

## **Appendix A**

### Circular Economy Workshop

# HIGHGATE CARE HOME CIRCULAR ECONOMY APPROACH

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## Introduction

This document describes initial discussions on circular economy principles to be considered for the proposed development at Mary Feilding Guild Care Home. These were discussed in a Teams meeting on 24<sup>th</sup> April 2024 (15:30 – 16:30) in a Design Team Meeting.

## Key Stakeholders / Design Team Members in Attendance

- Client – Highgate Care Limited (HGC)
- Employers Agent - John Cobb Consulting (JCC)
- Architect – RM Design Group (RMDG)
- Structural Engineers – ARC Engineers (ARC)
- Energy & Sustainability – Hodkinson Consultancy (HC)

## Points of Discussion & Options Summary

- HC confirmed that both a Pre-Demolition Audit and Pre-Refurbishment Audit are required. Although not undertaken for the previous application, the GLA requires these for all demolition works where retention is not possible.
  - Post meeting note: ADW Developments now appointed to undertake these studies. Results to be shared and discussed with the design team.
- JCC confirmed that a Main Contractor won't be appointed until Stage 3 (post planning). HC noted that a SWMP should be prepared ahead of this appointment to ensure the results of the Pre-Demolition Audit are captured.
- JCC confirmed that an Operational Waste Management Plan will be prepared for the application. HC noted the importance of ensuring the GLA requirements for these are captured within the plan.
  - Post meeting note: Markides Associates (Transport Consultants) are now appointed to undertake this piece of work and confirmed it will be GLA compliant.
- JCC confirmed that ARC is appointed to undertake Cut and Fill analysis. Based on the current FFL and typical arising from foundations, drainage etc, they are estimating around 544m<sup>3</sup> of cut.
- Circular Economy measures discussed as follows:
  - Occupants will be provided with information (e.g. building user guide) and training on waste management to encourage the targets (65%) are met. Site will be managed by Highgate Care Limited.
  - Adequate facilities will be provided for operational, and construction related waste, including segregated bins for refuse and recycling.

- o All external furniture to be robust, require low maintenance and be able to tolerate the demands of the public environment. Timber will be used to create a tactile and comfortable surface.
- o Native and adapted plants proposed, with high durability and low water demand to reduce the need for ongoing maintenance and replacement.
- o Glazing strategy to be reviewed to ensure maintenance and replacement can take place when required, with minimal disruption.
- o Concrete elements cannot be disassembled so we need to ensure other areas of the building (internal walls etc) could be removed, if required, at the end of their life.
- o Internal walls to be lightweight so they could be removed in future if required.
- o Standardised kitchen and bathroom layouts to minimise wastage.



## **Appendix B**

### Pre-Demolition Audit

**103-107 North Hill, Highgate, London**

Greater London Authority

Pre-Demolition Audit Report

**For**

**Highgate Care Limited**



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## Version Control

| Issue | Document Name                                              | Revision No. | Date of Issue | Description                                               | Reviewed By                    |
|-------|------------------------------------------------------------|--------------|---------------|-----------------------------------------------------------|--------------------------------|
| 1     | 103-107 North Hill, Highgate – Pre-Demolition Audit Report | v1.01        | 15/05/2024    | Pre-Demolition Audit Report – issued for comment/approval | Highgate Care Limited/Assessor |
|       |                                                            |              |               |                                                           |                                |

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## Greater London Authority Pre-Demolition Audit

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### 1 Executive Summary

This report has been prepared by Toby Balson on behalf of ADW Developments. See Appendix A for details of the report author.

The aim of this report is to contribute to the sustainable management of materials arising from the proposed works to 103-107 North Hill, located at Highgate, London.

A non-invasive visual survey of the site was carried out on 12th April 2024.

The recommendations in the report are based on plans and associated documents provided to ADW Developments by Highgate Care Limited.

This report is compliant with the requirements of BREEAM and the Greater London Authority.

### Results and recommendations

The total estimated waste arisings (Key Demolition Products) are 4,245 tonnes. This is equivalent to a volume of 2,622m<sup>3</sup>.

The estimated Key Demolition Products (KDP) by weight are Concrete (53%), Brick (38%), Gypsum (3%), Metals (2%), and Ceramic (1%), with smaller amounts of Timber, Insulation, Carpet and Bitumen.

In terms of embodied carbon, the most significant KDPs are Brick, Concrete and Metals. The total embodied CO<sub>2</sub> equivalent arising from the demolition is 1,547 tonnes. This total could be reduced via prioritising material reuse wherever feasible.

It is suggested the following items be prioritised for reuse:

- Clay tiles (10.3 tonnes of potentially reusable material)
- Concrete coping (5.5 tonnes of potentially reusable material)
- Radiators (2.5 tonnes of potentially reusable material)

### Targets

It is recommended that a target of 95% diversion of waste from landfill (by weight) should be set, with a 0.3% target for material reuse (note that this would be exceeded should the items recommended above be reclaimed).

## 2 Project Introduction

At the request of Highgate Care Limited, a Pre-Demolition Audit of the existing building occupying the proposed site for 103-107 North Hill has been undertaken. This audit addresses the potential for reusing and recycling components and materials from the building and aims to:

- Provide an understanding of the materials likely to arise from the works in order to help with the development of a site waste management plan
- Maximise the management of material removed from the building in line with the waste hierarchy i.e. maximise reuse and recycling and minimise waste to landfill
- Provide evidence for any external assessment such as BREEAM and GLA

The audit covers the area of the site as described in Section 3 below.



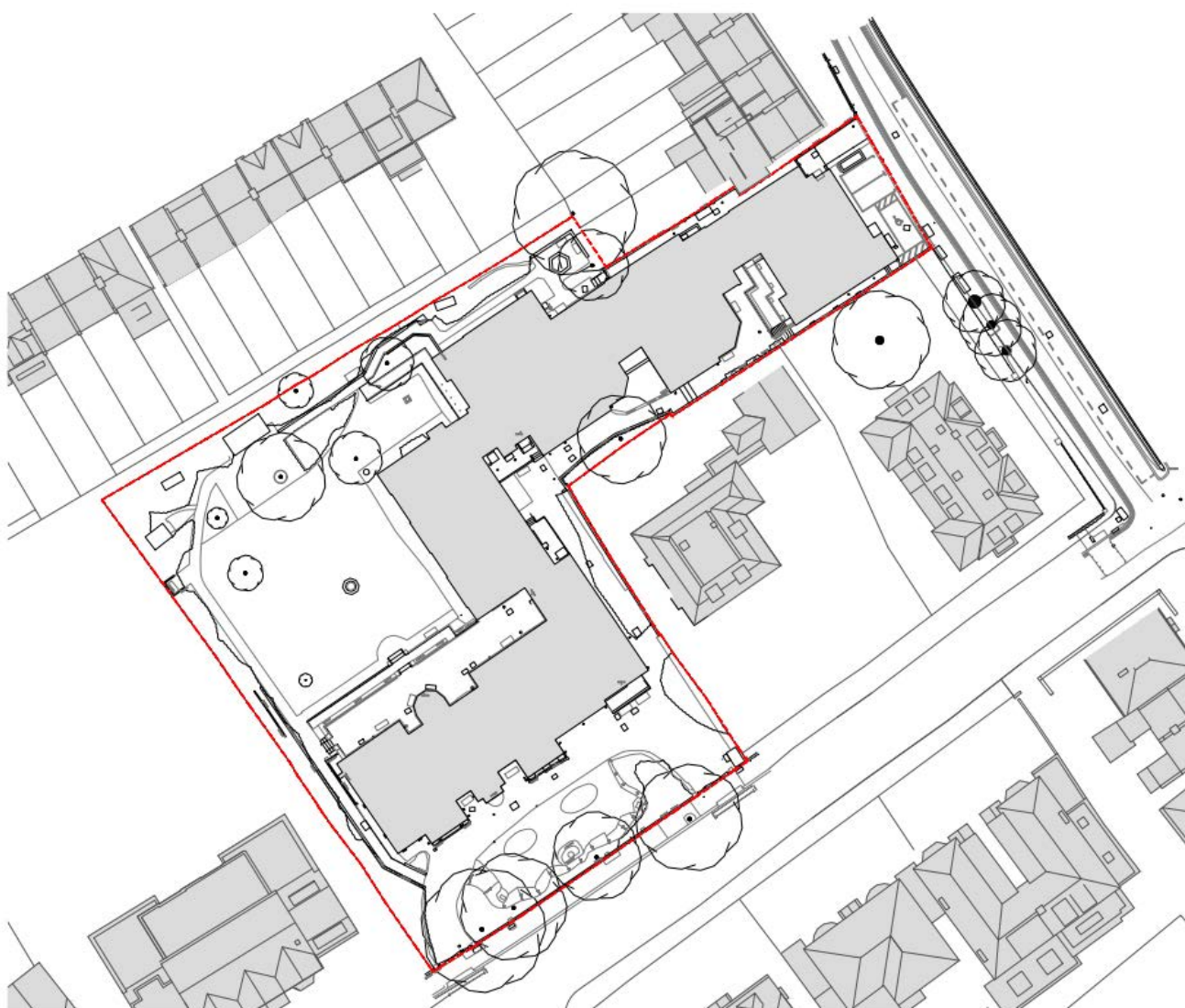
### 3 Project scope

This Pre-Demolition Audit covers all the existing buildings on site, which were formerly used as a care home.

Our understanding is that a total demolition is proposed.

The buildings are believed to have been constructed in several phases; at the view road end of the site a large traditional masonry building is connected to two more recent blocks, before moving across site to a single storey dining/kitchen area and a relatively modern four storey building to North Hill.

An extract from the existing site plan is shown in the image below.



## 4 Pre-Demolition Audit Methodology

### 4.1 Survey

A non-invasive visual survey of the site was carried out on 12th April 2024.

Access to all areas was provided.

Photographs, measurements and survey notes were taken during the visit.

Scaled existing, proposed and demolition building plans/elevations were available.

### 4.2 Assumptions and exclusions

Please note that as the survey was non-invasive, materials have been identified visually and certain aspects have been assumed based on typical practice, including but not limited to e.g. presence of insulation within wall partitions, the nature and dimensions of hidden structural elements, etc. MEP has been noted where visible, e.g. lighting.

Waste Electrical and Electronic Equipment (WEEE) falls outside the direct scope of this analysis and as such these items have not been quantified with weights and volumes; general reuse options are however discussed.

### 4.3 Calculation and presentation of findings

The building was analysed in accordance with the gathered information, and the volume ( $m^3$ ) figures calculated for each construction material have been converted into tonnages using standard density figures for each material assessed.

Embodied CO<sub>2e</sub> figures have been calculated using information from the ICE database.

Direct reuse of materials should always be prioritised over recycling or disposal to landfill, and where relevant this is discussed throughout the report, with estimated reusable percentages and quantities.

*Note: The findings and values contained in this report represent the best estimate of the materials and components within the units by means of using drawings and photographs of the areas. We did not receive a complete inventory of the types of materials and construction used, and where necessary construction details have been inferred. Material conversion rates used to calculate volume ( $m^3$ ) into tonnages have been undertaken using standard density factors.*

## 5 Audit Results

An estimate of the overall tonnage, volume and the associated embodied CO<sub>2</sub>e of material expected to be generated during the works is shown in Table 1.

Miscellaneous items of WEEE are also present although these have not all been quantified.

### 5.1 Summary table

Table 1 *Summary of Key Demolition Products (KDP) arising from the works*

| Key Demolition Products (KDP)      | Weight (tonnes) | Volume (m <sup>3</sup> )   | Associated Embodied CO <sub>2</sub> e (t) | % Reuse       | % Recycle       | % Other**     | % Landfill    | European Waste Catalogue number |
|------------------------------------|-----------------|----------------------------|-------------------------------------------|---------------|-----------------|---------------|---------------|---------------------------------|
| Concrete                           | 2255.5          | 1072.7                     | 360.9                                     | 0%            | 100%            | 0%            | 0%            | 17 01 01                        |
| Brick                              | 1610.5          | 947.3                      | 724.7                                     | 0%            | 100%            | 0%            | 0%            | 17 01 02                        |
| Gypsum                             | 137.9           | 169.5                      | 51.0                                      | 0%            | 86%             | 0%            | 14%           | 17 08 02                        |
| Metals                             | 92.0            | 13.0                       | 253.0                                     | 4%            | 96%             | 0%            | 0%            | 17 04 05                        |
| Ceramic                            | 58.9            | 24.6                       | 52.5                                      | 18%           | 82%             | 0%            | 0%            | 17 01 03                        |
| Timber                             | 47.2            | 86.1                       | 20.8                                      | 3%            | 97%             | 0%            | 0%            | 17 02 01                        |
| Insulation                         | 12.5            | 290.4                      | 19.8                                      | 0%            | 7%              | 29%           | 64%           | 17 06 04                        |
| Carpet                             | 11.9            | 7.2                        | 46.5                                      | 0%            | 75%             | 25%           | 0%            | 20 01 11                        |
| Bitumen                            | 9.7             | 6.2                        | 0.8                                       | 0%            | 0%              | 75%           | 25%           | 17 03 02                        |
| Glass                              | 6.4             | 2.6                        | 10.7                                      | 0%            | 100%            | 0%            | 0%            | 17 02 02                        |
| Plastics                           | 2.0             | 2.6                        | 5.87                                      | 0%            | 86%             | 3%            | 10%           | 17 02 03                        |
| WEEE *                             | 0.0             | 0.0                        | -                                         | -             | -               | -             | -             | 16 02 14                        |
| <b>Total weights &amp; volumes</b> | <b>4,245 t</b>  | <b>2,622 m<sup>3</sup></b> | <b>1,547 tCO<sub>2</sub>e</b>             | <b>20.5 t</b> | <b>4180.0 t</b> | <b>14.0 t</b> | <b>30.1 t</b> | -                               |
| <b>Total percentages</b>           | -               | -                          | -                                         | <b>0.5%</b>   | <b>98.7%</b>    | <b>0.3%</b>   | <b>0.7%</b>   | -                               |

\* Not all quantified

\*\*Waste to energy (incineration)

