watkins payne
designed engineered focused

One Castle Yard

Sustainability Statement

Planning Issue

Client Name:	Peveril Securities Ltd
Property:	1 Castle Yard Richmond TW10 6TF
Project Reference:	5051
Issue:	Planning Issue
Date:	December 2021
Prepared by:	MH
Checked by:	JD
Validated by:	AT

C O N T E N T S

SUMMARY STATEMENT

Watkins Payne have been commissioned by Peveril Securities Ltd to produce a statement of sustainability of the proposed development of 1 Castle Yard, Richmond, TW10 6TF.

Key Measures

This sustainability statement describes how the proposed development will provide appropriate levels of sustainability within the design and construction for the development. This covers the key themes of Energy, Transport, Sustainable Urban Drainage (SuDs), Water, Waste, Air Quality, Ecology, Noise and BREEAM.

Energy

- The focus of the energy strategy is on CO_2 reduction from the building by adopting a highly efficient building envelope solution together with high efficiency mechanical and electrical services incorporating heat recovery and renewable energy air source heat pumps.
- The targets of the energy strategy, in line with the recently adopted London Plan, are to demonstrate a minimum 35% reduction in on-site carbon dioxide emissions along with a 15% reduction met by energy efficient measures alone, that are achieved.
- For full details please refer to the Energy Strategy prepared by Watkins Payne which should be read in conjunction with this report.

Transport

- The Transport Assessment by Markides confirms that the site is located close to public transport and local facilities with train and bus services connecting into major employment and transfer destinations. The cycle store on site will be secure and enclosed accommodating up to 24 bicycle racks, and shower, changing facilities and lockers will be provided within the main office building.
- The PTAL rating of the site is 6a.
- For full details please refer to Transport Statement prepared by Markides which should be read in conjunction with this report.

Sustainable Urban Drainage (SuDS)

- The roof footprint and drainage approach is completely unchanged as a result of the development, therefore there is no change to (or impact on) the surface water runoff. The proposal involves resurfacing the external area with Sett Pavers, there for there is no change to (or impact on) the surface water runoff.
- For full details please refer to Sustainable Urban Drainage Statement prepared by Reuby & Stagg which should be read in conjunction with this report.

Water

- The building water consumption will be controlled and minimised by the use of water efficient low flow sanitary/ WC outlets. Water consumption and building materials will be aligned with the targets commensurate with BREEAM ‘Excellent’ and will be achieved through the use of low flow water fittings in the toilets/ showers and high quality and sustainably resourced materials and products.
- For full details on the water strategy please refer to Watkins Payne’s BREEAM Pre-Assessment report contained in Appendix 1, and the Design and Access Statement by dn-a.

Waste

- The Contractor will apply the waste hierarchy to the project to minimise waste production and subsequent landfill burden. No waste removed from site will be permitted to leave without the provision of an adequately completed waste transfer note and copy of valid waste carrier licence for the person removing the waste and environmental permit for the site where the waste is being taken. The burning of waste will be banned on the construction site. In order to implement these requirements and monitor the amount of waste being produced by the project a Site Waste Management Plan will be prepared and maintained throughout the course of the construction phase.
- For full details please refer to the Construction Environmental Management Plan prepared by B + K Building Services which should be read in conjunction with this report.

Air Quality

- There will be several site management methods that aim to mitigate dust on site. There will be recording (and response to) to all dust and air quality pollutant emissions complaints, and this complaints log will be available to the Local Authority. There will also be regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results,. There will also be an increase the frequency of site inspections by those accountable for dust and air quality pollutant emissions issues when activities with a high potential to produce dust and emissions are being carried out and during prolonged dry or windy conditions.
- For full details please refer to the Construction Environmental Management Plan prepared by B + K Building Services which should be read in conjunction with this report.

Ecology

- The site does not form part of any statutory or non-statutory nature conservation designation. The building on site had potential to support nesting birds. Site clearance should take place outside of the nesting bird season (March to August inclusive), unless certain measures are taken.
- For full details please refer to the Preliminary Ecological Appraisal by Temple which should be read in conjunction with this report.

Noise

- A baseline environmental noise survey has been undertaken at various locations around the site considered to be representative of the nearest identified noise sensitive receptors. The measured survey data has been used to set cumulative plant noise emission limits, which have been determined in accordance with the guidance from the London Borough of Richmond upon Thames' 'Development Control for Noise Generating and Noise Sensitive Development' SPD 2018.
- For full details please refer to the Acoustic Assessment by MZA which should be read in conjunction with this report.

BREEAM

- The development will be assessed against the BREEAM 2018 Offices New Construction (Fully Fitted) standard.
- The target score for the development is 70.44% which equates to a BREEAM rating of Excellent.
- The BREEAM New Construction Pre-Assessment report prepared by Watkins Payne is contained in Appendix1.

1.00 INTRODUCTION

1.01 Application

This report has been prepared by Watkins Payne on behalf of Peveril Securities Ltd for the development of 1 Castle Yard, Richmond, TW10 6TF, relating to the 'Internal renovation and reconfiguration of existing building; external alterations including two-storey roof extension with terraces to accommodate additional commercial floorspace (Class E), plant enclosure, remodelled entrance with ramp, associated refuse and cycle storage and public realm improvements'.

1.02 Existing Buildings

The site is located within Richmond town centre, in the London Borough of Richmond-upon-Thames, at the junction of Castle Yard and Lewis Road. It is situated in close proximity to a range of shops and services located along Hill Street and Red Lion Street. The existing building is three storeys in height and in commercial use (Use Class E). The south western part of the site comprises an area of hardstanding in use as car parking and refuse storage which is accessed via a vehicular entrance onto Castle Yard.

The current office building, One Castle Yard, is beyond its economic life in its current form and requires a full refurbishment.

The site is subject to the following planning designations:

- Conservation Area (DM HD1)
- Town Centre Boundary (DM TC1)

The site is located within a designated town centre boundary and has an excellent PTAL rating of 6a. Richmond is categorized as a Main Center under Local Plan Policy LP25 (Development in Centres). Development in this location under Policy LP25 should seek to optimise 'the potential of sites by contributing towards a suitable mix of uses that enhance the vitality and viability of the centre.' Additional storeys to accommodate an extension to the existing employment floorspace is therefore considered to be an acceptable and appropriate use in this location.

1.03 Proposed Development

The proposed development comprises internal renovation and reconfiguration of existing building, external material changes, two storey roof addition with terraces and plant enclosure to accommodate 744 sqm (8,007 sqft) of additional commercial floorspace. The intention of the proposal is to not only refurbish the building to the highest standards, but to add additional area to improve and enhance the building.

1.04 Purpose

The aim of this sustainability statement is to demonstrate how the relevant planning policies that address sustainability have been addressed.

This statement is structured as follows:

- **Section 1** – an introduction to the site and the buildings.

- **Section 2** – a description of the main policies and drivers for sustainability relevant to the application.
- **Section 3** – a review against the National Planning Policy Framework, the London Borough of Richmond upon Thames Sustainable Construction Checklist and Richmond Local Plan.

1.05 Reservation

This report has been prepared solely for the use of the Applicant and Watkins Payne accept no responsibility for its use by any third parties.

2.00 POLICY REVIEW

This section of the report is a review of all the planning policy documents that are applicable to the development as follows:

- National Planning Policy Framework (2019);
- London Borough of Richmond upon Thames (LBRUT) Sustainable Construction Checklist (2020); and
- Richmond Local Plan (2018)

2.01 National Planning Policy Framework (2019)

The National Planning Policy Framework (NPPF) provides the planning policies for England and how these policies should be applied. Whilst sustainable development is not the sole aim of the NPPF, it remains a main theme throughout and provides the context for sustainable development.

2.02 London Borough of Richmond upon Thames (LBRUT) Sustainable Construction Checklist (2020)

The Sustainable Construction Checklist forms part of the assessment for planning applications for new build, conversion and retrofit properties within the London Borough of Richmond upon Thames. The Checklist will be used to assess compliance with Richmond Borough's minimum policy requirements with regards to environmental ratings for non-residential developments under BREEAM, as well as energy and carbon dioxide emissions savings. The checklist covers the following:

- Minimum policy compliance (Residential and non-residential)
- Minimum policy compliance (Non-Residential and domestic refurbishment)
- Minimum policy compliance (Residential)
- Energy use and pollution
- Transport
- Biodiversity
- Flooding and drainage
- Improving resource efficiency

2.03 Richmond Local Plan (2018)

The Richmond Local Plan (2018) sets out policies and guidance for the development of the borough until July 2033, or until it is superseded. The key policies are:

- LP 1 Design Standards and Accessibility
- LP 8 Amenity and living conditions
- LP 10 Local environmental impacts, pollution and land contamination
- LP 12 Green infrastructure
- LP 15 Biodiversity
- LP 16 Trees, woodlands and landscape
- LP 17 Green roofs and walls
- LP 20 Climate change adaptation
- LP 21 Flood risk and sustainable drainage
- LP 22 Sustainable design and construction
- LP 23 Water resources and infrastructure

- LP 24 Waste management
- LP 30 Health and Wellbeing
- LP 44 Sustainable travel choices
- LP 45 Parking standards and servicing

3.00 SUSTAINABILITY METHODOLOGY

The sustainability appraisal will use the relevant policies pertinent to this report as a framework for demonstrating compliance.

Statement Key

Colour Coding	Planning Policy
	LBRUT Sustainable Construction Checklist (2020)
	Richmond Local Plan (2018)

The compliance of the development is noted using the following colour coding system in the fourth column.

