

RPS

**ASHTON COURT
CAMDEN ROAD, LONDON**

SUSTAINABILITY STATEMENT

FOR

ORIGIN HOUSING



August 2015

Our Ref: HLES36728/001Rv1

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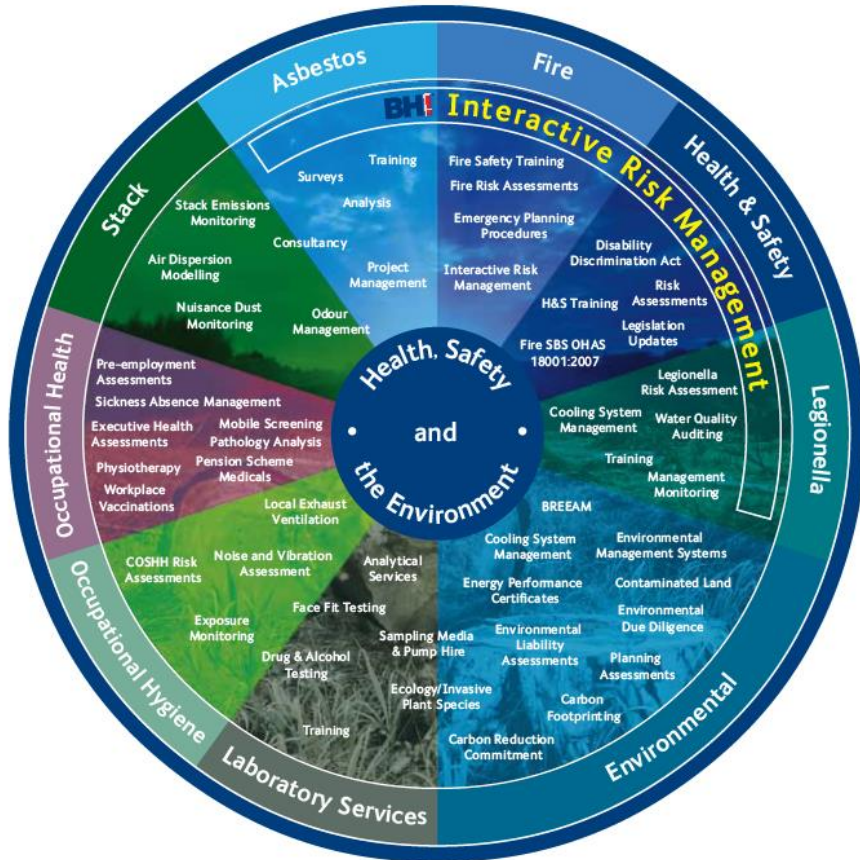


Report Status:	Final	
Project Reference:	HLES36728	
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Date:	3 rd August 2015	

This report has been prepared in the RPS Group Quality Management System to British Standard EN ISO 9001:2008

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General Notes

1 INTRODUCTION

RPS Health Safety & Environment (RPS) was commissioned by *Origin Housing* to assist with the development of the sustainability strategy and produce a statement for a proposed development at Aston Court, Camden, which will be submitted in support of the planning application.

This report outlines the details of the proposed scheme prior to highlighting how the principles of sustainable development have been incorporated into the design.

1.1 Scheme Overview

Existing Site

The Ashton Court site is enclosed by three roads, Camden Road, Camden Park Road and Camden Mews. The scheme falls within the boundary of the Camden Square Conservation Area. The existing site can be broken into three distinct parts:

1. A four storey brick building fronting Camden Road which contains the majority of the living accommodation.
2. A single storey block facing Camden Park Road containing the communal social facilities, which opens up to an external decking and shared garden.
3. A two storey block to Camden Mews with 4 associated car parking spaces housed in an undercroft.

The existing buildings house 29 studios (no separate bedroom), 6 one bed flats, and 1 two bed flat giving a total of 36 flats.

All communal facilities are located on the ground floor. The common room with associated kitchen is within the single story block, with office, laundry, guest room, storage & WC located near the main entrance.

There are two refuse chutes in the building. One located within the Camden Road block and the second is located in the Camden Mews block at half landing level.

Proposed development

The existing flats are to be refurbished and reconfiguration into 24 flats. The refurbishment will contain 24 one bedroom flats. In addition to the refurbished dwellings, 5 new two bedroom town houses are to be built.

