SUSTAINABILITY STATEMENT

FOR

ST. CLARE BUSINESS PARK

RICHMOND

VERSION 4.2

Issued by:-

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170209.rp.esdg.v4.1.lp.Sustainabilty Statement
April 2023

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PROJECT REVISION SHEET

ST. CLARE BUSINESS PARK, RICHMOND

170209

Revision 4.2

Date of first issue 09/10/2019

Prepared by: L Perrin

Revision	Date	Details	Changes	Author	Checked
0.0	Aug 2019	Draft for comment		L Perrin	A Singh
1.0	18/10/2019	Final		L Perrin	A Singh
2.0	11/03/2020	For Planning	Revised Energy Strategy	L Perrin	A Singh
3.0	17/06/2022	For Planning	Updated to reflect project changes	A Sturt	N Purdy
3.1	22/06/2022	For Planning	Minor changes	A Sturt	N Purdy
4.0	04/04/2023	For Planning	Updated to reflect project changes	A Sturt	N Purdy
4.1	11/04/2023	For Planning	Minor Changes	A Sturt	N Purdy
4.2	13/04/2023	For Planning	Updated checklist attached	A Sturt	N Purdy

EXECUTIVE SUMMARY

Silcock Dawson and Partners have been appointed by Notting Hill Home Ownership Ltd to provide a Sustainability Statement for the proposed new development at St. Clare Business Park, Richmond. This Sustainability Statement is submitted as part of an application for full planning consent.

The aim of this report is to document sustainability measures and is to be read in conjunction with the London Borough of Richmond upon Thames (LBRUT) Sustainable Construction Checklist contained in the appendices of this report.

The Sustainable Construction Checklist for the non-residential and residential elements of the development indicate a score of 51.5 and 52.5, respectively which achieves a 'B' rating and denotes a significant improvement to the Borough's stock of sustainable developments.

The development comprises the Demolition of existing buildings and erection of 1 no. mixed use building between three and five storeys plus basement in height, comprising 86 no. residential flats (Class C3) and 1,290sq.m of commercial floorspace (Class E); 1 no. two storey building comprising 595sq.m of commercial floorspace (Class E); 14no. residential houses (Class C3); and, associated access, external landscaping and car parking.

Each commitment accords with LBRUT's planning policy and relevant supporting policies. Targets set out within the Statement are for all residential and commercial use within the application area.

Sustainable development is the key principle underpinning the development at St. Clare Business Park which recognises the effective protection of the environment and prudent use of natural resources. The proposed development will contribute to the sustainability of the district taking into account the need to tackle climate change by reducing carbon emissions, increasing the energy and water efficiency of the buildings, promoting the use of renewable energy systems and using natural resources wisely, through the use of sustainable building materials.

The site is located in Hampton Hill, approximately 100m west of the High Street in the southwestern suburbs of London, 0.6 miles south of Fulwell train station, which is well connected with Central London and the wider metropolitan area.

The site is bound to the west by the Shepperton branch railway line, by residential properties to the north and south, and mixed-use developments, including commercial and residential, to the east.

The proposed development has been designed in accordance with the SuDS Manual (CIRIA C753) and to The Flood and Water Management Act 2010 national standards ensuring that run off from all hard surfaces will receive an appropriate level of treatment to reduce pollution.

The utmost regard has been taken with respect to water conservation and proposals include the use of flow restrictors in taps and showers and delayed inlet valves fitted in WC's to restrict water flow and reduce the outlet flow and pressure to ensure the Government's maximum target of 110 litres per person per day is achieved.

The proposed development has been designed, where possible, to prevent, reduce or off-set potential adverse ecological effects and, where appropriate, to deliver ecological enhancements. This will be achieved through the implementation of a range of measures such as a Green Roof and new tree planting.

An overview of the available Low and Zero Carbon Technologies has been included in the Energy Assessment and considered in relation to the proposed development. The document provides analysis of the estimated CO_2 emissions for the development and a strategy for achieving the requirements of Part L 2013.

The energy efficiency measures reduce the residential emissions by 13% with a further 42% reduction from the heat pumps and photovoltaic panel installations, resulting in a total CO_2 reduction of 55%, or 61 tonnes when SAP 10 emissions rates are applied.

The energy efficiency measures from the commercial units are greater at 24%, with a further 20% reduction from the air source heat pump installations.