Colour Coding	Compliance Status
	Achieved policy requirements
	Not achieved policy requirements due to constraints
	Not compliant with policy requirements
	Policy requirements not applicable to the development

4.00 SUSTAINABILITY MATRIX

Minimum policy compliance (Residential and Non-Residential)	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
Energy Assessments Richmond Council Developers Guidance for Energy Statements can be found in Section 7 of this document. The Greater London Authority provides further detail on addressing the London Plan's energy hierarchy through the provision of an energy assessment to accompany strategic planning applications. The purpose of an energy assessment is to demonstrate that climate change mitigation measures are appropriate for the development and integral to the scheme's design and evolution. For additional information, follow the link below: www.london.gov.uk/sites/default/files/energy_assessment_guidance_2018_-_update.pdf Carbon dioxide emissions and reduction LBRUT ask that all developments seeking to reduce CO2 emissions follow the Mayor of London's 'Energy Hierarchy', which first focuses on reduction in energy demand through energy efficiency measures, then on 'clean' energy supply through heat networks or community heating where appropriate, and finally considers applicability of renewable energy supply to the site. This is to ensure that developments are designed for energy efficiency as far as possible before renewable energy is considered. The Intend to Publish London Plan (2019) requires major developments to be zero carbon with a minimum 35% reduction on building regulations achieved on site and 10% (residential) or 15% (non-residential) achieved though energy efficiency. The reduction in total site CO2 emissions must be calculated using an energy baseline which includes both 'regulated' energy (for space and hot water heating, electricity for lighting and all other fixed items) and 'un-regulated energy' (covering the use of energy for cooking and all appliances). For residential developments, site specific SAP calculations should be used to estimate regulated energy consumption and CO2 emissions. Non-regulated emissions should be estimated using accepted methodologies such as BREDEM-12 (available from the BRE). These calculations should be included with the planning application. For non-residential developments, SBEM should be used to estimate regulated energy consumption and CO2 emissions, which should be included with the planning application. Non-regulated emissions should be estimated using CIBSE Guide F benchmarks (available from CIBSE and also from the commercial benchmarks contained in the LEP's Low Carbon Designer tool), or the most recent CIBSE benchmark data where available. The CO2 emissions associated with the total energy consumed by a development should then be reduced following the Mayor's hierarchy. Energy savings from efficiency measures	1	The Energy Strategy by Watkins Payne confirms the adoption of a hierarchical approach, using passive and low energy design technologies to reduce baseline energy demand and CO_2 emissions followed by the application of low and zero carbon technologies. The proposed extension has been shown to meet the 35% overall target in addition to a 15% reduction by energy efficiency measures alone as required by the London Plan and London Borough of Richmond planning policies. The actual predicted figures are 15.35% and 38.20% respectively. Lean Scheme savings stand at 1.93 tonnes of CO_2 per year, and Green Scheme savings stand at 2.98 tonnes of CO_2 per year. Furthermore, the potential renewable energy technologies have been assessed taking into account the particular development constraints. The strategy is to utilise air source heat pumps in their variable refrigerant flow (VRF) format to provide the heating and cooling requirements to the office areas. The energy demand assessment work has been undertaken using EDSL TAS dynamic simulation software Version 9.5.1 that incorporates the SBEM calculation methodology in line with Building Regulations Part L2A: 2013 requirements in order to generate a predicted annual CO_2 emission rate.	

and clean supply should be calculated to produce an 'energy efficient' baseline for the site. The % savings made through the installation of renewable energy on site should then be calculated from this 'efficient' baseline, and this figure should be provided in the checklist. Calculations should then be provided for any amount of carbon it has not been possible to eliminate on site and the proposed offsetting fee paid to the council's offset fund in line with policy LP22			

Minimum policy compliance (Non-Residential and Domestic Refurbishment)	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
Environmental Rating: BREEAM The BRE Environmental Assessment Method (BREEAM) is the leading and most widely used environmental assessment method for buildings. It has become the de facto measure used to describe a non-residential building's environmental performance. Follow the link below for additional information: www.breeam.com/ To gain a rating under BREEAM, various credits must be achieved in a range of credit areas, from energy performance to pollution and building management. The first step of assessment involves preparation of a preliminary assessment by an accredited and licensed BREEAM assessor, who will be able to advise on a suitable strategy to meet the desired BREEAM rating. This report should be submitted as part of the planning application. After planning permission is granted, the accredited BREEAM assessor will conduct a full Design stage assessment, which is reviewed by the BRE. Following construction, a Post-Construction assessment is conducted, after which the BRE certification body will issue a certificate confirming the BREEAM level has been attained. An optional post-occupancy certification stage is available, which will review management practices and operation of the building in comparison to the predicted rating. A variety of BREEAM assessments are available for assessment of new build, refurbishments, extensions and fit-outs of non-domestic buildings. Planning applications will be required to demonstrate achievement of the standard relevant at the time of application. These rating systems provide an authoritative rating for converted or renovated homes, and covers houses, flats and apartments. Dwellings which are created as a result of extensions, refurbishments or conversions are subject to BREEAM Domestic Refurbishment accreditation. It is only available for conversions or extensions where a significant level of change is proposed; please contact a licensed assessor to check whether or not your proposed development falls into this category.	1A	The BREEAM Pre-Assessment by Watkins Payne confirms that the project is targeting a rating of Excellent, with a proposed score of 70.44%. This can be found in Appendix 2.	

Minimum policy compliance (Residential)	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
<u>Water usage</u> Residential developments are to be designed to ensure that mains water consumption meets the target of 105 litres or less per head per day (excluding an allowance of 5 litres or less per person per day for external water consumption). Commercial developments will be expected to achieve at least BREEAM Excellent standard of water efficiency in line with policy SI5 of the London Plan. Exact requirements will depend on the applicable BREEAM version.	1B	The BREEAM Pre-Assessment by Watkins Payne confirms that a BREEAM Excellent standard of water efficiency. Wat 01 is on track to achieve 4 credits, and the threshold for Excellent is 1 credit. The Design and Access Statement by dn-a confirms that the building water consumption will be controlled and minimised by the use of water efficient low flow sanitary/ WC outlets. Water consumption and building materials will be aligned with the targets commensurate with BREEAM 'Excellent' and will be achieved through the use of low flow water fittings in the toilets/ showers and high quality and sustainably resourced materials and products.	

Energy use and pollution	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
<u>Need for cooling</u> The Intend to Publish London Plan (2019) and supporting documents set out a cooling hierarchy which should be followed as below: 1. minimise internal heat generation through energy efficient design 2. reduce the amount of heat entering a building through orientation, shading, albedo, fenestration, insulation and the provision of green roofs and walls 3. manage the heat within the building through exposed internal thermal mass and high ceilings 4. provide passive ventilation 5. provide mechanical ventilation 6. provide active cooling systems. See Intend to Publish London Plan (2019) Policy SI4 for more details. <u>Heat generation</u> The Intend to Publish London Plan (2019) and supporting documents set out a heating hierarchy which should be followed as below: a) connect to local existing or planned heat networks b) use available local secondary heat sources (in conjunction with heat pump, if required, and a lower temperature heating system) c) generate clean heat and/or power from zero-emission sources d) use fuel cells (if using natural gas in areas where legal air quality limits are exceeded all development proposals must provide evidence to show that any emissions related to energy generation will be equivalent or lower than those of an ultra-low NOx gas boiler) e) use low emission combined heat and power (CHP) (in areas where legal air quality limits are exceeded all development proposals must provide evidence to show that any emissions related to energy generation will be equivalent or lower than those of an ultra-low NOx gas boiler) f) use ultra-low NOx gas boilers See Intend to Publish London Plan (2019) SI3 Energy infrastructure for more details.	2	The Energy Strategy by Watkins Payne confirms that the strategy prioritises the reduction in energy demand and hence CO_2 emissions through the building envelope design together with the use of efficient mechanical and electrical services. Furthermore, the potential renewable energy technologies have been assessed taking into account the particular development constraints. The strategy is to utilise air source heat pumps in their variable refrigerant flow (VRF) format to provide the heating and cooling requirements to the office areas. In terms of ventilation, there will be mechanical supply and extract ventilation systems with heat recovery via on floor heat recovery ventilation units serving the office areas, and dedicated extract system serving the WC areas with makeup air transferred from the adjacent office The passive and low energy design principles that have been adopted in the current design include improved building fabric, high performance glazing, low building air leakage rate, and high efficiency building services such as variable speed fans and pumps, heat recovery for all building air handling systems, low energy lighting (LED lamp sources) , automatic lighting control with occupancy and daylight sensors, and a building management system to provide sophisticated energy efficiency controls. The Energy Strategy also confirms that the decentralised heating, cooling and power assessment has indicated that none are viable for the scheme. Due to the initial capital cost, space requirements and on-going maintenance costs fuel cells are not considered viable for this development. Finally, CHP system is not considered viable for this development.	

Pollution: Air, Noise and Light Measures to reduce pollution during the construction process can often be simple to implement but have significant wider benefit. Such measures include: reducing waste during demolition and construction, thereby reducing landfill costs; ensuring air pollution monitoring is carried out; disturbing topsoil as little as possible, to maintain soil quality; protect trees and vegetation; protect waterside zones; and, use pollution prevention techniques. The Considerate Constructors initiative, started in 1997, is a voluntary Code of Considerate Practice, which is adopted by participating construction companies, and everyone involved on the construction site. The scheme promotes competent management, efficiency, awareness of local environmental issues and above all neighbourliness during the construction process. www.considerateconstructorsscheme.org.uk/ Please also see Richmond Council's Draft Guidance Note: LBRuT (2018) Development Control for Noise Generating and Noise Sensitive Development SPD, LBRuT		The Construction Environmental Management Plan by B+K Building Services confirms that there will be construction mitigation methods in place to reduce pollution during construction. No waste removed from site will be permitted to leave without the provision of an adequately completed waste transfer note and copy of valid waste carrier licence for the person removing the waste and environmental permit for the site where the waste is being taken. The burning of waste will be banned on the construction site. In order to implement these requirements and monitor the amount of waste being produced by the project a Site Waste Management Plan will be prepared and maintained throughout the course of the construction phase. Where possible site lighting will be LED which virtually eliminates upward glare, and lights will be pointed away from residential areas. There are dust mitigation measures in place to maintain the air quality on site, such as the requirement to carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the Local Authority when asked. All deliveries will be booked in with the Contractor's Site Management who will avoid slots at peak hours. Roads will be kept clean by the provision of wheel cleaning facilities and road sweepers as required. To minimise issues caused by noise during construction, best practise means will be employed in accordance with BS5228:2009+A1 2019 Part 1 during each phase of the project. Further mitigation measures are in place, such as radios and other noise-generating devices not being permitted on site. To minimise issues caused by vibration during construction, best practicable means will be employed in accordance with BS5228:2009 Part 2 that gives guidance on vibration levels that could be used to assess the likely impacts of construction activities, on the environment and people. No piling activities are being carried out as part of the development, hence no further mitigation is required. Due to the adjoining building being mixed use (retail and Residential) there is potential for vibration during demolition and construction activities to impact the residents. An emergency plan for spills of fuels, oils or other CoSHH materials will be prepared for the project and briefed to all operatives. All minor spills will be cleared and consigned off site as hazardous waste. An emergency response contractor will be retained to attend site in the event of a major spill or spill which may affect any water course.	

