

LBRUT Sustainable Construction Checklist - June 2020

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): Application No. (if known):

Address (include postcode):
 Completed by:

For Non-Residential Size of development (m2) For Residential Number of dwellings

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 select TRUE.	<input type="text" value="TRUE"/>
Carbon Dioxide emissions reduction	What is the on site carbon dioxide emissions reduction against a Building Regulations Part L (2013) baseline <i>Policy LP 22 B. and Draft London Plan Policy 9.2.5 require a 35% onsite reduction in CO₂ emissions beyond Building Regulations 2013.</i>	<input type="text" value="73"/> %
	What is the percentage reduction from efficiency measures alone <i>Policy LP 22 C. and Draft London Plan Policy 9.2.6 require a 10% onsite reduction in CO₂ emissions beyond Building Regulations 2013 from efficiency measures for residential and 15% for non-residential.</i>	<input type="text" value="41.9"/> %
	Percentage of total site CO ₂ emissions saved through renewable energy installation?	<input type="text" value="31.1"/> %
	What is the total remaining carbon to be offset <i>Policy LP 22 B. and Draft London Plan Policy 9.2.4 require Major developments to achieve Zero Carbon after offsetting.</i>	<input type="text" value="16"/> Tonne
	Are remaining emissions going to be offset through offset fund payment in accordance with current guidelines issued for the cost per tonne of CO ₂ ?	<input type="text" value="TRUE"/>
	What is the total predicted cost of offset? <i>The London Plan sets this as £95/tonne per year over 30 years, this should be updated based on As Build calculations.</i>	<input type="text" value="44166"/> £

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

Score awarded for Environmental Rating: Subtotal
 BREEAM: Good = 0, Very Good = 4, Excellent = 8, Outstanding = 16

1B MINIMUM POLICY COMPLIANCE (RESIDENTIAL)

Water Usage

Internal water usage after gray/rainwater systems 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.

110l/p/d Required for new dwellings under Policy LP22 A 2 105l/p/d required under Draft London Plan Policy S15

Subtotal

2. ENERGY USE AND POLLUTION

2.1 Need for Cooling		Score	
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	6	TRUE
	Reduce heat entering a building through providing/improving insulation and living roofs and walls	2	TRUE
	Reduce heat entering a building through shading	3	TRUE
	Exposed thermal mass and high ceilings	4	TRUE
	Passive ventilation	3	FALSE
	Mechanical ventilation with heat recovery	1	TRUE
	Active cooling systems, i.e. Air Conditioning Unit	0	TRUE
	<i>See Draft London Plan SI4</i>		
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 SI3) Tick all heating and cooling systems that will be used in the development:	Score	
	Connection to existing heating or cooling networks powered by renewable energy	6	FALSE
	Connection to existing heating or cooling networks powered by gas or electricity	5	FALSE
	Site wide CHP network powered by renewable energy	4	FALSE
	Site wide CHP network powered by gas	3	FALSE
	Communal heating and cooling powered by renewable energy	2	TRUE
	Communal heating and cooling powered by gas or electricity	1	TRUE
	Individual heating and cooling	0	FALSE
	<i>See Draft London Plan SI3</i>		
2.3 Pollution: Air, Noise and Light			
a.	Does the development plan to implement reduction strategies for dust emissions from construction sites?	2	TRUE
b.	Does the development plan to 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 complete the information request form found on the Richmond website.		FALSE
c.	Has an air quality impact assessment been provided? If yes, has 'Emissions Neutral' been achieved If yes, have occupants of new development been protected from existing pollution If no to any of the above are there any sensitive receptors as defined in Policy LP 10 present?	1 1 1 -1	TRUE TRUE TRUE FALSE
	<i>see Policy LP 10</i>		
d.	Please tick only one option below Has the development taken measures to reduce existing noise and enhance the existing soundscape of the site? Has the development taken care to not create any new noise generation/transmission issues in its intended operation?	3 1	FALSE TRUE
	<i>see Policy LP 10</i>		
e.	Has the development taken measures to reduce light pollution impacts on character, residential amenity and biodiversity? <i>see Policy LP 10</i>	3	TRUE
f.	Have you attached a Lighting Pollution Report?	-	

Subtotal **27**

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

The project is targeting all credits under Man 03 in the BREEAM 2014 RFO certification, in which reducing dust impacts from construction forms part of the criteria for the contractor to be certified under the Considerate Constructors Scheme (see BREEAM pre-assessment for further details).
Regarding light and noise pollution, all credits under Pol 04 and Pol 05 are being targeted to ensure these issues are addressed in the design (see pre-assessment for details). Relevant

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?

