIX B    Schedule of Accommodation**

| Floor Plan Type | Storeys | Apartments per storey | Apartments Total | 1 Bed         |       | 2 Bed      |       | 3 Bed      |       | Penthouses | NIA (sqm) per apartment | NIA (sqm) Area Type |             | NIA (sqm) per storey | GIFA (sqm) per storey | Notes |                           |
|-----------------|---------|-----------------------|------------------|---------------|-------|------------|-------|------------|-------|------------|-------------------------|---------------------|-------------|----------------------|-----------------------|-------|---------------------------|
|                 |         |                       |                  | Per Storey    | Total | Per Storey | Total | Per Storey | Total |            |                         |                     |             |                      |                       |       |                           |
| 00              | 1       | x                     | x                | x             | x     | x          | x     | x          | x     | x          | x                       | Entrance/Lounge     | 346.6       | 541.7                | 1184.8                |       |                           |
|                 |         |                       |                  |               |       |            |       |            |       |            |                         | BOH                 | 75.9        |                      |                       |       |                           |
|                 |         |                       |                  |               |       |            |       |            |       |            |                         | Commercial          | 119.2       |                      |                       |       |                           |
|                 |         |                       |                  |               |       |            |       |            |       |            |                         | Refuse/Plant        | 248.5       |                      |                       |       |                           |
| 01              | 1       | x                     | x                | x             | x     | x          | x     | x          | x     | x          | x                       | Amenity             | 546.8       | 649.0                | 866.9                 |       |                           |
|                 |         |                       |                  |               |       |            |       |            |       |            |                         | BOH                 | 30.3        |                      |                       |       |                           |
|                 |         |                       |                  |               |       |            |       |            |       |            |                         | Commercial          | 71.9        |                      |                       |       |                           |
| 02              | 1       | 4                     | 4                | x             | 0     | 0          | 4     | 4          | 0     | 0          | x                       | x                   | Amenity     | 323.4                | 630.6                 | 805.0 | External Terrace: 535.6m2 |
|                 |         |                       |                  |               |       |            |       |            |       |            |                         |                     | Residential | 307.2                |                       |       |                           |
| TYA 03-45       | 43      | 9                     | 387              | Type 1A       | 2     | 129        |       | 258        |       |            |                         | 52.8                | x           | 618.5                | 805.0                 |       |                           |
|                 |         |                       |                  | Type 1B       | 1     |            |       |            |       |            |                         | 51.1                |             |                      |                       |       |                           |
|                 |         |                       |                  | Type 2A       |       |            |       |            |       |            |                         | 4                   |             |                      |                       |       | 77.3                      |
|                 |         |                       |                  | Type 2B       |       |            |       |            |       |            |                         | 2                   |             |                      |                       |       | 76.3                      |
| TYB 46-48       | 3       | 6                     | 18               | Type 3A-01/02 |       |            |       |            | 2     | 18         |                         | 101.3               | x           | 627.0                | 805.0                 |       |                           |
|                 |         |                       |                  | Type 3A-03/04 |       |            |       |            |       |            |                         | 100.3               |             |                      |                       |       |                           |
|                 |         |                       |                  | Type 3B       |       |            |       |            |       |            |                         | 1                   |             |                      |                       |       | 114.2                     |
|                 |         |                       |                  | Type 3C       |       |            |       |            |       |            |                         | 1                   |             |                      |                       |       | 109.6                     |
| P 49-50         | 2       | x                     | 5                | x             | x     | 0          | x     | 0          | x     | 0          | 5                       | x                   | x           | 616.8                | 805.0                 |       |                           |
|                 |         |                       |                  |               |       |            |       |            |       |            |                         |                     |             | 616.8                | 805.0                 |       |                           |
| TOTAL           | 51      |                       | 414              |               | 129   |            | 262   |            | 18    |            | 5                       |                     |             |                      | 41,496.7              |       |                           |

|            |        |       |        |       |        |      |      |
|------------|--------|-------|--------|-------|--------|------|------|
| Total Mix: | 1 Bed: | 31.2% | 2 Bed: | 63.3% | 3 Bed: | 4.3% | 1.2% |
|------------|--------|-------|--------|-------|--------|------|------|