Transport	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
Provision for the safe, efficient and sustainable movement of people and goods • Refer to the updated London Plan for requirements • Transport For London have comprehensive travel advice for travel within Greater London, available from: http://www.tfl.gov.uk/ Provision of charging points for electric cars • Refer to the updated London Plan for requirements Provision of cycle parking • Developments are to ensure that they meet the level of cycle parking provision for their type set out in the Intend to Publish London Plan (2019) Table 10.2	3	The Transport Assessment by Markides confirms that the site is located close to public transport and local facilities with train and bus services connecting into major employment and transfer destinations including Kingston, Hampton Court, North Sheen, Fulwell and Hounslow. Amenities around the site include amenities, educational, employment and leisure facilities which are all within a short walk or cycle distance Furthermore, the proposals retain the provision of 8 off street car parking spaces, converting one space for accessible use and providing converting 4 spaces for electric vehicle charging. The proposals seek to provide high quality, secure cycle provision in accordance with the London Plan cycle parking standards which will be of benefit future employees. There will be a total of 24 bicycle racks. The Travel Plan Statement by Markides confirms that the statement will encourage a modal shift towards walking, cycling and public transport use, in a location which is already highly accessible given the PTAL rating of 6a, and will assist in promoting non-car modes of transport and thereby reduce the reliance on single occupancy car trips onsite, reducing carbon emissions and improving sustainability.	

Biodiversity	The London Plan (2021)	Review of proposed development	Compliance Status
Minimising the threat to biodiversity from new buildings, lighting, hard surfacing and people Ensure there is no net loss of ecological features or habitats and aim to achieve a net gain of biodiversity features and habitats where possible. Aim to link existing and new biodiversity features and habitats into the wider green infrastructure network, and ensure that their adaptability to climate change is taken into account. Major development requires a net gain in biodiversity as per Local Plan policy LP15 For information, refer to the Intend to Publish London Plan (2019) and supporting documents on green walls and roofs, and the new Local Biodiversity Action Plan https://swlen.org.uk/wp-content/uploads/2019/06/LBRuT_BAP_2019-06-06_version.pdf-resized.pdf	4	The Preliminary Ecological Appraisal by Temple confirms that the site lies within the Impact Risk Zone (IRZ) of Richmond Park SSSI located 1.2km south east of the site. However, the nature and scale of the development is not considered to pose a risk to the SSSI and SAC (Magic, 2021). Therefore, consultation between the LPA and Natural England will not be required. No direct impacts are envisaged on non-statutory designated sites due to the distance of the site from any designated sites. Therefore, there are no constraints to the proposed development in this regard. The site consisted entirely of a single building and associated hardstanding, with no other habitats present on site. Working under the principle of 'net-gain' as supported by planning policy, the site should be enhanced through soft landscaping proposals including biodiverse green roofs and planting schemes of recognised value to wildlife. The Sustainable Urban Drainage Statement by Reuby & Stagg confirms that where the project is forming a new external staircase and external bike store, that these are provided with biodiverse roofs. The Design and Access Statement by dn-a confirms that the design strategy is to provide equally spaced trees aligned with the building's fenestration. The Planning Statement by Terence O'Rourke confirms that the proposals also include significant improvements to the surrounding public realm. This will comprise new paving and the planting of trees around the perimeter of the building. It is considered that these enhancements will create a more inviting public realm and significantly improve the streetscape along Castle Yard.	

Flooding and drainage	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
Is your site located in a high risk flood zone? A Flood Risk Assessment will be required for all developments, including extensions and conversions, in areas at risk from flooding (this also includes other sources of flooding, not just river flooding), and for sites greater than 1 hectare in low risk areas (zone 1). Please refer to LP21 Flood Risk and Sustainable Drainage. This should use the Mayor's Regional Flood Risk Appraisal, Strategic Flood Risk Assessment and Surface Water Management Plan in line with London Plan SI12. The Environment Agency flood map (http://www.environment-agency.gov.uk/homeandleisure/37837.aspx) will allow you to work out the risk of flooding for the development, proximity to likely sources of flooding and includes guidance for what to do in high flood zone. The Council has also adopted a Strategic Flood Risk Assessment, which identifies areas in the borough at risk from flooding from the River Thames, its tributaries and other sources. Sustainable drainage and measures to mitigate surface water flooding risk Please see Richmond's SuDS guidance for details, this includes: • A reduction in surface water discharge to greenfield run-off rates wherever feasible • Where greenfield run-off rates are not feasible, this will need to be demonstrated by the applicant, and in such instances, the minimum requirement is to achieve at least a 50% attenuation of the site's surface water runoff at peak times based on the levels existing prior to the development	5	The Planning Statement by Terence O'Rourke Ltd confirms that the site is in flood zone 1 and not located in a critical drainage area, which was confirmed by the Council in their pre-application advice. Furthermore, it is not greater than 1 hectare in size, and as such a flood risk assessment is not required. The Sustainable Urban Drainage Statement by Reuby & Stagg confirms that the proposed development consists of constructing additional storeys onto an existing building. The roof footprint and drainage approach is completely unchanged as a result of the development, therefore there is no change to (or impact on) the surface water runoff. The development is to retain and utilise the existing undisturbed building foundations which have no spare capacity for incorporating the additional weight of a biodiverse roof. The external public space (Castle Mews) is currently an impervious concrete surface with multiple gulley's. The proposal is to resurface this area with Sett Pavers, therefore there is no change to (or impact on) the surface water runoff. Where a new external staircase and external bike store are constructed, these are provided with biodiverse roofs designed for at least 50% attenuation of the surface water runoff at peak times (based on existing levels). This therefore does provide some improvement on the existing situation.	

Improving resource efficiency	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
Re-use and recycling of construction materials Wrap.org includes guidance on site waste management plans. In most cases minimum standards for SWMPs will be provided by BREEAM assessors. Site on contaminated land Gov.uk has introductory guidance on contaminated land, specialist help should be sought in determining potential contaminations and appropriate mitigation. Composting Composting food and organic waste on site can not only reduce the amount of waste sent to landfill, and harmful greenhouse gases produced as a result, but also provides free fertilizer for garden spaces. More information on setting up composting is available from: http://www.recyclenow.com/ If there is no scope for setting up composting on site, then your development may be eligible to join LBRuT's food or garden waste collection schemes. Please contact council for more details. Water conservation Water use should be calculated in line with Part G Building Regulations. Note that depending on which version is used, the BREEAM assessment may use a different methodology to calculate l/p/d value. Waterwise has a range of resources available to help reduce this value.	6	The Construction Environmental Management Plan by B+K Building Services confirms that the waste hierarchy (which is part of the waste management plan), will aim to reuse waste before recycling and/or disposal. Reuse and recycle of waste will to reduce dust from waste materials. Also, a Site Waste Management Plan will be provided that will also align with the BREEAM requirements. The Design and Access Statement by dn-a confirms that the building water consumption will be controlled and minimised by the use of water efficient low flow sanitary/ WC outlets. Water consumption and building materials will be aligned with the targets commensurate with BREEAM 'Excellent' and will be achieved through the use of low flow water fittings in the toilets/ showers and high quality and sustainably resourced materials and products.	

Design Standards and Accessibility	LBRUT Sustainable Construction Checklist (2020)	Review of proposed development	Compliance Status
Ensure flexible and adaptable use of long term structures Policy LP 1 Local Character and Design Quality sets that one of the criteria that will be considered when considering proposals is: 3. layout, siting and access, including making best use of land. Policy LP 28.B Social and Community Infrastructure sets out that proposals for new or extensions to existing social and community infrastructure will be supported where: 2. is of a high quality and inclusive design providing access for all Access for all is important including for the young, old and disabled. The appropriate level of accessibility to the public will depend on the nature of the scheme and its catchment. The types of larger facilities in multi-use buildings that will be visited regularly and by a greater number of people should be located in the borough's centres or areas of good public transport accessibility. Smaller facilities serving a more local catchment should be accessible by walking or cycling. The Council will encourage high quality and sustainable design of social infrastructure including measures to improve its actual, and perception of, accessibility. (see paragraph 8.1.7 of the Local Plan) Also note, Policy LP 30 Health and Wellbeing A. The Council will support development that results in a pattern of land uses and facilities that encourage: 5. Access to toilet facilities which are open to all in major developments where appropriate (linked to the Council's Community Toilet Scheme). 6. An inclusive development layout and public realm that considers the needs of all, including the older population and disabled people. Policy LP45 Parking Standards and Servicing sets out that 3. Car free housing developments may be appropriate in locations with high public transport accessibility, such as areas with a PTAL of 5 or 6, subject to: a. the provision of disabled parking; The nationally described space standard sets out internal space requirements to improve the quality of housing. Accessibility requirements are included within Building Regulations www.planningportal.gov.uk/buildingregulations/approveddocuments/partm/adm/admvol1 for residential in Part M Volume 1: dwellings.	7	The Transport Statement by Markides confirms that the site is located close to public transport and local facilities with train and bus services connecting into major employment and transfer destinations including Kingston, Hampton Court, North Sheen, Fulwell and Hounslow. Amenities around the site include amenities, educational, employment and leisure facilities which are all within a short walk or cycle distance. The PTAL report located in Appendix A confirms a PTAL rating of 6a. The Design and Access Statement by dn-a confirms that the proposed development will be designed in accordance with best practice guidance on inclusive design, the proposals are designed to be accessible in accordance with part M of the Building Regulations as a minimum. Pedestrian access to the proposed building will be via the walkway from Hill Street or a direct front on approach from Castle Yard both routes are reached by a graded shared surface road finish. Upon entry staff and visitors will enter straight into the main reception area where lifts and stairs make all floors accessible. The graded level entry ensures no separation of users. Use of appropriate hard landscape surfaces will be deployed on external circulation routes & tactile paving to identify potential hazards. The palette of external materials will be carefully selected to ensure ease of access for pedestrian and wheelchair users. Tactile paving will be utilised were appropriate to delineate level changes. In total, the development will allow for a generous level of secure cycle storage within a new brick enclosure located within the car park area. This will accommodate 24 No. bicycle racks. Shower, changing facilities and drying lockers will be provided in the main office building. Separate male and female shower rooms, with shower facilities suitable for all abilities accessible from the landlords common core area. These facilities encourage cycling to and from the site, with a view to deterring the use of private vehicles. Vehicular, access to the site is via Castle Yard. Vehicular movements have been rationalised to ensure that traffic movements to the front of the building is minimised. Due to the low anticipated vehicular movements, Castle Yard Mews has been designed as a shared surface within the wider scheme. 8no. spaces will be provided including 50% electric charging provision spaces in total. An accessible parking bay will be located on the private Mews, close to the main entrance. All servicing access routes of the building, where feasible, will be kept within the central core zone to maximise the buildings footprint efficiency. This includes firefighting, escape, and plant maintenance. Refuse collection, operational parking and cycle storage will all be accessed from Castle Mews.	