## Greater London Authority Pre-Demolition Audit

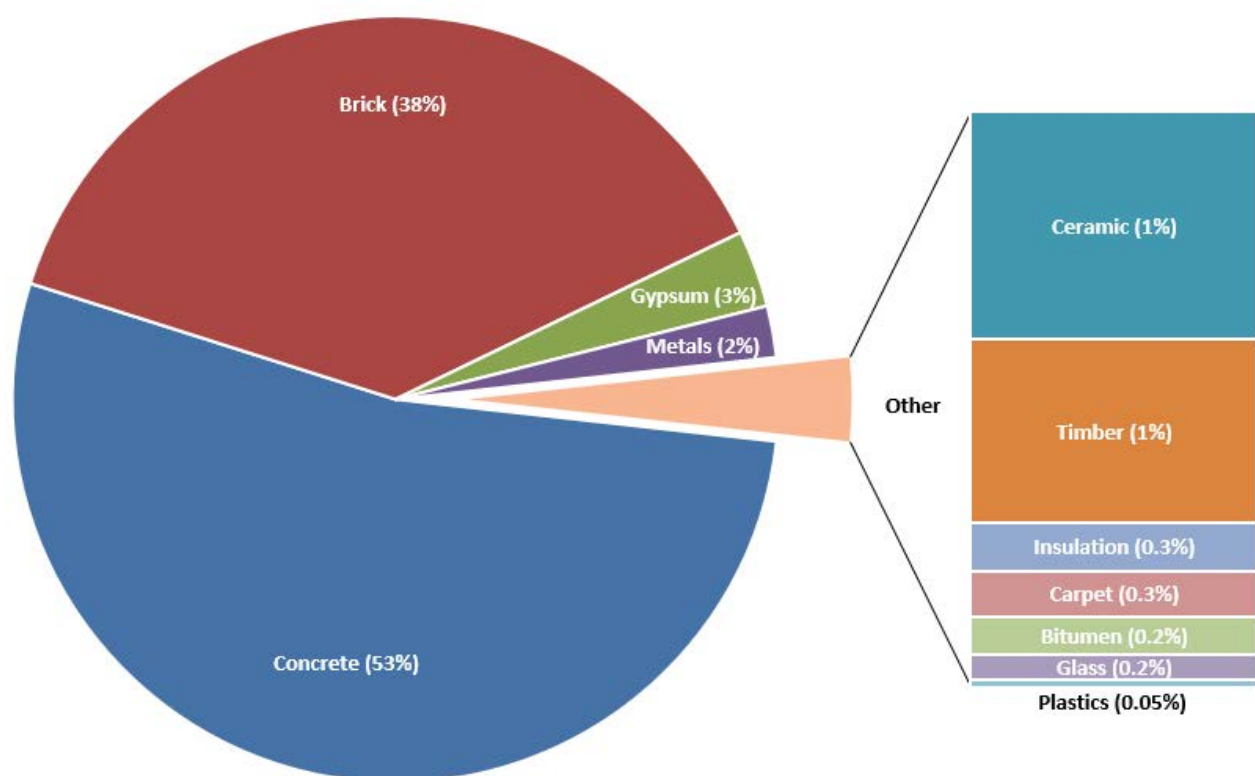
### 5.2 Material by weight

The total weight of materials arising is calculated to be 4,245 tonnes.

The estimated Key Demolition Products (KDP) by weight are Concrete (53%), Brick (38%), Gypsum (3%), Metals (2%), and Ceramic (1%), with smaller amounts of Timber, Insulation, Carpet and Bitumen.

See Chart 1 below for a visual breakdown of this metric.

*Chart 1: Summary of Key Demolition Products (KDP) by percentage weight*



Greater London Authority Pre-Demolition Audit

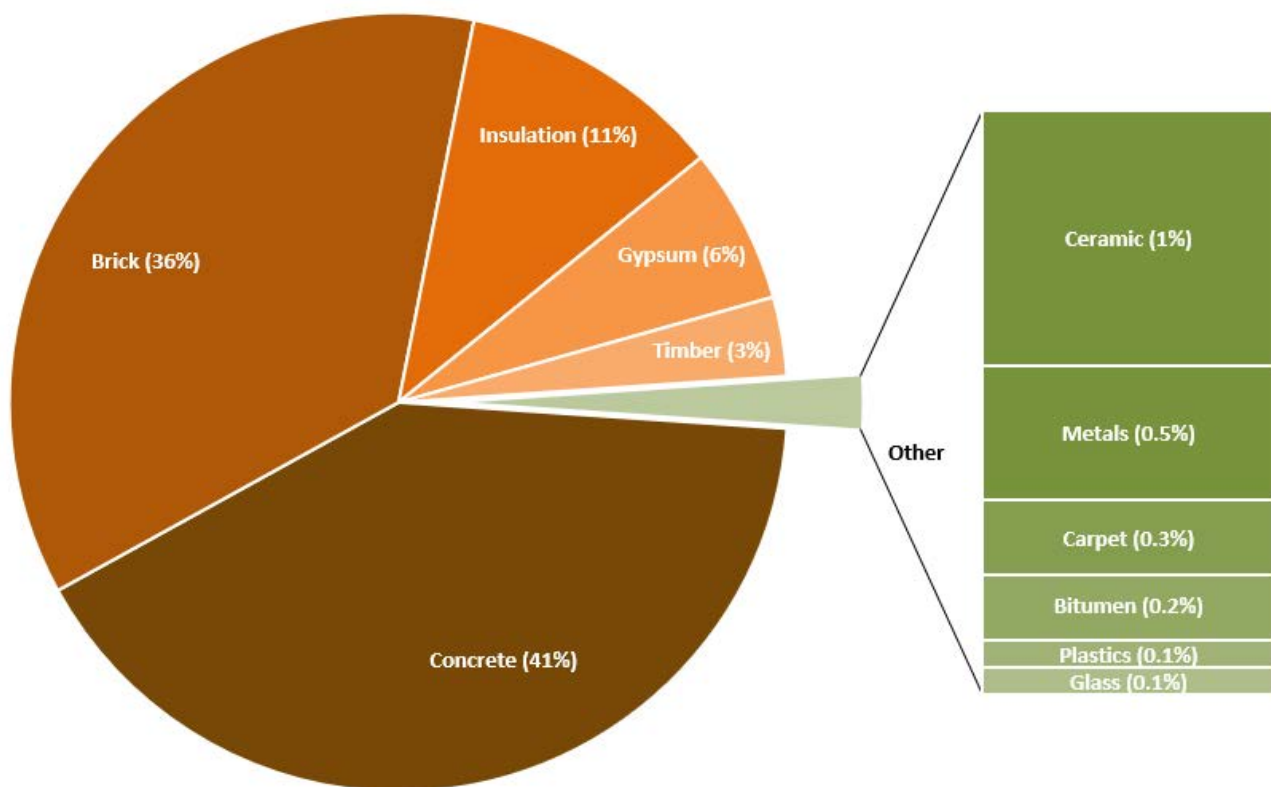
5.3 Material by volume

The total volume of material arising is calculated to be 2,622m<sup>3</sup>.

The largest KDPs by volume are Concrete (41%), Brick (36%), Insulation (11%), Gypsum (6%), and Timber (3%), with smaller amounts of Ceramic, Metals, Carpet and Bitumen.

This metric is presented in Chart 2 below.

Chart 2: Summary of Key Demolition Products (KDP) by percentage volume



As can be seen above, the key difference is that materials such as Insulation are more significant in terms of percentage volume compared to percentage weight. Conversely, materials such as Metal tend to become less significant in volume terms.

Greater London Authority Pre-Demolition Audit

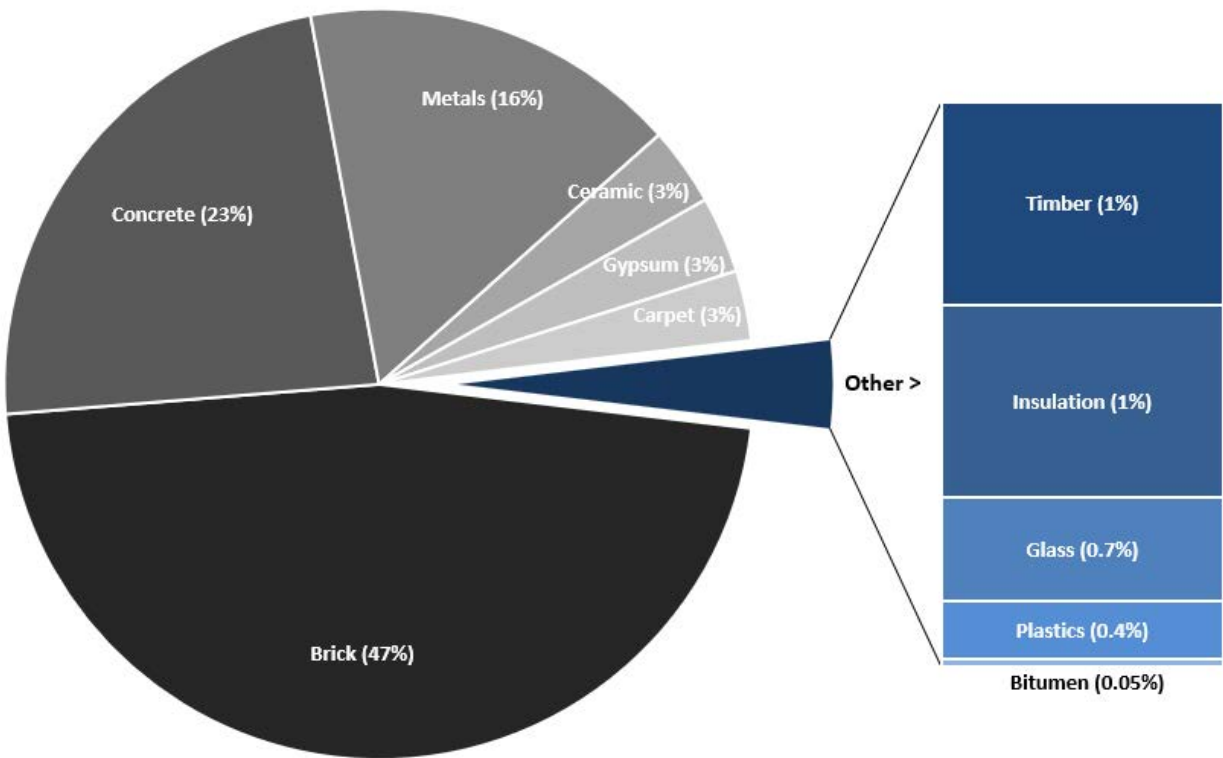
Material by Embodied Carbon equivalent

The total associated embodied CO<sub>2</sub>e of materials expected from the proposed works is 1,547 tonnes. Embodied CO<sub>2</sub>e figures have been calculated using information from the ICE database.

In terms of loss of associated embodied carbon, the most significant KDPs are Brick, Concrete and Metals.

This is shown in Chart 3 below.

Chart 3: Summary of Key Demolition Products (KDP) by associated embodied carbon (tCO<sub>2</sub>e)



This metric shows that whilst inert materials such as Concrete and Brick still dominate, the associated embodied CO<sub>2</sub> impact of materials such as Metals become more significant, along with other materials such as Carpet.

Please note this total could be reduced via prioritising material reuse wherever feasible. This is further discussed in the *Key items for reuse* section below.

## 6 Key items for reuse

It is suggested the following items be prioritised for reuse (ideally direct reuse i.e. fulfilling the same function):

- Clay tiles
- Concrete coping
- Radiators

### 6.1 Clay tiles

- This component presents the largest single source of potentially reusable material.
- The key potential application is direct reuse as roofing within the new scheme or elsewhere.
- The total weight present is calculated to be 41.1 tonnes.
- Assuming an estimated 25% reuse rate this gives around 10.3 tonnes of potentially reusable material.
- The tiles are located to the View Road end of site, on the large traditional building (flat tiles) and two adjoining two storey blocks (pantiles).
- They could not be closely inspected and their condition would need to be suitably assessed for potential reuse.
- Scaffolding would likely be required to facilitate the removal process; the tiles could be stored and sorted on the central lawn prior to reuse, sale or donation.



## 6.2 Concrete coping

- This component presents the second largest source of potentially reusable material.
- Potential applications include direct reuse as roof coping within the new scheme or elsewhere; alternatively the coping could be repurposed for general hard landscaping use.
- Approximately 11.0 tonnes of material has been calculated present.
- Assuming an estimated 50% reuse rate this gives around 5.5 tonnes of potentially reusable material.
- The coping is located to the roof of the single storey dining/kitchen area.
- The material could not be closely inspected and its condition would need to be suitably assessed for potential reuse.
- The coping is relatively accessible being located on a single storey building, and inspection/removal should be relatively straightforward.



### 6.3 Radiators

- This component presents the third largest source of potentially reusable material.
- The key potential application is direct reuse within heating systems elsewhere, or incorporation into the new development. In particular, the more traditional cast iron-style radiators may have greater reuse value.
- The total calculated material is approximately 5.0 tonnes.
- Assuming an estimated reuse rate of 50% this gives 2.5 tonnes of potentially reusable material.
- The radiators are located throughout the site, with the more traditional types being mainly located within the traditional building.
- The radiators appear to be in relatively good aesthetic condition, but would require technical appraisal regarding potential for further use.
- The radiators could be removed and stored/sorted on the adjacent patio area.



## 6.4 Factors affecting potential reuse and recycling

Many of the following issues may be relevant when considering potential for reuse and recycling:

- **Potential applications**

Any item(s) for reuse must have a useful potential application, either within the proposed development or elsewhere. Ideally the material should be directly reused for its original function, whenever possible. The physical dimensions of the item(s) should also be checked for suitability. Materials that cannot be reused should only be recycled as a last option. Donation to community groups should also be considered where no requirement can be found within commercial developments.

- **Financial value**

Higher value materials such as stone and metal are usually prioritised for reuse, over lower value material such as concrete blockwork which may be more appropriate for recycling.

- **Condition**

Material should generally be in good aesthetic condition for reuse, with little physical wear or damage. Material in poorer condition may be more appropriate for recycling.

- **Identification of items/components**

Identification of the exact product or material type is useful in determining suitability for reuse. For example, carpet and ceiling tiles are often stamped with manufacturer's details on the back, and data plates can provide model numbers for WEEE items. Where precise identification is not possible, this may preclude items from being reused. For example, fire doors are unlikely to be integrated elsewhere without information being available regarding their rating. Unidentified material may be more appropriate for recycling.

- **Performance**

The physical characteristics and functionality of items is also key to enabling reuse. For example, WEEE items should be fully operational, raised access flooring should be suitably rated for the expected loads within any new application, and so on. Where these conditions cannot be met, recycling may be a more appropriate option.

- **Remaining lifespan**

Consideration should be given to the remaining economic lifespan of materials and equipment being considered for reuse. Whilst for items such as floor coverings this can be a case of simply assessing physical condition, for WEEE items the ongoing maintainability can be affected not only by current operation, but by the availability of spares and suitably skilled service engineers, etc. Where the predicted remaining lifespan is insufficient, recycling may be more appropriate.

- **Warranties and certification**

Certain items such as raised access flooring, fire doors and WEEE items often include a warranty period. The presence of any warranty, and the effect on this of reusing the items elsewhere should be considered. Any impact on building insurance should be carefully explored. Where warranties are lapsed or nullified by reuse, it may still be feasible to reuse products provided risks can be managed, for example via recertification (this is a common route for the reuse of structural steel). Where warranties and/or recertification are absent, and this has a material impact on the design risk, recycling may be a more appropriate option.

- **Fixing method**

It is crucial that items for reuse can be removed in a non-destructive way to avoid damage. A good understanding of fixing methods can help to prioritise items that can be saved for future reuse; those that will be damaged during removal may only be suitable for recycling.