The total CO_2 reduction as a result of the energy efficiency measures across the whole development is predicted to be 19 tonnes CO_2 or 15% below the baseline model, with a total emissions reduction of 69 tonnes or 54% once renewable energy measures are incorporated.

An integrated approach to waste management and minimisation will be adopted by implementing the 'Waste Hierarchy', Reduce, Re-use and Recycle. This will be accomplished with procedures and commitments to minimise monitor and measure non-hazardous and hazardous construction waste at design stage.

Opportunities for incorporating sustainable features into the development were explored as a fundamental part of the design process, to ensure that where possible, the proposals achieve the latest standards in sustainable design. Consideration of the principles of sustainable development has therefore formed an integral part of the design evolution and the resulting scheme reflects this.

Notting Hill Home Ownership Ltd recognises the importance of ensuring development is sustainable and continues to ensure the St Clare Business Park development delivers on sustainability, where feasible, during both the construction phase and the occupation phase.

1 INTRODUCTION

1.1 Background

Silcock Dawson and Partners has been appointed by Notting Hill Home Ownership Ltd to complete the London Borough of Richmond upon Thames Sustainability checklists for both the residential and commercial elements of St. Care Business Park, Richmond.

Due to the size of the comment boxes within the spreadsheets, a Sustainability Statement has been prepared to document the sustainability measures for St. Clare Business Park, Richmond.

The report should be read in conjunction with the London Borough of Richmond upon Thames (LBRUT) Sustainable Construction Checklist contained in the appendices of this report.

1.2 Description of the Proposed Site and Buildings

Demolition of existing buildings and erection of 1 no. mixed use building between three and five storeys plus basement in height, comprising 86 no. residential flats (Class C3) and 1,290sq.m of commercial floorspace (Class E); 1 no. two storey building comprising 595sq.m of commercial floorspace (Class E); 14no. residential houses (Class C3); and, associated access, external landscaping and car parking.

2 RELEVANT PLANNING POLICIES

The Statement, and targets within it, comply with National and Local policy requirements, in particular the National Planning Policy Framework, the London Plan 2021, Housing in London, London Sustainable Design and Construction Supplementary Planning Guidance and Richmond Local Plan.

2.1 National Planning Policy

The National Planning Policy Framework (July 2021)

The NPPF takes into account the major reforms of the planning system, in particular to give councils and developers the backing they need to get more homes built, more quickly.
The core principle of the National Planning Policy Framework (NPPF) is a 'presumption in favour of sustainable development.
Sustainable development is defined positively, seeking to meet the needs of the borough unless the adverse impacts would outweigh the benefits, or the NPPF indicates development should be restricted.

The NPPF requires that Local Plans

- Plan positively for the development and infrastructure required in the area
- Cover a 15-year timeframe, taking account of longer term requirements
- Be based on co-operation with neighbouring authorities, public, voluntary and private sector organisations.

More generally, the NPPF sets out guidance in relation to key planning principles including building a strong economy; ensuring the vitality of town centre's; promoting sustainable transport; delivering a wide choice of affordable homes; good design; promoting healthy communities; protecting open space and the built environment; conserving the historic environment; and meeting the challenge of climate change.

2.2 Regional Policy – The London Plan (March 2021)

This is a new London Plan. This means it is not an alteration or update to previous London Plans. This new London Plan is the third and replaces all previous versions.

2.3 Local Policy – Local Plan (2018)

Richmond's Local Plan was adopted July 2018 and sets out policies and guidance for the development of the borough. The Local Plan has been produced in line with the existing Planning Acts, national policy and guidance, including the NPPF, PPG and the London Plan.

The policies set out in the Local Plan follow the approach of the presumption in favour of sustainable development and show how it is expressed locally.

Richmond Council also have an emerging local plan, which has passed its public consultation period and is planned to be adopted in in the autumn of 2024.

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3 SUSTAINABILITY ASSESSMENT APPROACH

The London Borough of Richmond upon Thames has developed a Sustainable Construction Checklist SPD (adopted January 2018), which forms part of the assessment for planning applications for new build, conversion and retrofit properties within the LBRUT. The aim of this Checklist is to engage and inform developers on sustainability issues relevant to their development.

The Checklist forms a mandatory part of the planning application for the following classes of development:

- All new residential development providing 1 or more new dwellings, including conversion and extensions that create one or more new dwellings.
- All new non-residential development providing 100m^2 or more floor area, including extensions over 100m$^{2.}$

The Sustainability Checklist is aimed at both residential and non-residential developments and has been compiled to help developers consider the potential environmental impact of their proposal and thus encourage mitigation of adverse environmental effects.

