

Medinbrand

## **45 New Compton Street**

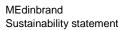
## Sustainability statement

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Prepared for:

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#### **Revision Schedule**

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# Sustainability statement October 2018

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#### 1 Introduction

Planning for Sustainability has been appointed to provide a sustainability statement to support the planning application for the provision of additional residential units in the existing building at 45 New Compton Street in London.

#### 1.1 Site and development

The proposed development comprises of nine additional flats:

- 1 new single storey semi-detached annex, which is located to the south of the building.
- 5 new flats in the space on the ground floor of the building
- 3 new flats on a new fifth floor on top of the existing building

#### 1.2 Sustainability Statement

This sustainability statement aims to describe compliance of the proposed development with the planning requirements as they are set out in the Camden's CGP3 on Sustainability of new development projects.

The development is classed as a minor development and is of a residential nature. Chapter 2 will describe the general sustainability topics and compliance of the proposed development.



### 2 Requirements and compliance

#### 2.1 Energy use in new buildings

The energy use of the building and the measures to minimise the carbon foot print have been described in a separate energy statement.

#### 2.2 Water efficiency

The flats on the ground floor have the use of a private garden. A water butt to supply rainwater for watering the garden will be provided in these gardens.

The internal water use will be minimised by using water efficient fittings and appliances. A water-use of less than 105l per day per person will be specified.

#### 2.3 Waste strategy

The developer will require the construction contractor to minimise waste to landfill. As the scale of the works is very limited, this will likely be through the employment of a post-collection waste recycling system. The construction contractor will be required to prepare a site waste management plan to demonstrate how waste minimisation is achieved. Unless the contractor can demonstrate that it is not feasible, a target of 70% by volume of construction waste diverted away from landfill will be set.

#### 2.4 Sustainable use of materials

It is the intention of the developer to specify construction materials so that at least 80% have a BRE Green Guide Rating of A or higher.

The building has limited potential to use recycled materials directly, as these materials are more readily available with structural elements of a building. However, for the elements that require aggregate the developer will require the construction contractor to use recycled aggregates, according to the targets specified in the table below, if available within 30km of site measured by road transport.

All timber used as part of the construction will be legally sourced and certified under the FSC scheme and for the other materials the developer will seek the construction contractor to supply materials that have a sustainable sourcing certification under a recognised standard.



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#### 2.5 Brown roofs, green roofs and green walls

Part of the roof will be used for the installation of photovoltaic cells. This will not be on the entire roof space and the developer will carry out a feasibility study into providing a low key sedum roof ("brown" roof) to provide some slowing down of storm water runoff and additional cooling during hot weather.

# 2.6 Flood risk, sustainable urban drainage systems and water quality

The development site is not located in an area identified as a local flood risk zone nor is it located in a critical drainage area. The development is not adding to the amount of hard standing and the limit space available prevents the installation of additional SUDS measures.

However, the developer is investigating the provision of a sedum roof, which would contribute to the general flood mitigation in the area.

#### 2.7 Adaptation to climate change

The greenhouse gas emissions by human society in the recent past and near future is predicted to cause changes in the local weather in London. With respect to the proposed development the expected increase in average summer temperature and occurrence of heat waves is of particular relevance. These changes may lead to overheating of occupied spaces within buildings.

Although overheating within buildings can in theory be addressed by installing air conditioning, the increased energy use of these units is highly undesirable and this is not proposed within this development project. Passive measures to prevent overheating is considered at first. According to the SAP overheating test this would lead to a moderate risk of overheating for some of the proposed units. This risk can be reduced by providing mechanical ventilation without air conditioning and with heat recovery during the winter heating season.

The proposed development comprises a mix of residential flats with differing characteristics when considering overheating. There is a semi-detached single storey annex to the south of the existing building, three spacious



flats at the top of the building and five smaller flats at the ground floor, including three single aspect mid terraced units. The differing characteristics require different priorities in addressing the potential for overheating.