- **Handling, access and storage requirements**

Typically items will need to be safely removed from the building and stored, prior to reuse. This requires careful consideration, in terms of any manual handling, any protection that may be required during transit and storage, and the method/route of removal from the building. Some items may be too big for existing openings or too heavy for manual handling, necessitating new wall/floor openings to provide access for cranes or other machinery. Once removed, items will typically require storage for several months at least, and suitable space should be available to facilitate this; any associated costs should also be appraised. Where costs are considered excessive, or access/handling requirements are prohibitive, recycling may be the preferable option.

- **Any other Health and Safety considerations**

Alongside the above, there may be additional health and safety risks either for the operatives removing items, or for other building users or the general public in the vicinity. For example, if removing stone cladding from walls or tiles from roofs, suitable methods of working should be established to control any risks, e.g. working at height or potential to drop items into the street. Where such risks are considered excessive, a more standard process of demolition and recovery for recycling may be preferable to disassembly for reuse.

## 6.5 Additional considerations

The following recommendations may assist in maximising the reuse and recycling potential of materials:

- Direct reuse, rather than recycling, of items should always be prioritised.
- Consult the client on the findings of this report and consider any options for closed-loop re-use in this project itself, or a similar project.
- The best environmental and economic benefits are likely to be when material is either reused directly within the new scheme, or as near to site as possible (either via commercial sale or donation).
- Mixed skips should always be avoided where possible - it is highly recommended that all material types are segregated on site in separate skips/bays or areas to maximise reuse and recycling.
- Consider setting aside specific storage on site for segregation of salvage items.
- If material is to be sold, ensure that it is advertised as early as possible to maximise exposure.
- Advertise specific salvage items for free on [www.salvo.co.uk](http://www.salvo.co.uk) or low value materials or use companies such as GlobeChain ([www.globechain.com](http://www.globechain.com)); Reyooz ([www.reyooz.com/about/clients](http://www.reyooz.com/about/clients)) and Collecteco: <https://www.collecteco.co.uk/> Salvo also operate a demolition/refurbishment alert service on their website which serves to bring forthcoming demolition products to the attention of potential buyers or users <https://www.salvoweb.com/dismantling-demolition>
- For smaller items e.g. white goods, fans etc, use local organisations such as the Reuse Network: <https://reuse-network.org.uk/donate-items/#/>
- Contact local architectural salvage merchants about specific items. Salvo publish a directory on their website (<https://www.salvoweb.com/>). Ensure that salvaged items are removed and stored in such a way that all components remain together, e.g. hinges and fixings with doors, etc.
- Material exchange websites can be searched at [https://www.supplychainschool.co.uk/login/?redirect\\_url=https%3A%2F%2Flearn.supplychainschool.co.uk%2Flocal%2Ftlactionplans%2Fresource\\_intro.php%3Fid%3D4291%26amp%3Bmodtype%3Durl](https://www.supplychainschool.co.uk/login/?redirect_url=https%3A%2F%2Flearn.supplychainschool.co.uk%2Flocal%2Ftlactionplans%2Fresource_intro.php%3Fid%3D4291%26amp%3Bmodtype%3Durl) (Note, you will need to create a log in but there is no charge to use the site).

## 7 Recommendations and Targets

### 7.1 Reuse of materials target

Reuse, rather than recycling, of items should always be prioritised.

It is believed that approximately 21.4 tonnes of material could potentially be reused, representing around 0.5% of total weight. Therefore a reuse target of **0.3% by weight** is recommended.

Note that this would be exceeded should the items recommended in section 6 above be reclaimed.

### 7.2 Diversion from landfill target

It is recommended that an overall diversion from landfill target is set prior to the project commencing based on the recommendations of this report in conjunction with the selected contractor(s). An estimate of the total percentage of waste materials that can be diverted from landfill is 4,217.0 tonnes, or 99.4% by weight.

A total diversion from landfill target of **95% by weight** is recommended.

Note that 90% by weight, or 80% by volume is required to achieve the relevant BREEAM credits; a more ambitious target representing an exemplary level would be 95% diverted from landfill. For the GLA Circular Economy Statement, 95% is required.

## 8 Key Demolition Products

### 8.1 Concrete

Concrete accounts for an estimated 2,255.5 tonnes or 53% of total waste arisings by weight; sources can be seen in Table 2 below.

Table 2 Sources of Concrete

| Item             | Tonnes         | Volume         |
|------------------|----------------|----------------|
| Floor slabs      | 1,573.4        | 695.3          |
| Mortar and grout | 350.5          | 184.5          |
| Block walls      | 263.0          | 164.4          |
| Concrete stairs  | 57.6           | 24.0           |
| Coping           | 11.0           | 4.6            |
| <b>Total</b>     | <b>2,255.5</b> | <b>1,072.7</b> |

#### Diversion from landfill

Any concrete for recycling should be segregated either onsite or at a waste facility and crushed to produce recycled concrete aggregate (RCA)<sup>1</sup> in accordance with the WRAP Quality Protocol for aggregates<sup>2</sup> from inert waste. There may be an opportunity to use some of the RCA in the new construction or in nearby locations via a concrete supplier. Finished recycled aggregates should not contain more than 1% (by weight) of clay, soil, metals, wood, plastic, rubber and gypsum plaster, in line with the limits set within the aggregates standard.

RCA can be used:

1. In bitumen bound materials: e.g. base course or binder course mixtures.
2. To replace 20% of the coarse aggregate in concrete up to Grade 50.
3. As pipe bedding, when suitably graded.
4. In hydraulically bound mixtures (HBM) for sub-base and base: RCA can be used in the construction of car parks, estate/minor roads and hard standing.
5. In unbound mixtures for subbase, when suitably graded.
6. In capping applications.

Local waste management companies that could manage this material stream include:

- Brewsters Waste Management, [www.brewsterswaste.co.uk](http://www.brewsterswaste.co.uk), 020 7474 3535
- Ohara Bros <http://oharabros.co.uk/services/aggregates-recycling>, 020 8424 2220
- RTS Waste, [www.rtswaste.co.uk](http://www.rtswaste.co.uk), 020 7232 1711
- Days Group, <http://www.daygroup.co.uk/>, 0845 065 4655

<sup>1</sup> Recycled concrete aggregate is aggregate resulting from the processing of inorganic material previously used in construction and principally comprising crushed concrete [BS 8500-1: 2002].

<sup>2</sup> <https://www.gov.uk/government/publications/quality-protocol-production-of-aggregates-from-inert-waste>

## 8.2 Brick

Brick accounts for an estimated 1,610.5 tonnes or 38% of total waste arisings by weight; sources can be seen in Table 3 below.

Table 3      *Sources of Brick*

| Item           | Tonnes         | Volume       |
|----------------|----------------|--------------|
| Internal walls | 1,012.8        | 595.8        |
| External walls | 597.6          | 351.5        |
| <b>Total</b>   | <b>1,610.5</b> | <b>947.3</b> |

### Diversion from landfill

It is sometimes possible to separate and reuse bricks, depending on the mortar type used. The bricks seen appeared to be in reasonably good condition; should you wish to investigate further, local reclamation companies that can be contacted with regard to reclaiming the bricks and the value in doing so include:

- London Reclaimed Brick Merchants, [www.lrbm.com](http://www.lrbm.com), 020 8452 1111
- Salvo, [www.salvoweb.com/](http://www.salvoweb.com/)

If the bricks cannot be separated, it is recommended that the brick waste is segregated either onsite or at a waste facility and crushed to produce recycled aggregate (RA). Waste management options are similar to concrete, depending on the level of contamination with other materials including pipe bedding, drainage, granular fill, general fill and capping and for sub-base.

Finished recycled aggregates should not contain more than 1% (by weight of clay, soil, metals, wood, plastic, rubber and gypsum plaster, in line with the limits set within the aggregates standard. It is recommended that they are processed where possible into recycled aggregates (RA). The Quality Protocol for inert materials should be followed.

Local waste management companies that could manage the waste include:

- Brewsters Waste Management, [www.brewsterswaste.co.uk](http://www.brewsterswaste.co.uk), 020 7474 3535
- Ohara Bros <http://oharabros.co.uk/services/aggregates-recycling>, 020 8424 2220
- RTS Waste, [www.rtswaste.co.uk](http://www.rtswaste.co.uk), 020 7232 1711
- Days Group, <http://www.daygroup.co.uk/>, 0845 065 4655

Alternatively, licensed waste management contractors should be able to reprocess the brick waste into aggregates.

### 8.3 Gypsum

Gypsum accounts for an estimated 137.9 tonnes or 3% of total waste arisings by weight; sources can be seen in Table 4 below.

Table 4      *Sources of Gypsum*

| Item         | Tonnes       | Volume       |
|--------------|--------------|--------------|
| Wet plaster  | 91.7         | 107.84       |
| Plasterboard | 46.2         | 61.6         |
| <b>Total</b> | <b>137.9</b> | <b>169.5</b> |

#### Diversion from landfill

Potential for reuse is low as plasterboard will usually be damaged during removal.

Any material relatively free from contamination may be suitable for recycling. Some of the recycling routes can include being used in the plasterboard manufacturing process (check with the waste/recycling company for their recycling routes), alternatively it can be spread on land as soil conditioner. It should be segregated on site, if possible. If it is sent to disposal, then it should be landfilled in a monocell (i.e. landfilled separately from the other waste).

Local waste management companies that could manage this material stream include:

- Powerday <https://www.powerday.co.uk/>; 020 3858 0504
- Plasterboard Recycling Solutions <http://www.plasterboardrecyclingsolutions.co.uk/>; 0780 118 6380
- Country Style Recycling <https://www.countrystylerecycling.co.uk/our-services/plasterboard-recycling/>; 0344 880 7700 (based in Maidstone)

## 8.4 Metals

Metals accounts for an estimated 92 tonnes or 2% of total waste arisings by weight; sources can be seen in Table 5 below.

Table 5 Sources of Metals (all steel unless otherwise identified)

| Item                           | Tonnes      | Volume      |
|--------------------------------|-------------|-------------|
| Steel reinforcement            | 75.3        | 9.7         |
| Pipe and ductwork              | 3.5         | 0.5         |
| Radiators (modern)             | 3.5         | 0.5         |
| Window/door frames - aluminium | 3.2         | 1.2         |
| Radiators (traditional)        | 1.5         | 0.2         |
| Commercial kitchen fit out     | 1.3         | 0.2         |
| Wall/ceiling framing           | 1.2         | 0.2         |
| Metal railings                 | 1.1         | 0.1         |
| Metal cladding                 | 0.9         | 0.3         |
| Window/door frames - steel     | 0.3         | 0.1         |
| Sanitaryware                   | 0.3         | 0.03        |
| <b>Total</b>                   | <b>92.0</b> | <b>13.0</b> |

### Diversion from landfill

Note, demolition contractors will price their contracts dependant on the value they obtain for scrap metal, and so any proposed material reuse/retention should be discussed prior to agreeing fees.

Local waste management companies that could manage this material stream include:

- Capital Metal Recycling, <http://capitalmetalrecycling.co.uk/>, 0208 964 2120
- London Scrap Metal Recycling, <http://www.londonscrapmetalrecycling.com>, 0208 809 1019
- EMR Willesdon, <https://uk.emrlocal.com/yards/emr-willesden-scrap-metal>, 020 8969 1116

## 8.5 Ceramics

Ceramics account for an estimated 58.9 tonnes or 1% of total waste arisings by weight; sources can be seen in Table 6 below.

Table 6 Sources of Ceramics

| Item          | Tonnes      | Volume      |
|---------------|-------------|-------------|
| Clay tiles    | 41.1        | 17.1        |
| Ceramic tiles | 13.9        | 5.8         |
| Sanitaryware  | 4.0         | 1.7         |
| <b>Total</b>  | <b>58.9</b> | <b>24.6</b> |

### Diversion from landfill

As with other inert wastes such as concrete and brick, it is recommended that the ceramic waste is segregated either onsite or at a waste facility and crushed to produce recycled aggregate (RA). Waste management options are similar to concrete, depending on the level of contamination with other materials including pipe bedding, drainage, granular fill, general fill and capping and for sub-base.

Finished recycled aggregates should not contain more than 1% (by weight of clay, soil, metals, wood, plastic, rubber and gypsum plaster, in line with the limits set within the aggregates standard. It is recommended that they are processed where possible into recycled aggregates (RA). The Quality Protocol for inert materials should be followed.

Local waste management companies that could manage the waste include:

- Brewsters Waste Management, [www.brewsterswaste.co.uk](http://www.brewsterswaste.co.uk), 020 7474 3535
- Ohara Bros <http://oharabros.co.uk/services/aggregates-recycling>, 020 8424 2220
- RTS Waste, [www.rtswaste.co.uk](http://www.rtswaste.co.uk), 020 7232 1711
- Days Group, <http://www.daygroup.co.uk/>, 0845 065 4655

## 8.6 Timber

Timber accounts for an estimated 47.2 tonnes or 1% of total waste arisings by weight; sources can be seen in Table 7 below:

Table 7      *Sources of Timber*

| Item                  | Tonnes      | Volume      |
|-----------------------|-------------|-------------|
| Wall/ceiling framing  | 11.3        | 22.5        |
| Doors and frames      | 9.8         | 19.6        |
| Kitchen fit out       | 9.1         | 12.7        |
| Joists                | 5.7         | 11.3        |
| Finishes and cladding | 3.5         | 7.0         |
| Staircases            | 2.4         | 4.0         |
| Window frames         | 2.2         | 4.3         |
| Floorboards           | 1.7         | 2.4         |
| Cupboards/shelving    | 1.4         | 1.9         |
| Miscellaneous         | 0.2         | 0.3         |
| <b>Total</b>          | <b>47.2</b> | <b>86.1</b> |

### Diversion from landfill

Where reclamation is not possible the remaining timber items should be segregated on site if space permits, or offsite and sent to a licensed waste management contractor for recycling.

Local waste management companies that could manage this material stream include:

- Community Wood Recycling, [www.communitywoodrecycling.org.uk](http://www.communitywoodrecycling.org.uk)
- LASSCO, [www.lassco.co.uk/locations/brunswick-house/](http://www.lassco.co.uk/locations/brunswick-house/) 020 7394 2100
- SALVO [www.salvo.co.uk](http://www.salvo.co.uk) lists details of architectural salvage and can list demolition projects
- Solo Wood Recycling [www.solowoodrecycling.co.uk](http://www.solowoodrecycling.co.uk)

## 8.7 Insulation

Insulation accounts for an estimated 12.5 tonnes or 0.3% of total waste arisings by weight; sources can be seen in Table 8 below.

Table 8      *Sources of Insulation*

| Item                    | Tonnes      | Volume       |
|-------------------------|-------------|--------------|
| Mineral wool insulation | 8.8         | 176.0        |
| Foam insulation boards  | 3.4         | 107.6        |
| Underlay                | 0.2         | 6.8          |
| <b>Total</b>            | <b>12.5</b> | <b>290.4</b> |

### **Diversions from landfill**

The majority of the mineral wool insulation is assumed to be present within wall and roof constructions. This is not typically suitable for reuse and usually landfilled. Note that Rockwool offer a recycling scheme, though it has to be their own product and free from contamination:

<https://www.rockwool.co.uk/about/sustainability/recycling/>.