Note the optional Building Regulation M4(2) and M4(3) cannot be applied to conversions and change of use proposals. Building Regulations Part M Volume 2 covers buildings other than dwellings.			

Local Character and Design Quality	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A The Council will require all development to be of high architectural and urban design quality. The high quality character and heritage of the borough and its villages will need to be maintained and enhanced where opportunities arise. Development proposals will have to demonstrate a thorough understanding of the site and how it relates to its existing context, including character and appearance, and take opportunities to improve the quality and character of buildings, spaces and the local area. To ensure development respects, contributes to and enhances the local environment and character, the following will be considered when assessing proposals: 1. compatibility with local character including the relationship to existing townscape, development patterns, views, local grain and frontages as well as scale, height, massing, density, landscaping, proportions, form, materials and detailing; 2. sustainable design and construction, including adaptability, subject to aesthetic considerations; **3. layout, siting and access, including making best use of land;** 4. space between buildings, relationship of heights to widths and relationship to the public realm, heritage assets and natural features; 5. inclusive design, connectivity, permeability (as such gated developments will not be permitted), natural surveillance and orientation; and 6. suitability and compatibility of uses, taking account of any potential adverse impacts of the colocation of uses through the layout, design and management of the site. All proposals, including extensions, alterations and shopfronts, will be assessed against the policies contained within a neighbourhood plan where applicable, and the advice set out in the relevant Village Planning Guidance and other SPDs relating to character and design.	Policy LP1 *[extract]*	The Design and Access Statement by dn-a confirms that the proposed development will be designed in accordance with best practice guidance on inclusive design, the proposals are designed to be accessible in accordance with part M of the Building Regulations as a minimum.	

Amenity and living conditions	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
All development will be required to protect the amenity and living conditions for occupants of new, existing, adjoining and neighbouring properties. The Council will: 1) Ensure the design and layout of buildings enables good standards of daylight and sunlight to be achieved in new development and in existing properties affected by new development; where existing daylight and sunlight conditions are already substandard, they should be improved where possible; 2) ensure balconies do not raise unacceptable overlooking or noise or disturbance to nearby occupiers; height, massing or siting, including through creating a sense of enclosure; 3) ensure that proposals are not visually intrusive or have an overbearing impact as a result of their height, massing or siting, including through creating a sense of enclosure; 4) ensure there is no harm to the reasonable enjoyment of the use of buildings, gardens and other spaces due to increases in traffic, servicing, parking, noise, light, disturbance, air pollution, odours or vibration or local micro-climatic effects. Applicants are expected to have regard to the guidance set out within the Council's SPDs relating to design, including Village Planning Guidance, SPDs on extensions, infill and backland developments, housing mix and standards as well as residential development standards	Policy LP8	The Sunlight & Daylight study, which is part of the Design and Access Statement by dn-a, confirms that the commercial development has been designed to respect the potentially sensitive properties within the Glovers Lodge courtyard which currently experience low levels of light and are restricted due to the internal deck access. The design has been stepped back to respect these windows which will ensure the minimum amount of transgressions are seen while making optimal use of the development area. GIA will continue to aid the design process and the resultant massing options will be fully assessed against the BRE guidelines and relevant planning policy, with a full daylight sand sunlight report submitted with the applications. In terms of visual disturbances, initial studies have shown that by recessing the new top floor, the impact on the townscape is reduced and its visibility in views from around the area is minimised. The roof plant will be screened for visual and acoustic purposes. Like the existing arrangement and that of many of the surrounding commercial and residential properties, a minimal area of roof plant screening will be visible from the north in views along Lewis Road and Red Lion Street. From the south, due to it being set well back towards the centre of the roof, the visual impact is minimal. The overall effect of the additional storeys is felt to be positive and the improvements to the tired existing building which are gained through the use of high-quality materials and careful detailing, mitigates the potential for any negative ramifications that could arise from the increased massing. The impact on the locally listed buildings can be seen at worst as neutral, if not positive. Vehicular movements have been rationalised to ensure that traffic movements to the front of the building is minimised.	

Local environmental impacts, pollution and land contamination	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A The Council will seek to ensure that local environmental impacts of all development proposals do not lead to detrimental effects on the health, safety and the amenity of existing and new users or occupiers of the development site, or the surrounding land. These potential impacts can include, but are not limited to, air pollution, noise and vibration, light pollution, odours and fumes, solar glare and solar dazzle as well as land contamination. Developers should follow any guidance provided by the Council on local environmental impacts and pollution as well as on noise generating and noise sensitive development. Where necessary, the Council will set planning conditions to reduce local environmental impacts on adjacent land uses to acceptable levels. Air Quality B. The Council promotes good air quality design and new technologies. Developers should secure at least 'Emissions Neutral' development. To consider the impact of introducing new developments in areas already subject to poor air quality, the following will be required: 1) an air quality impact assessment, including where necessary, modelled data; 2) mitigation measures to reduce the development's impact upon air quality, including the type of equipment installed, thermal insulation and ducting abatement technology; 3) measures to protect the occupiers of new developments from existing sources; 4) strict mitigation for developments to be used by sensitive receptors such as schools, hospitals and care homes in areas of existing poor air quality; this also applies to proposals close to developments used by sensitive receptors. Noise and Vibration C The Council encourages good acoustic design to ensure occupiers of new and existing noise sensitive buildings are protected. The following will be required, where necessary: 1) a noise assessment of any new plant and equipment and its impact upon both receptors and the general background noise levels; 2) mitigation measures where noise needs to be controlled and managed; 3) time limits and restrictions for activities where noise cannot be sufficiently mitigated; 4) promotion of good acoustic design and use of new technologies; 5) measures to protect the occupiers of new developments from existing sources. Light Pollution D The Council will seek to ensure that artificial lighting in new developments does not lead to unacceptable impacts by requiring the following, where necessary: 1) an assessment of any new lighting and its impact upon any receptors; 2) mitigation measures, including the type and positioning of light sources; 3) promotion of good lighting design and use of new technologies.	Policy LP10	The Acoustic Assessment by MZA confirms that at this stage, final plant selections have not been made and, therefore, a detailed assessment has not been undertaken. Nonetheless, it is recommended that these limits inform selections for plant at the design stages. The nearest noise sensitive receptors, to which noise emissions should be controlled, are summarised as follows: • Glovers Lodge, immediately adjacent to the south. • Residential properties above commercial premises fronting Hill St, to the west. • Properties on Lewis Road, to the east. The plant noise limits for each of these locations, ranging from day-time to night-time, are as follows: • Glovers Lodge – 31 to 36 dB LAr,Tr • Residential properties to the west – 39 – 44 dB LAr,Tr • Residential properties to the east – 36 – 44 dB LAr,Tr The Construction Environmental Management Plan by B+K Building Services confirms that there are construction mitigation methods in place to reduce pollution, and local environmental impacts during construction. No waste removed from site will be permitted to leave without the provision of an adequately completed waste transfer note and copy of valid waste carrier licence for the person removing the waste and environmental permit for the site where the waste is being taken. The burning of waste will be banned on the construction site. In order to implement these requirements and monitor the amount of waste being produced by the project a Site Waste Management Plan will be prepared and maintained throughout the course of the construction phase. Where possible site lighting will be LED which virtually eliminates upward glare, and lights will be pointed away from residential areas. There are dust mitigation measures in place to maintain the air quality on site, such as the requirement to carry out regular site inspections to monitor compliance with air quality and dust control procedures, record inspection results, and make an inspection log available to the Local Authority when asked; All deliveries will be booked in with the Contractor's Site Management who will avoid slots at peak hours. Roads will be kept clean by the provision of wheel cleaning facilities and road sweepers as required.	

Odours and Fume Control E The Council will seek to ensure that any potential impacts relating to odour and fumes from commercial activities are adequately mitigated by requiring the following: 1) an impact assessment where necessary; 2) the type and nature of filtration to be used; 3) the height and position of any chimney or outlet; 4) promotion and use of new abatement technologies; Land Contamination F The Council promotes, where necessary, the remediation of contaminated land where development comes forward. Potential contamination risks will need to be properly considered and adequately mitigated before development proceeds. Construction and demolition G The Council will seek to manage and limit environmental disturbances during construction and demolition as well as during excavations and construction of basements and subterranean developments. To deliver this the Council requires the submission of Construction Management Statements (CMS) for the following types of developments: 1) all major developments; 2) any basement and subterranean developments; 3) developments of sites in confined locations or near sensitive receptors; or 4) if substantial demolition/excavation works are proposed. Where applicable and considered necessary, the Council may seek a bespoke charge specific to the proposal to cover the cost of monitoring the CMS		To minimise issues caused by noise during construction, best practise means will be employed in accordance with BS5228:2009+A1 2019 Part 1 during each phase of the project. Further mitigation measures are in place, such as radios and other noise-generating devices not being permitted on site. To minimise issues caused by vibration during construction, best practicable means will be employed in accordance with BS5228:2009 Part 2 that gives guidance on vibration levels that could be used to assess the likely impacts of construction activities, on the environment and people. No piling activities are being carried out as part of the development, hence no further mitigation is required. Due to the adjoining building being mixed use (retail and residential) there is potential for vibration during demolition and construction activities to impact the residents. An emergency plan for spills of fuels, oils or other CoSHH materials will be prepared for the project and briefed to all operatives. All minor spills will be cleared and consigned off site as hazardous waste. An emergency response contractor will be retained to attend site in the event of a major spill or spill which may affect any water course.	

