



Richmond Education and Enterprise Campus Development



Outline Sustainability Statement

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CONTENTS

1	Introduction	1
1.1	Background	1
1.2	The Site and Surrounds	1
1.3	The Proposed Development	3
2	Sustainability Policy	8
2.1	Introduction	8
2.2	National Policy on Sustainable Development	8
2.3	Regional	9
2.4	Local	14
2.5	Other Policies	23
3	Sustainable Design and Construction Elements of the Scheme	24
3.1	Introduction	24
3.2	Sustainable Design and Construction	24
3.3	Design Code	28
4	Approach to Sustainability Assessment	30
4.1	Introduction	30
4.2	Assessment Tools	37
5	Results of Assessment	39
5.1	Introduction	39
5.2	Landuse	40
5.3	Housing, living spaces and social infrastructure	41
5.4	Conservation of energy, materials and water resources	42
5.5	Maximising the Use of Natural Systems	44
5.6	Reducing the Impacts of Noise, Pollution and Flooding	45
5.7	Promoting Health and Wellbeing	48
5.8	Conservation and Enhancement of the Natural Environment and Biodiversity	50
5.9	Waste Management	51
5.10	Sustainable Construction	53
5.11	Sustainable Transport	53
5.12	Conserving and Enhancing the Local Character and Historic Environment	55
5.13	Economic Development	57
5.14	Summary	57
6	Sustainable Construction Checklist	57

1 INTRODUCTION

1.1 BACKGROUND

This Outline Sustainability Statement has been produced by Cascade Consulting (Environment and Planning) Ltd on behalf of Richmond upon Thames College (RuTC) to accompany an Outline Planning Application (OPA) for the Richmond Education and Enterprise Campus (REEC; the 'REEC development'), a proposed mixed use redevelopment of the Richmond upon Thames College site in Twickenham, located in the London Borough of Richmond upon Thames (LBRuT), south London.

The REEC development entails a mix of new education facilities, comprising the college, a new secondary school and a Special Educational Needs (SEN) school, business space and replacement indoor and outdoor recreational facilities with community use, together with an 'enabling' residential development.

This Sustainability Statement sets out how the proposed development contributes to sustainable development in the context of national, regional and local policies on sustainability, through various design features of the development, the approach to construction and its long term use.

The design and construction of the proposed development aim to comply as far as possible with relevant sustainability policies and guidance and therefore this statement responds specifically to guidance as set out in:

- The National Planning Policy Framework (2012);
- Planning Practice Guidance (PPG);
- London Plan (consolidated 2015) and Supplementary Planning Guidance (SPG) on Sustainable Design and Construction (2014);
- LBRuT Core Strategy (2009);
- LBRuT Development Management Plan (2011);
- Crane Valley Planning Guidelines (2005);
- LBRuT Sustainable Construction Checklist SPD (2011); and
- LBRuT Planning Brief Richmond Upon Thames College (2008)

The proposals summarised within this statement promote a development which will incorporate an energy efficient, sustainable design with environmental performance and mitigation of the effects of climate change.

1.2 THE SITE AND SURROUNDS

The REEC development site ('the Site') covers an area of approximately 9 hectares

(ha) and falls within the administrative boundary of the LBRuT. A plan showing the location of the site is provided in **Figure 1** and the planning application boundary for the site is provided in **Figure 2**. The site is bounded by:

- A316 Chertsey Road to the north;
- Egerton Road and a residential area to the east;
- River Crane and Twickenham Rough to the south; and
- Langhorn Drive, Challenge Court, Harlequin FC's rugby stadium Twickenham Stoop, and Council playing fields and Depot to the west.

The OPA Site comprises numerous academic and facilities buildings associated with the existing RuTC, with the northern part of the site occupied by a four-court sports hall with associated facilities, a grass sports pitch and car parking in the north east corner (**Figure 3**), and the southern part of the site by the College playing fields south of Craneford Way. The RuTC buildings were constructed in the 1930s with further expansion in the 1970s, and vary from one to three storeys in height (with the exception of the five storey tower), with the mass of buildings focussed to the south east corner of the site. The buildings have an existing floorspace of 34,252 m² gross external area (GEA).

The sports centre and pitches are also operated as a community sports facility outside normal college hours. The main operating times are as follows:

- Term Time: Monday – Friday 16.30-22.00 / Saturdays and Sundays 09.00-17.00
- Holidays: Monday – Friday 16.30-22.00 / Saturdays and Sundays 09.00-17.00
- Bank Holidays: Closed.

The OPA Site is located within an area of predominantly residential development. To the east of the site is the residential neighbourhood known as the Heatham Estate, whilst to the west is the Challenge Court residential complex and further west the Rosecroft Gardens Conservation Area (known locally as the Dene Estate).





Richmond upon Thames



Richmond upon Thames Campus



 Map to scale Scale: 500 metres (as appropriate) Copyright © R. Adams & Co. Ltd. Copyright 2015  Drawing Number: H&K Number 09-002	
Project Title: Richmond Education and Enterprise Campus Development	
Figure Title: Site Location	
Figure Number: Figure 1	Date: June 2015



 CASCADE 100m <small>Note: All locations are approximate.</small>  <small>Planning Service: Hill Number 04/04</small>	
Project Title: Richmond Education and Enterprise Campus Development	
Figure Title: Site Context	
Figure Number: Figure 3	Date: June 2015

1.3 THE PROPOSED DEVELOPMENT

The Applicant is submitting an OPA for the following:

The demolition of the existing college buildings, site clearance and groundworks together with the comprehensive redevelopment to provide:

- (i) *A new campus for education and enterprise – comprising:*
 - *Replacement College (Use Class D1) of up to 16,000m² (square metres) GEA to accommodate up to 3,000 FTE day time students, as well as evening and weekend use;*
 - *A Science, Technology, Engineering and Maths (STEM) Centre (Use Class D1) of up to 6,100 m² GEA*
 - *A new Secondary School (Use Class D1) of up to 7,000m² (GEA) for up to 750 students;*
 - *A new Special Education Needs (SEN) School (Use Class D1) of up to 4,000m² GEA;*
 - *A new ancillary 'Tech Hub' for Haymarket Media (Use Class B1) of up to 1,700 m² GEA; and*
 - *Replacement on-site sports centre (Use Class D2) of up to 3,900 m² GEA to serve the college, schools and the wider community.*
- (ii) *Upgrading of existing Craneford Way Playing Fields for use by the College, schools and the local community;*
- (iii) *Alterations to existing means of access for vehicles, pedestrians and cyclists from Langhorn Drive and from Egerton Road and installation of an at grade signalised junction to allow a right turn from Langhorn Drive onto the A316;*
- (iv) *Provision of on-site parking for the College, Schools and Tech Hub for up to 230 vehicles, open space and landscaping; and*
- (v) *New residential development of up to 180 units together with associated parking for up to 190 vehicles, open space and landscaping.*

The OPA seeks outline planning permission for the proposed development but provides details of all the proposed access arrangements for vehicles (including service vehicles), cyclists and pedestrians to the site (whether these involve new arrangements or alterations to existing access to /exits from the site).

The OPA seeks to establish the principles for the REEC development against which subsequent detailed Reserved Matter Applications will be considered, both in terms

of the general scale of development and the land uses considered appropriate for the OPA Site. The following matters are therefore reserved for future approval:

- **Layout** - detailed layouts showing "*...the way in which buildings, routes and open spaces within the development are provided, situated and orientated in relation to each other and to buildings and spaces out the development*".
- **Scale** - detailed scale plans showing "*...the height, width and length of each building*".
- **Appearance** - detailed design and external appearance of buildings to show "*...the aspects of a building or place within the development which determine the visual impression of the building or place makes, including the external built form of the development, its architecture, materials, decoration, lighting, colour and texture*".
- **Landscaping** - details of the "*...means of treatment of land (other than buildings) for the purpose of enhancing or protecting the amenities of the site and the area in which it is situated*".
- **Access** - the design of the internal access arrangements, including layout to facilitate movement and circulation between and within each development zone.

To demonstrate that the OPA Site is capable of accommodating the quantum of development proposed in an acceptable manner, a series of plans have been produced to show the maximum and minimum parameters (height, width and length), known as Parameter Plans. These are accompanied by a Development Specification and supported by a Design Code. These together form the Primary Control Documents for the OPA. An Illustrative Masterplan demonstrating how the REEC development might be built out and an Illustrative Landscape Plan to show how it could be landscaped have also been produced and are presented Chapter 5 of the Environmental Statement (ES) that accompanies the OPA.