Foam based insulants have been assumed present to some of the flat roof areas. Note that these may need to be treated as hazardous waste due to the potential for POPs (Persistent Organic Pollutants) and should be tested by the demolition contractor before disposal.

The underlay, and any other insulation material not reused or recycled should be disposed of via waste to energy, although note that mineral wool is only suitable for landfill.

## 8.8 Carpet

Carpet accounts for an estimated 11.9 tonnes or 0.3% of total waste arisings by weight; sources can be seen in Table 9 below.

Table 9 Sources of Carpet

| Item         | Tonnes      | Volume     |
|--------------|-------------|------------|
| Carpet       | 11.9        | 7.2        |
| <b>Total</b> | <b>11.9</b> | <b>7.2</b> |

### Diversion from landfill

Any unwanted carpet could be sent for recycling or disposed to landfill/waste to energy.

Waste management companies covering the local area include:

- Park N Load, [www.parknload.co.uk](http://www.parknload.co.uk), 01763 281 538.
- Carpet Recycling London/Envirocycle, [www.surreywasteremoval.co.uk](http://www.surreywasteremoval.co.uk), 01372 613 002.
- Anglo Recycling Technology Ltd, [www.angloreycling.com](http://www.angloreycling.com), 01706 853 513.
- Potential recycling routes can also be searched at: <https://carpetrecyclinguk.com/find-a-recycler/>

## 8.9 Bitumen

Bitumen accounts for an estimated 9.7 tonnes or 0.2% of total waste arisings by weight; sources can be seen in Table 10 below.

Table 10 Sources of Bitumen

| Item            | Tonnes     | Volume     |
|-----------------|------------|------------|
| Asphalt roofing | 8.4        | 4.2        |
| Felt roofing    | 1.2        | 2.0        |
| <b>Total</b>    | <b>9.7</b> | <b>6.2</b> |

### Diversion from landfill

None of the material is suitable for direct reuse, and older material may potentially be classed as hazardous waste depending on coal tar or chrysotile content. The material should be tested by the demolition contractor prior to disposal, with energy from waste incineration being the preferred option.

Some of the bituminous surfaces may be suitable for reprocessing into fresh surfacing material. As the age of this material is unknown, core sampling should be undertaken to determine coal tar content, which might result in it being deemed hazardous waste.

ADEPT and the Construction Demolition Waste Forum have created a guidance note on Managing Reclaimed Asphalt which provides further information - it can be accessed [here](#).

Asphalt should be processed in line with the WRAP Quality Protocol for inert waste, and potential recycling routes include sub-base, capping or used in hot-mix asphalt (dependent upon the amount of tar); and into other bituminous mixes.

Local contractors that can deal with this waste stream and advise on recycling potential include:

- Powerday <https://www.powerday.co.uk/>; 020 3858 0504
- Hintons <https://www.hintonswaste.co.uk/>; 0208 684 0401
- O'Donovan <https://www.odonovan.co.uk/>; 0800 731 3332

## 8.10 Glass

Glass accounts for an estimated 6.4 tonnes or 0.2% of total waste arisings by weight; sources can be seen in Table 11 below.

Table 11 Sources of Glass

| Item         | Tonnes     | Volume     |
|--------------|------------|------------|
| Glazing      | 6.4        | 2.6        |
| <b>Total</b> | <b>6.4</b> | <b>2.6</b> |

### Diversion from landfill

Where reuse is not feasible, glass should be recycled.

Local waste management companies that could manage this material stream include:

- RTS Waste ([www.rtswaste.co.uk](http://www.rtswaste.co.uk) T: 020 7232 1711). Note they may require the glass to be removed and stacked as panels.
- URM Group (<https://www.urmgroupp.co.uk/> E: info@urmgroupp.co.uk
- May Glass Recycling (<http://www.mayglassrecycling.co.uk/>); may only take new glass
- Sibelco <https://www.sibelco.com/en/applications/glass-recycling>

British Glass has a guide for flat glass recycling

<https://www.britglass.org.uk/sites/default/files/British%20Glass%20-%20how%20to%20recycle%20flat%20glass.pdf>

## 8.11 Plastic

Plastic accounts for an estimated 2 tonnes or 0.05% of total waste arisings by weight; sources can be seen in Table 12 below.

Table 12 Sources of Plastic

| Item              | Tonnes     | Volume     |
|-------------------|------------|------------|
| Vinyl flooring    | 0.8        | 0.6        |
| Sanitaryware      | 0.6        | 0.5        |
| Pipe and ductwork | 0.5        | 1.2        |
| Membranes         | 0.2        | 0.4        |
| <b>Total</b>      | <b>2.0</b> | <b>2.6</b> |

### Diversion from landfill

Schemes exist to recycle old vinyl flooring, depending on the quality and amount of screed attached. This can either be dropped off at specific locations or collected. See <http://www.recofloor.org/about-us/#specifications> for more details. If the product does not meet the specification for recycling, then it is likely to be sent for energy recovery.

Other sources include pipework, and various miscellaneous items; please note it is likely that further concealed plastic items are present across the building. The plastic is unlikely to be suitable for recycling and should be sent for energy recovery (energy from waste).

Waste management companies that could manage the plastic waste include:

- Vanden Recycling, <https://www.vandenrecycling.com/en/>, 02892 668 009
- Express Polymers, <https://www.ukplasticrecycling.co.uk/polycarbonate-recycling/london>, 07590 517 101.
- Entire Recycling, <https://www.entirerecycling.co.uk/polycarbonate-recycling>, 01572 718 702.
- Regenthill Ltc, [www.regenthill.co.uk](http://www.regenthill.co.uk), 01264 771 519

## 8.12 Waste Electrical and Electronic Equipment (WEEE)

A selection of Waste Electrical and Electronic Equipment is present across the site. WEEE falls outside the direct scope of this analysis and as such these items have not been quantified with weights and volumes; however general reuse options have been suggested for key items such as lighting.

Table 13 *WEEE items present*

| Item                         | Quantity | Target for reuse? |
|------------------------------|----------|-------------------|
| A/C units                    | 19       | Y                 |
| 2D lighting (fluorescent)    | 50       | N                 |
| Strip lighting (fluorescent) | 30       | N                 |
| Recessed lighting (LED)      | 205      | Y                 |
| Pendant lights (standard)    | 58       | N                 |
| White goods                  | 48       | Y                 |
| Lifts                        | 1        | N                 |
| Lift motors                  | 1        | N                 |
| Spotlights (halogen)         | 20       | N                 |
| Wall lighting                | 72       | N                 |

Many items are in theory reusable but in practice may not be desirable due to age/aesthetic considerations.

There are believed to be small quantities of centralised plant on site, such as boilers, but these could not be accessed during the survey. A specialist assessment is required to determine potential for reuse.

Any fluorescent lighting is suggested to be approaching end of life and should be sent for specialist recycling via e.g. Recolight ([www.recolight.co.uk](http://www.recolight.co.uk)).

Any LED lighting within the building is recommended for potential reuse; estimated quantities are set out in the table above. There are also companies that will remanufacture LED lighting, including: Egg Lighting ([www.egglighting.com/egg-circular](http://www.egglighting.com/egg-circular)) and Whitecroft Lighting – Vitality ([www.whitecroftlighting.com/whitecroft-vitality](http://www.whitecroftlighting.com/whitecroft-vitality)).

There are small quantities of new and unused white goods/air conditioning plant within the four storey building on North Hill. It is our understanding that this building was fully refurbished but never occupied. Any items such as fridges etc that are found to be in good working order could be potentially used within the new scheme, or alternatively offered to community reuse schemes such as the Reuse Network: <https://reuse-network.org.uk/donate-items/#/>

Any waste electrical and electronic equipment should be separated on site and sent to a specialist recycling facility, such as the following:

- Pure Planet Recycling, [www.pureplanetrecycling.co.uk/weee-recycling-london](http://www.pureplanetrecycling.co.uk/weee-recycling-london), 01234 315 496.
- Priority WEEE, <https://priorityweee.co.uk/>, 0800 078 9580.
- Clear It Waste, <https://www.clearitwaste.co.uk/commercial/weee-disposal/>, 0208 504 2380.

## Appendix A – Report Author

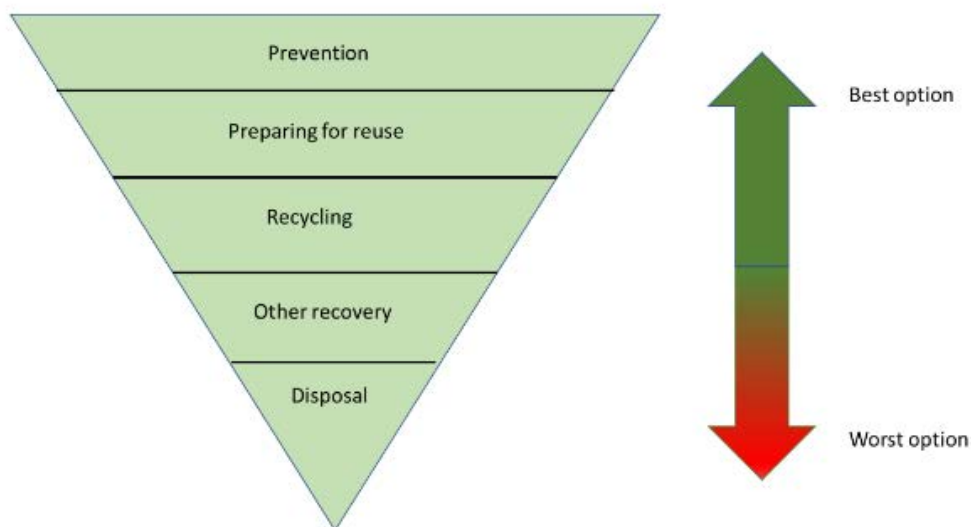
### **Toby Balson**

Toby has nearly 20 years' experience in energy consultancy, building design and construction resource efficiency. He has extensive experience of carrying out Pre-Demolition Audits across the UK, having assessed a wide range of sites and buildings across the domestic, commercial and other sectors such as heritage and healthcare.

Toby's career began at BRE where he worked closely with the Energy Saving Trust and other clients developing sustainable construction training and guidance, including designing for material efficiency and reuse, as well as work on embodied carbon within buildings. He subsequently worked as Environmental Officer at the University of Cambridge, before leaving to concentrate on practical delivery of waste and energy efficiency projects. As well as Pre-Demolition and Refurbishment Audits, he undertakes Post-Occupancy Evaluations, energy surveys and bespoke energy consultancy work.

## Appendix B – The Waste Hierarchy

The waste hierarchy is a framework which has been used in UK policy and legislation since the 1990s. The concept is simple, with waste prevention at the top of the waste hierarchy (the preferred option) and disposal at the bottom (the worst option). In between, in order of preference, is preparing for reuse, recycling and recovery. There are standard definitions within legislation on what constitutes each activity under the waste hierarchy.



### Waste Prevention

- Waste prevention measures include reducing the quantity of waste generated, reducing the content of harmful substances, reducing the adverse impacts on environment and human health.
- Other terms may include waste reduction, elimination and minimisation.
- In the majority of cases, waste prevention is focused on materials, products and components before (somewhat confusingly) they become waste.
- Examples of waste prevention include good storage of materials to avoid damage; avoiding over ordering of materials, eliminating excess packaging, designing out waste and extending the lifetime of products.
- For a building/structure, waste prevention may include build nothing, build less, extending the life of a building (thereby not creating demolition waste); designing for adaptability, being more material efficient in the design, and using systems that may create less waste (such as modern methods of construction).

### Reuse

- Reuse is any operation by which products or components that are not waste are used again for the same purpose.
- Preparing for reuse is checking, cleaning or repairing products or components of products that have become waste to enable them to be reused without any other pre-processing.
- Other terms that encompass reuse are remanufacture, refurbishment, repair, and reclamation/salvage.
- Examples include reclaimed bricks, the reuse of steel beams and reusable packaging systems. Examples of remanufacture can be found for lighting. Reclamation/salvage is often used for reusing architectural items.
- At a building level, the refurbishment of a building is reuse.
- Often, reuse is conflated with recycling, but they are two different activities. Reuse may be seen as a waste prevention activity

### Recycling

- Recycling is any recovery operation where waste materials are reprocessed into products, materials or substances, whether for original or other purposes.
- There are two types of recycling:
  - **Closed loop recycling** - where the waste materials are recycled back into the same or a similar product (e.g. waste plasterboard being recycled back into plasterboard).
  - **Open loop recycling** - where the waste material is recycled back into different products (e.g. container glass into fibre glass insulation and plastic bottles into plastic pipes). There tends to be more benefits from closed loop recycling – for example, studies have shown that it is better to use recovered glass to create new glass rather than use it as an aggregate in construction.
- Repurpose may also be a recycling activity, for example using scaffolding planks as furniture.
- Many construction product manufacturers will use recycled materials in their manufacturing processes.
- Terms that are being used more frequently include ‘downcycling’ and ‘upcycling’ due to the increasing prominence of the circular economy concept, which aims to keep products, components, and materials at their highest utility and value. As the names suggest, downcycling is where some value is lost e.g. crushed concrete used in fill applications, and upcycling is where value is enhanced e.g. cladding from recycled plastic bottles.

#### **Other recovery**

- Recovery activities are incineration with energy recovery, gasification and pyrolysis (used for organic waste) which produce energy and anaerobic digestion and composting (also used for organic waste).
- Some waste from construction and demolition activities will be sent for energy recovery e.g. plastic and wood.
- 'Backfilling' is a recovery option, where inert materials (mostly from C&D waste) are used for the reclamation of excavated areas or engineering purposes in landscaping. The waste must be suitable for the intended purpose and must substitute non-waste products.
- Sometimes the terms 'recycling' and 'recovery' are used interchangeably.

#### **Disposal**

- The landfilling of waste and the incineration of waste where energy is not recovered are disposal activities.
- In some cases, it may be necessary to landfill waste e.g. hazardous waste such as asbestos.
- Inert waste may be disposed of e.g. to restore quarries where there are planning requirements.

Text reproduced from the Construction Products Association Waste Hierarchy Briefing Paper, author Dr Katherine Adams – see <https://www.constructionproducts.org.uk/media/557063/waste-hierarchy.pdf>

## Greater London Authority Pre-Demolition Audit

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## **Appendix C**

### Pre-Redevelopment Audit

**103-107 North Hill, Highgate, London**

**Pre-Redevelopment Audit**

**For**

**Highgate Care Limited**



103-107 North Hill, Highgate, London

Pre-Redevelopment Audit

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|-------|-----------------------------------------------------|--------------|---------------|--------------------------------------------------------------|---------------------------------|
| 1     | 103-107 North Hill - Pre-Redevelopment Audit Report | v1.01        | 16/05/2024    | Pre-Redevelopment Audit Report – issued for comment/approval | Highgate Care Limited/ Assessor |
|       |                                                     |              |               |                                                              |                                 |

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## 1. Introduction

### 1.1 Policy

The requirement for the Pre-Redevelopment Audit (PRDA) is defined in the London Plan Guidance for Circular Economy Statements dated March 2022 which requires the following:

- A Pre-Redevelopment Audit is a tool for understanding whether existing buildings, structures and materials can be retained, refurbished, or incorporated into the new development. The audit should be carried out early on (at pre-application stage) and should inform the design.
- If there are existing buildings on a site, a third-party, independently verified or peer-reviewed Pre-Redevelopment Audit is strongly encouraged, including analysis that fully explores options for retaining existing structures, materials and the fabric of existing buildings into the new development; and the potential to refurbish buildings before considering substantial demolition.

