

LBRUT Sustainable Construction Checklist - January 2016

This document forms part of the Sustainable Construction Checklist SPD. This document **must** be filled out as part of the planning application for the following developments: all residential development providing **one or more new residential units (including conversions leading to one or more new units)**, and all other forms of development providing **100sqm or more of non-residential floor space**. Developments including new non-residential development of less than 100sqm floor space, extensions less than 100sqm, and other conversions are strongly encouraged to comply with this checklist. Where further information is requested, please either fill in the relevant section, or refer to the document where this information may be found in detail, e.g. Flood Risk Assessment or similar. **Further guidance** on completing the Checklist may be found in the Justification and Guidance section of this SPD.

Property Name (if relevant):	<input type="text" value="Homebase"/>	Application No. (if known):	<input type="text"/>
Address (include, postcode) Completed by:	<input type="text" value="84 Manor Road, North Sheen, Richmond, TW9 1YB
Louise F. Wille, Principal Sustainability Consultant, Hoare Lea"/>		
For Non-Residential Size of development (m2)	<input type="text" value="480"/>	For Residential Number of dwellings	<input type="text" value="385"/>

1 MINIMUM COMPLIANCE (RESIDENTIAL AND NON-RESIDENTIAL)

Energy Assessment	
Has an energy assessment been submitted that demonstrates the expected energy and carbon dioxide emissions saving from energy efficiency and renewable energy measures, including the feasibility of CHP/CCHP and community heating systems? If yes, please tick.	<input type="text" value="Yes"/>
Carbon Dioxide emissions reduction	
What is the carbon dioxide emissions reduction against a Building Regulations Part L (2013) baseline <i>Policy DM SD 1 and London Plan Policy 5.2 (2015) require a 35% reduction in CO₂ emissions beyond Building Regulations 2013.</i>	<input type="text" value="40%"/>
Percentage of total site CO ₂ emissions saved through renewable energy installation?	<input type="text" value="1%"/>

1A MINIMUM POLICY COMPLIANCE (NON-RESIDENTIAL AND DOMESTIC REFURBISHMENT)

Please check the Guidance Section of this SPD for the policy requirements

Environmental Rating of development:

<i>Non-Residential new-build (100sqm or more)</i>			
BREEAM Level	<input type="text" value="Excellent"/>	Have you attached a pre-assessment to support this?	<input checked="" type="checkbox"/>
<i>Extensions and conversions for residential dwellings</i>			
BREEAM Domestic Refurbishment	<input type="text" value="Please Select"/>	Have you attached a pre-assessment to support this?	<input type="checkbox"/>
<i>Extensions and conversions for non-residential buildings</i>			
BREEAM Level	<input type="text" value="Please Select"/>	Have you attached a pre-assessment to support this?	<input type="checkbox"/>

Score awarded for Environmental Rating:

BREEAM: Good = 0, Very Good = 4, Excellent = 8, Outstanding = 16

Subtotal

1B MINIMUM POLICY COMPLIANCE (RESIDENTIAL)

Water Usage

Internal water usage limited to 105 litres person per day. (Excluding an allowance 5 litres per person per day for external water consumption). Calculations using the water efficiency calculator for new dwellings have been submitted.

1

Subtotal

2. ENERGY USE AND POLLUTION

2.1 Need for Cooling

- a. How does the development incorporate cooling measures? Tick all that apply:
- | | | |
|---|-------------------------------------|---|
| Energy efficient design incorporating specific heat demand to less than or equal to 15 kWh/sqm | <input type="checkbox"/> | 6 |
| Reduce heat entering a building through providing/improving insulation and living roofs and walls | <input checked="" type="checkbox"/> | 2 |
| Reduce heat entering a building through shading | <input checked="" type="checkbox"/> | 3 |
| Exposed thermal mass and high ceilings | <input checked="" type="checkbox"/> | 4 |
| Passive ventilation | <input checked="" type="checkbox"/> | 3 |
| Mechanical ventilation with heat recovery | <input checked="" type="checkbox"/> | 1 |
| Active cooling systems, i.e. Air Conditioning Unit | <input checked="" type="checkbox"/> | 0 |

2.2 Heat Generation

- b. How have the heating and cooling systems, with preference to the heating system hierarchy, been selected (defined in London Plan policy 5.6)? Tick all heating and cooling systems that will be used in the development:
- | | | |
|--|-------------------------------------|---|
| Connection to existing heating or cooling networks powered by renewable energy | <input type="checkbox"/> | 6 |
| Connection to existing heating or cooling networks powered by gas or electricity | <input type="checkbox"/> | 5 |
| Site wide CHP network powered by renewable energy | <input type="checkbox"/> | 4 |
| Site wide CHP network powered by gas | <input type="checkbox"/> | 3 |
| Communal heating and cooling powered by renewable energy | <input checked="" type="checkbox"/> | 2 |
| Communal heating and cooling powered by gas or electricity | <input checked="" type="checkbox"/> | 1 |
| Individual heating and cooling | <input type="checkbox"/> | 0 |