The current communal hall would be demolished and rebuilt to a higher standard with a new kitchen and storage, also an accessible WC.



Figure 1: Proposed development

The refurbished dwellings and new town houses have been designed to meet Lifetime Homes standard where possible - 10% of the flats have been designed for wheel chair access. The existing communal garden is to be re-landscaped to make the garden more level thereby allowing for greater access. The new town houses will have decking and a stepped lower terrace.

1.2 Purpose of Sustainability Statement

According to the Brundtland Commission, of the United Nations, a sustainable development is *“the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”* This requires the reconciliation of environmental, social equity and economic demands - the "three pillars" of sustainability.

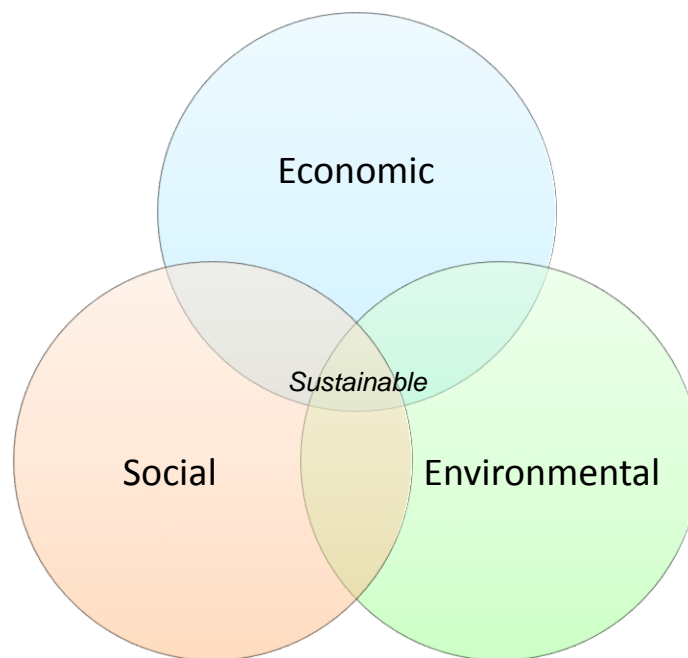


Figure 2: The Three Pillars of Sustainability

The primary purpose of this Sustainability Statement is to demonstrate how the proposed development has responded to relevant sustainability policies. The scope of the sustainability statement is based on relevant national, regional and local planning policies and strategies that address sustainability.

The “Best Practice Guidance on the Validation of Planning Applications” (ODPM, 2005), supports the production of a sustainability statement within the guidance provided on documents that may be beneficial to include with a planning application. Specifically, it states that ‘a sustainability statement should outline the elements of the scheme that address sustainable development issues, including the positive environmental, social and economic implications’

1.3 Structure of the Sustainability Statement

The statement provides an account of how the design team have considered and integrated sustainability during the design process. Based on this planning policy review, this sustainability statement has been structured to address the following aspects of sustainability:

- Sustainable Economic Development.
- Strong, Vibrant and Healthy Communities.
- Conserving and Enhancing the Natural Environment.
- Transition to a Low Carbon Future.
- Promoting Sustainable Transport.
- Prudent Use of Natural Resources and Minimising Waste.

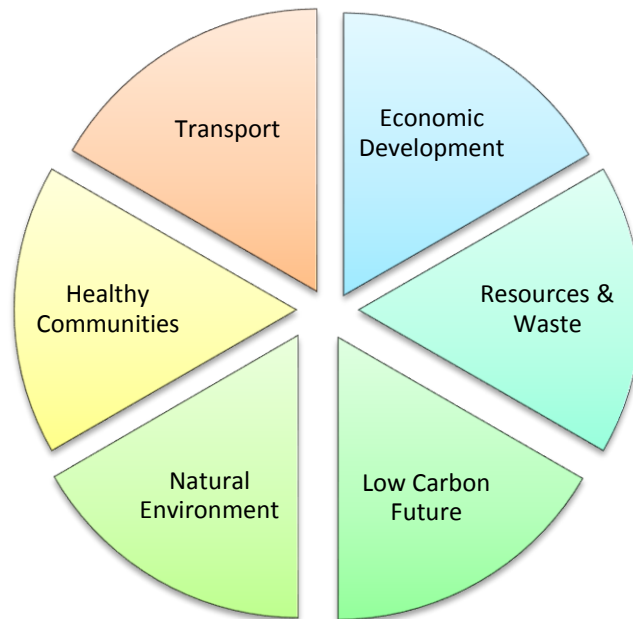


Figure 3: Sustainability Aspects

These aspects are then drawn together in the concluding chapter (10), summarising the sustainable design and construction principles incorporated in the development.