<table>
<tr><th>Green infrastructure</th><th>Richmond Local Plan (2018)</th><th>Review of proposed development</th><th>Compliance Status</th></tr>
<tr><td>Green Infrastructure
Green infrastructure is a network of multi-functional green spaces and green features, which provides multiple benefits for people, nature and the economy.
A To ensure all development proposals protect, and where opportunities arise enhance, green infrastructure, the following will be taken into account when assessing development proposals:
a. the need to protect the integrity of the green spaces and features that are part of the wider green infrastructure network; improvements and enhancements to the green infrastructure network are supported;
b. its contribution to the wider green infrastructure network by delivering landscape enhancement, restoration or re-creation;
c. incorporating green infrastructure features, which make a positive contribution to the wider green infrastructure network.
B. The hierarchy of open spaces, as set out in the table below, will be protected and used in accordance with the functions shown.
<table>
<tr><th>Type and size</th><th>Main function</th></tr>
<tr><td>Regional parks (400 ha+)</td><td>Large areas, corridors or networks of open space, the majority of which will be publicly accessible and provide a range of facilities and features offering recreational, ecological, landscape, cultural or green infrastructure benefits. Offer a combination of facilities and features that are unique within London, are readily accessible by public transport and are managed to meet best practice quality standards.</td></tr>
<tr><td>Metropolitan parks (60-400ha)</td><td>Large areas of open space that provide a similar range of benefits to Regional Parks and offer a combination of facilities at a sub-regional level, are readily accessible by public transport and are managed to meet best practice quality standards.</td></tr>
<tr><td>District parks (20-60 ha)</td><td>Large areas of open space that provide a landscape setting with a variety of natural features providing a wide range of activities, including outdoor sports facilities and playing fields, children’s play for different age groups and informal</td></tr>
</table></td><td>Policy LP12</td><td>The Sustainable Urban Drainage Statement by Reuby & Stagg confirms that where the project is forming a new external staircase and external bike store, that these are provided with biodiverse roofs.

The Design and Access Statement by dn-a confirms that the design strategy is to provide equally spaced trees aligned with the building’s fenestration.</td><td></td></tr>
</table>

	recreation pursuits as well as visual amenity.			
Local parks (2-20 ha)	Providing for court games, children's play, sitting out areas, visual amenity and nature conservation areas.			
Small local parks and open spaces (less than 2 ha)	Gardens, sitting out areas, children's play spaces or other areas of a specialist nature, including nature conservation areas as well as visual amenity.			
Pocket parks (under 0.4 ha)	Small areas of open space that provide natural surfaces and shaded areas for informal play and passive recreation that sometimes have seating and play equipment as well as visual amenity.			
Linear open spaces (variable)	Open spaces and towpaths alongside the Thames and other waterways; paths, disused railways; nature conservation areas; and other routes that provide opportunities for informal recreation. Often characterised by features or attractive areas which are not fully accessible to the public but contribute to the enjoyment of the space and visual amenity.			

Biodiversity	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A. The Council will protect and enhance the borough's biodiversity, in particular, but not exclusively, the sites designated for their biodiversity and nature conservation value, including the connectivity between habitats. Weighted priority in terms of their importance will be afforded to protected species and priority species and habitats including National Nature Reserves, Sites of Special Scientific Interest (SSSI) and Other Sites of Nature Importance as set out in the Biodiversity Strategy for England, and the London and Richmond upon Thames Biodiversity Action Plans. This will be achieved by: 1) protecting biodiversity in, and adjacent to, the borough's designated sites for biodiversity and nature conservation importance (including buffer zones), as well as other existing habitats and features of biodiversity value; 2) supporting enhancements to biodiversity; 3) incorporating and creating new habitats or biodiversity features, including trees, into development sites and into the design of buildings themselves where appropriate; major developments are required to deliver net gain for biodiversity, through incorporation of ecological enhancements, wherever possible; 4) 4. ensuring new biodiversity features or habitats connect to the wider ecological and green infrastructure networks and complement surrounding habitats; 5) 5. enhancing wildlife corridors for the movement of species, including river corridors, where opportunities arise; and 6) 6. maximising the provision of soft landscaping, including trees, shrubs and other vegetation that support the borough-wide Biodiversity Action Plan. B Where development would impact on species or a habitat, especially where identified in the relevant Biodiversity Action Plan at London or local level, or the Biodiversity Strategy for England, the potential harm should: 1) firstly be avoided (the applicant has to demonstrate that there is no alternative site with less harmful impacts), 2) secondly be adequately mitigated; or 3) as a last resort, appropriately compensated for.	Policy LP15	The Preliminary Ecological Appraisal by Temple confirms that the site lies within the Impact Risk Zone (IRZ) of Richmond Park SSSI located 1.2km south east of the site. However, the nature and scale of the development is not considered to pose a risk to the SSSI and SAC (Magic, 2021). Therefore, consultation between the LPA and Natural England will not be required. No direct impacts are envisaged on non-statutory designated sites due to the distance of the site from any designated sites. Therefore, there are no constraints to the proposed development in this regard. The site consisted entirely of a single building and associated hardstanding, with no other habitats present on site. Working under the principle of 'net-gain' as supported by planning policy, the site should be enhanced through soft landscaping proposals including biodiverse green roofs and planting schemes of recognised value to wildlife. The building on site had potential to support nesting birds. Site clearance should take place outside of the nesting bird season (March to August inclusive). Where this is not possible, a nesting bird check must be undertaken prior to clearance works, as detailed in Section 4 of this report. Feral pigeons breed throughout the year, and so due care should be taken to ensure this species is not nesting before clearance works take place at any time of the year. The Sustainable Urban Drainage Statement by Reuby & Stagg confirms that where the project is forming a new external staircase and external bike store, that these are provided with biodiverse roofs. The Design and Access Statement by dn-a confirms that the design strategy is to provide equally spaced trees aligned with the building's fenestration.	

Trees, woodlands and landscape	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A The Council will require the protection of existing trees and the provision of new trees, shrubs and other vegetation of landscape significance that complement existing, or create new, high quality green areas, which deliver amenity and biodiversity benefits. B To ensure development protects, respects, contributes to and enhances trees and landscapes, the Council, when assessing development proposals, will: Trees and Woodlands 1) resist the loss of trees, including aged or veteran trees, unless the tree is dead, dying or dangerous; or the tree is causing significant damage to adjacent structures; or the tree has little or no amenity value; or felling is for reasons of good arboricultural practice; resist development that would result in the loss or deterioration of irreplaceable habitat such as ancient woodland; 2) resist development which results in the damage or loss of trees that are considered to be of townscape or amenity value; the Council will require that site design or layout ensures a harmonious relationship between trees and their surroundings and will resist development which will be likely to result in pressure to significantly prune or remove trees; 3) require, where practicable, an appropriate replacement for any tree that is felled; a financial contribution to the provision for an off-site tree in line with the monetary value of the existing tree to be felled will be required in line with the 'Capital Asset Value for Amenity Trees' (CAVAT); 4) require new trees to be of a suitable species for the location in terms of height and root spread, taking account of space required for trees to mature; the use of native species is encouraged where appropriate; 5) require that trees are adequately protected throughout the course of development, in accordance with British Standard 5837 (Trees in relation to design, demolition and construction – Recommendations). The Council may serve Tree Preservation Orders or attach planning conditions to protect trees considered to be of value to the townscape and amenity and which are threatened by development. Landscape 1) require the retention of important existing landscape features where practicable; 2) require landscape design and materials to be of high quality and compatible with the surrounding landscape and character; and 3) encourage planting, including new trees, shrubs and other significant vegetation where appropriate.	Policy LP16	The Design and Access Statement by dn-a confirms that the design strategy is to provide equally spaced trees aligned with the building's fenestration. The Planning Statement by Terence O'Rourke confirms that the proposals also include significant improvements to the surrounding public realm. This will comprise new paving and the planting of trees around the perimeter of the building. It is considered that these enhancements will create a more inviting public realm and significantly improve the streetscape along Castle Yard.	

Green roofs and walls	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
Green roofs and/or brown roofs should be incorporated into new major developments with roof plate areas of 100sqm or more where technically feasible and subject to considerations of visual impact. The aim should be to use at least 70% of any potential roof plate area as a green / brown roof. The onus is on an applicant to provide evidence and justification if a green roof cannot be incorporated. The Council will expect a green wall to be incorporated, where appropriate, if it has been demonstrated that a green / brown roof is not feasible. The use of green / brown roofs and green walls is encouraged and supported in smaller developments, renovations, conversions and extensions.	Policy LP17	The Sustainable Urban Drainage Statement by Reuby & Stagg confirms that where the project is forming a new external staircase and external bike store, that these are provided with biodiverse roofs.	

Climate change adaptation	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A The Council will promote and encourage development to be fully resilient to the future impacts of climate change in order to minimise vulnerability of people and property. B New development, in their layout, design, construction, materials, landscaping and operation, should minimise the effects of overheating as well as minimise energy consumption in accordance with the following cooling hierarchy: 1) minimise internal heat generation through energy efficient design 2) reduce the amount of heat entering a building in summer through shading, reducing solar reflectance, fenestration, insulation and green roofs and walls 3) manage the heat within the building through exposed internal thermal mass and high ceilings 4) passive ventilation 5) mechanical ventilation 6) active cooling systems (ensuring they are the lowest carbon options) C Opportunities to adapt existing buildings, places and spaces to the likely effects of climate change should be maximised and will be supported.	Policy LP20	The Energy Strategy by Watkins Payne confirms that the strategy prioritises the reduction in energy demand and hence CO_2 emissions through the building envelope design together with the use of efficient mechanical and electrical services. The passive and low energy design principles that have been adopted in the current design include improved building fabric, high performance glazing, low building air leakage rate, and high efficiency building services such as variable speed fans and pumps, heat recovery for all building air handling systems, low energy lighting (LED lamp sources) , automatic lighting control with occupancy and daylight sensors, and a building management system to provide sophisticated energy efficiency controls.	