In addition, the Checklist covers relevant matters to ensure compliance with local planning policies and points are gained for providing design features which contribute towards better sustainability practice. As a result, the Checklist also measures 'additional' sustainability impacts of the proposed development which are particularly relevant to Richmond Borough and which will not require repetition of the information already provided as part of a BREEAM assessment submitted for compliance with the Council's minimum policy requirements.

The formulation of the sustainability strategy for the proposed development has been progressed in response to several key priorities taken from the LBRUK Sustainable Construction Checklist and covers the following areas:

1. **Minimum policy compliance**
2. **Energy use and pollution**
3. **Transport**
4. **Biodiversity**
5. **Flooding and drainage**
6. **Improving Resource Efficiency**
7. **Design Standards and Accessibility**

4. MINIMUM POLICY COMPLIANCE (RESIDENTIAL AND NON RESIDENTIAL)

4.1 Energy Assessment

An Energy Assessment has been undertaken by Silcock Dawson & Partners and demonstrates the expected energy and carbon dioxide emissions savings from energy efficiency and renewable energy measures, including the feasibility of community heating systems served by air source heat pumps.

4.2 Carbon Dioxide emissions reduction

The document provides analysis of the estimated CO_2 emissions for St Clare Business Park and a strategy for achieving the requirements of Part L 2013.

The Energy Assessment proposes a strategy that positively responds to London Plan, Policies SI 2,SI 3 of the London Plan, the Mayor's Energy Assessment Guidance, and Policy LP22 Sustainable Design and Construction of the London Borough of Richmond upon Thames Local Plan (2018)

The energy efficiency measures include: good fabric insulation, triple glazing, improved air tightness, high efficiency balanced whole house heat recovery units, and low energy lighting throughout. Commercial units will be fitted out with low energy light fittings with photocell controls and energy efficient ventilation systems.

The site is not within an area described as having district heating potential as identified within the London Heat Map, and the surrounding developments are predominantly privately owned terraced or semi detached houses with a low heat density. However, it is proposed to serve the apartments from a community heating system with all heat generated by air source heat pumps. Dedicated heat pumps will provide all the space heating and hot water within the houses and reverse cycle heat pumps providing space heating and cooling will be used to serve the commercial units.

The energy efficiency measures reduce the residential emissions by 13% with a further 42% reduction from the heat pumps and photovoltaic panel installations, resulting in a total CO2 reduction of 55%, or 61 tonnes when SAP 10 emissions rates are applied.

The energy efficiency measures from the commercial units are greater at 24%, with a further 20% reduction from the air source heat pump installations.

The total CO2 reduction as a result of the energy efficiency measures across the whole development is predicted to be 19 tonnes CO2 or 15% below the baseline model, with a total emissions reduction of 69 tonnes or 54% once renewable energy measures are incorporated.

4.3 Environmental Rating of development

The BREEAM preliminary assessment undertaken by Sweco indicates that the non-residential uses have gained a BREEAM 'Excellent' rating.

4.4 Water Usage

The Approved Document G water efficiency calculator for dwellings, contained within the Energy Assessment indicates that the total water consumption for the dwellings is 104.26 litres per person per day (this excludes the external water use which is 5 litres per person per day.

The commercial element of the development is being assessed under the BREEAM UK New Construction 2014 methodology.

The preliminary assessment for BREEAM UK NC 2014 targets a 40% baseline improvement for reducing the demand for potable water through the provision of efficient sanitary fittings. This will be accomplished with WC's with an effective flush volume of 4 litres, wash hand basin taps with flow rates of 4.5 litres/min, showers (where provided) with flow rates of 6 litres/min and kitchenette traps with flow rates of 5 litres/min.

The use of water meters have also been specified in the assessment along with water leak detection systems.

5 ENERGY USE AND POLLUTION

5.1 Need for cooling

The commercial units will be comfort cooled via reverse cycle heat pumps.

Cooling will not be provided to any dwellings, which will rely on a combination of the fixed mechanical ventilation system and openable windows.

5.2 Heat Generation

The commercial units will be heated via reverse cycle heat pumps that will also be used to provide comfort cooling.

The houses will be heated via individual heat pump systems.