2 SUSTAINABILITY POLICY

2.1 INTRODUCTION

This section of the report defines sustainable development and sets out national, regional and local planning policy considered relevant to it. These sustainable development policies were used as a benchmark to develop sustainability themes for the assessment against which the sustainability of the REEC development is assessed in Section 4 of this report.

2.2 NATIONAL POLICY ON SUSTAINABLE DEVELOPMENT

2.2.1 National Planning Policy Framework (2012)

The National Planning Policy Framework (NPPF), published in March 2012 by the Department of Communities and Local Government, sets out the Government's planning policies for England and how these are expected to be applied. The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. At the heart of the NPPF is a presumption in favour of sustainable development (paragraph 6). This requires the planning system to perform economic, social and environmental roles. The economic role explicitly recognises the need for *"identifying and coordinating development requirements, including the provision of infrastructure"*. The environmental role recognises the need to *"minimise waste and pollution, and mitigate and adapt, to climate change"*, and the social role supports *"strong, vibrant and healthy communities by creating a high quality built environment"*.

The policies within the NPPF, taken as a whole, constitute the Government's view of what sustainable development means in practice for the planning system. The NPPF constitutes guidance for local planning authorities and decision makers both in drawing up plans and as material considerations in determining planning applications. The development-related policies in the NPPF fall under the following broad headings:

- Building a strong, competitive economy;
- Ensuring the vitality of town centres;
- Supporting a prosperous rural economy;
- Promoting sustainable transport;
- Supporting high quality communications infrastructure;
- Delivering a wide choice of high quality homes;
- Requiring good design;
- Promoting healthy communities;
- Protecting Green Belt land;

- Meeting the challenge of climate change, flooding and coastal change;
- Conserving and enhancing the natural environment;
- Conserving and enhancing the historic environment; and
- Facilitating the sustainable use of minerals.

These are of direct relevance to the REEC development with the exception of the policies relating to 'Supporting a prosperous rural economy'; 'Promoting healthy communities'; and 'Protecting Green Belt land' are not of direct relevance to the REEC development.

Paragraph 109 requires the planning system to contribute to and enhance the natural and local environment.

Paragraph 111 encourages the effective use of land by re-using land that has been previously developed provided that it is not of high environmental value.

2.2.2 Planning Practice Guidance

In March 2014, the Government launched its Planning Practice Guidance (PPG), which provides a web-based resource. The PPG provides guidance on a range of topics including the following of relevance to the REEC development:

- Air quality;
- Climate change;
- Conserving and enhancing the historic environment;
- Design;
- Flood risk;
- Health and wellbeing;
- Land affected by contamination;
- Light pollution;
- Natural environment;
- Noise;
- Renewable and low carbon energy;
- Travel plan and transport assessment; and
- Water supply, wastewater and water quality.

2.3 REGIONAL

2.3.1 London Plan – The Spatial Development Strategy for London Consolidated with Alterations since 2011 (March 2015)

The London Plan is the development plan for Greater London, which should be taken into account in taking relevant planning decisions, such as determining planning

applications. The Plan identifies a target of 315 homes per annum for Richmond to deliver (over the period 2015-2025)¹.

Policy 5.3 of the London Plan sets out the Mayor's policy on Sustainable Design and Construction. The policy includes the following sustainable design principles:

- Minimising carbon dioxide emissions across the site, including the building and services (such as heating and cooling systems);
- Avoiding internal overheating and contributing to the urban heat island effect;
- Efficient use of natural resources (including water), including making the most of natural systems both within and around buildings;
- Minimising pollution (including noise, air and urban runoff);
- Minimising the generation of waste and maximising reuse or recycling;
- Avoiding impacts from natural hazards (including flooding);
- Ensuring developments are comfortable and secure for users including avoiding the creation of adverse local climatic conditions;
- Securing sustainable procurement of materials, using local supplies where feasible; and
- Promoting and protecting biodiversity and green infrastructure.

The London Plan is supported by supplementary planning guidance. Policy 5.3 states that major development proposals should meet the minimum standards outlined in the Mayor's Sustainable Design and Construction Supplementary Planning Guidance (SPG). The SPG was updated in April 2014. The new SPG sets out what can be done within the policy framework to contribute to sustainable development.

The SPG applies to all major developments. It includes a series of Mayor's Priorities and Mayor's Best Practice which apply to all such developments where appropriate.

The Priorities and Best Practice in the SPG are grouped into the following themes:

- Resource management, including optimising the use of land;
- Site layout and building design including energy and carbon dioxide emissions, energy demand, energy efficiency, renewable energy and water efficiency;
- Materials and waste;
- Nature conservation and biodiversity;
- Climate change adaptation, including heat and drought resistant planting, urban greening, trees and management of flood risks; and
- Pollution management, including land contamination, air quality, noise, light pollution and water pollution.

¹ FALP 2014, Table 4.4

Other policies of relevance to this Sustainability Statement include those summarised in **Table 1**.

Table 1: Summary of Other Relevant Policies from the London Plan

Policy No.	Title	Key Relevant Aspects
2.18	Green infrastructure	Development proposals should incorporate appropriate elements of green infrastructure and linkages with green infrastructure to the wider public realm to improve accessibility for all and develop new links is encouraged.
3.2	Improving Health and Addressing Health Inequalities	Requires the consideration of impacts of major development proposals on the health and wellbeing of communities. New development should be designed, constructed and managed in ways that improve health and promote healthy lifestyles.
3.3	Increasing Housing Supply	Aims to ensure the housing need identified in the London Plan is met.
3.9	Mixed and Balanced Communities	Promotes mixed and balanced communities through developments that foster social diversity, redress social exclusion and strengthen communities' sense of responsibility for their neighbourhoods.
3.16	Protection and Enhancement of Social Infrastructure	Development proposals should provide high quality social infrastructure. Facilities should be accessible to all sections of the community and be located within easy reach by walking, cycling or public transport.
4.1	Developing London's Economy	Promotes the continued development of a strong, sustainable and increasingly diverse economy. Seeks London's transition to a low carbon economy.
4.12	Opportunities for All	Support for local employment, skills development and training opportunities.
5.1	Climate change mitigation	Seeks to achieve an overall reduction in London's CO ₂ emissions by 60% by 2025.
5.2	Minimising carbon dioxide emissions	Requires development proposals to make the fullest contribution to minimising carbon dioxide emissions in accordance with the energy hierarchy.
5.4	Retrofitting	Refers to reducing the environmental impact of existing urban areas by bringing existing buildings up to the Mayor's

		standards on sustainable design and construction.
5-10	Urban Greening	Promotes the integration of green infrastructure, such as green roofs and walls, tree planting and soft landscaping into development proposals.
5-11	Green Roofs and Development Site Environs	Requires major development proposals to be designed to include roof, wall and site planting.
5-13	Sustainable Drainage	Requires developments to utilise sustainable urban drainage systems (SUDS).
5-15	Water Use and Supplies	Requires developers to minimise the use of mains water by incorporating water saving measures and equipment and designing residential development so that mains water consumption would meet a target of 105 litres or less per head per day.
5-16	Waste net self-sufficiency	This will be achieved by minimising waste, encouraging re-use and reduction in the use of materials, exceeding recycling/composting levels in local authority collected waste, commercial, industrial, construction, excavation and demolition waste, reducing the proportion of waste exported from the capital and working with neighbouring authorities to co-ordinate strategic waste management.
5-18	Construction, Excavation and Demolition Waste	Requires waste to be removed from construction sites, and material brought to site, by water or rail transport wherever practicable.
5-20	Aggregates	Encourages the re-use and recycling of construction, demolition and excavation waste and the sustainable transport of aggregates.
6.3	Assessing the Effects of Development on Transport Capacity	Impacts on transport capacity and the transport network at both corridor and local level are required to be fully assessed.
7-4	Local Character	Developments should have regard to form, function and structure of an area and the scale, mass and orientation of surrounding buildings. Improve an area's visual or physical connection with natural features.
7.8	Heritage Assets and Archaeology	Development should identify, value, conserve, restore, re-use and incorporate heritage assets where appropriate.