All of the units benefit from an eastern and western façade as the main elements for the building. This reduces the impact of heat gain due to direct sunlight. The development is located in a densely populated area, with mature planting (including tree) to the west. This provides ample shading for the ground floor units, where as the top floor units benefit from large openable windows and plenty of opportunity for cross ventilation in spacious apartments.

The three ground floor mid-terraced single aspect units are highly shaded and ventilation grades will be provided to all ground floor flats to ensure adequate ventilation.

The GLA's checklist for overheating in residential units has been completed and is shown in tables 1 and 2.

Table 1 – Site features effecting vulnerability to overheating

| Element   | Feature  | Yes/ No | Comment   |
|---|--|---------|---|
| Site location                                       | Urban – within central London or in a high density urban conurbation                       | Yes     |   |
|   | Peri-urban – on the suburban fringes of London   | No      |   |
| Air quality and or                                  | Busy Roads/A roads   | No      |   |
| noise sensitivity – are any of the following in     | Railways/Overground/<br>DLR  | No      |   |
| the vicinity of the                                 | Airport/flight path  | No      |   |
| buildings   | Industrial uses / waste facility   | No      |   |
| Proposed building use                               | Will any buildings be occupied by vulnerable people (e.g elderly, disabled, young children | Yes     | Although the building is not specifically target any group of vulnerable people, the units may be occupied by person from these groups. |
| Dwelling aspect                                     | Are there any single aspect units  | Υ       | There are three ground floor flats that are single aspect.  |
| Glazing ratio                                       | Is the glazing ration (glazing:internal floor area) greater than 25%?                      | N       | The overall glazing ratio is 25%. Although there is variability between the units.  |
|   | If yes is this to allow acceptable levels of daylighting?                                  | N       |   |
| Security – are there any security issues            | Single story ground floor units  | Υ       |   |
| that could limit opening of windows for ventilation | Vulnerable areas identified by the Police  | N       |   |



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| Architectura | l Liaison |
|--------------|-----------|
| Officer      |           |
| Other        | N         |