The apartments will be heated via a community heating system served by air source heat pumps.

5.3 Pollution: Air, Noise and Light

The Air Quality Assessment, undertaken by Air Quality Consultants Ltd states that the site has been identified as a 'Medium' Risk site during all stages of demolition and construction work. The assessment references the GLA's SPG on *The Control of Dust and Emissions During Construction and Demolition* (GLA, 2014b) which describes measures that should be employed, as appropriate, to reduce the impacts, along with guidance on what monitoring should be undertaken during the construction phase. This reflects best practice experience and has been used, together with the professional experience of the consultant who has undertaken the dust impact assessment and the findings of the assessment, to draw up a set of measures that should be incorporated into the specification for the works.

The mitigation measures should be written into a dust management plan (DMP). The GLA's guidance suggests that, for a Medium Risk site, automatic monitoring of particulate matter (as PM_{10}) will be required.

The Environmental Noise Survey and Acoustic Design Statement produced by Hann Tucker Associates confirm that plant noise emission criteria have been proposed in line with the requirements of the Local Authority.

Additionally a range of mitigation measures will be put into place to prevent significant effects on existing receptors as a result of noise generation during construction. It is proposed that building work will take place between 08.00 and 18.00 Monday to Friday; between 08.00 and 13.00 on Saturday. There will be no work on Sundays and bank holidays.

Lighting will be appropriate for the intended use; provide the minimum amount of light necessary to achieve its purpose; provide adequate protection from glare and light spill and be energy efficient.

It is anticipated that all external space and security lighting will be provided by energy efficient fittings with PIR and dusk to dawn daylight sensors and time switches. The lighting shall be designed in accordance with BS 5489-1: 2003 and BS EN 13201-2:2003 to ensure that an appropriate level of illumination is provided.

6 TRANSPORT

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

A Framework Travel Plan has been prepared by Curtins which contains measures and initiatives that will be considered to encourage sustainable modes of travel, focusing on walking, cycling and use of public transport.

To encourage walking, the most sustainable and accessible mode of travel, promotion of the 'Go Jauntly' App, which in partnership with TfL, which provides a walking tube map and other leisure walking routes and leisure routes and strategic routes on Walk London will be detailed in the Travel Plan.

The Travel Plan aims to ensure that residents have sufficient information to make sound choices about their travel to and from the site and to encourage the use of the more sustainable modes and reduce reliance on the private car.

This includes cycle parking within the site and the production and distribution of sustainable travel information packs.

Cycle Parking

- Commercial:
  - Long Stay: 12
  - Short Stay >45
- Residential
  - Long Stay: 152
  - Short Stay: 6

7 BIODIVERSITY

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

Greengage Environmental Ltd undertook a Preliminary Ecological Appraisal and recommends the following biodiversity enhancements.

- Installation of Living Roofs
- Wildlife friendly planting
- Incorporate bee houses and beetle loggeries
- Provision of bird and bat boxes
- Hedgehog enhancements
- Mitigation and enhancements for the site should be detailed in an Ecological Management Plan.

8 FLOODING AND DRAINAGE

8.1 Mitigating the risks of flooding and other impact of climate change in the borough

Tully's Consultants have produced a flood risk and Sustainable Drainage report which concludes that the site is located within a Flood Zone 1 area which is assessed as having less that a 1 in 1000 chance of river flooding in any one year.

The surface water flood maps indicate that there are limited areas on the existing site which have a medium and high risk of surface water flooding. However, when reviewing the topographical survey, these areas relate to a localised low spot which is trapped by a building.

The adjacent railway line, which is at a lower level than the site, is shown to be at a high risk of surface water flooding. However, due to the level difference, the site is considered not to be at risk from this type of flooding.

Other forms of flooding have been reviewed and are considered to be low.

Soakaways are currently used on the site, However, due to the thickness of the made ground, significant excavations would be required in order to get to the natural strata, which would as a result locate the base of the soakaway within or close to the ground water levels. In addition, there is a concern that the existing soakaways on site might be contributing to the flooding issues within the adjacent railway cutting. In light of this, soakaways are not considered appropriate for this site.

As there is no watercourse in the immediate vicinity of the site, it is proposed to discharge the surface water to the adjacent adopted surface water system. Due to site levels relative to the adopted sewer in Windmill Road, it will be necessary to provide a new pumped surface water system. Flows will be restricted to 5 l/s to avoid having a detrimental impact on the offsite sewers.