		Development affecting heritage assets and their settings should conserve their significance. New development should make provision for protection of archaeological resources, landscapes and significant memorials.
7.14	Improving Air Quality	Requires developments to minimise increased exposure to existing poor air quality and promote sustainable design and construction to reduce emissions.
7.15	Reducing and Managing Noise, Improving and Enhancing the Acoustic Environment and Promoting Appropriate Soundscapes	Addresses reducing and managing noise, improving and enhancing the acoustic environment and promoting appropriate soundscapes.
7.17	Metropolitan Open Land	The playing fields at the south west of the site are designated as Metropolitan Open Land (MOL). Policy 7.17 refers to the protection of MOL.
7.19	Biodiversity and Access to Nature	Requires development proposals to make a positive contribution to the protection, enhancement, creation and management of biodiversity, wherever possible.
7.27	Blue Ribbon Network: Supporting Infrastructure and Recreational Use	Protect and improve access points including paths alongside. Protect and enhance waterway support infrastructure.
7.28	Restoration of the Blue Ribbon Network.	Development proposals should restore and enhance the Blue Ribbon Network.
7.21	Trees and Woodlands	Existing trees of value should be retained and any loss replaced. Planting of additional trees is encouraged for new developments where appropriate, particularly large-canopied species.

2.4 LOCAL

2.4.1 London Borough of Richmond upon Thames Core Strategy (2009)

The LBRuT Core Strategy includes the following policies which relate to sustainable development and are relevant to the environmental performance/sustainability of the development.

CP1 – Sustainable Development: Part 1.A. of the policy states that development will be required to conform with the Sustainable Construction Checklist. This includes the requirements to:

- Meet Code for Sustainable Homes Level 3 (new residential) (note that the Code for Sustainable Homes has since been withdrawn for new developments)
- Ecohomes “excellent” (for conversions)
- BREEAM “excellent” for other types of development.

Point 1.B. states that higher density residential and mixed use developments are to be in town centres, near to public transport in order to reduce the need to travel by car.

Point 1.C. relates to making the best use of land. It supports the dual use of facilities and co-location developments.

Point 1.D. states that the environmental benefits of retaining and, where appropriate, refurbishing existing buildings, should be compared against redevelopment. Development should minimise the use of open land and maintain natural vegetation where possible.

Para 8.1.1.2 states that developers will be required to submit a Sustainability Statement with their application to demonstrate compliance with environmental performance standards.

CP2 – Reducing Carbon Emissions

The policy states that the council will reduce its carbon dioxide emissions by requiring measures that minimise energy consumption in new development.

Point 2.B states that the council will require the evaluation, development and use of decentralised energy in appropriate development.

Point 2.C. states that the Council will increase the use of renewable energy by requiring all new development to achieve a reduction in carbon dioxide emissions of 20% from on-site renewable energy generation unless it can be demonstrated that such provision is not feasible.

CP3 – Climate Change

The policy states that development will need to take account of the impacts of climate change over its lifetime, including:

- Water conservation and drainage
- The need for summer cooling
- Risk of subsidence
- Flood risk

It also states the proposals in high flood risk areas will be restricted – the site is not in a high risk area and so this is not applicable.

CP4 - Biodiversity

Point 4.A states the Borough's biodiversity including the SSSIs and Other Sites of Nature Importance will be safeguarded and enhanced. Biodiversity enhancements will be encouraged particularly in areas of deficiency (parts of Whitton, Hampton, Teddington, Twickenham and South Kew), in areas of new development and along wildlife corridors and green chains such as the River Thames and River Crane corridors.

Point 4.B states that weighted priority in terms of their importance will be afforded to protected species and priority species and habitats in the UK, Regional and Richmond upon Thames Biodiversity Action Plans.

Note that the core strategy also includes policy 'CP12 River Crane Corridor', for which point 12.A states:

The Council will improve the strategic corridor to provide an attractive open space with improvements to the biodiversity. Developments in and adjacent to the River Crane Corridor will be expected to contribute to improving the environment and access, in line with planning guidance.

CP5 - Sustainable Travel

This policy has a number of requirements and objectives based on sustainable travel, those considered of relevance are summarised as:

Part 5.A requires development generating high levels of travel to be located on sites well served by Public Transport.

Part 5.C seeks to prioritise the needs of pedestrians and cyclists in the design of new development.

Part 5.D seeks to improve bus services within the River Crane corridor through the

implementation of development proposals. It also seeks to improve walking cycling and public transport provision in areas currently served poorly public transport.

Part 5.E states that traffic management measures will be implemented to reduce the impact of traffic where necessary.

Part 5.F requires development in areas of good public transport accessibility to have regard to maximum parking standards. It also requires all developments to provide car sharing and car club facilities, and to be designed so as to discourage commuter parking.

Part 5.G Encourages Major employers and schools to develop Green Travel Plans and to require these with planning applications where appropriate.

CP6 - Waste

This policy states that the Council we seek to implement a range sustainable waste management targets.

CP7 – Maintaining and Improving the Local Environment

New development should recognise distinctive local character and contribute to the creation of places of high architectural and urban design quality.

CP12 River Crane Corridor

This policy relates to the protection and enhancement of the corridor.

CP13 – Opportunities for All

Opportunities provided are to be accessed by all residents.

CP14 – Housing

The indicative target of additions for Twickenham, including the ward of St Margaret's and North Twickenham, is 700-1100 dwellings up to 2017. All housing is to be built to Lifetime Homes Standards and 10% of all new housing should be to wheelchair standards.

CP15 – Affordable Housing

A range of housing to meet the needs of all types of households is expected to be included within housing provision.

CP16 – Local Services/Infrastructure

Adequate provision of services and facilities.

CP17 Health and Wellbeing

New development should encourage and promote healthier communities and places.

CP18 Education and Training

The provision of schools and other education and training facilities need to be sufficient in quality and quantity to meet the needs of residents. The potential of existing educational sites to be maximised by redevelopment, re-furbishment and re-use to meet educational needs. Facilities and services should be for all age groups and conveniently accessible to users.

CP19 Local Business

This policy relates to the retention of land in employment uses and development likely to generate significant amounts of travel should be accessible to public transport.

2.4.2 London Borough of Richmond upon Thames Development Management Plan (2011)

In addition to the Core Strategy, the Richmond Council Development Management Policies also forms part of the LDF. The council requires all new residential developments (creating 1 dwelling unit or more) and new non-residential developments of more than 100sqm floorspace to:

- follow sustainable construction policies and reduce carbon emissions
- follow renewable energy and decentralised energy networks
- complete a sustainable construction checklist

The relevant policies relating to Sustainable Development (Section 3.1) are listed below:

Policy DM SD 1 - Sustainable Construction

This policy requires all development, in terms of materials, design, landscaping, standard on construction and operation to include measures of mitigating and adapting to climate change.

It states that development will need to comply with the Boroughs Sustainable Construction Checklist SPD.

New homes will be required to meet Code for Sustainable Homes Level 3 (note that the Code for Sustainable Homes has since been replaced by the Government – see Section 4.2.3). They will also be required to achieve 40 per cent reduction in CO₂ emissions between 2013-2016.

Non residential development over 1000sqm will be required to meet BREEAM “excellent” standards. Policy DM SD 3 relates to conversions.

Supporting paragraph 3.1.1 states that more detailed policies and guidance will be contained in the Mayor’s forthcoming Climate Change Mitigation and Energy Statement.

Policy DM SD 2 Renewable Energy and Decentralised Energy Networks

The policy states that new development will need to conform with the Sustainable Construction Checklist SPD. In addition it will need to:-

- Maximise opportunities for micro-generation of renewable energy.
- (large schemes) reduce CO₂ emissions by firstly delivering efficient design, secondly through low carbon technologies and thirdly by – where feasible and viable – include energy contribution from renewable sources.
- Local opportunities to contribute towards decentralised energy networks will be encouraged.
- All new development will be required to connect to existing or planned decentralised energy networks.

The supporting para 3.1.4, states that the Council will encourage developers to achieve a 20 per cent reduction in total site CO₂ emissions from the use of on-site renewable energy.

DM SD 3 Retrofitting

This policy states that proposals for conversions and extensions will be encouraged to comply with the Sustainable Construction Checklist SPD as far as possible, and opportunities for micro-generation of renewable energy will be supported.

Conversions and extensions required to meet EcoHomes excellent rating.

DM SD 4 Adapting to Higher Temperatures and Need for Cooling

This policy requires development in terms of its layout, design, construction, materials landscaping and operation to adapt to higher temperatures, avoid overheating and meet the need for cooling.

DM SD 5 Living Roofs

This policy states that living roofs should be incorporated into new developments where feasible. The onus will be on the developer for proposals with roof plates of 100sqm or more to provide evidence and justification if a living roof cannot be provided. 70% of the roof should be used.

The use of living roofs for conversions will be supported.

DM SD 6 Flood Risk

The policy states that development will be guided to areas of lower risk using the sequential test. The southern part of the site is within Zone 2.