Flood risk and sustainable drainage	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A All developments should avoid, or minimise, contributing to all sources of flooding, including fluvial, tidal, surface water, groundwater and flooding from sewers, taking account of climate change and without increasing flood risk elsewhere. Development will be guided to areas of lower risk by applying the 'Sequential Test' as set out in national policy guidance, and where necessary, the 'Exception Test' will be applied. Unacceptable developments and land uses will be refused in line with national policy and guidance, the Council's Strategic Flood Risk Assessment (SFRA) and as outlined in the table below. (see Table) In Flood Zones 2 and 3, all proposals on sites of 10 dwellings or more or 1000sqm of non-residential development or more, or on any other proposal where safe access/egress cannot be achieved, a Flood Emergency Plan must be submitted. Where a Flood Risk Assessment is required, on-site attenuation to alleviate fluvial and/or surface water flooding over and above the Environment Agency's floodplain compensation is required where feasible Basements and subterranean developments B Basements within flood affected areas of the borough represent a particularly high risk to life, as they may be subject to very rapid inundation. Applicants will have to demonstrate that their proposal complies with the following: (see Table) Sustainable drainage C The Council will require the use of Sustainable Drainage Systems (SuDS) in all development proposals. Applicants will have to demonstrate that their proposal complies with the following: 1) A reduction in surface water discharge to greenfield run-off rates wherever feasible 2) Where greenfield run-off rates are not feasible, this will need to be demonstrated by the applicant, and in such instances, the minimum requirement is to achieve at least a 50% attenuation of the site's surface water runoff at peak times based on the levels existing prior to the development. Flood defences D Applicants will have to demonstrate that their proposal complies with the following: 1) Retain the effectiveness, stability and integrity of flood defences, river banks and other formal and informal flood defence infrastructure. 2) Ensure the proposal does not prevent essential maintenance and upgrading to be carried out in the future.	Policy LP21	The Planning Statement by Terence O'Rourke Ltd confirms that the site is in flood zone 1 and not located in a critical drainage area, which was confirmed by the Council in their pre-application advice. Furthermore, it is not greater than 1 hectare in size, and as such a flood risk assessment is not required. The Sustainable Urban Drainage Statement by Reuby & Stagg confirms that the proposed development consists of constructing additional storeys onto an existing building. The roof footprint and drainage approach is completely unchanged as a result of the development, therefore there is no change to (or impact on) the surface water runoff. The development is to retain and utilise the existing undisturbed building foundations which have no spare capacity for incorporating the additional weight of a biodiverse roof. The external public space (Castle Mews) is currently an impervious concrete surface with multiple gulley's. The proposal is to resurface this area with Sett Pavers, therefore there is no change to (or impact on) the surface water runoff. Where a new external staircase and external bike store are constructed, these are provided with biodiverse roofs designed for at least 50% attenuation of the surface water runoff at peak times (based on existing levels). This therefore does provide some improvement on the existing situation.	

3) Set back developments from river banks and existing flood defence infrastructure where possible (16 metres for the tidal Thames and 8 metres for other rivers). 4) Take into account the requirements of the Thames Estuary 2100 Plan and the River Thames Scheme, and demonstrate how the current and future requirements for flood defences have been incorporated into the development. 5) The removal of formal or informal flood defences is not acceptable unless this is part of an agreed flood risk management strategy by the Environment Agency.			

Sustainable design and construction	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A Developments will be required to achieve the highest standards of sustainable design and construction to mitigate the likely effects of climate change. Applicants will be required to complete the following: 1) Development of 1 dwelling unit or more, or 100sqm or more of non-residential floor space (including extensions) will be required to complete the Sustainable Construction Checklist SPD. A completed Checklist has to be submitted as part of the planning application. 2) Development that results in a new residential dwelling, including conversions, change of use, and extensions that result in a new dwelling unit, will be required to incorporate water conservation measures to achieve maximum water consumption of 110 litres per person per day for homes (including an allowance of 5 litres or less per person per day for external water consumption). 3) New non-residential buildings over 100sqm will be required to meet BREEAM 'Excellent' standard. 4) Proposals for change of use to residential will be required to meet BREEAM Domestic Refurbishment 'Excellent' standard (where feasible). Reducing Carbon Dioxide Emissions B Developers are required to incorporate measures to improve energy conservation and efficiency as well as contributions to renewable and low carbon energy generation. Proposed developments are required to meet the following minimum reductions in carbon dioxide emissions: 1) All new major residential developments (10 units or more) should achieve zero carbon standards in line with London Plan policy. 2) All other new residential buildings should achieve a 35% reduction. 3) All non-residential buildings over 100sqm should achieve a 35% reduction. From 2019 all major non-residential buildings should achieve zero carbon standards in line with London Plan policy. Targets are expressed as a percentage improvement over the target emission rate (TER) based on Part L of the 2013 Building Regulations. C This should be achieved by following the Energy Hierarchy: 1) Be lean: use less energy 2) Be clean: supply energy efficiently 3) Be green: use renewable energy Decentralised Energy Networks	Policy LP22	The Energy Strategy by Watkins Payne confirms the adoption of a hierarchical approach, using passive and low energy design technologies to reduce baseline energy demand and CO_2 emissions followed by the application of low and zero carbon technologies. The proposed extension has been shown to meet the 35% overall target in addition to a 15% reduction by energy efficiency measures alone as required by the London Plan and London Borough of Richmond planning policies. The actual predicted figures are 15.35% and 38.20% respectively. Lean Scheme savings stand at 1.93 tonnes of CO_2 per year, and Green Scheme savings stand at 2.98 tonnes of CO_2 per year. Furthermore, the potential renewable energy technologies have been assessed taking into account the particular development constraints. The strategy is to utilise air source heat pumps in their variable refrigerant flow (VRF) format to provide the heating and cooling requirements to the office areas. The Energy Strategy also confirms that the decentralised heating, cooling and power assessment has indicates that none are viable for the scheme	

D The Council requires developments to contribute towards the Mayor of London target of 25% of heat and power to be generated through localised decentralised energy (DE) systems by 2025. The following will be required: 1) All new development will be required to connect to existing DE networks where feasible. This also applies where a DE network is planned and expected to be operational within 5 years of the development being completed. 2) Development proposals of 50 units or more, or new non-residential development of 1000sqm or more, will need to provide an assessment of the provision of on-site decentralised energy (DE) networks and combined heat and power (CHP). 3) Where feasible, new development of 50 units or more, or new non-residential development of 1000sqm or more, as well as schemes for the Proposal Sites identified in this Plan, will need to provide on-site DE and CHP; this is particularly necessary within the clusters identified for DE opportunities in the borough-wide Heat Mapping Study. Where on-site provision is not feasible, provision should be made for future connection to a local DE network should one become available. Applicants are required to consider the installation of low, or preferably ultra-low, NOx boilers to reduce the amount of NOx emitted in the borough. Local opportunities to contribute towards decentralised energy supply from renewable and low-carbon technologies will be encouraged where appropriate. Retrofitting E High standards of energy and water efficiency in existing developments will be supported wherever possible through retrofitting. Householder extensions and other development proposals that do not meet the thresholds set out in this policy are encouraged to complete and submit the Sustainable Construction Checklist SPD as far as possible, and opportunities for micro-generation of renewable energy will be supported in line with other policies in this Plan.	Policy LP22 (continued)		

Water resources and infrastructure	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
A The borough's water resources and supplies will be protected by resisting development proposals that would pose an unacceptable threat to the borough's rivers, surface water and groundwater quantity and quality. This includes pollution caused by water run-off from developments into nearby waterways. Water Quality B The Council encourages proposals that seek to increase water availability or protect and improve the quality of rivers or groundwater. The development or expansion of water supply or wastewater facilities will normally be permitted, either where needed to serve existing or proposed new development, or in the interests of long-term water supply and waste water management, provided that the need for such facilities outweighs any adverse land use or environmental impact. Where rivers have been classified by the Environment Agency as having 'poor' status, any development affecting such rivers is encouraged to improve the water quality in these areas. Water and sewerage provision C New major residential or major non-residential development will need to ensure that there is adequate water supply, surface water, foul drainage and sewerage treatment capacity to serve the development. Planning permission will only be granted for developments which increase the demand for off-site service infrastructure where: 1) sufficient capacity already exists, or 2) extra capacity can be provided in time to serve the development, which will ensure that the environment and the amenities of local residents are not adversely affected. Applicants for major developments will be required to provide evidence in the form of written confirmation as part of the planning application that capacity exists in the public sewerage and water supply network to serve their development. Any new water supply, sewerage or waste water treatment infrastructure must be in place prior to occupation of the development. Financial contributions may be required for new developments towards the provision of, or improvements to, such infrastructure.	Policy LP23	The Planning Statement by Terence O'Rourke Ltd confirms that the site is in flood zone 1 and not located in a critical drainage area, which was confirmed by the Council in their pre-application advice. Furthermore, it is not greater than 1 hectare in size, and as such a flood risk assessment is not required. The Sustainable Urban Drainage Statement by Reuby & Stagg confirms that the proposed development consists of constructing additional storeys onto an existing building. The roof footprint and drainage approach is completely unchanged as a result of the development, therefore there is no change to (or impact on) the surface water runoff. The development is to retain and utilise the existing undisturbed building foundations which have no spare capacity for incorporating the additional weight of a biodiverse roof. The external public space (Castle Mews) is currently an impervious concrete surface with multiple gulley's. The proposal is to resurface this area with Sett Pavers, therefore there is no change to (or impact on) the surface water runoff. Where a new external staircase and external bike store are constructed, these are provided with biodiverse roofs designed for at least 50% attenuation of the surface water runoff at peak times (based on existing levels). This therefore does provide some improvement on the existing situation. The Design and Access Statement by dn-a confirms that the building water consumption will be controlled and minimised by the use of water efficient low flow sanitary/ WC outlets. Water consumption and building materials will be aligned with the targets commensurate with BREEAM 'Excellent' and will be achieved through the use of low flow water fittings in the toilets/ showers and high quality and sustainably resourced materials and products.	

Waste management	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
The Council will ensure that waste is managed in accordance with the waste hierarchy, which is to reduce, reuse or recycle waste as close as possible to where it is produced. The Council will require the following: 1) All developments, including conversions and changes of use are required to provide adequate refuse and recycling storage space and facilities, which allows for ease of collection and which residents and occupiers can easily access, in line with the guidance and advice set out in the Council's SPD on Refuse and Recycling Storage Requirements. 2) All developments need to ensure that the management of waste, including the location and design of refuse and recycling facilities, is sensitively integrated within the overall design of the scheme, in accordance with policies on Local Character and Design. 3) Development proposals, where appropriate, should make use of the rail and the waterway network for the transportation of construction, demolition and other waste. Development proposals in close proximity to the river should utilise the river for the transport of construction materials and waste where practicable. 4) All major developments, and where appropriate developments that are likely to generate large amounts of waste, are required to produce site waste management plans to arrange for the efficient handling of construction, excavation and demolition waste and materials. Proposals affecting existing waste management sites, as well as proposals for new or additional waste management facilities, will be assessed against the policies of the West London Waste Plan (2015).	Policy LP24	The Construction Environmental Management Plan by B+K Building Services confirms that there will be a Waste Management plan in place for the site. No waste removed from site will be permitted to leave without the provision of an adequately completed waste transfer note and copy of valid waste carrier licence for the person removing the waste and environmental permit for the site where the waste is being taken. The burning of waste will be banned on the construction site. In order to implement these requirements and monitor the amount of waste being produced by the project a Site Waste Management Plan will be prepared and maintained throughout the course of the construction phase. The Contractor will apply the waste hierarchy to the project to minimise waste production and subsequent landfill burden. The waste hierarchy specifies that the amount of waste produced will be minimised by consideration in development of the design and, where produced, will be reused before recycling / disposal options are considered.	