TRUE

Please explain:

All credits are being targeted for credit Tra 01 under the BREEAM 2014 RFO scheme. The criteria for this credit stipulate that multiple modes of sustainable transport should be provided for building users. It has also been made explicit that improved cyclist facilities and EV chargers will be installed as part of the redevelopment.

Score

b. Does your development provide for 100% active provision for electric vehicle charging point(s) and have you successfully demonstrated that it would be able to operate satisfactorily in the future expectation of all vehicles being electrically powered?

2

TRUE

c. **For major developments ONLY:** Has a Transport Assessment been produced for your development based on TfL's Best Practice Guidance?

5

FALSE

If you have provided a Transport Assessment as part of your planning application, please tick here and move to Section 3 of this Checklist.

See policy LP44

d. **For smaller developments ONLY:** Have you provided a Transport Statement?

5

TRUE

e. Does your development provide cycle storage? (Standard space requirements are set out in the Council's Parking Standards - Local Plan Appendix 3)

2

TRUE

If so, for how many bicycles?

61

Is this shown on the site plans?

TRUE

See Local Plan Appendix 3

f. Will the development create or improve links with local and wider transport networks? If yes, please provide details.

2

TRUE

Subtotal 11

Please give any additional relevant comments to the Transport Section below

Improvements to facilities will encourage building users to take up sustainable transport options alongside taking advantage of existing routes to access the site. The site area has most recently attained a score of 6a (second-highest rating) on the PTAL Index, as calculated in TfL's WebCAT tool.

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) If so, please state how much in sqm?	-2		sqm	FALSE	
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)				FALSE FALSE	
c.	Does your development plan to add (and not remove) any tree(s) on site? (Indicate if yes)				FALSE	
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	Area provided:		sqm	FALSE
	An extensive green roof	5	Area provided:	311	sqm	TRUE
	An intensive green roof	4	Area provided:		sqm	FALSE
	Garden space	4	Area provided:	292	sqm	TRUE
	Additional native and/or wildlife friendly planting to peripheral areas	3	Area provided:		sqm	FALSE
	Additional planting to peripheral areas	2	Area provided:	389	sqm	TRUE
	A living wall	2	Area provided:	29	sqm	TRUE
	Bat boxes	0.5				FALSE
	Bird boxes	0.5				TRUE
	Swift boxes	0.5				FALSE
	Other	0.5				TRUE
e.	Does your development use at least 70% of available roof plate as green/brown roof <i>Policy LP 17 requires 70%</i>				1	FALSE
					Subtotal	14

Please give any additional relevant comments to the Biodiversity Section below

Biophilia is a key driver behind the current design proposals. Planting across the site will be enhanced, with the installation of a blue-green roof and extensive green roofs, terraced planting, climbers and enriched planting within the site's landscaping. The development is targeting credits LE 02, LE 04 and LE 05 under the BREEAM 2014 RFO scheme, which aim to protect existing ecological features, enhance site ecology and stimulate positive long term impacts on biodiversity. Further information is detailed in the preliminary ecological appraisal and biodiversity net gain assessment.

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	<input type="checkbox"/> FALSE
	Have you submitted a Flood Risk Assessment? (Indicate if yes)		<input type="checkbox"/> TRUE
b.	Which of the following measures of the drainage hierarchy are incorporated onto your site? (tick all that apply)		
	Store rainwater for later use	5	<input type="checkbox"/> FALSE
	Use of infiltration techniques such as porous surfacing materials to allow drainage on-site	3	<input type="checkbox"/> TRUE
	Attenuate rainwater in ponds or open water features	4	<input type="checkbox"/> FALSE
	Store rainwater in tanks for gradual release to a watercourse	3	<input type="checkbox"/> TRUE
	Discharge rainwater directly to watercourse	2	<input type="checkbox"/> FALSE
	Discharge rainwater to surface water drain	1	<input type="checkbox"/> TRUE
	Discharge rainwater to combined sewer	0	<input type="checkbox"/> TRUE
	Have you submitted a Drainage Statement (Indicate if yes)		<input type="checkbox"/> TRUE
	<i>See Policy LP 21 and Draft London Plan SL 13</i>		
c.	Please give the change in area of permeable surfacing which will result from your development proposal:	<input type="text" value="2011"/>	sqm
	Please provide details of the permeable surfacing below	<i>please represent a loss in permeable area as a negative number</i>	
		Subtotal	7