2 SUSTAINABLE POLICIES AND OBJECTIVES

Various national, regional and local planning and dedicated sustainability policy documents promote the themes of sustainable development which are summarised below.

This section details the relevant policies applicable to the proposed site and which form the basis of our sustainability statement.

2.1 National Sustainability Policy

In March 2012, the Government launched the National Planning Policy Framework (NPPF) which superseded the former planning policy statements (PPS).

The NPPF outlines the Government's planning policies for England. It provides a framework within which local people and their respective Councils can produce their own distinctive local and neighbourhood plans; reflecting the needs and priorities of their communities. There is now a strong focus on the presumption in favour of sustainable development. The three dimensions of sustainable development have been defined as the economic role, social role and environmental role.

The twelve core planning principles of the NPPF have been outlined below. Planning should:

- Be genuinely plan-led, empowering local people to shape their surroundings and be kept up to date.
- Be a creative exercise in finding ways to enhance and improve places in which people live their lives.
- Proactively drive and support sustainable economic development to deliver homes, businesses and infrastructure; taking account of market signals.
- Always to seek secure and high quality design.
- Take account of the different roles and character of different areas, promoting viability of urban areas and protecting the green belt.
- Support the transition to a low carbon future in climate change, taking full account of factors such as flood risk.
- Contribute to conserving and enhancing the natural environment and reducing pollution; the allocations of land for development should prefer land of lesser environmental value.
- Encourage the effective use of land by reusing land that has previously been developed.
- Promote mixed use developments.
- Conserve heritage assets.

- Actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling.
- Take account of and support local strategies to improve health, social and cultural wellbeing for all.

The NPPF aims to strengthen local decision making, with the use of decision-taking in a positive way as a means of fostering the delivery of sustainable development.

However, the NPPF (paragraph 173) also highlights that pursuing sustainable development requires careful attention to the viability and costs in plan-making and decision-taking. Plans should be deliverable. Therefore, the sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens, that their ability to be developed viably is threatened.

2.2 Regional Policy – The Greater London Authority – London Plan 2015

The London Plan consolidated with changes since 2011 (March 2015), sets out the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2036. It forms part of the development plan for Greater London. London boroughs' local plans need to be in general conformity with the London Plan, and its policies guide decisions on planning applications by councils and the Mayor. It contains a number of policies directly related to energy and sustainability. In particular, relation to sustainability;

Policy 5.2 Minimising Carbon Dioxide Emissions

Development proposals should make the fullest contribution to minimising carbon dioxide emissions. All Stage 1 applications received by the Mayor on or after 1st October 2013 will have to achieve a 35% improvement over 2013 Part L Building Regulations in accordance with the following energy hierarchy:

- Be lean: use less energy,
- Be clean: supply energy efficiently, and
- Be green: use renewable energy.

Major development proposals should include a detailed energy assessment to demonstrate how the targets for carbon dioxide emission reductions are to be met within the framework of the energy hierarchy. The calculation within the energy assessment should include the energy demand and carbon dioxide emissions covered by the Building Regulations; and separately, the energy demand and carbon dioxide emissions from any other part of the development. This includes plant, equipment,

cooking or appliances that are not covered by the Building Regulations at each stage of the energy hierarchy.

Policy 5.3 Sustainable Design and Construction

The highest standards of sustainable design and construction should be achieved in London to improve the environmental performance of new developments and to adapt to the effects of climate change over their lifetime. Development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance which include 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.

Policy 5.4 Retrofitting

The environmental impact of existing urban areas should be reduced through policies and programmes that bring existing buildings up to the Mayor's standards on sustainable design and construction. In particular, programmes should reduce carbon dioxide emissions, improve the efficiency of resource use (such as water) and minimise the generation of pollution and waste from existing building stock.