Section 2 – Design features implemented to mitigate overheating risk

| summer shading (to windows and pedestrian routes)  Will green roofs be provided  Will other green or blue infrastructure be provided around buildings for evaporative cooling materials been specified?  Welling aspect  Workelling aspect  Workelling aspect  Will other green or blue infrastructure be provided around buildings for evaporative cooling soft towards the façade.  Materials  Have high albedo (light colour) The building materials have been selected to match the existing building. These are dark.  Dwelling aspect  % of total units that are single aspect 33%  % single aspect with N/NE/NW 100%  orientation  % single aspect with S/SE/SW - orientation  % single aspect with W orientation  % single aspect with W orientation  Only two three units with façade facing here all with less than 10% ratio.  Elements on top floor: ranging from 10-15%   | Element               | Feature                                 | Comment                                   |
|--|-----------------------|---|---|
| pedestrian routes)  Will green roofs be provided  Will other green or blue infrastructure be provided around buildings for evaporative cooling materials been specified?  Welling aspect  Wo for total units that are single aspect  Will aspect with N/NE/NW orientation  Single aspect with S/SE/SW orientation  Will other green or blue investigated  The landscaping at the back of the ground floor flats, will be predominantly soft towards the façade.  The building materials have been selected to match the existing building. These are dark.  Dwelling aspect  Wo for total units that are single aspect  Single aspect with N/NE/NW orientation  Single aspect with S/SE/SW orientation  Wisingle aspect with Worientation  Single aspect with Worientation  Worientati | Landscaping           | Will deciduous trees be provided for    | There are already a range of mature       |
| Will green roofs be provided  Will other green or blue infrastructure be provided around buildings for evaporative cooling soft towards the façade.  Materials  Have high albedo (light colour) The building materials have been selected to match the existing building. These are dark.  Dwelling aspect  % of total units that are single aspect 33% % single aspect with N/NE/NW 100% orientation % single aspect with S/SE/SW orientation % single aspect with W orientation % single aspect with S/SE/SW orientation % single aspect with W orientation |                       | summer shading (to windows and          | deciduous trees present around the        |
| Will other green or blue infrastructure be provided around buildings for evaporative cooling soft towards the façade.  Materials  Have high albedo (light colour) materials been specified?  Welling aspect  % of total units that are single aspect 33%  % single aspect with N/NE/NW 100% orientation  % single aspect with S/SE/SW orientation  % single aspect with Worientation  Three units with façade facing here all with less than 10% ratio.  Three units on top floor: ranging from 10-15%  |                       | pedestrian routes)                      | building. These will be retained.         |
| Will other green or blue The landscaping at the back of the infrastructure be provided around buildings for evaporative cooling soft towards the façade.  Materials  Have high albedo (light colour) The building materials have been materials been specified? selected to match the existing building. These are dark.  Dwelling aspect  % of total units that are single aspect 33%  % single aspect with N/NE/NW 100% orientation  % single aspect with E orientation - % single aspect with S/SE/SW - orientation  % single aspect with W orientation -  Glazing ratio What is the glazing ration on each facade  E Three units on top floor: ranging from 10- 15%  |                       | Will green roofs be provided            | The provision of a sedum roof is being    |
| infrastructure be provided around buildings for evaporative cooling soft towards the façade.  Materials  Have high albedo (light colour) materials been specified?  Selected to match the existing building. These are dark.  Dwelling aspect  % of total units that are single aspect % single aspect with N/NE/NW 100% orientation % single aspect with S/SE/SW - orientation % single aspect with S/SE/SW - orientation % single aspect with W orientation % single aspect with W orientation   |                       |   | investigated                              |
| buildings for evaporative cooling soft towards the façade.  Have high albedo (light colour) The building materials have been selected to match the existing building. These are dark.  Dwelling aspect  % of total units that are single aspect 33% % single aspect with N/NE/NW 100% orientation % single aspect with E orientation - % single aspect with S/SE/SW - orientation % single aspect with W orientation - % single aspect with W orientation  |                       | Will other green or blue                | The landscaping at the back of the        |
| Have high albedo (light colour) materials been specified?  Selected to match the existing building. These are dark.  Dwelling aspect  % of total units that are single aspect % single aspect with N/NE/NW 100% orientation % single aspect with E orientation % single aspect with S/SE/SW orientation % single aspect with W orientation  |                       | infrastructure be provided around       | ground floor flats, will be predominantly |
| materials been specified?  selected to match the existing building. These are dark.  Dwelling aspect  % of total units that are single aspect 33%  % single aspect with N/NE/NW 100%  orientation  % single aspect with E orientation -  % single aspect with S/SE/SW -  orientation  % single aspect with W orientation -  Glazing ratio What is the glazing ration on the gradient of the glazing ration on the gradient of the glazing ratio with the glazing ratio with gradient of the glazing ratio with gradient or  |                       | buildings for evaporative cooling       | soft towards the façade.                  |
| These are dark.  Welling aspect  % of total units that are single aspect 33%  % single aspect with N/NE/NW 100%  orientation  % single aspect with E orientation  % single aspect with S/SE/SW -  orientation  % single aspect with W orientation  Only two three units with façade facing here all with less than 10% ratio.  E Three units on top floor: ranging from 10- 15%  | Materials             | Have high albedo (light colour)         | The building materials have been          |
| % of total units that are single aspect   33%     % single aspect with N/NE/NW   100%     orientation     % single aspect with E orientation   -     % single aspect with S/SE/SW   -     orientation   % single aspect with W orientation   -     Glazing ratio What is the glazing ration on the glazing ration on the glazing ratio with the single aspect with W orientation   E     Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: ranging from the single aspect with N/NE/NW   Three units on top floor: Three units on    |                       | materials been specified?               | selected to match the existing building.  |
| % single aspect with N/NE/NW 100% orientation % single aspect with E orientation % single aspect with S/SE/SW - orientation % single aspect with W orientation % single aspect with S/SE/SW - Orientation % single aspect with S/SE/SW - Orientation % single aspect with B orientation % single aspect  |                       |   | These are dark.                           |
| orientation  % single aspect with E orientation  % single aspect with S/SE/SW - orientation  % single aspect with W orientation  % single aspect with W orientation  Only two three units with façade facing here all with less than 10% ratio.  E Three units on top floor: ranging from 10- 15%  | Dwelling aspect       | % of total units that are single aspect | 33%                                       |
| % single aspect with E orientation % single aspect with S/SE/SW - orientation % single aspect with W orientation   |                       | % single aspect with N/NE/NW            | 100%                                      |
| % single aspect with S/SE/SW - orientation % single aspect with W orientation -  Glazing ratio What is the glazing ration on each facade  E Three units on top floor: ranging from 10-15%  |                       | orientation                             |   |
| orientation  % single aspect with W orientation  N/NE/NW  Only two three units with façade facing here all with less than 10% ratio.  E  Three units on top floor: ranging from 10-15%   |                       | % single aspect with E orientation      | -   |
| % single aspect with W orientation -  Glazing ratio What is N/NE/NW Only two three units with façade facing here all with less than 10% ratio.  E Three units on top floor: ranging from 10-15%  |                       | % single aspect with S/SE/SW            | -   |
| Glazing ratio What is N/NE/NW Only two three units with façade facing here all with less than 10% ratio.  E Three units on top floor: ranging from 10-15%  |                       | orientation                             |   |
| the glazing ration on here all with less than 10% ratio.  E Three units on top floor: ranging from 10-15%  |                       | % single aspect with W orientation      | -   |
| each facade E Three units on top floor: ranging from 10- 15%   | Glazing ratio What is | N/NE/NW                                 | Only two three units with façade facing   |
| 10- 15%  | the glazing ration on |   | here all with less than 10% ratio.        |
|  | each facade           | Е                                       | Three units on top floor: ranging from    |
| S/SE/SW One top floor flat: 12% on flat  |                       |   | 10- 15%                                   |
| 2.2.2  |                       | S/SE/SW                                 | One top floor flat: 12% on flat           |
| W Ranging from 16% on ground floor to  |                       | W                                       | Ranging from 16% on ground floor to       |
| 34% on top floor.  |                       |   | 34% on top floor.                         |
| Daylight What is the average daylight factor 1.5 to 2.5  | Daylight              | What is the average daylight factor     | 1.5 to 2.5                                |
| range  |                       | range                                   |   |
| Window opening Are windows openable yes  | Window opening        | Are windows openable                    | yes                                       |
| Window opening What is the average percentage of 100%  | Window opening        | What is the average percentage of       | 100%                                      |
| openable area for the windows  |                       | openable area for the windows           |   |