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

Discussions on the application of SuDS such as permeable paving are already being discussed amongst the design team. Under the BREEAM 2014 RFO scheme, the development is also seeking to attain credits for Pol 03 which stipulates criteria to reduce levels of flood risk. Further information on the flood risk management measures applied is detailed in Elliot Wood's Flood Risk Assessment, including more detailed information on the areas occupied by certain flood risk attenuation measures.

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? <i>[Points will only be awarded if 10% or greater of demolition waste is reused/recycled]</i>	1	<input type="checkbox"/> TRUE
	If so, what percentage of demolition waste will be reused in the new development?	<input type="text" value="TBC"/>	%
	What percentage of demolition waste will be recycled?	<input type="text" value="95"/>	%
b.	Does your site have any contaminated land?	1	<input type="checkbox"/> FALSE
	Have you submitted an assessment of the site contamination?	2	<input type="checkbox"/> FALSE
	Are plans in place to remediate the contamination?	2	<input type="checkbox"/> FALSE
	Have you submitted a remediation plan?	1	<input type="checkbox"/> FALSE
	Are plans in place to include composting on site?	1	<input type="checkbox"/> FALSE
c.	Will a waste management plan and facilities be in place in line with Policy LP24	<input type="text" value="Yes"/>	

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	1	<input type="checkbox"/> TRUE
	Use of water efficient A or B rated appliances	1	<input type="checkbox"/> TRUE
	Rainwater harvesting for internal use	4	<input type="checkbox"/> FALSE
	Greywater systems	4	<input type="checkbox"/> FALSE
	Fit a water meter	1	<input type="checkbox"/> TRUE
		Subtotal	3

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

The development is targeting credit Mat 01 under the BREEAM 2014 RFO scheme, which will require a whole life carbon assessment to be carried out during the building's design. The site is not located on contaminated land. Details on the levels of reused and recycled building materials produced during demolition will be specified in the upcoming pre-refurbishment audit (the targets above are based on similar projects elsewhere in London). The current waste store is being retained as part of the refurbishment.

The development is pursuing credits Wat 01 and Wat 02 under the BREEAM 2014 RFO scheme. These credits require the use of water-conserving appliances and fittings in addition to water

7 ACCESSIBILITY				
7.1	Ensure flexible adaptable and long-term use of structures			
a.	<p>If the development is residential, will it meet the requirements of the nationally described space standard for internal space and layout?</p> <p style="font-size: small;">If the standards are not met, in the space below, please provide details of the functionality of the internal space and layout</p> <div style="border: 1px solid black; height: 40px; background-color: #d9ead3; margin-top: 5px;"></div>	1	FALSE	
AND				
b.	<p>If the development is residential, will it meet Building Regulation Requirement M4 (2) 'accessible and adaptable dwellings'?</p> <p style="font-size: small;">If this is not met, in the space below, please provide details of any accessibility measures included in the development.</p> <div style="border: 1px solid black; height: 40px; background-color: #d9ead3; margin-top: 5px;"></div>	2	FALSE	
OR				
c.	<p>If the development is non-residential, does it comply with requirements included in Richmond's Local Plan LP1, LP28.B, LP30 & LP45</p> <p style="font-size: small;">Please provide details of the accessibility measures specified in the Local Plan that will be included in the development</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px; font-size: x-small;"> inspirations to ensure the design is highly sustainable and compatible with the existing townscape (LP1). 2 accessible parking bays have been provided on site as part of the access strategy, which will be further refined in the upcoming Transport </div>	1	FALSE	
	<p style="font-size: small;">For major residential developments, are 10% or more of the units in the development to Building Regulation Requirement M4 (3) 'wheelchair user dwellings'?</p>	1	FALSE	
		2	TRUE	
Subtotal		2		
Please give any additional relevant comments to the Design Standards and Accessibility Section below				

LBRUT Sustainable Construction Checklist- Scoring Matrix for New Construction	(Non-Residential and domestic refurb)																						
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Authorisation:
I herewith declare that I have filled in this form to the best of my knowledge

Signature _____ Date _____