Policy 5.6 Decentralised Energy in Development Proposals

Development proposals should evaluate the feasibility of connection to a Decentralised Energy Heating System and Combined Heat and Power (CHP) systems. In cases where a new CHP system is appropriate, development proposals should also examine opportunities to extend the system beyond the site boundary to adjacent sites.

Major development proposals should select energy systems in accordance with the following hierarchy:

- Connection to existing heating or cooling networks,
- Site wide CHP network, and

- Communal heating and cooling.

Policy 5.7 Renewable Energy

The Mayor seeks to increase the proportion of energy generated from renewable sources, and expects that the projections for installed renewable energy capacity outlined in the Climate Change Mitigation and Energy Strategy and in supplementary planning guidance, will be achieved in London. Within the framework of the energy hierarchy (see Policy 5.2), there is a presumption that all major development proposals will seek to reduce carbon dioxide emissions by at least 20% through the use of on-site renewable energy generation wherever feasible.

Development proposals should seek to utilise renewable energy technologies such as: biomass heating; cooling and electricity; renewable energy from waste; photovoltaics; solar water heating; wind and heat pumps. All renewable energy systems should be located and designed to minimise any potential adverse impacts on biodiversity, the natural environment and historical assets, and to avoid any adverse impacts on air quality.

Policy 5.9 Overheating and Cooling

Major development proposals should reduce potential overheating and reliance on air conditioning systems through consideration of principles of the following cooling hierarchy:

- Minimise internal heat generation through energy efficient design,
- Reduce the amount of heat entering a building during summer months through orientation, shading, albedo, fenestration, insulation and green roofs and walls,
- Manage the heat within the building through exposed internal thermal mass and high ceilings.
- Use passive ventilation,
- Use mechanical ventilation, and
- Use active cooling systems (ensuring they are the lowest carbon options).

Major development proposals should demonstrate how the design, materials, construction and operation of the development would minimise overheating and also meet its cooling needs. New development in London should also be designed to avoid the need for energy intensive air conditioning systems where feasible.

2.3 Local Policy – London Borough of Camden

Camden Local Development Framework core strategy adopted November 2010, is the principal document in the Local Development Framework and provides the vision, objectives and spatial policies to guide development in the borough up to 2025. The document includes policies on the Location and management of Camden's growth, Meeting Camden's needs - Providing homes, jobs

and facilities and Tackling climate change and improving and protecting Camden's environment and quality of life. These high levels policies have informed the creation of the Camden Development Policies and Camden Planning Guidance - Sustainability (CPG3).

The document includes policies guidance on a number of issues below are the key messages for each sustainability area covered by Core Strategy policy CS13. In more detail:

Energy statements

- All developments are to be design to reduce carbon dioxide emissions.
- Energy strategies are to be designed following the steps set out by the energy hierarchy.

Energy efficiency: new buildings

- All new developments are to be designed to minimise carbon dioxide emissions.
- The most cost-effective ways to minimise energy demand are through good design and high levels of insulation and air tightness.

Energy efficiency: existing buildings

- As a guide, at least 10% of the project cost should be spent on environmental improvements.
- Potential measures are bespoke to each property.
- Sensitive improvements can be made to historic buildings to reduce carbon dioxide emissions.

Decentralised energy networks and combined heat and power

- Decentralised energy could provide 20% of Camden's heating demand by 2020.
- Combined heat and power plants can reduce carbon dioxide emissions by 30-40% compared to a conventional gas boiler.
- Where feasible and viable your development will be required to connect to a decentralised energy network or include CHP.

Renewable energy

- There are a variety of renewable energy technologies that can be installed to supplement a development's energy needs.
- Developments are to target a 20% reduction in carbon dioxide emissions from on-site renewable energy technologies.

Water efficiency

- At least 50% of water consumed in homes and workplaces does not need to be of drinkable quality re-using water.
- All developments are to be water efficient.
- Developments over 10 units or 1000sq m should include grey water recycling.

Sustainable use of materials

- Reduce waste by firstly re-using your building, where this is not possible you should implement the waste hierarchy.
- The waste hierarchy prioritises the reduction, re-use and recycling of materials.
- Source your materials responsibly and ensure they are safe to health.

Sustainability assessment tools

- A new build dwelling will have to be designed in line with the Code for Sustainable Homes.
- The creation of 5 or more dwellings from an existing building will need to be designed in line with EcoHomes.
- 500sq m or more of non-residential floorspace will need to be designed in line with BREEAM.