The guidance states that there are no land use restrictions in these areas, but that basement residential will not be permitted. Development in this zone will require a sequential test unless exceptional circumstances apply. Highly vulnerable development will require an exception test, all proposals will require a Flood Risk Assessment.

DM SD 7 Sustainable Drainage

This policy states that all development proposals are required to follow the drainage hierarchy when disposing of surface water and must utilise Sustainable Drainage Systems wherever practicable. When discharging into a public sewer, applicants need to evidence that sufficient capacity exists.

Proposals are required to follow the London Plan drainage hierarchy:-

- store rainwater for later use
- use infiltration techniques, such as porous surfaces in non-clay areas
- attenuate rainwater in ponds or open water features for gradual release to a watercourse
- attenuate rainwater by storing in tanks or sealed water features for gradual release to a watercourse
- discharge rainwater direct to a watercourse
- discharge rainwater to a surface water drain
- discharge rainwater to the combined sewer.

DM SD 9 Protecting Water Resources and Infrastructure

This policy states that development proposals that would pose an unacceptable threat to surface water and groundwater quantity and quality will be resisted.

New developments must achieve a high standard of water efficiency by;

- Meeting minimum mandatory water consumption target set by CSH or;
- Meeting minimum of 2 credits on water consumption for other types of development, or
- Meeting minimum of 3 credits on water consumption for conversions by EcoHomes, and
- Utilising rainwater harvesting for all external water uses to reduce consumption of potable water.

These standards will be adjusted to accord with other guidance.

New development is also encouraged to consider:

- Utilising rainwater harvesting and grey water harvesting; and
- Designing of landscaping to minimise water demand.

Where rivers have been classified as “poor” – including the River Crane, any development affecting such rivers is encouraged to improve the water quality in these areas.

DM SD 10 Water and Sewerage Provision

New development will need to ensure that there is adequate water supply, surface water, foul drainage and sewerage capacity to serve the development.

Other policies of relevance include:

- *DM OS 2 Metropolitan Open Land* - MOL will be protected and retained in predominantly open use. Appropriate uses include playing fields. Where appropriate, improvement and enhancement of the openness and character of the MOL and measures to reduce visual impacts will be encouraged.
- *DM OS 3 Other Open Land of Townscape Importance* – such areas to be protected and enhanced in open use.
- *DM OS 4 Historic Parks, Gardens and Landscapes*
- *DM OS 5 Biodiversity and New Development* - New development is expected to preserve and where possible enhance existing habitats.
- *DM OS 6 Public Open Space* - Public open space will be protected and enhanced. Improvements to the openness and character including allowing for convenient access for all. Larger developments to include open space provision.

- *DM OS 8 Sport and Recreation Facilities* - Public and private sports grounds will be protected and enhanced.
- *DM OS 9 Floodlighting* - Criteria are specified for the assessment of floodlighting including those relating to residential amenity and biodiversity and wildlife.
- *DM HO 4 Housing Mix and Standards* - Development should generally provide family sized accommodation except within town centres where a higher proportion of smaller units would be appropriate.
- *DM SI 1 Encouraging New Social Infrastructure Provision* - New social infrastructure should provide for an identified need, where practicable be co-located with other social infrastructure which encourages dual use and increased public access and is in a location that is accessible by public transport, walking and cycling.
- *DM DC 5 Neighbourliness, Sunlighting and Daylighting* - Protection of adjoining properties from unreasonable loss of privacy, pollution, visual intrusion, noise and disturbance.
- *DM TP 2 Transport and New Development – the impact of new development on the transport system to be assessed against other plan policies and transport standards.*
- *DM TP 3 Enhancing Transport Links – New developments are expected to create or improve links with the local and wider transport networks including the cycle and pedestrian networks and must be designed to improve accessibility.*

2.4.3 Crane Valley Planning Guidelines (2005)

The document provides planning guidelines for four main sites in the Crane, including the college site. It covers the Local Planning Authority's intentions for the wider area in which the college site sits. It includes the positive policy:

environmental improvement, improved access and sympathetic development will be applied to the River Crane "area of opportunity"

The guidelines are referenced in the LBRuT Core Strategy (2009) to identify the main area of potential change, which includes the Stoop Memorial Ground, the Craneford Way playing fields, the Council Depot, the Richmond upon Thames College and the Post Office Sorting Office.

The policy also includes reference to improvements to banks of the River Crane to improve their ecological interest and provision of a through pedestrian/cycle route

along the River Crane.

The planning vision for the Crane Valley Development Guidelines area is:

To develop the area to the highest environmental standards based around an improved riverside, a riverside walkway and improved open spaces, meeting the housing, recreational and educational needs of the area.

The guidelines state that all development schemes will be tested against the extent that they meet the following objectives:

- To maximise the opportunities for improvements by ensuring that the area is planned in a comprehensive manner;
- To protect and enhance the natural environment of the River Crane, the Duke of Northumberland River and their banks as part of the wider West London Green Chain and Blue Ribbon network as identified in the London Plan;
- To improve the appearance and recreational value of the open space including the provision of a river walk and the associated pedestrian/cycle linkages; taking account of river corridor ecology;
- To ensure that new development is compatible in scale and character with the local area; minimising any adverse impacts including flood risk;
- To minimise traffic and other impact on the surrounding area, particularly on the Heatham estate, to reduce severance and to improve pedestrian and cycle linkages within the area and to the surrounding area;
- To seek to secure improved sports facilities and possible improvements but not a significant expansion of student numbers at the College;
- To contribute towards meeting a range of housing needs;
- To ensure the provision of appropriate local community facilities including for education and health and the community use of buildings and playing fields; and
- To ensure that developers take account of the Council's Planning Contributions Strategy.

2.4.4 LBRuT Planning Brief Richmond upon Thames College (2008)

The purpose of this brief is to establish a development framework for the redevelopment of Richmond upon Thames College and identify the broad principles to guide the development. The key objectives include that any redevelopment

proposal for the site:

- Ensures appropriate pedestrian, cycle and vehicular access points, which reflect links and reduce traffic impacts in neighbouring streets;
- Promotes sustainable forms of transport and reduces car parking, through the implementation of a green travel plan;
- Maximises the sustainability of all new buildings, in accordance with relevant national, regional and local sustainability targets;
- Delivers benefits for the wider area, including improving linkages between the main development sites in the Crane Valley and environmental improvements;
- Continues to play an important role in the community and maximises the opportunity for community use of facilities; and
- Delivers an appropriate level of enabling residential development, including affordable housing, if required to contribute to the funding of the development.

2.4.5 LBRuT Supplementary planning document sustainable construction checklist (2011)

The checklist is a mandatory part of a planning application for new residential development providing one or more new dwellings and all new non-residential development of over 100m² in floor area. Therefore, this applies to the proposed development. The checklist is used to assess compliance with RBRuT's minimum policy requirements for environmental ratings under the Code for Sustainable Homes (note that the Code for Sustainable Homes has since been replaced by the Government – see Section 4.2.3) or BREEAM as well as energy and carbon dioxide emission savings.

2.5 OTHER POLICIES

Compliance with individual policies in a wide range of other policy documents which are not themselves directed specifically at sustainability could nevertheless contribute to the sustainability of the Development. It is not possible to list all such policies here. However, in the assessment of sustainability of the proposed development, where the proposals are in accordance with individual policies which support sustainability, this is noted.



Richmond Education and Enterprise Campus Development

Outline Sustainability Statement

Produced for Richmond upon Thames College

June 2015



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CONTENTS

1	Introduction	1
1.1	Background	1
1.2	The Site and Surrounds	1
1.3	The Proposed Development.....	3
2	Sustainability Policy.....	8
2.1	Introduction.....	8
2.2	National Policy on Sustainable Development	8
2.3	Regional	9
2.4	Local	14
2.5	Other Policies.....	23
3	Sustainable Design and Construction Elements of the Scheme	24
3.1	Introduction.....	24
3.2	Sustainable Design and Construction.....	24
3.3	Design Code	28
4	Approach to Sustainability Assessment	30
4.1	Introduction.....	30
4.2	Assessment Tools.....	37
5	Results of Assessment.....	39
5.1	Introduction.....	39
5.2	Landuse.....	40
5.3	Housing, living spaces and social infrastructure.....	41
5.4	Conservation of energy, materials and water resources.....	42
5.5	Maximising the Use of Natural Systems.....	44
5.6	Reducing the Impacts of Noise, Pollution and Flooding.....	45
5.7	Promoting Health and Wellbeing	48
5.8	Conservation and Enhancement of the Natural Environment and Biodiversity	50
5.9	Waste Management	51
5.10	Sustainable Construction.....	53
5.11	Sustainable Transport.....	53
5.12	Conserving and Enhancing the Local Character and Historic Environment	55
5.13	Economic Development.....	57
5.14	Summary.....	57
6	Sustainable Construction Checklist.....	57

1 INTRODUCTION

1.1 BACKGROUND

This Outline Sustainability Statement has been produced by Cascade Consulting (Environment and Planning) Ltd on behalf of Richmond upon Thames College (RuTC) to accompany an Outline Planning Application (OPA) for the Richmond Education and Enterprise Campus (REEC; the 'REEC development'), a proposed mixed use redevelopment of the Richmond upon Thames College site in Twickenham, located in the London Borough of Richmond upon Thames (LBRuT), south London.