2.3 Pollution: Air, Noise and Light

- a. Does the development plan to implement reduction strategies for dust emissions from construction sites? 2
- b. Does the development plan include a biomass boiler? -
If yes, please refer to the biomass guidelines for the Borough of Richmond, please see guidance for supplementary information. If the proposed boiler is of a qualifying size, you may need to completed the information request form found on the Richmond website. -
- c. Please tick only one option below
Has the development taken measures to reduce existing noise and enhance the existing soundscape of the site? 3
Has the development taken care to not create any new noise generation/transmission issues in its intended operation? 1
- d. Has the development taken measures to reduce light pollution impacts on character, residential amenity and biodiversity? 3
- e. Have you attached a Lighting Pollution Report? -

Subtotal

Please give any additional relevant comments to the Energy Use and Pollution Section below

Please refer to Energy Strategy and Sustainability Statement submitted with this application.

3. TRANSPORT

3.1 Provision for the safe efficient and sustainable movement of people and goods

- a. Does your development provide opportunities for occupants to use innovative travel technologies?
Please explain:
The development is proposed as virtually "car-free" to meet the requirements of the Local and London Plans. Minimal parking is proposed on site for vehicles and car club vehicles are proposed to be operated from the site to meet residents requirements for vehicle trips. However, the site is highly accessible with ease of access to facilities within walking and cycling distance and an appropriate level of long and short stay cycle parking is proposed. Access is also available to the bus and rail network thereby providing excellent opportunities for residents to travel by means other than the private car. 2
- b. Does your development include charging point(s) for electric cars? 2
- c. **For major developments ONLY:** Has a Transport Assessment been produced for your development based on TfL's Best Practice Guidance?
If you have provided a Transport Assessment as part of your planning application, please tick here and move to Section 3 of this Checklist. 5
- d. **For smaller developments ONLY:** Have you provided a Transport Statement? 5
- e. Does your development provide cycle storage? (Standard space requirements are set out in the the Council's Parking Standards - DM DPD Appendix 4) 2
If so, for how many bicycles?
Is this shown on the site plans? -
- f. Will the development create or improve links with local and wider transport networks? If yes, please provide details. 2

Subtotal

Please give any additional relevant comments to the Transport Section below

Electric vehicle car charge points will be provided for 20% of residential car parking spaces in line with Richmond's Local Plan (2018). Additional passive provision will be required to enable additional car charge points to be easily installed in future.
Please refer to the transport plans that are submitted in support of this application.

4 BIODIVERSITY

4.1 Minimising the threat to biodiversity from new buildings, lighting, hard surfacing and people

- a. Does your development involve the loss of an ecological feature or habitat, including a loss of garden or other green space? (Indicate if yes) -2
If so, please state how much in sqm? sqm
- b. Does your development involve the removal of any tree(s)? (Indicate if yes)
If so, has a tree report been provided in support of your application? (Indicate if yes)
- c. Does your development plan to add (and not remove) any tree(s) on site? (Indicate if yes)
- d. Please indicate which features and/or habitats that your development will incorporate to improve on site biodiversity:
- | | | | | | |
|---|-----|-------------------------------------|----------------|----------------------------------|-----|
| Pond, reedbed or extensive native planting | 6 | <input type="checkbox"/> | Area provided: | <input type="text" value=""/> | sqm |
| An extensive green roof | 5 | <input checked="" type="checkbox"/> | Area provided: | 2644 | sqm |
| An intensive green roof | 4 | <input checked="" type="checkbox"/> | Area provided: | 1085 | sqm |
| Garden space | 4 | <input checked="" type="checkbox"/> | Area provided: | 4685 | sqm |
| Additional native and/or wildlife friendly planting to peripheral areas | 3 | <input checked="" type="checkbox"/> | Area provided: | 661 | sqm |
| Additional planting to peripheral areas | 2 | <input checked="" type="checkbox"/> | Area provided: | 661 | sqm |
| A living wall | 2 | <input checked="" type="checkbox"/> | Area provided: | 786 (442 existing, 344 proposed) | sqm |
| Bat boxes | 0.5 | <input checked="" type="checkbox"/> | | | |
| Bird boxes | 0.5 | <input checked="" type="checkbox"/> | | | |
| Other | 0.5 | <input checked="" type="checkbox"/> | | | |

Subtotal

Please give any additional relevant comments to the Biodiversity Section below

Refer to the Preliminary Ecological Appraisal provided in support of this application.
'Other' refers to insect boxes.