Since the publication of the Core Strategy Ecohomes have been replaced by BREEAM Domestic Refurbishment and the requirement for undertaking Code for Sustainable Homes has been removed at Government level.

Flooding

- All developments are required to prevent or mitigate against flooding.
- All developments are expected to manage drainage and surface water.
- There is a hierarchy you should follow when designing a sustainable drainage system.

Adapting to climate change

- All development should consider how it can be occupied in the future when the weather will be different.
- The early design stage is the most effective time to incorporate relevant design and technological measures.

Biodiversity

- How biodiversity considerations have been incorporated into the development, if any mitigation measures will be included what positive measures for enhancing biodiversity are planned.

3 SUSTAINABLE ECONOMIC DEVELOPMENT

The first of the 'three pillars' of sustainable development is economic development. This is recognised within the NPPF, identifying the 'economic role' of the planning system to "contribute to building a strong, responsive and competitive economy".

New residential developments, if located and designed appropriately, can contribute to the economic prosperity of the region / locality.

Short term employment benefits

In the short term, the construction activities will generate employment opportunities for local skilled tradesmen and there is potential for building companies to develop the local skills base through apprenticeships and links with local construction training providers. Where possible, the developer will recruit local contractors. There are also opportunities further down the construction supply chain, with the use of local suppliers for materials and equipment.

Long term economic benefits

In the longer term, there are a number of economic benefits, including expenditure in the local economy from new residents and the indirect support this provides to new employment and the vitality of Camden area.

Direct economic benefits of new housing are generated from:

- Additional Council Tax revenue.
- Increased expenditure by residents on goods and services in the local area which will provide positive effects upon the economic sustainability of the local economy.

4 SUSTAINABLE HEALTHY COMMUNITIES

The second of the 'three pillars' of sustainable development is social development. This is recognised in the NPPF, identifying the 'social role' that the planning system plays in "supporting strong, vibrant and healthy communities, by providing the supply of buildings required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being".

Supply of Housing to Meet the Needs of Present and Future Generations

The NPPF outlines policies for local authorities to enable them to boost the local housing supply, widening opportunities for home ownership and creating sustainable, inclusive and mixed communities.

4.1. Creating a High Quality Built Environment

The importance of high quality inclusive design is a key aspect of sustainable development. The Design and Access Statement explains the philosophy and objectives of the design proposal. In more detail:

- The proposal takes into account the context and character of the surrounding area; comfort and usability for occupants; and sustainability of the development
- The overall layout, design, height, massing and footprints of the development demonstrate sensitivity to its immediate and broader context, and comply with national and local design policies.
- The proposal visually integrates into the streetscape and the surrounding area, and presents a human scaled development at the street level.
- There will be no adverse impact on the privacy, amenity and access to sunlight and daylight for surrounding residents.

The design layout has been undertaken to fully optimise the security and safety, in order for the scheme to meet the Secure by Design Principles. Key elements would include:

4.2. Accessibility to Local Services

The site has moderate access to public transport with a Public Transport Accessibility Level PTAL rating of 3. A bus stop opposite the site on Camden Road has regular buses going to Trafalgar Square, Euston Bus Station and Tottenham Court Road. The bus stop opposite the site on Camden Park Road has regular services to Archway and Chalk Farm.

The site is with 0.5 miles of a supermarket (Tesco Local and Nisa), cash machine and post office (20 Brecknock Road). The closet green space is Cantelowes gardens, less than 0.2 miles from the site.

4.3. Promoting Healthy Communities

The government's vision of the planning system is as an important role to develop healthy communities through effective design and integration of facilities. These aspects focus on issues including the provision of natural/appropriate lighting, adequate noise levels and design layout to enable sufficient space and a high standard of living for communities.

Noise

No significant new plant is to be included in the development consequently the operational noise levels will not be higher than baseline levels. No construction works will be undertaken during unsociable hours and the main contractor will take steps to minimise noise disturbance.

External Lighting Design

External lighting will be designed to be both energy efficient (maximum average wattage of 9 Watts/m²) and sufficiently illuminating to allow access and security.

4.4. Community Engagement

An inclusive development is central to the on-going sustainability of the proposed development, so that it is correctly designed in the first place, taking into account the needs and desires of potential residents and building users and the local community. It also ensures that all residents and building users are treated equally and inclusively.