The REEC development entails a mix of new education facilities, comprising the college, a new secondary school and a Special Educational Needs (SEN) school, business space and replacement indoor and outdoor recreational facilities with community use, together with an 'enabling' residential development.

This Sustainability Statement sets out how the proposed development contributes to sustainable development in the context of national, regional and local policies on sustainability, through various design features of the development, the approach to construction and its long term use.

The design and construction of the proposed development aim to comply as far as possible with relevant sustainability policies and guidance and therefore this statement responds specifically to guidance as set out in:

- The National Planning Policy Framework (2012);
- Planning Practice Guidance (PPG);
- London Plan (consolidated 2015) and Supplementary Planning Guidance (SPG) on Sustainable Design and Construction (2014);
- LBRuT Core Strategy (2009);
- LBRuT Development Management Plan (2011);
- Crane Valley Planning Guidelines (2005);
- LBRuT Sustainable Construction Checklist SPD (2011); and
- LBRuT Planning Brief Richmond Upon Thames College (2008)

The proposals summarised within this statement promote a development which will incorporate an energy efficient, sustainable design with environmental performance and mitigation of the effects of climate change.

1.2 THE SITE AND SURROUNDS

The REEC development site ('the Site') covers an area of approximately 9 hectares

(ha) and falls within the administrative boundary of the LBRuT. A plan showing the location of the site is provided in **Figure 1** and the planning application boundary for the site is provided in **Figure 2**. The site is bounded by:

- A316 Chertsey Road to the north;
- Egerton Road and a residential area to the east;
- River Crane and Twickenham Rough to the south; and
- Langhorn Drive, Challenge Court, Harlequin FC's rugby stadium Twickenham Stoop, and Council playing fields and Depot to the west.

The OPA Site comprises numerous academic and facilities buildings associated with the existing RuTC, with the northern part of the site occupied by a four-court sports hall with associated facilities, a grass sports pitch and car parking in the north east corner (**Figure 3**), and the southern part of the site by the College playing fields south of Craneford Way. The RuTC buildings were constructed in the 1930s with further expansion in the 1970s, and vary from one to three storeys in height (with the exception of the five storey tower), with the mass of buildings focussed to the south east corner of the site. The buildings have an existing floorspace of 34,252 m² gross external area (GEA).

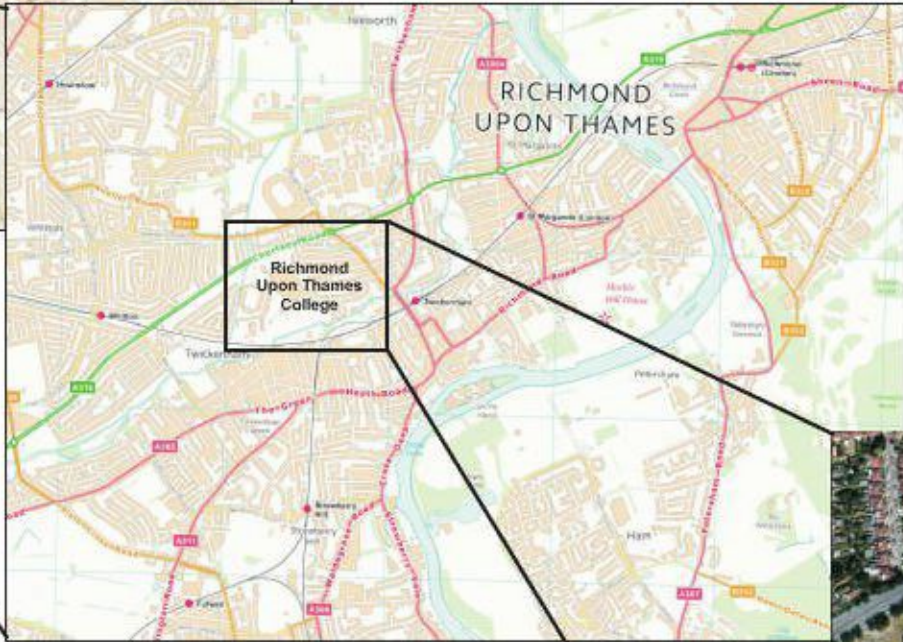
The sports centre and pitches are also operated as a community sports facility outside normal college hours. The main operating times are as follows:

- Term Time: Monday – Friday 16.30-22.00 / Saturdays and Sundays 09.00-17.00
- Holidays: Monday – Friday 16.30-22.00 / Saturdays and Sundays 09.00-17.00
- Bank Holidays: Closed.

The OPA Site is located within an area of predominantly residential development. To the east of the site is the residential neighbourhood known as the Heatham Estate, whilst to the west is the Challenge Court residential complex and further west the Rosecroft Gardens Conservation Area (known locally as the Dene Estate).






Richmond Upon Thames



Richmond Upon Thames College



  <p>Not to scale</p> <p>Note: All locations are approximate Contains OS data © Crown Copyright 2015</p>  <p>Drawing Source: HoK Number SK-042</p>	
<p>Project Title:</p> <p>Richmond Education and Enterprise Campus Development</p>	
<p>Figure Title:</p> <p>Site Location</p> <p><small>For Information Only</small></p>	
<p>Figure Number:</p> <p>Figure 1</p>	<p>Date:</p> <p>June 2015</p>



Legend

-  Site Boundary
-  Existing Buildings



Not to scale

Note: All locations are approximate
Contains OS data © Crown Copyright 2015



Drawing Source: HoK Number PL-01

Project Title:
**Richmond Education and
Enterprise Campus
Development**

Figure Title:
Planning Application Boundary

For Information Only

Figure Number:

Figure 2

Date:

June 2015






 0 100m

Note: All locations are approximate


 Drawing Source: HoK Number SK-042

Project Title:
 Richmond Education and Enterprise Campus Development

Figure Title:
 Site Context

For Information Only

Figure Number: Figure 3	Date: June 2015
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1.3 THE PROPOSED DEVELOPMENT

The Applicant is submitting an OPA for the following:

The demolition of the existing college buildings, site clearance and groundworks together with the comprehensive redevelopment to provide:

- (i) *A new campus for education and enterprise – comprising:*
 - *Replacement College (Use Class D1) of up to 16,000m² (square metres) GEA to accommodate up to 3,000 FTE day time students, as well as evening and weekend use;*
 - *A Science, Technology, Engineering and Maths (STEM) Centre (Use Class D1) of up to 6,100 m² GEA*
 - *A new Secondary School (Use Class D1) of up to 7,000m² (GEA) for up to 750 students;*
 - *A new Special Education Needs (SEN) School (Use Class D1) of up to 4,000m² GEA;*
 - *A new ancillary 'Tech Hub' for Haymarket Media (Use Class B1) of up to 1,700 m² GEA; and*
 - *Replacement on-site sports centre (Use Class D2) of up to 3,900 m² GEA to serve the college, schools and the wider community.*
- (ii) *Upgrading of existing Craneford Way Playing Fields for use by the College, schools and the local community;*
- (iii) *Alterations to existing means of access for vehicles, pedestrians and cyclists from Langhorn Drive and from Egerton Road and installation of an at grade signalised junction to allow a right turn from Langhorn Drive onto the A316;*
- (iv) *Provision of on-site parking for the College, Schools and Tech Hub for up to 230 vehicles, open space and landscaping; and*
- (v) *New residential development of up to 180 units together with associated parking for up to 190 vehicles, open space and landscaping.*

The OPA seeks outline planning permission for the proposed development but provides details of all the proposed access arrangements for vehicles (including service vehicles), cyclists and pedestrians to the site (whether these involve new arrangements or alterations to existing access to /exits from the site).