Full Scheme Totals

|              |       |       |                   |
|--------------|-------|-------|-------------------|
| Total Units: | C4    | C5    | Framework:<br>856 |
|              | 414   | 441   |                   |
| 855          |       |       |                   |
| Total Mix:   | 1 Bed | 2 Bed | 3 Bed             |
|              | 33%   | 60%   | 6%                |

|                |         |
|----------------|---------|
| MSCP Level B1: | 4,323.6 |
| MSCP Level B2: | 4,323.6 |
| MSCP Level B3: | 4,072.4 |

|                  |        |
|------------------|--------|
| MSCP Total GIFA: | 12,720 |
|------------------|--------|

Full Scheme GIFA (sqm): 112,934

Public Park Area (sqm): 5259.2

|                             |         |
|-----------------------------|---------|
| Basement Level B1:          | 1,889.3 |
| Basement Level B2:          | 1,889.3 |
| Basement Level B3:          | 1,889.3 |
| Total (inc. basement) GIFA: | 47,165  |

Note: This drawing supercedes any previous with identical drawing no.

| Floor Plan Type | Storeys | Apartments per storey | Apartments Total | 1 Bed      |       | 2 Bed      |       | 3 Bed      |       | Penthouses | NIA (sqm) per apartment | NIA (sqm)       |       | NIA (sqm) per storey | GIFA (sqm) per storey | Notes                     |     |    |
|-----------------|---------|-----------------------|------------------|------------|-------|------------|-------|------------|-------|------------|-------------------------|-----------------|-------|----------------------|-----------------------|---------------------------|-----|----|
|                 |         |                       |                  | Per Storey | Total | Per Storey | Total | Per Storey | Total |            |                         | Area Type       |       |                      |                       |                           |     |    |
| 00              | 1       | x                     | x                | x          | x     | x          | x     | x          | x     | x          | x                       | Entrance/Lounge | 335.9 | 541.6                | 1159.5                |                           |     |    |
|                 |         |                       |                  |            |       |            |       |            |       |            |                         | BOH             | 78.8  |                      |                       |                           |     |    |
|                 |         |                       |                  |            |       |            |       |            |       |            |                         | Commercial      | 126.9 |                      |                       |                           |     |    |
|                 |         |                       |                  |            |       |            |       |            |       |            |                         | Refuse / Plant  | 248.7 |                      |                       |                           | N/A |    |
| 01              | 1       | 0                     | 0                | 0          | 0     | 0          | 0     | 0          | 0     | x          | x                       | Amenity         | 622.2 | 678.8                | 926.8                 |                           |     |    |
|                 |         |                       |                  |            |       |            |       |            |       |            |                         | BOH             | 16.1  |                      |                       |                           |     |    |
|                 |         |                       |                  |            |       |            |       |            |       |            |                         | Commercial      | 40.5  |                      |                       |                           |     |    |
| 02              | 1       | 4                     | 4                | 1          | 1     | 3          | 3     | 0          | 0     | x          | x                       | Amentiy         | 382.4 | 669.6                | 917.7                 | External Terrace: 442.5m2 |     |    |
|                 |         |                       |                  |            |       |            |       |            |       |            |                         | Residential     | 287.2 |                      |                       |                           |     |    |
| TYA 03-39       | 37      | 10                    | 370              | Type 1A    | 4     | 148        | 222   |            |       | x          | 49.9                    | x               | 674.2 | 907.9                |                       |                           |     |    |
|                 |         |                       |                  | Type 2A    |       |            |       |            |       |            |                         |                 |       |                      |                       |                           |     |    |
|                 |         |                       |                  | Type 2B    | 4     |            |       |            |       |            |                         |                 |       |                      |                       |                           |     |    |
| TYB 40-48       | 9       | 7                     | 63               | Type 2A    | 1     | 27         |       |            |       | x          | 91.5                    | x               | 701.1 | 907.9                |                       |                           |     |    |
|                 |         |                       |                  | Type 2C    |       |            |       |            |       |            |                         |                 |       |                      |                       |                           | 2   |    |
|                 |         |                       |                  | Type 3A    |       |            |       |            |       |            |                         |                 |       |                      |                       |                           | 2   | 36 |
|                 |         |                       |                  | Type 3B    |       |            |       |            |       |            |                         |                 |       |                      |                       |                           |     |    |
| P 49-50         | 2       | x                     | 4                | x          | 0     | x          | 0     | x          | 0     | 4          | x                       | x               | 692.0 | 907.9                |                       |                           |     |    |
|                 |         |                       |                  |            |       |            |       |            |       |            |                         |                 | 574.0 | 808.4                |                       |                           |     |    |
| TOTAL           | 51      |                       | 441              |            | 149   |            | 252   |            | 36    | 4          |                         |                 |       |                      | 46483.7               |                           |     |    |