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| Element                                  | Feature  | Comment   |
|--|--|---|
| Window opening                           | What is the extent of the opening  | Fully openable  |
| Security                                 | Where there are security issues (e.g. ground floor flats) has an alternative night time natural ventilation method been provided (e.g. ventilation grades) | The ground floor flats will be fitted with ventilation grades.  |
| Shading                                  | Is there any external shading  | The location is surrounded by other buildings of similar and slightly higher height. There are also mature trees to the back of the building.         |
|  | Is there any internal shading  | No.   |
| Glazing specification                    | Is there any solar control glazing   | Glazing has been predominantly provided away from the southern facing facades. It is therefore considered that solar control glazing is not required. |
| Ventilation - What is                    | Natural - background   | Main form of ventilation  |
| the ventilation Natural - purge strategy |  | Occupant controlled by opening windows and back doors   |
|  | Mechanical - background  | To assist cooling during hot spells.  |
|  | Mechanical - purge   | Some mandatory (wet rooms, kitchen)   |
|  | What is the average design air change rate   | The mechanical ventilation is assessed as being 0.5 air changes per hour.   |
| Heating system                           | Is communal heating present  | No  |
|  | What is the flow/return temperature  | N/A   |
|  | Have horizontal pipes been minimised  Do the specifications include insulation levels in line with the London Heat Network Manual                          | N/A   |



## 3 Conclusion

The proposed development plans comply with the requirements set-out in the SPD on Sustainability and Design.