Health and Wellbeing	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
Planning, at all levels, can play a crucial role in creating environments that enhance people's health and wellbeing. The Council promotes and supports healthy and active lifestyles and measures to reduce health inequalities. A The Council will support development that results in a pattern of land uses and facilities that encourage: 1) Sustainable modes of travel such as safe cycling routes, attractive walking routes and easy access to public transport to reduce car dependency. 2) Access to green infrastructure, including river corridors, local open spaces as well as leisure, recreation and play facilities to encourage physical activity. 3) Access to local community facilities, services and shops which encourage opportunities for social interaction and active living, as well as contributing to dementia-friendly environments. 4) Access to local healthy food, for example, allotments and food growing spaces. **5) Access to toilet facilities which are open to all in major developments where appropriate (linked to the Council's Community Toilet Scheme).** **6) An inclusive development layout and public realm that considers the needs of all, including the older population and disabled people.** 7) Active Design which encourages wellbeing and greater physical movement as part of everyday routines	Policy LP30 *[extract]*	The Transport Statement by Markides confirms that the site is located close to public transport and local facilities with train and bus services connecting into major employment and transfer destinations including Kingston, Hampton Court, North Sheen, Fulwell and Hounslow. Amenities around the site include amenities, educational, employment and leisure facilities which are all within a short walk or cycle distance. The proposals seek to provide high quality, secure cycle provision in accordance with the London Plan cycle parking standards which will be of benefit future employees. The proposed scheme can easily be accommodated within the existing transport networks and is therefore not considered to result in an unacceptable impact on highway safety, or a significant impact upon local transport networks. The Design and Access Statement by dn-a confirms that the proposed development will be designed in accordance with best practice guidance on inclusive design, the proposals are designed to be accessible in accordance with part M of the Building Regulations as a minimum. Pedestrian access to the proposed building will be via the walkway from Hill Street or a direct front on approach from Castle Yard both routes are reached by a graded shared surface road finish. Upon entry staff and visitors will enter straight into the main reception area where lifts and stairs make all floors accessible. The graded level entry ensures no separation of users. Use of appropriate hard landscape surfaces will be deployed on external circulation routes & tactile paving to identify potential hazards. The palette of external materials will be carefully selected to ensure ease of access for pedestrian and wheelchair users. Tactile paving will be utilised were appropriate to delineate level changes.	

Sustainable travel choices	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
The Council will work in partnership to promote safe, sustainable and accessible transport solutions, which minimise the impacts of development including in relation to congestion, air pollution and carbon dioxide emissions, and maximise opportunities including for health benefits and providing access to services, facilities and employment. The Council will: A Location of development Encourage high trip generating development to be located in areas with good public transport with sufficient capacity, or which are capable of supporting improvements to provide good public transport accessibility and capacity, taking account of local character and context. B Walking and cycling Ensure that new development is designed to maximise permeability within and to the immediate vicinity of the development site through the provision of safe and convenient walking and cycling routes, and to provide opportunities for walking and cycling, including through the provision of links and enhancements to existing networks. C Public transport Ensure that major new developments maximise opportunities to provide safe and convenient access to public transport services. Proposals will be expected to support improvements to existing services and infrastructure where no capacity currently exists or is planned to be provided. Protect existing public transport interchange facilities unless suitable alternative facilities can be provided which ensure the maintenance of the existing public transport operations. Applications will need to include details setting out how such re-provision will be secured and provided in a timely manner. D The road network Ensure that new development does not have a severe impact on the operation, safety or accessibility to the local or strategic highway networks. Any impacts on the local or strategic highway networks, arising from the development itself or the cumulative effects of development, including in relation to on-street parking, should be mitigated through the provision of, or contributions towards, necessary and relevant transport improvements. In assessing planning applications the cumulative impacts of development on the transport network will be taken into account. Planning applications will need to be supported by the provision of a Transport Assessment if it is a major development, and a Transport Statement if it is a minor development. E River transport Encourage the use of the River Thames for passenger and freight transport through the protection of, improvement to, and provision of new relevant infrastructure including wharves, slipways and piers. F Safeguarding of routes and facilities Land required for proposed transport schemes as identified in the London Plan and the Council's Local Implementation Plan for Transport will be protected from developments which would prevent their proper implementation. Local filling stations and supporting services such as car repair facilities will be protected	Policy LP44	The Transport Statement by Markides confirms that the site is located close to public transport and local facilities with train and bus services connecting into major employment and transfer destinations including Kingston, Hampton Court, North Sheen, Fulwell and Hounslow. The proposals retain the provision of 8 off street car parking spaces, converting one space for accessible use and providing converting 4 spaces for electric vehicle charging. Given the minor increase in floorspace a trip generation assessment has not been carried out (as agreed with LBR highways team) as part of this transport assessment because the proposed development will not result in a significant impact on the highway and transport networks. The proposals seek to provide high quality, secure cycle provision in accordance with the London Plan cycle parking standards which will be of benefit future employees. The proposed scheme can easily be accommodated within the existing transport networks and is therefore not considered to result in an unacceptable impact on highway safety, or a significant impact upon local transport networks. There are two companies which operate a car club within the vicinity of the site, including ZipCar and Enterprise. The ZipCar club space is situated 350m to the northeast of the site along Banstead Court, which is approximately a 5-minute walk. The Enterprise Car Club space is situated along Church Terrace, which is 190m to the east of the site, approximately a 2- minute walk. The car clubs use both electric and hybrid cars within their fleet, making it a greener choice of trave than the traditional private car.	

from redevelopment for alternative uses unless exceptional circumstances can be demonstrated that warrant their loss. G Taxis and private hire vehicles Ensure that taxis and private hire vehicles are adequately catered for in appropriate locations			

Parking standards and servicing	Richmond Local Plan (2018)	Review of proposed development	Compliance Status
Parking standards The Council will require new development to make provision for the accommodation of vehicles in order to provide for the needs of the development while minimising the impact of car-based travel including on the operation of the road network and local environment, and ensuring making the best use of land. It will achieve this by: 1) Requiring new development to provide for car, cycle, 2 wheel and, where applicable, lorry parking and electric vehicle charging points, in accordance with the standards set out in Appendix 3. Opportunities to minimise car parking through its shared use will be encouraged. 2) Resisting the provision of front garden car parking unless it can be demonstrated that: a. there would be no material impact on road or pedestrian safety b. there would be no harmful impact on the character of the area, including the streetscape or setting of the property, in line with the policies on Local Character and Design; and c. the existing on-street demand is less than available capacity 3) Car free housing developments may be appropriate in locations with high public transport accessibility, such as areas with a PTAL of 5 or 6, subject to: a. the provision of disabled parking b. appropriate servicing arrangements c. demonstrating that proper controls can be put in place to ensure that the proposal will not contribute to on-street parking stress in the locality. All proposals for car free housing will need to be supported by the submission of a Travel Plan 4) Managing the level of publicly available car parking to support the vitality and viability of town and local centres within the borough whilst limiting its impacts on the road network. Freight and servicing New major development which involves freight movements and has servicing needs will be required to demonstrate through the submission of a Delivery and Servicing Plan and Construction and Logistics Plan that it creates no severe impacts on the efficient and safe operation of the road network and no material harm to the living conditions of nearby residents.	Policy LP45	The Transport Statement by Markides confirms that the proposals retain the provision of 8 off street car parking spaces, converting one space for accessible use and providing converting 4 spaces for electric vehicle charging. The PTAL report located in Appendix A confirms that the PTAL rating for the development is 6a.	

Appendix 1 – Sustainable Construction Checklist

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): One Castle Yard

Application No. (if known):

Address (include. postcode): 1 Castle Yard, Richmond, TW10 6TF

Completed by:

For Non-Residential
Size of development (m2): 744

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. **TRUE**

Carbon Dioxide emissions reduction

What is the on site carbon dioxide emissions reduction against a Building Regulations Part L (2013) baseline: 38.2 %
Policy LP 22 B. and Draft London Plan Policy 9.2.5 require a 35% onsite reduction in CO_2 emissions beyond Building Regulations 2013.

What is the percentage reduction from efficiency measures alone: 15.35 %
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.

Percentage of **total** site CO2 emissions saved through renewable energy installation? 38.2 %

What is the total remaining carbon to be offset: Tonne
Policy LP 22 B. and Draft London Plan Policy 9.2.4 require Major developments to achieve Zero Carbon after offsetting.

Are remaining emissions going to be offset through offset fund payment in accordance with current guidelines issued for the cost per tonne of CO2? **FALSE**

What is the total predicted cost of offset? £
The London Plan sets this as £95/tonne per year over 30 years, this should be updated based on As Build calculations.

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?
Excellent required under Policy LP22 A 3

Extensions and conversions for residential dwellings
BREEAM Domestic Refurbishment: **Please Select** — Have you attached a pre-assessment to support this?
Excellent required under Policy LP22 A 4

Extensions and conversions for non-residential buildings
BREEAM Level: **Please Select** — Have you attached a pre-assessment to support this?
Excellent required under Policy LP 22

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

Subtotal 8

1B MINIMUM POLICY COMPLIANCE (RESIDENTIAL)

Score

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. *1*
110l/p/d Required for new dwellings under Policy LP22 A 2 105l/p/d required under Draft London Plan Policy SI5

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 providing/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*
	See Draft London Plan SI4	

2.2 Heat Generation

		Score
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:	
	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*
	See Draft London Plan SI3	

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 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.	
c.	Has an air quality impact assessment been provided	
	If yes, has 'Emissions Neutral' been achieved	*1*
	If yes, have occupants of new development been protected from existing pollution	*1*
	If no to any of the above are there any sensitive receptors as defined in Policy LP 10 present?	*-1*
	see Policy LP 10	
d.	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*
	see Policy LP 10	
e.	Has the development taken measures to reduce light pollution impacts on character, residential amenity and biodiversity?	*3*
	see Policy LP 10	
f.	Have you attached a Lighting Pollution Report?	-

Subtotal **22**

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

ction Environmental Management Plan by B+K Building services states that Where possible site lighting will be LED which virtually eliminates upward glare, and lights will be pointed away from resid

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:

		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*

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*
	See policy LP44		
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 Council's Parking Standards - Local Plan Appendix 3)		*2*
		If so, for how many bicycles?	**24**
		Is this shown on the site plans?	
	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*

Subtotal **7**

Please give any additional relevant comments to the Transport Section below

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:		sqm
An intensive green roof	4	Area provided:	circa 10	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			
Swift boxes	0.5			
Other	0.5			

e. Does your development use at least 70% of available roof plate as green/brown roof 1

Policy LP 17 requires 70%

Subtotal **6.5**

Please give any additional relevant comments to the Biodiversity Section below

provided on the external staircase and on the external bike store roof. The Design and Access Statement by dn-a confirms that the design strategy is to provide equally spaced trees aligned with th

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

Have you submitted a Drainage Statement (Indicate if yes)

See Policy LP 21 and Draft London Plan SL 13

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 **0**

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*
c.	Will a waste management plan and facilities be in place in line with Policy LP24	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*
	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	**3**

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 Local Plan LP1, LP28.B, LP30 & LP45 *2*

Please provide details of the accessibility measures specified in the Local Plan that will be included in the development

The development has a PTAL rating of 6a.