The OPA seeks to establish the principles for the REEC development against which subsequent detailed Reserved Matter Applications will be considered, both in terms

of the general scale of development and the land uses considered appropriate for the OPA Site. The following matters are therefore reserved for future approval:

- **Layout** - detailed layouts showing "*...the way in which buildings, routes and open spaces within the development are provided, situated and orientated in relation to each other and to buildings and spaces out the development*".
- **Scale** - detailed scale plans showing "*...the height, width and length of each building*".
- **Appearance** - detailed design and external appearance of buildings to show "*...the aspects of a building or place within the development which determine the visual impression of the building or place makes, including the external built form of the development, its architecture, materials, decoration, lighting, colour and texture*".
- **Landscaping** - details of the "*...means of treatment of land (other than buildings) for the purpose of enhancing or protecting the amenities of the site and the area in which it is situated*".
- **Access** - the design of the internal access arrangements, including layout to facilitate movement and circulation between and within each development zone.

To demonstrate that the OPA Site is capable of accommodating the quantum of development proposed in an acceptable manner, a series of plans have been produced to show the maximum and minimum parameters (height, width and length), known as Parameter Plans. These are accompanied by a Development Specification and supported by a Design Code. These together form the Primary Control Documents for the OPA. An Illustrative Masterplan demonstrating how the REEC development might be built out and an Illustrative Landscape Plan to show how it could be landscaped have also been produced and are presented Chapter 5 of the Environmental Statement (ES) that accompanies the OPA.

2 SUSTAINABILITY POLICY

2.1 INTRODUCTION

This section of the report defines sustainable development and sets out national, regional and local planning policy considered relevant to it. These sustainable development policies were used as a benchmark to develop sustainability themes for the assessment against which the sustainability of the REEC development is assessed in Section 4 of this report.

2.2 NATIONAL POLICY ON SUSTAINABLE DEVELOPMENT

2.2.1 National Planning Policy Framework (2012)

The National Planning Policy Framework (NPPF), published in March 2012 by the Department of Communities and Local Government, sets out the Government's planning policies for England and how these are expected to be applied. The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. At the heart of the NPPF is a presumption in favour of sustainable development (paragraph 6). This requires the planning system to perform economic, social and environmental roles. The economic role explicitly recognises the need for *"identifying and coordinating development requirements, including the provision of infrastructure"*. The environmental role recognises the need to *"minimise waste and pollution, and mitigate and adapt, to climate change"*, and the social role supports *"strong, vibrant and healthy communities by creating a high quality built environment"*.

The policies within the NPPF, taken as a whole, constitute the Government's view of what sustainable development means in practice for the planning system. The NPPF constitutes guidance for local planning authorities and decision makers both in drawing up plans and as material considerations in determining planning applications. The development-related policies in the NPPF fall under the following broad headings:

- Building a strong, competitive economy;
- Ensuring the vitality of town centres;
- Supporting a prosperous rural economy;
- Promoting sustainable transport;
- Supporting high quality communications infrastructure;
- Delivering a wide choice of high quality homes;
- Requiring good design;
- Promoting healthy communities;
- Protecting Green Belt land;

- Meeting the challenge of climate change, flooding and coastal change;
- Conserving and enhancing the natural environment;
- Conserving and enhancing the historic environment; and
- Facilitating the sustainable use of minerals.

These are of direct relevance to the REEC development with the exception of the policies relating to ‘Supporting a prosperous rural economy’; ‘Promoting healthy communities’; and ‘Protecting Green Belt land’ are not of direct relevance to the REEC development.

Paragraph 109 requires the planning system to contribute to and enhance the natural and local environment.

Paragraph 111 encourages the effective use of land by re-using land that has been previously developed provided that it is not of high environmental value.

2.2.2 Planning Practice Guidance

In March 2014, the Government launched its Planning Practice Guidance (PPG), which provides a web-based resource. The PPG provides guidance on a range of topics including the following of relevance to the REEC development:

- Air quality;
- Climate change;
- Conserving and enhancing the historic environment;
- Design;
- Flood risk;
- Health and wellbeing;
- Land affected by contamination;
- Light pollution;
- Natural environment;
- Noise;
- Renewable and low carbon energy;
- Travel plan and transport assessment; and
- Water supply, wastewater and water quality.

2.3 REGIONAL

2.3.1 London Plan – The Spatial Development Strategy for London Consolidated with Alterations since 2011 (March 2015)

The London Plan is the development plan for Greater London, which should be taken into account in taking relevant planning decisions, such as determining planning

applications. The Plan identifies a target of 315 homes per annum for Richmond to deliver (over the period 2015-2025)¹.

Policy 5.3 of the London Plan sets out the Mayor's policy on Sustainable Design and Construction. The policy includes the following sustainable design principles:

- Minimising carbon dioxide emissions across the site, including the building and services (such as heating and cooling systems);
- Avoiding internal overheating and contributing to the urban heat island effect;
- Efficient use of natural resources (including water), including making the most of natural systems both within and around buildings;
- Minimising pollution (including noise, air and urban runoff);
- Minimising the generation of waste and maximising reuse or recycling;
- Avoiding impacts from natural hazards (including flooding);
- Ensuring developments are comfortable and secure for users including avoiding the creation of adverse local climatic conditions;
- Securing sustainable procurement of materials, using local supplies where feasible; and
- Promoting and protecting biodiversity and green infrastructure.

The London Plan is supported by supplementary planning guidance. Policy 5.3 states that major development proposals should meet the minimum standards outlined in the Mayor's Sustainable Design and Construction Supplementary Planning Guidance (SPG). The SPG was updated in April 2014. The new SPG sets out what can be done within the policy framework to contribute to sustainable development.

The SPG applies to all major developments. It includes a series of Mayor's Priorities and Mayor's Best Practice which apply to all such developments where appropriate.

The Priorities and Best Practice in the SPG are grouped into the following themes:

- Resource management, including optimising the use of land;
- Site layout and building design including energy and carbon dioxide emissions, energy demand, energy efficiency, renewable energy and water efficiency;
- Materials and waste;
- Nature conservation and biodiversity;
- Climate change adaptation, including heat and drought resistant planting, urban greening, trees and management of flood risks; and
- Pollution management, including land contamination, air quality, noise, light pollution and water pollution.

¹ FALP 2014, Table 4.1

Other policies of relevance to this Sustainability Statement include those summarised in **Table 1**.

Table 1: Summary of Other Relevant Policies from the London Plan

Policy No.	Title	Key Relevant Aspects
2.18	Green infrastructure	Development proposals should incorporate appropriate elements of green infrastructure and linkages with green infrastructure to the wider public realm to improve accessibility for all and develop new links is encouraged.
3.2	Improving Health and Addressing Health Inequalities	Requires the consideration of impacts of major development proposals on the health and wellbeing of communities. New development should be designed, constructed and managed in ways that improve health and promote healthy lifestyles.
3.3	Increasing Housing Supply	Aims to ensure the housing need identified in the London Plan is met.
3.9	Mixed and Balanced Communities	Promotes mixed and balanced communities through developments that foster social diversity, redress social exclusion and strengthen communities' sense of responsibility for their neighbourhoods.
3.16	Protection and Enhancement of Social Infrastructure	Development proposals should provide high quality social infrastructure. Facilities should be accessible to all sections of the community and be located within easy reach by walking, cycling or public transport.
4.1	Developing London's Economy	Promotes the continued development of a strong, sustainable and increasingly diverse economy. Seeks London's transition to a low carbon economy.
4.12	Opportunities for All	Support for local employment, skills development and training opportunities.
5.1	Climate change mitigation	Seeks to achieve an overall reduction in London's CO ₂ emissions by 60% by 2025.
5.2	Minimising carbon dioxide emissions	Requires development proposals to make the fullest contribution to minimising carbon dioxide emissions in accordance with the energy hierarchy.
5.4	Retrofitting	Refers to reducing the environmental impact of existing urban areas by bringing existing buildings up to the Mayor's

		standards on sustainable design and construction.
5.10	Urban Greening	Promotes the integration of green infrastructure, such as green roofs and walls, tree planting and soft landscaping into development proposals.
5.11	Green Roofs and Development Site Environs	Requires major development proposals to be designed to include roof, wall and site planting.
5.13	Sustainable Drainage	Requires developments to utilise sustainable urban drainage systems (SUDS).
5.15	Water Use and Supplies	Requires developers to minimise the use of mains water by incorporating water saving measures and equipment and designing residential development so that mains water consumption would meet a target of 105 litres or less per head per day.
5.16	Waste net self-sufficiency	This will be achieved by minimising waste, encouraging re-use and reduction in the use of materials, exceeding recycling/composting levels in local authority collected waste, commercial, industrial, construction, excavation and demolition waste, reducing the proportion of waste exported from the capital and working with neighbouring authorities to co-ordinate strategic waste management.
5.18	Construction, Excavation and Demolition Waste	Requires waste to be removed from construction sites, and material brought to site, by water or rail transport wherever practicable.
5.20	Aggregates	Encourages the re-use and recycling of construction, demolition and excavation waste and the sustainable transport of aggregates.
6.3	Assessing the Effects of Development on Transport Capacity	Impacts on transport capacity and the transport network at both corridor and local level are required to be fully assessed.
7.4	Local Character	Developments should have regard to form, function and structure of an area and the scale, mass and orientation of surrounding buildings. Improve an area's visual or physical connection with natural features.
7.8	Heritage Assets and Archaeology	Development should identify, value, conserve, restore, re-use and incorporate heritage assets where appropriate.