|            |  |  |  |        |       |        |       |        |      |      |  |  |  |  |  |  |
|------------|--|--|--|--------|-------|--------|-------|--------|------|------|--|--|--|--|--|--|
| Total Mix: |  |  |  | 1 Bed: | 33.8% | 2 Bed: | 57.1% | 3 Bed: | 8.2% | 0.9% |  |  |  |  |  |  |
|------------|--|--|--|--------|-------|--------|-------|--------|------|------|--|--|--|--|--|--|

|                    |         |
|--------------------|---------|
| Basement Level B1: | 2188.6  |
| Basement Level B2: | 2188.6  |
| Basement Level B3: | 2188.6  |
| Total GIFA:        | 53049.5 |

Note: This drawing supercedes any previous with identical drawing no.

All areas are approximate. The scheme illustrated is indicative only and has not been subject of a detailed design or co-ordinated exercise. The areas should therefore not be relied upon for the basis of a development appraisal.

## **APPENDIX C    Waste Pro-Forma**

## Appendix E

## Proforma for Planning Applications



# MANCHESTER CITY COUNCIL

### Planning Application - Waste Management Strategy

Planning Application Number: To be confirmed

Date Submitted: December 2019

### Estimated volumes/ m<sup>2</sup> required by the development

#### Low Rise Domestic

| Waste Types        | Capacity Required (litres) | Number of bins required per household | Confirm what is to be provided       |
|--------------------|----------------------------|---------------------------------------|--------------------------------------|
| General refuse     | 140 / 240                  | Not applicable for this application.  | Not applicable for this application. |
| Pulpable Recycling | 140 / 240                  | Not applicable for this application.  | Not applicable for this application. |
| Mixed Recycling    | 140 / 240                  | Not applicable for this application.  | Not applicable for this application. |
| Garden Waste       | 140 / 240                  | Not applicable for this application.  | Not applicable for this application. |
| Food Waste         | -                          | Not applicable for this application.  | Not applicable for this application. |

#### High Rise Apartment Developments

|                                                                                                                                                                                                                                          | Yes/No - how much space has been provided?                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0.43m <sup>2</sup> has been provided per apartment for the container space. Space to manoeuvre and access containers individually has also been provided so that each container can be accessed and removed for collection individually. | <b>Building C4</b> General & Recyclable Refuse: 141.8 sqm<br>Organic: 6.1 sqm <b>Total: 147.9 sqm</b><br><b>Building C4</b> Commercial: 11.0 sqm<br><b>Building C5</b> General & Recyclable Refuse: 137.3 sqm<br>Organic: 5.9 sqm <b>Total: 143.2 sqm</b><br><b>Building C5</b> Commercial: 13.4 sqm |

Please state number of bins you propose, showing calculations where appropriate.

## Waste Assumptions

### Residential Waste Forecasts

Building C4 414 Apartments

Building C5 441 Apartments

Forecast based on 110 litres per apartment per week

**Building 4**      $414 \times 110 = 45,540$  Litres per week

**Building 5**      $441 \times 110 = 48,510$  Litres per week

### Recycling of Waste

The Recycling Waste streams have been based on WRAP studies and are provided below:

#### Building C4

| Assume Tri-Separator so Organic Waste goes into General Refuse |                |         |             |                       |       |
|----------------------------------------------------------------|----------------|---------|-------------|-----------------------|-------|
|                                                                | General Refuse | Organic | Paper/ Card | Plastic/ Metal/ Glass | Total |
| Waste Recycling %                                              | 49%            | 2%      | 24%         | 24%                   | 100%  |
| Litres for Weekly Collection                                   | 23276          | 1012    | 11132       | 11132                 | 45540 |
| 1100litre Eurobins                                             | 22             |         | 11          | 11                    | 44    |