The design team have held consultation meeting with the current residents on the 28th April 2015. Key concerns were the phasing and disruption this would cause especially to the less able residents. Origin Housing has offered to cover any moving costs and will find alternative accommodation for residents who do not wish to stay on site during the work.

Ashton Court's employees were also consulted on the design and a wish list was developed including things such as a staff toilet to be designed in to the ground floor.

During the construction period residents will be regularly consulted on progress and potential disruptions.

A public consultation was held on the 3rd June 2015, from 4pm-8pm where residents within a ½ mile of the proposal were invited. The consultation took place in the communal hall in Ashton Court and many of the residents who attended were from Camden Mews.

Separately the design team have had contact with a representative Camden Square Conservation Area Committee (CCAC). As a result of the consultation with CCAC the roof was redesigned with a greater setback, the end house on the Camden Park road elevation was also adjusted to be in keeping with the existing wall.

5 CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT

The third of the 'three pillars' of sustainable development is the protection of the environment and sustainable use of existing resources. This is recognised within the twelve core principles of the NPPF, which includes conservation and enhancement of the natural environment.

Biodiversity encompasses all living things and plays an important function within urban areas; providing pleasant areas of amenity, whilst maintaining the ecological function of natural systems. The objectives outlined in the NPPF and the government's Biodiversity 2020 strategy reflect the government's commitment to halt the overall decline in biodiversity and recognise the wider benefit of ecosystem services.

5.1. Ecology and Landscape

Landscape Strategy

The existing communal garden is to be re-landscaped to make the garden more level thereby allowing for greater access. In addition native species are to be planted where feasible.

Arboricultural Survey

An Arboricultural Impact Assessment has been undertaken for the site by *D F Clark Bionomique Ltd* and has been submitted for planning purposes. The report concludes one tree will require pruning to facilitate the proposed development. The report includes the following mitigation measure;

- routes of any proposed services are directed away from trees to be retained, and located outside of root protection areas;
- foundation design takes into account trees to be retained, trees to be removed and new trees to be planted; and
- pruning work is carried out to the specification detailed in BS 3998:2010 'Tree Work Recommendations'.

The design team have confirmed that all recommendations will be adhered to.

5.2. Ground Contamination

A ground investigation report has been undertaken by *Robert Lombardelli Partnership LLP*. The report concludes the ground comprised of made ground resting on London Clay. Soil gas emissions were tested and shown to be negligible.

5.3. Flooding

According to Environment Agency flood maps, the site is located in Flood Zone 1, which means that site is at a low risk of being flooded.

5.4. Air Quality

During construction the main contractor will follow BRE guidance on construction site dust management. The number of site users is unlikely to increase significantly as a result of the development. In addition the loss of the four existing undercroft car parking space is unlikely to increase vehicular trip generation therefore not impacting on the local air quality.

6 LOW CARBON

Climate change is widely regarded as the most pressing challenge for sustainable development. The UK Sustainable Development Strategy, 'Securing the Future', recognises climate change and energy as a priority area for the UK's sustainable development. The Government has created a legally binding framework for reducing CO₂ emissions through to 2050 via provisions made within 'the Climate Change Act' (2008). This establishes a specific duty on the Secretary of State to ensure that greenhouse gas emissions are reduced by at least 80% by that date.

However, it is also fundamental to ensure that the development is resilient to potential future changes in climatic conditions.

Mitigating Climate Change

The NPPF requires local authorities *"to design policies to maximise renewable and low carbon energy development"* and recognises that *"even small scale projects can contribute to cutting greenhouse gas emissions"*.

To maximise the energy efficiency of the development and thus reduce the energy demands, the following design principles were incorporated:

- Improved building fabric elements and openings compared to Building Regulations standards.
- Reduced air permeability under maximum allowed standards.
- Efficient space and water heating services, ventilation and control systems.
- Energy efficient lighting.

After reducing the primary energy demand within the development with passive measures and ensuring that the energy used within the development is used efficiently, the possibility of installing Low or Zero Carbon (LZC) Technologies was investigated. In more detail, for the refurbishment a total of 7.85kWp is proposed, while for the new build units a total of 8.18kWp is proposed to be installed on each new house's roof. It is proposed that the panels will be laid on the main's building (southeast facing) pitched roof and horizontally on the flat part of the roof of each plot, given the conservation area location.