		Development affecting heritage assets and their settings should conserve their significance. New development should make provision for protection of archaeological resources, landscapes and significant memorials.
7.14	Improving Air Quality	Requires developments to minimise increased exposure to existing poor air quality and promote sustainable design and construction to reduce emissions.
7.15	Reducing and Managing Noise, Improving and Enhancing the Acoustic Environment and Promoting Appropriate Soundscapes	Addresses reducing and managing noise, improving and enhancing the acoustic environment and promoting appropriate soundscapes.
7.17	Metropolitan Open Land	The playing fields at the south west of the site are designated as Metropolitan Open Land (MOL). Policy 7.17 refers to the protection of MOL.
7.19	Biodiversity and Access to Nature	Requires development proposals to make a positive contribution to the protection, enhancement, creation and management of biodiversity, wherever possible.
7.27	Blue Ribbon Network: Supporting Infrastructure and Recreational Use	Protect and improve access points including paths alongside. Protect and enhance waterway support infrastructure.
7.28	Restoration of the Blue Ribbon Network	Development proposals should restore and enhance the Blue Ribbon Network.
7.21	Trees and Woodlands	Existing trees of value should be retained and any loss replaced. Planting of additional trees is encouraged for new developments where appropriate, particularly large-canopied species.

2.4 LOCAL

2.4.1 London Borough of Richmond upon Thames Core Strategy (2009)

The LBRuT Core Strategy includes the following policies which relate to sustainable development and are relevant to the environmental performance/sustainability of the development.

CP1 – Sustainable Development: Part 1.A. of the policy states that development will be required to conform with the Sustainable Construction Checklist. This includes the requirements to:

- Meet Code for Sustainable Homes Level 3 (new residential) (note that the Code for Sustainable Homes has since been withdrawn for new developments)
- Ecohomes “excellent” (for conversions)
- BREEAM “excellent” for other types of development.

Point 1.B. states that higher density residential and mixed use developments are to be in town centres, near to public transport in order to reduce the need to travel by car.

Point 1.C. relates to making the best use of land. It supports the dual use of facilities and co-location developments.

Point 1.D. states that the environmental benefits of retaining and, where appropriate, refurbishing existing buildings, should be compared against redevelopment. Development should minimise the use of open land and maintain natural vegetation where possible.

Para 8.1.1.2 states that developers will be required to submit a Sustainability Statement with their application to demonstrate compliance with environmental performance standards.

CP2 – Reducing Carbon Emissions

The policy states that the council will reduce its carbon dioxide emissions by requiring measures that minimise energy consumption in new development.

Point 2.B states that the council will require the evaluation, development and use of decentralised energy in appropriate development.

Point 2.C. states that the Council will increase the use of renewable energy by requiring all new development to achieve a reduction in carbon dioxide emissions of 20% from on-site renewable energy generation unless it can be demonstrated that such provision is not feasible.

CP3 – Climate Change

The policy states that development will need to take account of the impacts of climate change over its lifetime, including;

- Water conservation and drainage
- The need for summer cooling
- Risk of subsidence
- Flood risk

It also states the proposals in high flood risk areas will be restricted – the site is not in a high risk area and so this is not applicable.

CP4 - Biodiversity

Point 4.A states the Borough's biodiversity including the SSSIs and Other Sites of Nature Importance will be safeguarded and enhanced. Biodiversity enhancements will be encouraged particularly in areas of deficiency (parts of Whitton, Hampton, Teddington, Twickenham and South Kew), in areas of new development and along wildlife corridors and green chains such as the River Thames and River Crane corridors.

Point 4.B states that weighted priority in terms of their importance will be afforded to protected species and priority species and habitats in the UK, Regional and Richmond upon Thames Biodiversity Action Plans.

Note that that the core strategy also includes policy 'CP12 River Crane Corridor', for which point 12.A states:

The Council will improve the strategic corridor to provide an attractive open space with improvements to the biodiversity. Developments in and adjacent to the River Crane Corridor will be expected to contribute to improving the environment and access, in line with planning guidance.

CP5 - Sustainable Travel

This policy has a number of requirements and objectives based on sustainable travel, those considered of relevance are summarised as:

Part 5.A requires development generating high levels of travel to be located on sites well served by Public Transport.

Part 5.C seeks to prioritise the needs of pedestrians and cyclists in the design of new development.

Part 5.D seeks to improve bus services within the River Crane corridor through the

implementation of development proposals. It also seeks to improve walking cycling and public transport provision in areas currently served poorly public transport.

Part 5.E states that traffic management measures will be implemented to reduce the impact of traffic where necessary.

Part 5.F requires development in areas of good public transport accessibility to have regard to maximum parking standards. It also requires all developments to provide car sharing and car club facilities, and to be designed so as to discourage commuter parking.

Part 5.G Encourages Major employers and schools to develop Green Travel Plans and to require these with planning applications where appropriate.

CP6 - Waste

This policy states that the Council we seek to implement a range sustainable waste management targets.

CP7 – Maintaining and Improving the Local Environment

New development should recognise distinctive local character and contribute to the creation of places of high architectural and urban design quality.

CP12 River Crane Corridor

This policy relates to the protection and enhancement of the corridor.

CP13 – Opportunities for All

Opportunities provided are to be accessed by all residents.

CP14 – Housing

The indicative target of additions for Twickenham, including the ward of St Margaret's and North Twickenham, is 700-1100 dwellings up to 2017. All housing is to be built to Lifetime Homes Standards and 10% of all new housing should be to wheelchair standards.

CP15 – Affordable Housing

A range of housing to meet the needs of all types of households is expected to be included within housing provision.

CP16 – Local Services/Infrastructure

Adequate provision of services and facilities.

CP17 Health and Wellbeing

New development should encourage and promote healthier communities and places.

CP18 Education and Training

The provision of schools and other education and training facilities need to be sufficient in quality and quantity to meet the needs of residents. The potential of existing educational sites to be maximised by redevelopment, re-furbishment and re-use to meet educational needs. Facilities and services should be for all age groups and conveniently accessible to users.

CP19 Local Business

This policy relates to the retention of land in employment uses and development likely to generate significant amounts of travel should be accessible to public transport.

2.4.2 London Borough of Richmond upon Thames Development Management Plan (2011)

In addition to the Core Strategy, the Richmond Council Development Management Policies also forms part of the LDF. The council requires all new residential developments (creating 1 dwelling unit or more) and new non-residential developments of more than 100sqm floorspace to:

- follow sustainable construction policies and reduce carbon emissions
- follow renewable energy and decentralised energy networks
- complete a sustainable construction checklist

The relevant policies relating to Sustainable Development (Section 3.1) are listed below:

Policy DM SD 1 - Sustainable Construction

This policy requires all development, in terms of materials, design, landscaping, standard on construction and operation to include measures of mitigating and adapting to climate change.

It states that development will need to comply with the Boroughs Sustainable Construction Checklist SPD.

New homes will be required to meet Code for Sustainable Homes Level 3 (note that the Code for Sustainable Homes has since been replaced by the Government – see Section 4.2.3). They will also be required to achieve 40 per cent reduction in CO₂ emissions between 2013-2016.

Non residential development over 1000sqm will be required to meet BREEAM “excellent” standards. Policy DM SD 3 relates to conversions.

Supporting paragraph 3.1.1 states that more detailed policies and guidance will be contained in the Mayor’s forthcoming Climate Change Mitigation and Energy Statement.

Policy DM SD 2 Renewable Energy and Decentralised Energy Networks

The policy states that new development will need to conform with the Sustainable Construction Checklist SPD. In addition it will need to:-

- Maximise opportunities for micro-generation of renewable energy.
- (large schemes) reduce CO₂ emissions by firstly delivering efficient design, secondly through low carbon technologies and thirdly by – where feasible and viable – include energy contribution from renewable sources.
- Local opportunities to contribute towards decentralised energy networks will be encouraged.
- All new development will be required to connect to existing or planned decentralised energy networks.