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 ***48.5***

Score	Rating	Significance
84 or more	*A+*	Project strives to achieve highest standard in energy efficient sustainable development
75-83	*A*	Makes a major contribution towards achieving sustainable development in Richmond
56-74	*B*	Helps to significantly improve the Borough's stock of sustainable developments
40-55	*C*	Minimal effort to increase sustainability beyond general compliance
39 or less	*FAIL*	Does not comply with SPD Policy

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

Score	Rating	Significance
85 or more	A++	Project strives to achieve highest standard in energy efficient sustainable development
68-84	*A+*	Project strives to achieve higher standard in energy efficient sustainable development
59-67	*A*	Makes a major contribution towards achieving sustainable development in Richmond
39-58	*B*	Helps to significantly improve the Borough's stock of sustainable developments
24-38	*C*	Minimal effort to increase sustainability beyond general compliance
23 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** _____

Appendix 2 – BREEAM Pre-Assessment Report

watkins payne
designed engineered focused

One Castle Yard

BREEAM 2018
New Construction
Offices 'Fully Fitted'

Pre-Assessment Report – Issue Planning

Prepared for:
Peveril Securities Ltd

December 2021

BREEAM®

Prepared on behalf of Watkins Payne by

Name Jamie Daniel 

Position Senior Sustainability Consultant / BREEAM AP

Watkins Payne
51 Staines Road West
Sunbury-on-Thames
Middlesex TW16 7AH
T +44 (0) 1932 781 641
F +44 (0) 1932 765 590
wpp@wppgroup.co.uk
www.wppgroup.co.uk

Issue and Date	Reason for Issue
Issue Planning – 17/12/2021	For planning application submission

1.00 Introduction

Sustainability is defined as the ability to meet the needs of today, without compromising the ability of future generations to provide for the needs of tomorrow. It can be described as the equilibrium between environmental and financial considerations, and the needs of the community. A truly sustainable development will achieve a balance between fitness-for-purpose, value-for-money and environmental impact together with the integration as part of a larger, sustainable community.

Watkins Payne has been commissioned by Peveril Ltd Securities to carry out BREEAM New Construction 2018 Offices Pre-Assessment in conjunction with the preparation of the detailed application for the development as follows:

'Internal renovation and reconfiguration of existing building; external alterations including two-storey roof extension with terraces to accommodate additional commercial floorspace (Class E), plant enclosure, remodelled entrance with ramp, associated refuse and cycle storage and public realm improvements'

This report details the performance of the development against the BREEAM New Construction 2018 criteria. The development's performance is in accordance with specification documentation and verbal expressions of credit conformity/non-conformity established with members of the design team prior to issue of this pre-assessment report.

The development is to be fitted out to a fully fitted standard, therefore a *'Fully Fitted'* BREEAM New Construction 2018 assessment is applicable.

The proposed servicing strategy for the buildings is:

- The office areas will utilise a variable refrigerant flow (HVRF) system for heating and comfort cooling provided on a floor-by-floor basis. The installation will comprise external roof level heat pump units with refrigeration pipework routed to the office floor level VRF units that will be connected to supply air diffusers. Core area heating will consist of electric panel heaters
- Domestic hot water will be provided from local electric water heaters on each floor distributed in the core areas
- Low Zero Carbon / Renewable energy technologies: Air source heat pumps (ASHP)
- Lighting will consist of LED lamp sources with daylight dimming and occupancy detection control

2.00 BREEAM New Construction 2018 *'Fully-Fitted'* Pre-assessment Scores

<30	UNCLASSIFIED
≥30	PASS
≥45	GOOD
≥55	VERY GOOD
≥70	EXCELLENT
≥85	OUTSTANDING

Bold & Shading denotes mandatory credit achievement / requirement for VERY GOOD & ABOVE RATING

Bold & Shading denotes mandatory credit achievement / requirement for EXCELLENT & ABOVE RATING ONLY

Project No:	5051
Project Name:	Castle Yard, Richmond
Engineer/Verified:	JD / AT
Date	07.12.21
Rev:	Planning Issue

Credit Summary - BREEAM New Construction 2018 Offices - *Fully Fitted* PRE-ASSESSMENT SCORES		Assessment Credit	Max No of Credits Available	*ACHIEVABLE* Credits
Management	Project Brief & Design	Man 01	4	3
Credit Value %	Life Cycle Costing & Service Life Planning	Man 02	4	4
0.61	**Responsible Construction Practices [1 Credit for EXCELLENT / 2 Credits for OUTSTANDING]**	**Man 03**	**6**	**6**
	Commissioning & Handover [Commissioning Testing Schedule & Responsibilities / BUG]	**Man 04**	**4**	**4**
Section Credit Total			**18**	**17**
Weighted Section Total			**11.00%**	**10.39%**
Health & Wellbeing	Visual Comfort	Hea 01	5	1
Credit Value %	Indoor Air Quality	Hea 02	4	3
0.78	Thermal Comfort	Hea 04	3	3
	Acoustic Performance	Hea 05	3	3
	Security	Hea 06	1	1
	Safe & Healthy Surroundings	Hea 07	2	1
Section Credit Total			**18**	**12**
Weighted Section Total			**14.00%**	**9.33%**
Energy	**Reduction of Energy Use & Carbon Emissions [4 Credits for EXCELLENT / 6 Credits for OUTSTANDING]**	**Ene 01**	**13**	**4**
Credit Value %	**Energy Monitoring [1st Credit]**	**Ene 02**	**2**	**2**
0.76	External Lighting	Ene 03	1	1
	Low Carbon Design	Ene 04	3	2
	Energy Efficient Transportation Systems	Ene 06	2	2
Section Credit Total			**21**	**11**
Weighted Section Total			**16.00%**	**8.38%**
Transport Credit Value %	Transport Assessment and Travel Plan	Tra 01	2	2
0.83	Sustainable Transport Measures	Tra 02	10	6
Section Credit Total			**12**	**8**
Weighted Section Total			**10.00%**	**6.67%**
Water	**Water Consumption [1 Credit for GOOD and above / 2 Credits for OUTSTANDING]**	**Wat 01**	**5**	**4**
Credit Value %	**Water Monitoring [Credit for GOOD and above]**	**Wat 02**	**1**	**1**
0.88	Water Leak Detection	Wat 03	2	2
Section Credit Total			**8**	**7**
Weighted Section Total			**7.00%**	**6.13%**

Credit Summary - BREEAM New Construction 2018 Offices - *Fully Fitted* PRE-ASSESSMENT SCORES		Assessment Credit	Max No of Credits Available	*ACHIEVABLE* Credits
Materials	Environmental Impacts from Construction Products - Building Life Cycle Assessment	Mat 01	7	2
Credit Value %	Environmental Impacts from Construction Products - Environmental Product Declarations	Mat 02	1	0
1.07	**Responsible Sourcing of Construction Materials [All timber - legally sourced for PASS and above]**	**Mat 03**	**4**	**3**
	Designing for Durabilty & Resillence	Mat 05	1	1
	Material Efficiency	Mat 06	1	0
Section Credit Total			**14**	**6**
Weighted Section Total			**15.00%**	**6.43%**
Waste	Construction Waste Management	Wst 01	5	5
Credit Value %	Use of Recycled & Sustainably Sourced Aggregates	Wst 02	1	0
0.55	**Operational Waste**	**Wst 03**	**1**	**1**
	Speculative Floor & Ceiling Finishes	Wst 04	1	1
	Adaption to Climate Change	Wst 05	1	1
	Design for Disassembly & Adatability	Wst 06	2	2
Section Credit Total			**11**	**10**
Weighted Section Total			**6.00%**	**5.45%**
Land Use & Ecology	Site Selection	LE 01	2	1
Credit Value %	Ecological Risks & Opportunities	LE 02	2	2
1.00	Managing Impacts on Ecology	LE 03	3	3
	Ecological Change & Enhancement	LE 04	4	4
	Long Term Ecology Management & Maintenance	LE 05	2	2
Section Credit Total			**13**	**12**
Weighted Section Total			**13.00%**	**12.00%**
Pollution	Impact of Refrigerants	Pol 01	3	0
Credit Value %	Local Air Quality	Pol 02	2	2
0.67	Flood & Surface Water Management	Pol 03	5	3
	Reduction of Night Time Light Pollution	Pol 04	1	1
	Reduction of Noise Pollution	Pol 05	1	1
Section Credit Total			**12**	**7**
Weighted Section Total			**8.00%**	**4.67%**
Innovation	Responsible Construction Practices	Inn Man 03	1	1
Credit Value %	Visual Comfort	Inn Hea 01	2	0
1.00	Indoor Air Quality	inn Hea 02	1	0
	Security	Inn Hea 06	1	0
	Reduction of Energy Use & Carbon Emissions	Inn Ene01	5	0
	Water Consumption	Inn Wat01	1	0
	Environmental Impacts from Construction Products - Building Life Cycle Assessment	Inn Mat 01	3	0
	Responsible Sourcing of Materials	Inn Mat 03	1	0
	Construction Waste Management	Inn Wst 01	1	0
	Use of Recycled and Sustainably Sourced Aggregates	Inn Wst 02	1	0
	Adaption to Climate Change	Inn Wst 05	1	0
	Ecological Change & Enhancement	Inn LE 04	1	0
Section Credit Total			**10**	**1**
Weighted Section Total			**10.00%**	**1.00%**
		Totals:		**70.44%**
		Rating:		**EXCELLENT**

3.00 Summary

The below details the pre-assessment results for the project under BREEAM 2018.

The BREEAM New Construction 2018 Offices *'Fully-Fitted'* Pre-Assessment Results are:

Credit Strategy	*'Achievable'*
Score	70.44%
Rating	EXCELLENT

This report therefore demonstrates that a planning compliant pre-assessment can be provided at the site.