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): Tech Hub

Application No. (if known):

Address (include. postcode): Richmond upon Thames College, Egerton Rd, Twickenham TW2 7SL

Completed by:

For Non-Residential
Size of development (m2): 1700

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 tick. ✓

Carbon Dioxide emissions reduction

What is the carbon dioxide emissions reduction against a Building Regulations Part L (2013) baseline: 40%

Policy DM SD 1 and London Plan Policy 5.2 (2015) require a 35% reduction in CO_2 emissions beyond Building Regulations 2013.

Percentage of **total** site CO2 emissions saved through renewable energy installation? 17.90%

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: Excellent — Have you attached a pre-assessment to support this? ☑

Extensions and conversions for residential dwellings
BREEAM Domestic Refurbishment: Please Select — Have you attached a pre-assessment to support this? ☐

Extensions and conversions for non-residential buildings
BREEAM Level: Please Select — Have you attached a pre-assessment to support this? ☐

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

Subtotal 8

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 1

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*
Reduce heat entering a building through providng/improving insulation and living roofs and walls	☐ *2*
Reduce heat entering a building through shading	☑ *3*
Exposed thermal mass and high ceilings	☑ *4*
Passive ventilation	☐ *3*
Mechanical ventilation with heat recovery	☑ *1*
Active cooling systems, i.e. Air Conditioning Unit	☑ *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	☐ *6*
Connection to existing heating or cooling networks powered by gas or electricity	☐ *5*
Site wide CHP network powered by renewable energy	☐ *4*
Site wide CHP network powered by gas	☐ *3*
Communal heating and cooling powered by renewable energy	☐ *2*
Communal heating and cooling powered by gas or electricity	☐ *1*
Individual heating and cooling	☑ *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 14

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

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:

A minimum of 15 cycle spaces with secured bike lockers and showers will be provided.

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? 15

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 9

Please give any additional relevant comments to the Transport Section below

new vehicular access will be installed at the head of Langhorn Drive to permit a right turn on to the A316 which is currently left turn only.
Pedestrian and cycle access points are via Marsh Farm Lane which in turn can be accessed from the A316 or Craneford Way.
The Proposed Development also includes significant improvements to Marsh Farm Lane which links the new pedestrian route alongside the River Crane to Twickenham Station which is located approximately 0.7 miles away.

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	☐	Area provided:	sqm
An extensive green roof	5	☑	Area provided: 600	sqm
An intensive green roof	4	☐	Area provided:	sqm
Garden space	4	☐	Area provided:	sqm
Additional native and/or wildlife friendly planting to peripheral areas	3	☑	Area provided:	sqm
Additional planting to peripheral areas	2	☑	Area provided:	sqm
A living wall	2	☐	Area provided:	sqm
Bat boxes	0.5	☐		
Bird boxes	0.5	☐		
Other	0.5	☐		

Subtotal 10

Please give any additional relevant comments to the Biodiversity Section below

21 new trees are proposed to be planted as part of the development, predominantly native species. New trees are shown on the soft landscape drawing 10743.PLN.400.

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	☐ 5
Use of infiltration techniques such as porous surfacing materials to allow drainage on-site	☑ 3
Attenuate rainwater in ponds or open water features	☐ 4
Store rainwater in tanks for gradual release to a watercourse	☐ 3
Discharge rainwater directly to watercourse	☐ 2
Discharge rainwater to surface water drain	☑ 1
Discharge rainwater to combined sewer	☐ 0

c. Please give the change in area of permeable surfacing which will result from your development proposal: -451.21 sqm

Please provide details of the permeable surfacing below

please represent a loss in permeable area as a negative number

Subtotal 4

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

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	☑ 1
Use of water efficient A or B rated appliances	☑ 1
Rainwater harvesting for internal use	☐ 4
Greywater systems	☐ 4
Fit a water meter	☑ 1

Subtotal 6

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

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

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.

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

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)**

TOTAL ***54***

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 _____ Date _____