Surface water attenuation will be provided onsite to accommodate a 100-year event with a 40% allowance for climate change. This will be provided in below ground attenuation tanks located below Block 1.

A variety of SuDS features have been incorporated into the design which include a reduction in impermeable area, permeable paving to all external parking bays, green roofs to Block 1, rain gardens and water butts. These proposals will mitigate the risk of surface water ponding in the lower lying areas on site.

All surface water run-off will be attenuated and treated prior to discharging to the adopted sewer.

The development will result in an increase in foul water flows, however surface water which currently discharges into the foul system will be removed, which will more than offset the increase in foul flows.

The drainage system will be maintained for the lifetime of the development by Notting Hill Home Ownership Ltd.

With the implementation of the measures mentioned above the new development will provide a sustainable drainage system for the lifetime of the development and will not increase the likelihood of flooding both within and beyond the site boundary.

9 IMPROVING RESOURCE EFFICIENCY

9.1 Reduce waste generated and amount disposed of by landfill through increasing level of re-use and recycling

A Construction Management Statement has been prepared by Curtains to accompany the planning application.

The CMS states that concrete and masonry arising from the demolition will be crushed and reused on site. The preliminary assessment for BREEAM UK NC 2014 has targeted the Waste 1 issue which requires a pre demolition audit. In addition London Plan Policy SI 7 requires 95% of construction and demolition waste to be diverted from Landfill.

A Resource Management Plan is required for BREEAM as evidence that the targeted credit has been achieved. The final figures for materials diverted from landfill and their application on site (reused/recycled) will form part of the RMP.

The BREEAM Assessment produced by MLM Group confirms that there is contaminated land that will require remediation.

This is further confirmed RSK in their Geo-environmental Site Assessment with provides a factual and interpretative report with recommendations for further works. The

recommendations include a site Remediation Strategy to be drafted and approved by the Local Authority.

9.2 Reducing levels of water waste

The preliminary assessment for BREEAM UK NC 2014 is targeting a 40% baseline improvement for reducing the demand for potable water through the provision of efficient sanitary fittings. This will be accomplished with WC's with an effective flush volume of 4 litres, wash hand basin taps with flow rates of 4.5 litres/min, showers (where provided) with flow rates of 6 litres/min and kitchenette traps with flow rates of 5 litres/min.

The use of water meters have also been specified in the assessment along with water leak detection systems.

The Approved Document G water efficiency calculator for dwellings, contained within the Energy Assessment indicates that the total water consumption for the dwellings is 104.26 litres per person per day (this excludes the external water use which is 5 litres per person per day.

10 ACCESSIBILITY

10.1 Ensure flexible adaptable and long-term use of structures

It is proposed to provide 11 wheelchair accessible flats which equates to 11% of the total number of flats in the scheme. All wheelchair accessible flats comply with Building Regulations M4(3).

A total of 83 car parking bays will be provided across the site, which includes 5 disabled bays and one car club bay. 12 spaces are allocated for the commercial unts which includes 2 disabled bays.

The site meets the requirements of the technical housing standards nationally described space standard for internal space and layout. An example of a wheelchair accessible flat is contained within the Design and Access Statement.

All the accessible flats are located on the 1st floor of Block 1 and have level access to the podium deck which enables access to lifts in other cores.

The following details how the development complies with the requirements in Richmond's Design for Maximum Access SPG:

- Low projecting awnings, signs and hanging flower baskets on the commercial elevations have been designed out.
- All commercial unit street entrances will be level, and all surfaces within commercial units are flat with no level changes.
- Single steps have been designed out.
- All stairs' will be minimum 1.0m clear in width, with handrails on both sides, and have a non-slip surface.
- Where commercial units are located above ground floor, wheelchair accessible lift is provided.
- All entrances will have minimum 900mm wide doors, with no revolving or heavy doors.
- Glass manifestation will be used where required.
- There will be a wheelchair accessible toilet on each floor of the commercial building.