5 FLOODING AND DRAINAGE

5.1 Mitigating the risks of flooding and other impacts of climate change in the borough

- a. Is your site located in a high flood risk zone (Zone 3)? (Indicate if yes) -2
Have you submitted a Flood Risk Assessment? (Indicate if yes) -
- b. Which of the following measures of the drainage hierarchy are incorporated onto your site? (tick all that apply)
- | | | |
|---|-------------------------------------|---|
| Store rainwater for later use | <input type="checkbox"/> | 5 |
| Use of infiltration techniques such as porous surfacing materials to allow drainage on-site | <input checked="" type="checkbox"/> | 3 |
| Attenuate rainwater in ponds or open water features | <input type="checkbox"/> | 4 |
| Store rainwater in tanks for gradual release to a watercourse | <input type="checkbox"/> | 3 |
| Discharge rainwater directly to watercourse | <input type="checkbox"/> | 2 |
| Discharge rainwater to surface water drain | <input type="checkbox"/> | 1 |
| Discharge rainwater to combined sewer | <input type="checkbox"/> | 0 |
- c. Please give the change in area of permeable surfacing which will result from your development proposal: sqm
Please provide details of the permeable surfacing below *please represent a loss in permeable area as a negative number*

Subtotal

Please give any additional relevant comments to the Flooding and Drainage Section below

Please refer to the Drainage Design

c. Permeable surfaces within landscape (total figure provided previously) include 6,765 sqm permeable surfaces on ground, 4,685 sqm green roofs, and 120 sqm planting on paved terraces. The strategy comprises the following: 1. Soft landscape mass planting areas and tree planters; 2. Lawn areas; 3. Permeable pavements to service driveway and parking areas; 4. Living roofs.
In total, permeable surfaces are expected to make up approx. 63% of the total site area.

6 IMPROVING RESOURCE EFFICIENCY

6.1 Reduce waste generated and amount disposed of by landfill though increasing level of re-use and recycling

- a. Will demolition be required on your site prior to construction? [Points will only be awarded if 10% or greater of demolition waste is reused/recycled] 1
If so, what percentage of demolition waste will be reused in the new development? %
What percentage of demolition waste will be recycled? %
- b. Does your site have any contaminated land? 1
Have you submitted an assessment of the site contamination? 2
Are plans in place to remediate the contamination? 2
Have you submitted a remediation plan? 1
Are plans in place to include composting on site? 1

6.2 Reducing levels of water waste

- a. Will the following measures of water conservation be incorporated into the development? (Please tick all that apply):
- | | | |
|---|-------------------------------------|---|
| Fitting of water efficient taps, shower heads etc | <input checked="" type="checkbox"/> | 1 |
| Use of water efficient A or B rated appliances | <input checked="" type="checkbox"/> | 1 |
| Rainwater harvesting for internal use | <input type="checkbox"/> | 4 |
| Greywater systems | <input type="checkbox"/> | 4 |
| Fit a water meter | <input checked="" type="checkbox"/> | 1 |

Subtotal

Please give any additional relevant comments to the Improving Resource Efficiency Section below

Intrusive assessment not yet carried out, however based on the desk based assessment, there is potential for contamination associated with the site's history.
We have produced a desk based qualitative assessment.
Any plans to remediate ground contamination will be subject to findings of the intrusive ground investigation.

7 ACCESSIBILITY

7.1 Ensure flexible adaptable and long-term use of structures

a. **If the development is residential**, will it meet the requirements of the nationally described space standard for internal space and layout? 1
 If the standards are not met, in the space below, please provide details of the functionality of the internal space and layout

Please refer to the DAS

AND
 b. **If the development is residential**, will it meet Building Regulation Requirement M4 (2) 'accessible and adaptable dwellings'? 2
 If this is not met, in the space below, please provide details of any accessibility measures included in the development.

Please refer to the DAS

For major residential developments, are 10% or more of the units in the development to Building Regulation Requirement M4 (3) 'wheelchair user dwellings'? 1

OR
 c. **If the development is non-residential**, does it comply with requirements included in Richmond's Design for Maximum Access SPG 2
 Please provide details of the accessibility measures specified in the Maximum Access SPG that will be included in the development

Please refer to the DAS

Subtotal **6**

Please give any additional relevant comments to the Design Standards and Accessibility Section below

The design is working towards the minimum space requirements as described in the London Plan and Richmond's SPD Residential Development Standards. Please refer to the Design & Access Statement submitted with this planning application.

LBRUT Sustainable Construction Checklist- Scoring Matrix for New Construction (Non-Residential and domestic refurb)

TOTAL **78.5**

Score	Rating	Significance
80 or more	A+	Project strives to achieve highest standard in energy efficient sustainable development
71-79	A	Makes a major contribution towards achieving sustainable development in Richmond
51-70	B	Helps to significantly improve the Borough's stock of sustainable developments
36-50	C	Minimal effort to increase sustainability beyond general compliance
35 or less	FAIL	Does not comply with SPD Policy

LBRUT Sustainable Construction Checklist- Scoring Matrix for New Construction Residential new-build

Score	Rating	Significance
81 or more	A++	Project strives to achieve highest standard in energy efficient sustainable development
64-80	A+	Project strives to achieve highest standard in energy efficient sustainable development
55-63	A	Makes a major contribution towards achieving sustainable development in Richmond
35-54	B	Helps to significantly improve the Borough's stock of sustainable developments
20-34	C	Minimal effort to increase sustainability beyond general compliance
19 or less	FAIL	Does not comply with SPD Policy

Authorisation:

I herewith declare that I have filled in this form to the best of my knowledge

Signature *Louise Win* Date 21.01.2019