### 1.2 Methodology

Within this Pre-Redevelopment Audit, explanation is provided on the existing buildings on the site and a brief description of the state of their repair. Details include:

- The age of the buildings
- Existing energy performance
- Key materials
- Photos of typical internal spaces and facades, and site plans.

This report provides an exploration of the options for retaining existing structures, materials, and the fabric of existing buildings in the new development; and the potential to refurbish buildings before considering substantial demolition.

The Pre-Redevelopment Audit will need to be submitted as supporting evidence to the Circular Economy Statement.

### 1.3 Description of the development

#### The existing buildings

The site at 103-107 North Hill, Highgate, London, N6 4DP consists of five interconnected existing structures, and was formerly used as the Mary Feilding Guild care home.

- A four storey building (Truscott House) is located to the North Hill frontage. This was recently refurbished and has never been occupied. It is estimated to date from the 1960s/70s, with a flat roof and third floor balcony.
- Linked to this is a single storey dining/kitchen area with associated hairdressing and office facilities.
- This is connected to a pair of two storey blocks estimated to date from the 1980s. They feature hipped tiled roofs with individual balconies overlooking the central lawn area.
- The oldest building was built as a large two storey detached dwelling in the 1920s, and is typical of that period, featuring exposed brick walls, a hipped roof, chimneys and various internal features such as the ornate timber staircase and panelling.

An aerial image and extract from the existing building plans are shown below:





## Location

The former care home site is located within the Highgate Conservation Area. Whilst the original building sits relatively well within its context, the later additions – particularly the four storey building to North Hill – clearly detract from the area and this has been noted in the 2013 Highgate Conservation Area Appraisal as making a negative contribution to the character and appearance of the conservation area.

The site is adjacent to areas of listed buildings, e.g. the terrace to the north.



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### Existing building characteristics

The existing buildings date from throughout the 20<sup>th</sup> century and feature a broad range of disparate styles bearing little relation to each other, or the broader conservation area. A mixture of flat and pitched roofs are present, with variation in building materials, massing and design style.



## Pre-Redevelopment Audit

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The buildings are believed to generally be of loadbearing masonry construction, with a mixture of concrete and timber floors.

Precise details of the site's refurbishment history were not available, but the four storey block was part way through a complete refurbishment when the site was closed, with modern bathrooms and kitchens, and new and unused fixtures, fittings and equipment throughout.



The other buildings however are notably tired, with need of refurbishment.



The site is currently disused.

### Existing building materials

The table below shows the materials and their typical associated components.

| Materials  | Typical components                                           |
|------------|--------------------------------------------------------------|
| Concrete   | Floor slabs, block walls, stairs, coping                     |
| Brick      | Walls, internal partitions                                   |
| Gypsum     | Internal partitions and ceilings                             |
| Metal      | Rebar, radiators, wall/ceiling framing, wall cladding        |
| Ceramics   | Roof tiles, sanitaryware, tiling                             |
| Timber     | Doors, flooring, other finishes and fit out                  |
| Insulation | Roof insulation; acoustic insulation to partitions, underlay |
| Carpet     | Flooring                                                     |
| Bitumen    | Roof coverings                                               |
| Glass      | Window glazing                                               |
| Plastics   | Flooring, pipework                                           |

The associated Pre-Demolition Audit Report provides greater detail on individual materials arising, including quantities and potential for reuse and diversion from landfill.

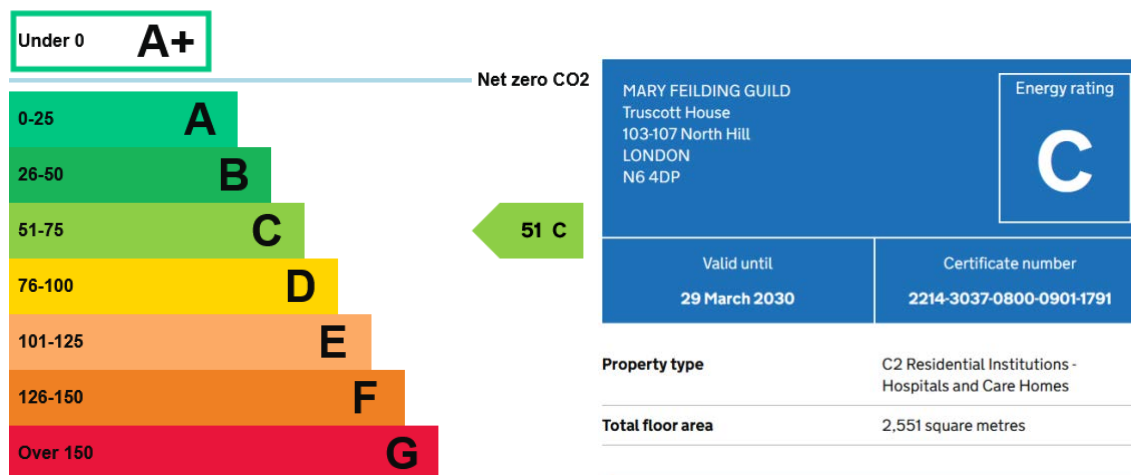
## Existing energy performance

CEPC data is available for Truscott House only.

The certificate indicates a reasonable level of energy performance, with a C rating being awarded.

## Energy rating and score

This property's energy rating is C.



## Breakdown of this property's energy performance

|                                            |                                 |
|--------------------------------------------|---------------------------------|
| Main heating fuel                          | Natural Gas                     |
| Building environment                       | Heating and Natural Ventilation |
| Assessment level                           | 3                               |
| Building emission rate (kgCO2/m2 per year) | 85.12                           |
| Primary energy use (kWh/m2 per year)       | 491                             |

## How this property compares to others

Properties similar to this one could have ratings:

|                                  |      |
|----------------------------------|------|
| If newly built                   | 30 B |
| If typical of the existing stock | 87 D |

### **The proposed development**

The description of the proposed development is as follows: “Demolition of existing buildings and redevelopment to provide a new care home (Class C2 – Residential Institution), together with a well-being and physiotherapy centre. The proposed care home includes up to 70 bedrooms, a hydrotherapy pool, steam room, sauna, gym, treatment/medical rooms, hairdressing and beauty salon, restaurant, café, lounge, bar, well-being shop, general shop, car and cycle parking, refuse/recycling storage, mechanical and electrical plant, landscaping and associated works.”



*Image reproduced from Design and Access Statement*

## Pre-Redevelopment Audit

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The design of the facility has been carefully considered within its surrounding context and seeks to replace the former building with state of the art accommodation.

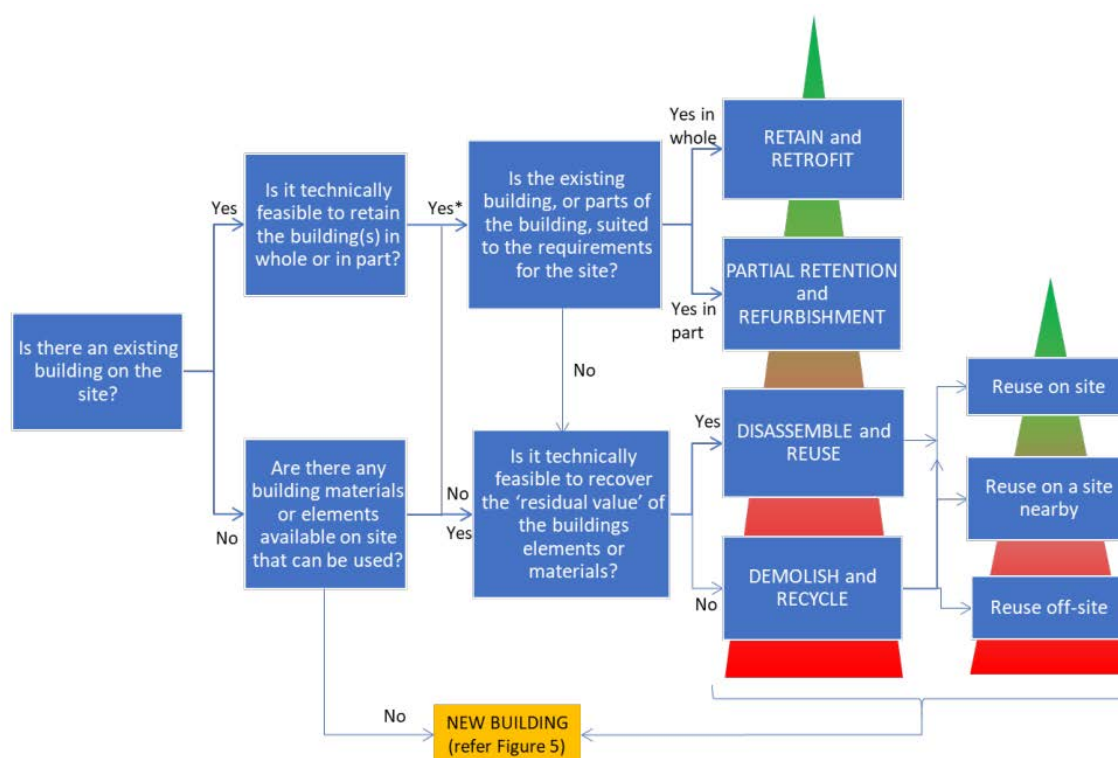
The design of the development serves to integrate the site with the surrounding area and has been drawn up in accordance with the latest good practice urban design principles, sustainability objectives and planning policies DM1 and DM9. It is intended that this development will be exemplar in its design and objectives.



*Image reproduced from Design and Access Statement*

## 1.4 Circular Economy approaches

The decision tree and table below is taken from GLA Circular Economy Statement guidance, and is intended to help design teams determine the potential for full or partial building retention and/or reuse of materials.



|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Retain and retrofit</b>                 | The vast majority of the building's fabric is retained, with the building refurbished for the same or new uses through restoring, refinishing and future-proofing. This also encompasses retrofitting, where new technology or features are added to existing buildings to make them more efficient and to reduce their environmental impacts.                                                                                                                                                                                                                                                   |
| <b>Partial retention and refurbishment</b> | Significant quantities of carbon-heavy aspects of the building are retained in place, such as the floors and substructure, with replacement of some elements of the building, such as walls or roofing. More significant refurbishment can involve adding floors or extensions.                                                                                                                                                                                                                                                                                                                  |
| <b>Disassemble and reuse</b>               | Disassemble sections of a building and enable their direct reuse ideally on the site or, where this is not possible, off site (with nearby sites preferred). This approach also includes careful selective deconstruction of the building and material types i.e. taking apart each layer and material type as much as possible, minimising damage to parts and maintaining their value, and then reusing those elements and materials.<br>If reuse is not possible, materials may be carefully and selectively separated for processing and recycling into new elements, materials and objects. |
| <b>Demolish and recycle</b>                | Traditional demolition, with elements and materials processed into new elements, materials and objects for use on the site or on another site.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

The following table responds to the above guidance, and describes the circular economy approaches for the existing building in terms of its suitability for the proposed new development.

## Pre-Redevelopment Audit

| <b>Circular economy approach</b>           | <b>Opportunities</b>                                                                                                                                                                                                                                                                                                         | <b>Limitations</b>                                                                                                                                                                                                                                                           | <b>Recommendations</b>                                                                                                                                                                                                                                        |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Retain and retrofit</i>                 | <p>The embodied carbon within the existing building is retained.</p> <p>Internal reconfiguration could potentially provide space for a limited number of new beds to be created.</p>                                                                                                                                         | <p>The existing built form is incompatible with modern care standards and does not optimise the available site.</p> <p>Further improvements to the energy performance are limited by the building fabric.</p>                                                                | <p>Whilst the building could be retained in its existing form, this would only result in a marginal improvement to building function and energy usage, whilst improvements to care quality and capacity would not be met.</p>                                 |
| <i>Partial retention and refurbishment</i> | <p>The existing building footprint could be maximised, coupled with sensitive modifications to the built form to improve public realm and greening.</p> <p>Additional beds could be accommodated within the new scheme.</p> <p>The deeper refurbishment would also permit step change improvements to energy efficiency.</p> | <p>The existing building footprint cannot be significantly altered and as with any retention scheme the existing structure presents some limitations on design options.</p> <p>Existing green space would be compromised by any expansion to the site's built footprint.</p> | <p>This option presents some potential for limited improvements but the existing fundamental design weaknesses would remain. It would also likely be prohibitive cost-wise.</p>                                                                               |
| <i>Disassemble and reuse</i>               | <p>Any feasible components could be recovered for direct reuse within the new project or elsewhere, e.g. clay tiles, coping stones, radiators and potentially bricks if these can be separated without damage.</p>                                                                                                           | <p>Most of the major material sources e.g. concrete cannot be disassembled for reuse, and can only be downcycled into fill material.</p> <p>Elements such as clay tiles require careful handling to prevent damage.</p>                                                      | <p>Some elements may be able to be disassembled and reused, and it is recommended these are directly reused within the proposed scheme where feasible.</p> <p>See the associated Pre-Demolition Audit Report for further details.</p>                         |
| <i>Demolish and recycle</i>                | <p>The concrete and metals are recyclable as are most other materials.</p> <p>'Closed loop' recycling (recycling back into the same product again with no loss of quality) is possible for some components, e.g. glass.</p>                                                                                                  | <p>Some materials such as insulation and plastics can be difficult to recycle – but are likely to be low quantity.</p> <p>The recycling of many materials, e.g. concrete, involves downcycling, which should be avoided wherever possible.</p>                               | <p>This is recommended for any areas of concrete floor slabs, bitumen, timber, glass, ceramics, etc arising from the refurbishment.</p> <p>Efforts should be made to target 'closed loop' recycling and avoid downcycling wherever possible (e.g. glass).</p> |

The following table has a layer approach to the building, providing some detail of the key materials, their condition and recommendations for reuse and recycling. This is further explored in the Pre-Demolition Audit.