APPENDIX 1 – DWELLINGS SUSTAINABILITY CHECKLIST

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): St Clare Bus. Park (Dwellings) Application No. (if known): 22/2204/FUL

Address (include. postcode): Hampton Hill, Richmond upon Thames, London, TW12 1PZ
Completed by: A Sturt, Sustainability Consultant, Silcock Dawson & Partners

For Non-Residential
Size of development (m2)

For Residential
Number of dwellings: 100

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. Yes

Carbon Dioxide emissions reduction

What is the carbon dioxide emissions reduction against a Building Regulations Part L (2013) baseline: 55%
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? 42%

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: Please Select — 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 0

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 12

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

The Environmental Noise Survey and Acoustic Design Statement produced by Hann Tucker Associates confirms that plant noise emission criteria have been proposed in line with the requirements of the Local Authority. The Air Quality Asssessment states that mitigation measures will be written into a Dust Management Plan.
Details of the measures to reduce light pollution are detailed in the Sustainability Statement.

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:

To encourage walking, the most sustainable and accessible mode of travel, promotion of the 'Go Jauntly' App, which in partnership with TfL which provides a walking tube map and other leisure walking routes and leisure routes and strategic routes on Walk London will be detailed in the Travel Plan.

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? 158

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

Please see Section 6 of the Sustainability Statement

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? 54 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: 1395	sqm
An intensive green roof	4	☐	Area provided:	sqm
Garden space	4	☑	Area provided: 853	sqm
Additional native and/or wildlife friendly planting to peripheral areas	3	☑	Area provided: 397	sqm
Additional planting to peripheral areas	2	☑	Area provided: 548	sqm
A living wall	2	☐	Area provided:	sqm
Bat boxes	0.5	☑		
Bird boxes	0.5	☑		
Other	0.5	☑		

Subtotal 13.5

Please give any additional relevant comments to the Biodiversity Section below

Greengage Environmental Ltd's file note details the net gain in biodiversity as 1.04 biodiversity units, a 693% increase on the pre developed site. Ecology has been dealt with on a site wide basis.

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: 7450 sqm

Please provide details of the permeable surfacing below *please represent a loss in permeable area as a negative number*

Subtotal 8

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

Permeable surfacing will be in the form of permeable paving and rain gardens.

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? 10 %

What percentage of demolition waste will be recycled? 85 %

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 5

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 4

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*** ***52.5***

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 Mr A Sturt Date ########

APPENDIX 2 – COMMERCIAL SUSTAINABILITY CHECKLIST

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): St Clare Bus. Park (Commercial)

Application No. (if known): 22/2204/FUL

Address (include. postcode): Hampton Hill, Richmond upon Thames, London, TW12 1BZ

Completed by: Ms L Perrin, Sustainability Consultant, Silcock Dawson & Partners

For Non-Residential
Size of development (m2): 1885

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. — Yes

Carbon Dioxide emissions reduction

What is the carbon dioxide emissions reduction against a Building Regulations Part L (2013) baseline — 44%

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? — 20%

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 0

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 6

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

The Environmental Noise Survey and Acoustic Design Statement produced by Hann Tucker Associates confirms that plant noise emission criteria have been proposed in line with the requirements of the Local Authority. The Air Quality Asssessment states that mitigation measures will be written into a Dust Management Plan.
Details of the measures to reduce light pollution are detailed in the Sustainability Statement.

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:

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? 56

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

Please Section 6 - Transport for confirmation of cycle storage

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? 54 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: 1395	sqm
An intensive green roof	4	☐	Area provided:	sqm
Garden space	4	☑	Area provided: 853	sqm
Additional native and/or wildlife friendly planting to peripheral areas	3	☑	Area provided: 397	sqm
Additional planting to peripheral areas	2	☑	Area provided: 548	sqm
A living wall	2	☐	Area provided:	sqm
Bat boxes	0.5	☑		
Bird boxes	0.5	☑		
Other	0.5	☑		

Subtotal 13.5

Please give any additional relevant comments to the Biodiversity Section below

Greengage Environmental Ltd's file note details the net gain in biodiversity as 1.04 biodiversity units, a 693% increase on the pre developed site. Ecology has been dealt with on a site wide basis.

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)

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Use of infiltration techniques such as porous surfacing materials to allow drainage on-site	☑ 3
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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: 7450 sqm

Please provide details of the permeable surfacing below *please represent a loss in permeable area as a negative number*

Subtotal 8

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

Permeable surfacing will be in the form of permeable paving and rain gardens.

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

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What percentage of demolition waste will be recycled? 85 %

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 5

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

Please see Section 9 of the Sustainability Statement

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*
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	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	
	Yes, please see the Sustainability Statement for more information	

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*** ***51.5***

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
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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 Mr A Sturt Date ########