The supporting para 3.1.4. states that the Council will encourage developers to achieve a 20 per cent reduction in total site CO₂ emissions from the use of on-site renewable energy.

DM SD 3 Retrofitting

This policy states that proposals for conversions and extensions will be encouraged to comply with the Sustainable Construction Checklist SPD as far as possible, and opportunities for micro-generation of renewable energy will be supported.

Conversions and extensions required to meet EcoHomes excellent rating.

DM SD 4 Adapting to Higher Temperatures and Need for Cooling

This policy requires development in terms of its layout, design, construction, materials landscaping and operation to adapt to higher temperatures, avoid overheating and meet the need for cooling.

DM SD 5 Living Roofs

This policy states that living roofs should be incorporated into new developments where feasible. The onus will be on the developer for proposals with roof plates of 100sqm or more to provide evidence and justification if a living roof cannot be provided. 70% of the roof should be used.

The use of living roofs for conversions will be supported.

DM SD 6 Flood Risk

The policy states that development will be guided to areas of lower risk using the sequential test. The southern part of the site is within Zone 2.

The guidance states that there are no land use restrictions in these areas, but that basement residential will not be permitted. Development in this zone will require a sequential test unless exceptional circumstances apply. Highly vulnerable development will require an exception test, all proposals will require a Flood Risk Assessment.

DM SD 7 Sustainable Drainage

This policy states that all development proposals are required to follow the drainage hierarchy when disposing of surface water and must utilise Sustainable Drainage Systems wherever practicable. When discharging into a public sewer, applicants need to evidence that sufficient capacity exists.

Proposals are required to follow the London Plan drainage hierarchy:-

- store rainwater for later use
- use infiltration techniques, such as porous surfaces in non-clay areas
- attenuate rainwater in ponds or open water features for gradual release to a watercourse
- attenuate rainwater by storing in tanks or sealed water features for gradual release to a watercourse
- discharge rainwater direct to a watercourse
- discharge rainwater to a surface water drain
- discharge rainwater to the combined sewer.

DM SD 9 Protecting Water Resources and Infrastructure

This policy states that development proposals that would pose an unacceptable threat to surface water and groundwater quantity and quality will be resisted.

New developments must achieve a high standard of water efficiency by;

- Meeting minimum mandatory water consumption target set by CSH or;
- Meeting minimum of 2 credits on water consumption for other types of development, or
- Meeting minimum of 3 credits on water consumption for conversions by EcoHomes, and
- Utilising rainwater harvesting for all external water uses to reduce consumption of potable water.

These standards will be adjusted to accord with other guidance.

New development is also encouraged to consider:

- Utilising rainwater harvesting and grey water harvesting; and
- Designing of landscaping to minimise water demand.

Where rivers have been classified as “poor” – including the River Crane, any development affecting such rivers is encouraged to improve the water quality in these areas.

DM SD 10 Water and Sewerage Provision

New development will need to ensure that there is adequate water supply, surface water, foul drainage and sewerage capacity to serve the development.

Other policies of relevance include:

- *DM OS 2 Metropolitan Open Land* - MOL will be protected and retained in predominantly open use. Appropriate uses include playing fields. Where appropriate, improvement and enhancement of the openness and character of the MOL and measures to reduce visual impacts will be encouraged.
- *DM OS 3 Other Open Land of Townscape Importance* – such areas to be protected and enhanced in open use.
- *DM OS 4 Historic Parks, Gardens and Landscapes*
- *DM OS 5 Biodiversity and New Development* - New development is expected to preserve and where possible enhance existing habitats.
- *DM OS 6 Public Open Space* - Public open space will be protected and enhanced. Improvements to the openness and character including allowing for convenient access for all. Larger developments to include open space provision.

- *DM OS 8 Sport and Recreation Facilities* - Public and private sports grounds will be protected and enhanced.
- *DM OS 9 Floodlighting* - Criteria are specified for the assessment of floodlighting including those relating to residential amenity and biodiversity and wildlife.
- *DM HO 4 Housing Mix and Standards* - Development should generally provide family sized accommodation except within town centres where a higher proportion of smaller units would be appropriate.
- *DM SI 1 Encouraging New Social Infrastructure Provision* - New social infrastructure should provide for an identified need, where practicable be co-located with other social infrastructure which encourages dual use and increased public access and is in a location that is accessible by public transport, walking and cycling.
- *DM DC 5 Neighbourliness, Sunlighting and Daylighting* - Protection of adjoining properties from unreasonable loss of privacy, pollution, visual intrusion, noise and disturbance.
- *DM TP 2 Transport and New Development – the impact of new development on the transport system to be assessed against other plan policies and transport standards.*
- *DM TP 3 Enhancing Transport Links – New developments are expected to create or improve links with the local and wider transport networks including the cycle and pedestrian networks and must be designed to improve accessibility.*

2.4.3 Crane Valley Planning Guidelines (2005)

The document provides planning guidelines for four main sites in the Crane, including the college site. It covers the Local Planning Authority's intentions for the wider area in which the college site sits. It includes the positive policy:

environmental improvement, improved access and sympathetic development will be applied to the River Crane "area of opportunity"

The guidelines are referenced in the LBRuT Core Strategy (2009) to identify the main area of potential change, which includes the Stoop Memorial Ground, the Craneford Way playing fields, the Council Depot, the Richmond upon Thames College and the Post Office Sorting Office.

The policy also includes reference to improvements to banks of the River Crane to improve their ecological interest and provision of a through pedestrian/cycle route

along the River Crane.

The planning vision for the Crane Valley Development Guidelines area is:

To develop the area to the highest environmental standards based around an improved riverside, a riverside walkway and improved open spaces, meeting the housing, recreational and educational needs of the area.

The guidelines state that all development schemes will be tested against the extent that they meet the following objectives:

- To maximise the opportunities for improvements by ensuring that the area is planned in a comprehensive manner;
- To protect and enhance the natural environment of the River Crane, the Duke of Northumberland River and their banks as part of the wider West London Green Chain and Blue Ribbon network as identified in the London Plan;
- To improve the appearance and recreational value of the open space including the provision of a river walk and the associated pedestrian/cycle linkages; taking account of river corridor ecology;
- To ensure that new development is compatible in scale and character with the local area; minimising any adverse impacts including flood risk;
- To minimise traffic and other impact on the surrounding area, particularly on the Heatham estate, to reduce severance and to improve pedestrian and cycle linkages within the area and to the surrounding area;
- To seek to secure improved sports facilities and possible improvements but not a significant expansion of student numbers at the College;
- To contribute towards meeting a range of housing needs;
- To ensure the provision of appropriate local community facilities including for education and health and the community use of buildings and playing fields; and
- To ensure that developers take account of the Council's Planning Contributions Strategy.

2.4.4 LBRuT Planning Brief Richmond upon Thames College (2008)

The purpose of this brief is to establish a development framework for the redevelopment of Richmond upon Thames College and identify the broad principles to guide the development. The key objectives include that any redevelopment

proposal for the site:

- Ensures appropriate pedestrian, cycle and vehicular access points, which reflect links and reduce traffic impacts in neighbouring streets;
- Promotes sustainable forms of transport and reduces car parking, through the implementation of a green travel plan;
- Maximises the sustainability of all new buildings, in accordance with relevant national, regional and local sustainability targets;
- Delivers benefits for the wider area, including improving linkages between the main development sites in the Crane Valley and environmental improvements;
- Continues to play an important role in the community and maximises the opportunity for community use of facilities; and
- Delivers an appropriate level of enabling residential development, including affordable housing, if required to contribute to the funding of the development.

2.4.5 LBRuT Supplementary planning document sustainable construction checklist (2011)

The checklist is a mandatory part of a planning application for new residential development providing one or more new dwellings and all new non-residential development of over 100m² in floor area. Therefore, this applies to the proposed development. The checklist is used to assess compliance with RBRuT's minimum policy requirements for environmental ratings under the Code for Sustainable Homes (note that the Code for Sustainable Homes has since been replaced by the Government – see Section 4.2.3) or BREEAM as well as energy and carbon dioxide emission savings.

2.5 OTHER POLICIES

Compliance with individual policies in a wide range of other policy documents which are not themselves directed specifically at sustainability could nevertheless contribute to the sustainability of the Development. It is not possible to list all such policies here. However, in the assessment of sustainability of the proposed development, where the proposals are in accordance with individual policies which support sustainability, this is noted.