## Pre-Redevelopment Audit

| Layer        | Description of key materials/products                                                              | Condition (note based on visual assessment)                                                                                              | Recommendations for retention/reuse and recycling                                                                                                             |
|--------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site         | Hardstanding, paving, tarmac, dwarf brick walls.                                                   | Typically good condition.                                                                                                                | Paving could potentially be reused. Other materials are suitable for recycling.                                                                               |
| Substructure | Foundations (concrete)                                                                             | Not known                                                                                                                                | Should be suitable for recycling into aggregate.                                                                                                              |
| Structure    | Typically load bearing masonry with mixture of timber and concrete floors, flat and pitched roofs. | Typically fair condition, commensurate with age.                                                                                         | Concrete, steel rebar and timber could be recycled. Tiles and if possible bricks should be reclaimed for reuse.                                               |
| Façade       | Masonry façades, typically with aluminium framed windows and some metal cladding.                  | Brickwork and windows are typically in fair to good condition.                                                                           | Brickwork should be considered for potential reuse.<br><br>Glass should be sent for closed loop recycling; metal frames and cladding should also be recycled. |
| Services     | Broad mixture of lighting types.<br><br>Centralised boilers and other plant equipment.             | Lighting in mixed condition with some newer fixtures present.<br><br>Plant equipment unseen but estimated to be approaching end of life. | Any LED light fixtures may be suitable for reuse.<br><br>Most other items recyclable via dedicated WEEE contractor.                                           |
| Space        | Spaces typically feature carpet or vinyl flooring and plastered ceilings.                          | Most components relatively worn.                                                                                                         | Carpet and vinyl should be recycled. Plasterboard to be segregated for recycling if possible.                                                                 |
| Contents     | Residential furniture, kitchen and WC fit out.                                                     | Kitchen and WC fit out new and unused in Truscott House; to be considered for reuse.<br><br>Other items typically in worn condition.     | Good quality items should be reused/sold or offered to community groups; higher value fixtures e.g. granite work surfaces could be sold or reused.            |

## 1.5 Conclusion

The proposed scheme, classified as Demolish and Recycle, appears to offer the best approach for the building, enabling the scheme to be viable via achieving a greater number of beds, whilst improving facilities and accessibility for residents. The aesthetics and energy performance of the building will also be significantly improved.

Whilst the building could be retained and retrofitted or expanded in its existing form, this would only result in a marginal improvement to building function and energy usage, whilst capacity and care quality aspirations would not be met.

Regarding the demolition work set to occur to the existing structure, material reuse should be prioritised wherever possible; key items are set out in the associated Pre-Demolition Report. For materials that cannot be reused, efforts should be made to target 'closed loop' recycling (e.g. glass) and avoid downcycling wherever possible.

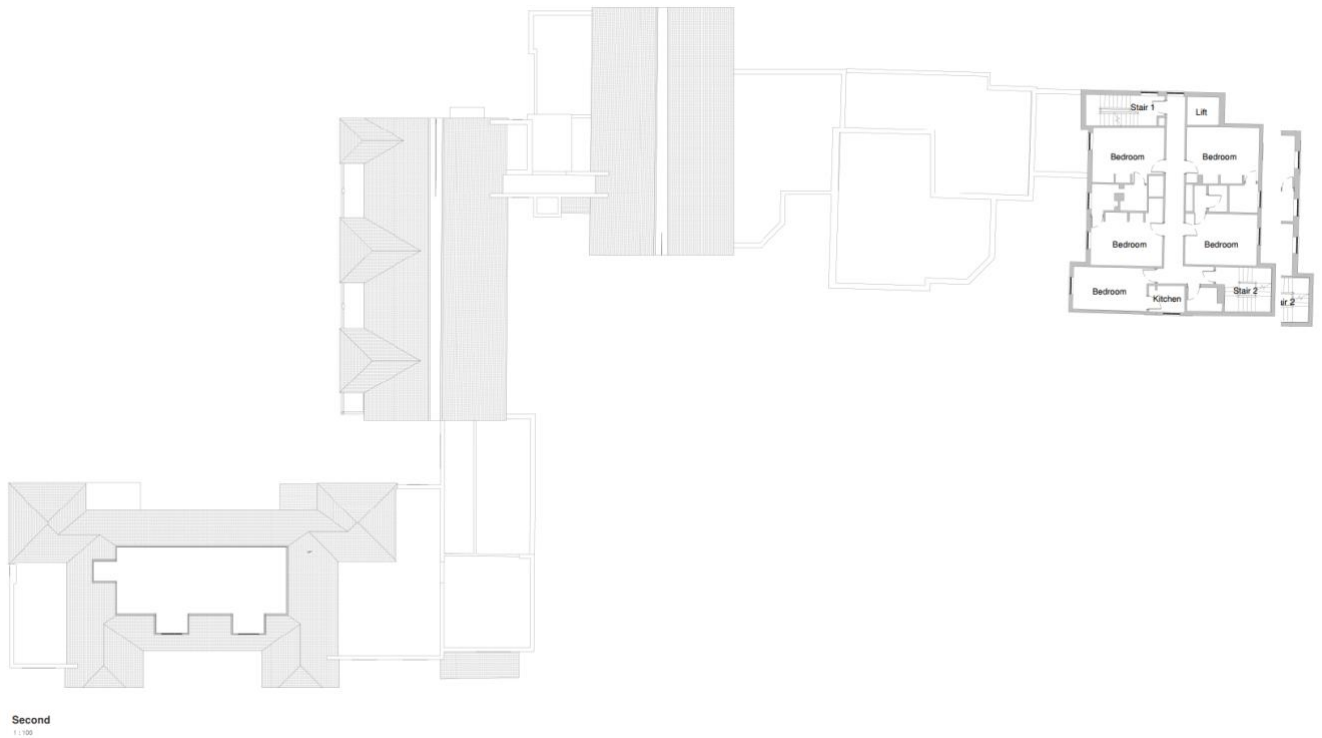
## Appendix A – Existing building plans



*Existing ground floor plan*



*Existing first floor plan*



*Existing second floor plan*



*Existing third floor plan*

## Appendix B – Proposed building plans



*Proposed ground floor plan*



*Proposed first floor plan*



*Proposed second floor plan*



*Proposed third floor plan*

## Appendix C – Site photographs



*Kekewich House*



*Truscott House*



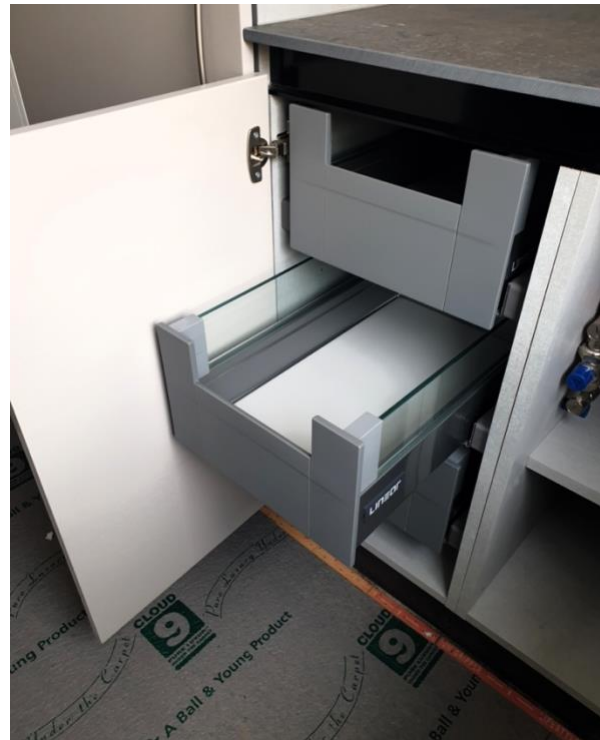
*Rear extension block*



*Dining and kitchen block*



*Internal spaces*



## Contents

## Appendix D – Report author

### **Toby Balson**

Toby has nearly 20 years' experience in energy consultancy, building design and construction resource efficiency. He has extensive experience of carrying out Pre-Demolition Audits across the UK, having assessed a wide range of sites and buildings across the domestic, commercial and other sectors such as heritage and healthcare.

Toby's career began at BRE where he worked closely with the Energy Saving Trust and other clients developing sustainable construction training and guidance, including designing for material efficiency and reuse, as well as work on embodied carbon within buildings. He subsequently worked as Environmental Officer at the University of Cambridge, before leaving to concentrate on practical delivery of waste and energy efficiency projects. As well as Pre-Demolition and Refurbishment Audits, he undertakes Post-Occupancy Evaluations, energy surveys and bespoke energy consultancy work.

## Acknowledgements

In preparing this report we acknowledge use of the following sources:

- Circular Economy Statement Guidance, March 2022: <https://consult.london.gov.uk/circular-economy-statements>

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## **Appendix D**

### Recycled Content Calculations

## REUSED AND RECYCLED CONTENT CALCULATIONS

|                                                  | Material quantity<br>(kg) | Material<br>intensity<br>(kg/m <sup>2</sup> ) | Recycled content<br>by value |
|--------------------------------------------------|---------------------------|-----------------------------------------------|------------------------------|
| Substructure                                     | 1,244,566.14              | 277.87                                        | 5.59%                        |
| Superstructure: Frame                            | 240,749.22                | 53.75                                         | 86.44%                       |
| Superstructure: Upper Floors                     | 2,092,915.41              | 437.27                                        | 0.78%                        |
| Superstructure: Roof                             | 226,979.82                | 50.68                                         | 7.15%                        |
| Superstructure: Stairs and Ramps                 | 5,316.43                  | 1.19                                          | 90%                          |
| Superstructure: External Walls                   | 1,005,712.31              | 224.54                                        | 1.7%                         |
| Superstructure: Windows and<br>External Doors    | 16,179.84                 | 3.64                                          | 0%                           |
| Superstructure: Internal Walls and<br>Partitions | 191,826.97                | 42.83                                         | 18.91%                       |
| Superstructure: Internal Doors                   | 16,179.84                 | 3.61                                          | 0%                           |
| Finishes                                         | 165,537.78                | 36.96                                         | 10.29%                       |
| Fittings, furnishes, and equipment               | 16,096.96                 | 3.59                                          | 25.67%                       |
| Services (MEP)                                   | 70,241.47                 | 15.68                                         | 63.41                        |
| External works                                   | 91,036.64                 | 20.33                                         | 1.31%                        |
| <b>Total</b>                                     | <b>5,383,480.22</b>       | <b>1,201.94</b>                               | <b>10.94%</b>                |



## **Appendix E**

### Cut and Fill Calculations

#### TECHINICAL STATEMENT – CUT & FILL

|                |                    |
|----------------|--------------------|
| PROJECT        | HIGHGATE CARE HOME |
| PROJECT NUMBER | 24038              |
| CLIENT         | HIGHGATE CARE LTD. |
| REPORT DATE    | 03.05.2024         |

#### INTRODUCTION

This statement summarizes the preliminary cut and fill estimates for Highgate and outlines progress made and relevant design considerations.

#### TECHNICAL STATEMENT

High level calculations have been completed to determine the gross amount of cut and fill. These calculations consider; existing + proposed basement, proposed foundations, drainage strategy and site levels for the car park, garden areas and building footprints.

The net amount = 544m<sup>3</sup> of cut

#### REFERENCES

- 56927 - Topographical Survey (12-03-21)
- D01-02 - 01- Proposed Basement GA Plan
- Drainage Statement December 2022



## **Appendix F**

### Operational Waste Management Plan



**MARKIDES ASSOCIATES**

**Framework  
Operational Site  
Waste Management  
Plan**

**Former Mary Fielding Guild Care  
Home, Highgate**

17 May 2024

Prepared for Highgate Care Ltd.

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Project Number: 23412  
Doc Number: OSWMP

| Rev | Issue Purpose | Author | Reviewed | Approved | Date       |
|-----|---------------|--------|----------|----------|------------|
| A   | First Issue   | SEC    | DJT      | DJT      | 17/05/2024 |
| B   | Second Issue  | SEC    | DJT      | DJT      | 30/05/2024 |

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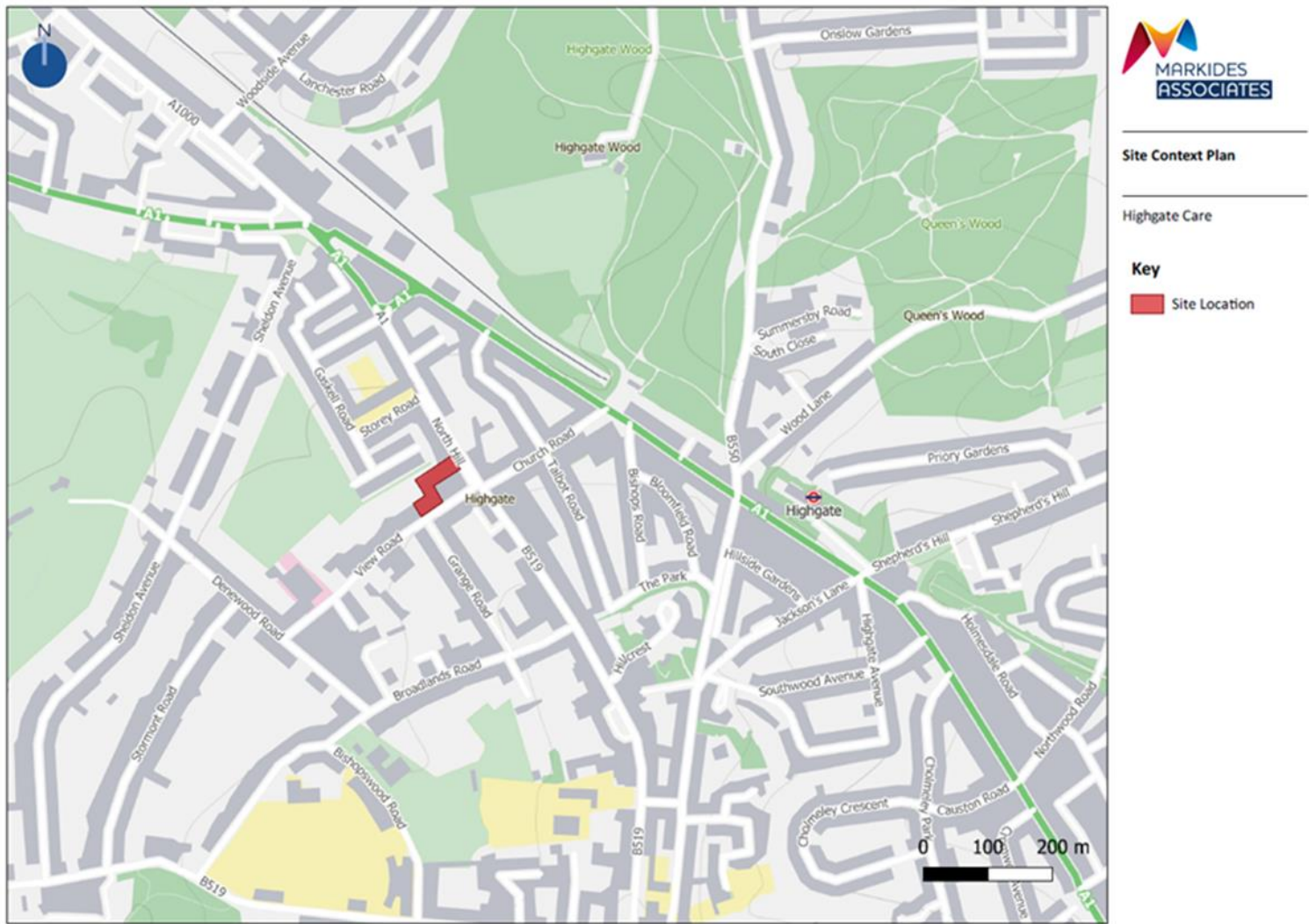
|                                   |
|-----------------------------------|
| Appendix A – Proposed Site Layout |
|-----------------------------------|

## 1. Introduction

### 1.1 Purpose of the Report

- 1.1.1 Markides Associates has been instructed to prepare this Framework Operational Waste Management Plan on behalf of Highgate Care Limited ('the applicant') in relation to proposals for the demolition of existing buildings and redevelopment to provide a new care home which includes up to 50 bedrooms, a hydrotherapy pool, steam room, sauna, gym, treatment/medical rooms, 9 x residential flats, car and cycle parking, refuse/recycling storage, mechanical and electrical plant, landscaping, and associated works.
- 1.1.2 The development site is located at 103-107 North Hill, Highgate, London N6 4DP ('the site'). The care home was previously known as the Mary Feilding Guild Care Home and has now come under new management as the Highgate Care Home.
- 1.1.3 A site context plan is included as **Figure 1.1**.