#### Building C5

| Assume Tri-Separator so Organic Waste goes into General Refuse |                |         |             |                       |       |
|----------------------------------------------------------------|----------------|---------|-------------|-----------------------|-------|
|                                                                | General Refuse | Organic | Paper/ Card | Plastic/ Metal/ Glass | Total |
| Waste Recycling %                                              | 49%            | 2%      | 24%         | 24%                   | 100%  |
| Litres for Weekly Collection                                   | 24794          | 1078    | 11858       | 11858                 | 48510 |
| 1100litre Eurobins                                             | 23             |         | 11          | 11                    | 45    |

### Ancillary Commercial Waste Forecasts

**Ancillary Commercial Units (A1, A2, A3, A5 & D1) C4 264 sqm C5 266 sqm**

**Retail Waste Rate of 10 litres per sqm per week (BS5906:2005)**

**C4**      $264m^2 \times 10 = 2,640$  litres of waste per week

**C5**      $266 m^2 \times 10 = 2,660$  litres of waste per week

#### Building C4 Commercial Unit - Recycling & Bin Storage

| Assume Tri-Separator so Organic waste goes in |                |         |             |                       |       |
|-----------------------------------------------|----------------|---------|-------------|-----------------------|-------|
|                                               | General Refuse | Organic | Paper/ Card | Plastic/ Metal/ Glass | Total |
| Waste Recycling %                             | 49%            | 2%      | 24%         | 24%                   | 100%  |
| Litres for Weekly Collection                  | 24794          | 1078    | 11858       | 11858                 | 48510 |
| 1100litre Eurobins                            | 23             |         | 11          | 11                    | 45    |

### Building C5 Commercial Unit – Recycling & Bin Storage

|                            |   |  |                               |
|----------------------------|---|--|-------------------------------|
| 10 litres per sqm per week |   |  | 10 litres per sqm per week    |
| 264 sqm                    | @ |  |                               |
|                            | = |  | 2640 Litres of Waste per Week |

Note: the School waste has not been forecast as this development is in outline at this stage.

|                                                                  |     |
|------------------------------------------------------------------|-----|
| Has / will a contract be obtained with a licensed waste carrier? | Yes |
|------------------------------------------------------------------|-----|

### Mixed Use Developments

|                                                                         |     |
|-------------------------------------------------------------------------|-----|
| Are the stores for residential and commercial separate from each other? | Yes |
|-------------------------------------------------------------------------|-----|

### Internal Stores

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

Within each apartment will be provided three Bins colour coded to match the colour regime of the Waste Chute Hopper. Residents would be given instructions on the use of the Waste Chute.

### Storage Areas for Waste Containers

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

The Residential refuse stores and shown in **Dwg 10292- Z1 F800 PL 00 B5D804**

The Ancillary Commercial Unit will store its waste within its own demise

### Please confirm details of waste store ventilation and hygiene / cleaning proposals

#### Ventilation

The bin stores benefit from mechanical ventilation.

#### Hygiene

The floor and walls of the refuse stores across the site will be constructed and finished in materials that are impervious and easily kept clean. Overall waste management would be undertaken by the on-site staff member/management company who would monitor the cleanliness on a regular basis and would ensure that all areas of the site are kept clean as required.

|                                                                                                                                                                                                                                                                                                              |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>Ensure all bins in the store are accessible</b><br>The refuse store will not be accessible by the general public. However, the bins are accessible to the occupiers and their cleaners. The bin storage area includes space for maneuvering and the doors are designed to be wider than the 1.3m minimum. | <b>Y</b> |
| <b>Ensure recycling facilities are as easy to access as general refuse</b>                                                                                                                                                                                                                                   | <b>Y</b> |

**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 on-site staff overseen by the General Manager would ensure that the bins are presented on the service road ready for collection and will return the bins to the bin store immediately after collection has taken place. This would be under the direction of the General Manager. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Please ensure that you have attached:**

|                                                                                                     |                                          |
|-----------------------------------------------------------------------------------------------------|------------------------------------------|
| Detailed plans of waste stores                                                                      | <b>Y</b> – please see site layout plans  |
| Location plans showing stores                                                                       |                                          |
| Location plans showing the proposed collection point and the route the collection vehicle will take | <b>Y</b> – detailed within this Proforma |

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