Figure 1.1      Site Context Plan



- 1.1.4 As shown in the figure above, the site is some 550m west of Highgate London Overground station and to the south of the A1 in the London Borough of Haringey (LBH) who are the planning and highway authority.

## 1.2 Other Documents

- 1.2.1 In addition to this DSMP, the applicant has also prepared documents as follows:

- Transport Assessment (Ref: 23412-MA-RP-D-TA01)
- Framework Delivery and Servicing Management Plan (Ref: 23412-MA-RP-D-DSMP01)

## 1.3 Report Structure

- 1.3.1 The remainder of this report is structured as follows:

- **2.0 Proposed Development** – This section provides details of the proposals and proposed access arrangements; it also considers the relevant policy and level of overlap with circular economy considerations.
- **3.0 Site Users and Relevant Waste Streams** – sets out the details of the expected weekly waste arisings by land use and waste streams.
- **3.0 Proposed Waste Management Strategy** – sets out storage and collection processes and facilities for the site by land use.
- **5.0 Summary and Conclusion** – This section provides a summary of this report and concludes.

## 2. Proposed Development and Policy

### 2.1 Preamble

- 2.1.1 This section of the OWMP details the context of the site in terms of the Proposed Development, its surroundings, and access.

### 2.2 The Site

- 2.2.1 The proposed care home includes up to 50 post-surgical care bedrooms, a hydrotherapy pool, steam room, sauna, gym, treatment/medical rooms, and 9 x residential flats, car and cycle parking, refuse/recycling storage, mechanical and electrical plant, landscaping, and associated works. The proposed layouts are included as Error! Reference source not found..

- 2.2.2 The residential mix is as follows:

- 5 x 1-bed flats
- 3 x 2-bed flats
- 1 x 3-bed flat

- 2.2.3 Users of the site will be as follows:

#### **Commercial Users:**

**Site employees** – management, nurses, therapists and administration or general daily maintenance staff such as cleaners.

**Site contractors** – *ad hoc*, weekly, or less frequent contractors such as pool maintenance, plumbers, repair technicians, etc.

**Short-stay Resident patients** – transferred to and from the site by private ambulance and staying on-site following surgery to recuperate, and who will typically stay for 2 weeks.

**Visitors** – family and friends visiting resident patients during their stay, during defined visiting hours (e.g., pre-booked) outside of highway peak hours 08:00-09:00, 17:00-18:00 and high parking demand (15:00-16:00). Visitors will be encouraged to arrive by public transport or active modes. Visitors to the long-term elderly residents.

**Wellness Centre Outpatients** – Non-resident users of the wellness centre, who will have made a pre-booked appointment to visit to make use of the physiotherapy and hydrotherapy centre. These will be capped per day according to the turnover of appointment slots. Outpatients will include a range of patient types, not all of whom will have issues with lower body mobility and who are considered suitable for this type of outpatient service. For example, patients recovering from shoulder injuries. Blue badge holders will be permitted to book a parking space within the site and those arriving by car drop-off or taxi will be instructed to use the View Road entrance. There is through access from the View Road access to the Wellbeing Centre.

- 2.2.4 The users of the flats will be standard residents, their visitors and associated servicing and delivery movements.

## 2.3 Waste Policy

2.3.1 The national, regional, and local legislation that are relevant to the Proposed Development, in addition to waste policy and guidance at a local level, have been reviewed and a summary is given in Error! Reference source not found., including:

- The Waste (Circular Economy) (Amendment) Regulations 2020
- Waste Management, The Duty of Care Code of Practice (2020 update)
- The Waste (England and Wales) Regulations 2011
- Environmental Protection Act 1990
- Ministry of Housing, Communities & Local Government (MHCLG), National Planning Policy Framework (2021)
- Department for Environment, Food and Rural Affairs (DEFRA), Our Waste, Our Resources: A Strategy for England (2018);
- Waste (England and Wales) Regulations 2011 & The UK Waste Hierarchy
- HM Government, A Green Future: Our 25 Year Plan to Improve the Environment (2018)
- Greater London Authority (GLA), The London Plan 2021 (March 2021) -
- GLA, London Environment Strategy (2018) -
- Haringey Local Plan Sustainable Design & Construction SPD Appendices March 2013

2.3.2 The site also comprises medical use, which will be subject to waste regulations as per the Health and Safety Executive Direction<sup>1</sup> and the associated Health Technical Memorandum 07-01: “Safe and sustainable management of healthcare waste” as updated 2023. These are summarised in **Table 2.1**.

---

<sup>1</sup> <https://www.hse.gov.uk/healthservices/healthcare-waste.htm>

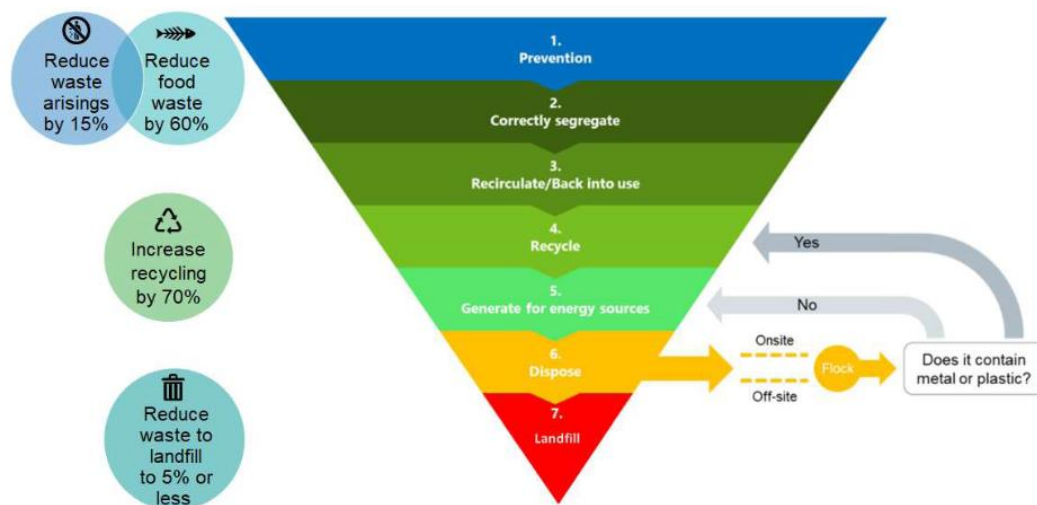
**Table 2.1 UK Health Legislation relating to Waste and Control**

| Environment and Waste Policy                                         | Drug and Infection Control Policy                                                                             | Health And Safety                                               | Transport & Packaging                                                      |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------|
| The Environmental Protection Act and (Duty of Care) Regulations      | The Misuse of Drugs (Safe Custody) Regulations                                                                | Radioactive Substances Act                                      | The Hazardous Waste (England and Wales) Regulations                        |
| The Producer Responsibility Obligation (Packaging Waste) Regulations | The Animal By-Products Regulations                                                                            | Waste Framework Directive                                       | Regulation (EC) No 1272/2008 of the European Parliament and of the Council |
| The Waste (Circular Economy) Regulations                             | The Ionising Radiations Regulations (IRR)                                                                     | The Controlled Waste (England and Wales) Regulations            | The Waste (England and Wales) Regulations                                  |
| Clean Neighbourhoods and Environment Act                             | The Ionising Radiation (Medical Exposure) Regulations (IR[ME]R)                                               | The Environmental Permitting (England and Wales) Regulations    |                                                                            |
|                                                                      | Health and Social Care Act: Code of practice on the prevention and control of infections and related guidance | Health and Safety (Sharp Instruments in Healthcare) Regulations |                                                                            |
|                                                                      | The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)                            | Health and Safety at Work etc. Act                              |                                                                            |
|                                                                      | The Management of Health and Safety at Work Regulations                                                       | COSHH Regulations                                               |                                                                            |

## 2.4 Circular Economy Considerations

- 2.4.1 Once operational, waste will be managed in accordance with the waste hierarchy, as shown in **Figure 2.1** – this is also applicable to residential waste.

Figure 2.1 Waste Hierarchy



Source: Health Technical Memorandum 07-01

2.4.2 Principles to be carried forward within health care management of waste in particular include:

- good storage and stock rotation to use products prior to expiration
- going digital and changing practices to reduce the use of materials
- purchasing goods as a service can provide more robust, durable items, encouraging repair, remanufacture and disassembly for recycling at the end of life
- purchasing safer alternative products with no or fewer hazardous substances
- designing out waste by using effective dispensers that prevent taking more than required, for example for gloves and wipes
- sourcing products derived from recycled materials, including packaging
- inventory controls to reduce purchase of surplus products
- prioritising use of reusable products vs single-use products, such as swapping
- disposable cleaning wipes with use of handcloths
- procuring products and equipment with less packaging
- procuring alternatives to single-use items, where safe to do so
- use of equipment or processes that require fewer resources
- extending the life of equipment, through regular maintenance and care
- educating healthcare staff in the efficient use of products and materials, such as medical equipment, paper, food etc to prevent generating avoidable waste

2.4.3 The London Plan Policy SI 7 target will be targeted, which involves 65% of any municipal waste to be recycled by 2030.

2.4.4 Residential recycling rates are dictated by the collection authority; facilities have been designed in accordance with LBH requirements stated in their guidance. As recycling

performance increases, the waste storage can be adapted to reflect these changes and meet the relevant targets.

#### **Operational Waste Reporting**

- 2.4.5 The developer will be contractually responsible for all operational waste reporting for the Development.
- 2.4.6 This reporting will be based either on number of container lifts per waste stream, or collection weight data if available. Data requirements and reporting methods will be agreed with the relevant authorities once all elements are occupied.

#### **Smart Logistics & Waste Minimisation**

- 2.4.7 It is anticipated community-led waste minimising initiatives will be encouraged, such as charity partnership for the bulky 'waste' such as collection of useable furniture by charities for reuse. Information on site will be distributed via noticeboards and staff training on how to manage waste, reduce waste, recycling and its importance, and safe transport of different waste streams.
- 2.4.8 The post-surgical care home is expected to be in close liaison with local hospitals and may therefore be able to feed into other community-led waste minimisation schemes such as 'goods as service'.

## 3. Site Users and Relevant Waste Streams

### 3.1 Preamble

3.1.1 This section of the report considers the site users and their waste generation.

### 3.2 The Development & Waste Streams

3.2.1 The development has been designed for mixed use.

#### Residential Waste

3.2.2 Residential waste is expected to comprise:

- Garden waste
- Recycling
- Residual Waste
- Food Waste

#### Health Care Waste

- **Domestic (municipal) waste.** This waste is similar to your household waste such as tea bags, newspapers, paper towels, and tissues but depending on the risk assessment this type of waste may also include used continence pads, and wound dressings from people who are not suspected or known to have infection. This type of waste will be collected in a black bag.
- **Hygiene waste.** This is waste that is produced from personal care which has been risk assessed as not infected but may be considered offensive. This would include sanitary products such as used continence pads, empty catheter bags and wound dressings. These items may be placed in a yellow bag with a black stripe often referred to as tiger bags or, depending on the local agreement between the care home and the waste contractor, a black bag may be appropriate.
- **Hazardous (special) waste** often referred to as clinical or infectious waste. This waste consists of items that are contaminated or likely to be contaminated with infected blood and body fluids; for example, during an outbreak of infection. An orange bag or yellow bag is used for this type of waste. Special arrangements are required for people receiving medication or treatment with chemotherapy or low-level radioactive tests. Local policy as to what colour bag or container is used for this type of waste will be complied with. Hazardous waste is defined in the Hazardous Waste Regulations, with the specific hazards defined and detailed in the Environment Agency's (2021a) Technical Guidance WM3: 'Guidance on the classification and assessment of waste'.

3.2.3 The greatest proportion of waste expected is domestic or general mixed waste at around 80% of the total volume.

### 3.3 Waste Generation

- 3.3.1 The level of waste generation by land use, by waste stream for the weekly and annual arisings has been indicatively calculated. The residential waste is informed by LBH's waste guidance, which in turn is informed by British Standards. The level of waste generated by the health care use is more difficult to determine. Based on the applicant's professional experience, waste storage capacity for up to 7 x 1,100L Eurobins has been provided to accommodate a maximum weekly arising.
- 3.3.2 It is expected that prior to occupation, the post-surgical care unit management team will undertake a more detailed waste review based on their specific professional judgement, in compliance with the health waste regulations. Dedicated and more specific waste storage containers will be identified for the various waste sub-streams. For example, specific details of sharps bins, and specific management measures for the use of sharps, their disposal, storage and transfer from the site, all under the 'hazardous waste' category heading.
- 3.3.3 This will form an update of this waste management plan or a standalone health-waste specific management plan in due course as part of the 'live status' of this OWMP.

**Table 3.1 Waste Arisings**

| Waste Stream             | Waste Storage Type   | Number    | Max Weight Capacity/Unit       | Total Max Volume Generated Weekly | Total Max Weight Generated Weekly | Total Max Volume Generated Annually | Total Max Weight Generated Annually |
|--------------------------|----------------------|-----------|--------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|-------------------------------------|
| <b>Residential Use</b>   |                      |           |                                |                                   |                                   |                                     |                                     |
| Residual Waste           | 240L Wheelie Bin     | 9         | 10 kg                          | 2,160 L                           | 90 kg                             | 112,320 L                           | 4.7 T                               |
| Mixed Recycling          | 240L Wheelie Bin     | 9         | 50 kg                          | 2,160 L                           | 450 kg                            | 112,320 L                           | 23.4 T                              |
| Food Waste               | 23L Food waste caddy | 9         | 10 kg                          | 207 L                             | 90 kg                             | 10,764 L                            | 4.7 T                               |
| <b>Total Residential</b> |                      | <b>27</b> | <b>70 kg</b>                   | <b>4,527 L</b>                    | <b>630 kg</b>                     | <b>235,404 L</b>                    | <b>32.8 T</b>                       |
| <b>Healthcare Use</b>    |                      |           |                                |                                   |                                   |                                     |                                     |
| Residual Waste           | 1,100L Eurobin       | 2         |                                |                                   |                                   |                                     |                                     |
| Mixed Recycling          | 1,100L Eurobin       | 2         |                                |                                   |                                   |                                     |                                     |
| Offensive Waste          | 1,100L Eurobin       | 1         |                                |                                   |                                   |                                     |                                     |
| Clinical/Hazardous Waste | 1,100L Eurobin       | 1         |                                |                                   |                                   |                                     |                                     |
| Food Waste               | 1,100L Eurobin       | 1         |                                |                                   |                                   |                                     |                                     |
| <b>Total</b>             |                      | <b>7</b>  | <b>40 - 400 kg<sup>2</sup></b> | <b>7,700 L</b>                    | <b>0.7-2.8 T</b>                  | <b>400,400 L</b>                    | <b>36.4-145.6 T</b>                 |

<sup>2</sup> Actual load can vary from 40kg with averages around 60-100kg

## 4. Proposed Waste Management Strategy

### 4.1 Preamble

4.1.1 The proposed strategy to manage operational waste has been devised to provide a high-quality service to site users whilst also being compliant with the Guidance.

4.1.2 The proposed waste management strategy has been split into the following parts:

- Internal Waste Storage
- Collected Waste Storage
- Waste Collection Process

4.1.3 Each section addresses each waste stream.

### 4.2 Internal Waste Storage

#### Residential Waste

4.2.1 Each residential property will be provided with a segregated waste bin, which may be fixed into an appropriate kitchen unit. An example standardized kitchen unit is shown below. Alternatively, standardised free-standing provision will be made.



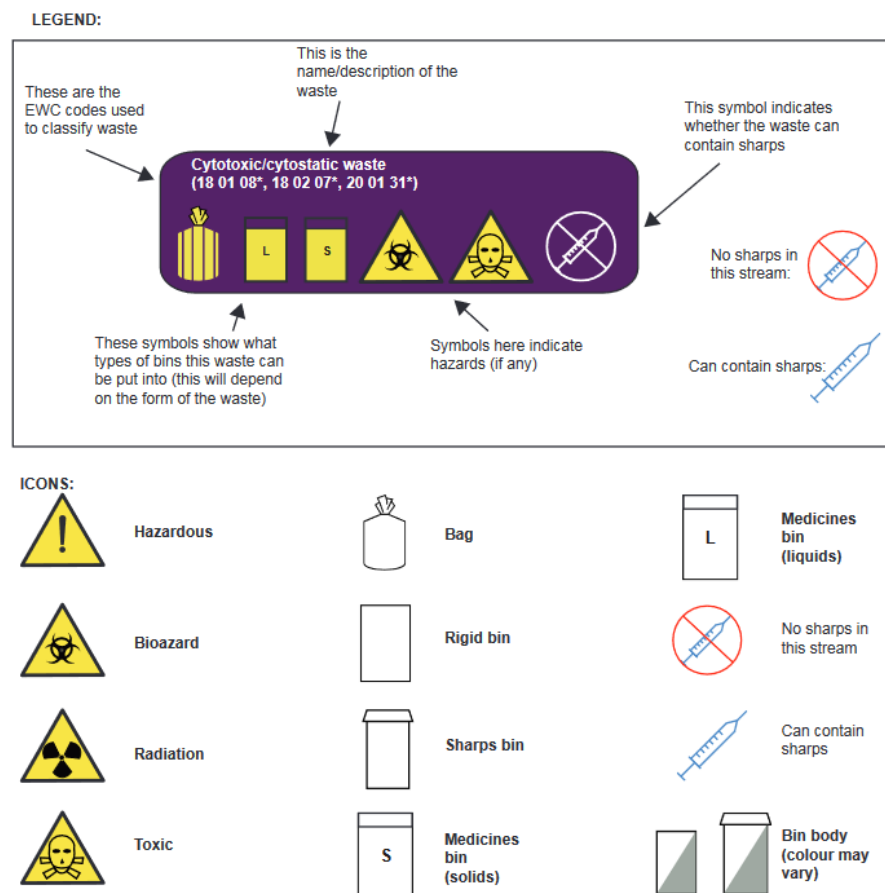
4.2.2 Residents will subsequently take waste in bags to their allocated wheelie bins within the communal waste store.

4.2.3 Plans showing the access to waste stores is included in Error! Reference source not found..

## Healthcare Waste

- 4.2.4 Medical waste is subject to separate control and legislation, and will be managed accordingly,
- 4.2.5 **Hazardous Waste and Clinical Waste** will be stored within dedicated waste receptacles within the building at secure, staff-controlled points according to the Health Directive or other regulation, as set out indicatively in **Figure 4.1**.

**Figure 4.1 Labelling and Waste Storage Direction for Hazardous/Clinical Waste**



Source: Health Technical Memorandum 07-01

- 4.2.6 For example, offensive waste such as adult sanitary waste would be placed within a specific orange and black bag lined sealable waste bin, and transferred, sealed, to a similarly marked and sealable Eurobin within the main bin store for collection. Reference should be made to Table 9 of the Health Technical Memorandum.
- 4.2.7 General or domestic recycling generated by the proposed post-surgical care centre can be collected in a simple segregated waste collection unit. An example is shown below. An additional container for non-recyclable, non-medical waste would also be provided.



4.2.8 Staff will convey this to the main waste store daily.

### 4.3 Collected Waste Storage

4.3.1 As stated, waste will be collated within dedicated stores at ground floor level as shown in Error! Reference source not found.. All waste facilities will be designed to British Standard Code of Practice standards. In summary, the waste facilities will include the following:

- A suitable water point in close proximity to allow washing down;
- All surfaces will be sealed with a suitable wash proof finish (vinyl, tiles etc.);
- All surfaces will be easy to clean;
- Suitable floor drain; and
- Suitable lighting and ventilation.

4.3.2 Residual waste and DMR will be stored in 1,100L Eurobins as a maximum for the health care use or specific medical waste bins.

### 4.4 Waste Collection Process

4.4.1 The proposals include the provision of stopping space for the private waste collection vehicle within View Road for the collection of medical waste up to once daily as a maximum. Separate vehicles may collect different waste streams according to regulations for collection and transport.

4.4.2 Bins will be brought from the dedicated waste storage facility to the vehicle.

- 
- 4.4.3 Residential waste will be collected from the kerbside on North Hill via the public collection service.
- 4.4.4 The site will provide a total of 27 bins; however, it is not expected that these will all be emptied at a single collection. The maximum collection is expected to be 9 x 240L wheelie bins. These will be presented by residents at a designated point on the site frontage for collection on the day of collection and returned to the communal store once emptied.
- 4.4.5 In accordance with the Guidance, the route between the residential waste store and the RCV is:
- free from steps or kerbs;
  - built with a solid foundation;
  - built with a smooth solid surface; and
  - level

## **5. Summary and Conclusions**

### **5.1 Summary**

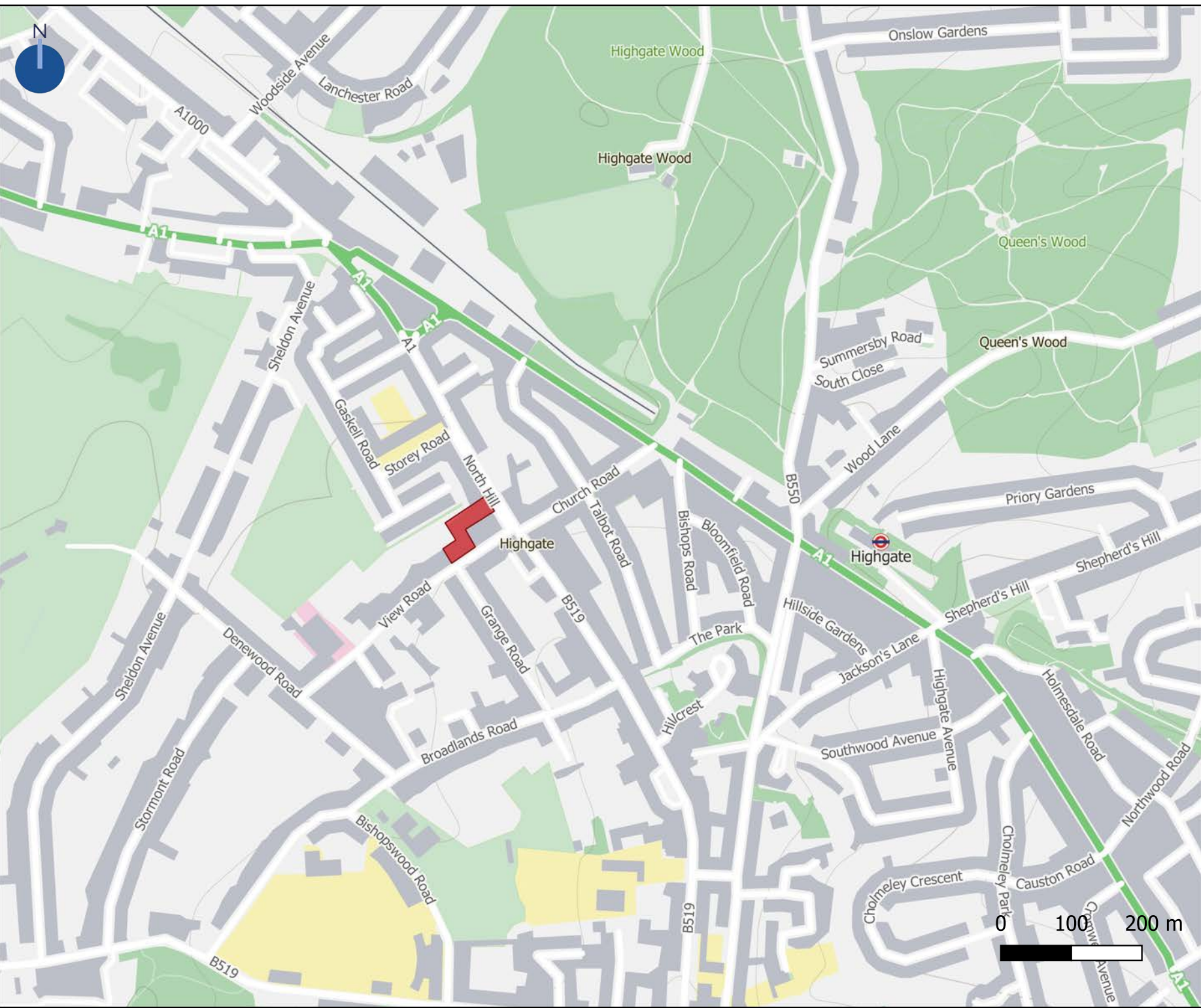
- 5.1.1 Markides Associates has been instructed to prepare this Framework Operational Waste Management Plan on behalf of Highgate Care Limited ('the applicant') in relation to proposals for the demolition of existing buildings and redevelopment to provide a new care home which includes up to 50 bedrooms, a hydrotherapy pool, steam room, sauna, gym, treatment/medical rooms, 9 x residential flats, car and cycle parking, refuse/recycling storage, mechanical and electrical plant, landscaping, and associated works.
- 5.1.2 The development site is located at 103-107 North Hill, Highgate, London N6 4DP ('the site'). The care home was previously known as the Mary Feilding Guild Care Home and has now come under new management as the Highgate Care Home.

### **5.2 Conclusions**

- 5.2.1 This OWMS has considered the need to lessen the overall impact of waste generation through the recycling of materials from the operational phase of the Proposed Development.
- 5.2.2 This OWMS is a live document and will be subject to update following the appointment of site managers prior to occupation and identification of the commercial waste requirements in line with the relevant health regulations.
- 5.2.3 In the interim, the party responsible for this Plan is the Applicant.

## FIGURES

|            |                                                                    |
|------------|--------------------------------------------------------------------|
| Figure 1.1 | Site Context Plan                                                  |
| Figure 2.1 | Waste Hierarchy                                                    |
| Figure 4.1 | Labelling and Waste Storage Direction for Hazardous/Clinical Waste |



### Site Context Plan

Highgate Care

### Key

 Site Location

## APPENDICES

Appendix A – Proposed Site Layout

## APPENDIX A – PROPOSED SITE LAYOUT



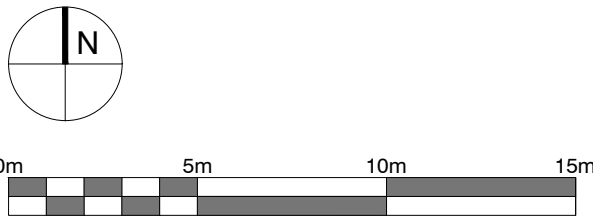
NOTE:  
TOPOGRAPHICAL SURVEY UNDERTAKEN BY  
MALCOLM HUGHES CHARTERED LAND SURVEYORS  
REF 56927/1. TOPOGRAPHICAL SURVEY  
ENCOMPASSES FULL AREA WITHIN RED LINE  
BOUNDARY, NORTH HILL AS INDICATED AND  
SELECTED NEIGHBOURING BUILDING FACES.

TREE LOCATIONS, CANOPY SPREAD AND ROOT  
PROTECTION AREAS PROVIDED BY TYLER GRANGE  
ARBORICULTURALIST REF 13786.

SITE BOUNDARY KEY:

--- CARE HOME SITE 3236M<sup>2</sup> / 0.80 ACRES

--- RESIDENTIAL FLATS SITE 503M<sup>2</sup> / 0.12 ACRES



| REV | DESCRIPTION                                                                                                   | BY | DATE     |
|-----|---------------------------------------------------------------------------------------------------------------|----|----------|
| F   | North Hill flats building width adjusted to suit bins access in residential garden.                           | NJ | 04.04.24 |
| E   | Sunken garden size increased to basement flat.                                                                | NJ | 25.03.24 |
| D   | Additional descriptive text added to layout.                                                                  | NJ | 20.02.24 |
| C   | Parking layout updated to suit alternative footpath location. Addition of new boundary wall to site frontage. | NJ | 20.02.24 |
| B   | Parking layout updated to suit 5.5m width.                                                                    | NJ | 31.01.24 |
| A   | Parking configuration revised to View Road and North Hill.                                                    | NJ | 24.01.24 |



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CLIENT  
**Highgate Care Ltd.**

PROJECT  
New Build Care Home With Well Being and Physiotherapy Centre  
at: 1 View Road / 103 - 107 North Hill, Highgate N6 4DP

DRAWING TITLE  
**Proposed Site Plan**

DRAWING STATUS  
**PLANNING**

|                              |                   |                |                |
|------------------------------|-------------------|----------------|----------------|
| SCALE AT A1:<br>1 : 200 @ A1 | DATE:<br>16.01.24 | DRAWN:<br>NJ   | CHECKED:<br>JA |
| PROJECT NO:<br>D01-02        | DRAWING NO:<br>71 | REVISION:<br>F |                |



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