The total savings through the use of renewable technologies onsite, across the proposed development, will be equal to a 17% reduction in CO₂ emissions. It is understood that the Council's target of 20% reduction in CO₂ emissions through renewables onsite is not feasible to be achieved. This is mainly due to the limited roof area, taking under consideration the space required for the PV operation / maintenance, the overshadowing issues from existing trees and the viability of the proposed scheme.

The development will also comply with the energy requirements to achieve BREEAM Domestic Refurbishment 'Very Good' rating.

For the new houses, the proposed strategy will ensure that the new development will achieve a 38.9% improvement on 2013 Building Regulations and a 37% reduction of the total CO₂ emissions by the incorporation of renewable onsite. This is in line with the Energy Hierarchy and principles, which encourage the use of renewable sources and the implementation of sustainable waste and pollution treatment systems.

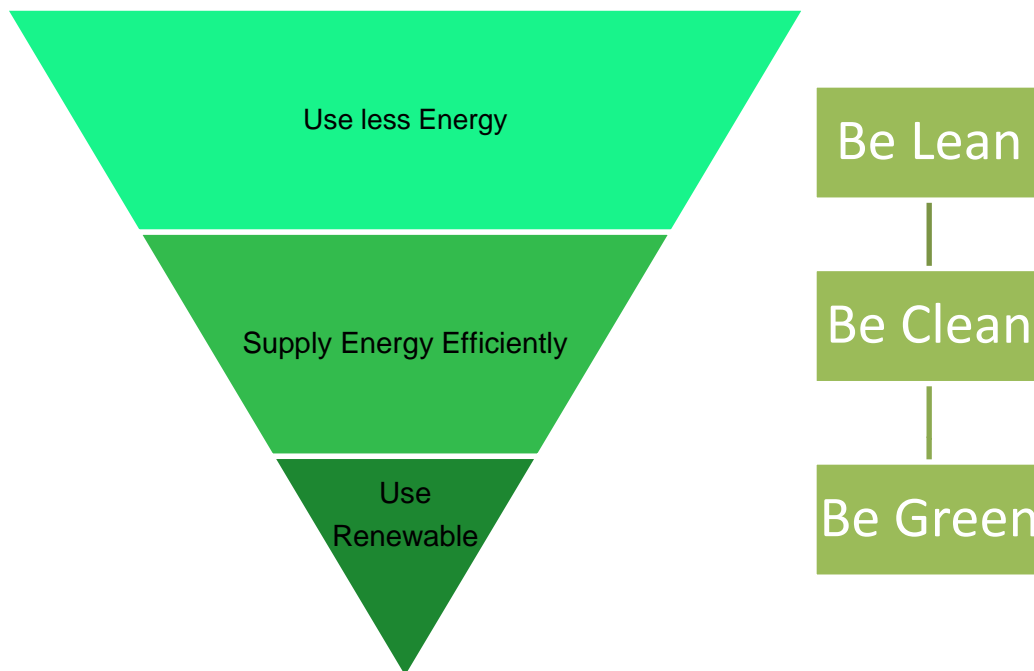


Figure 4: The Energy Hierarchy

Maximising Resilience to Climate Change

The detailed design of the dwellings will consider the issue of the impact of higher summer temperatures and the potential for overheating appropriate design features will be incorporated to minimise any detrimental effects. This will be achieved by enhancing thermal mass, using windows with low g-value and installing mechanical ventilation to all units.

7 SUSTAINABLE TRANSPORT

In order to integrate sustainable travel within the proposed development, the NPPF encourages local authorities to support “*a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport*” and “*gives priority to pedestrian and cycle movements with access to high quality public transport facilities*”. The framework recognises that transport policies have an important role to play in facilitating wider sustainability and health objectives.

The number of site users is unlikely to increase significantly as a result of the development. In addition the loss of the four existing undercroft car parking space is unlikely to increase vehicular trip generation therefore not will not have an impact on local road networks. Finally as analysed in Paragraph 4.2, the site has good access to local services, open places and moderate public transport links.

8 USE OF NATURAL RESOURCES AND MINIMISING WASTE

Activities undertaken on site from the concept stage through to final completion, can have an impact on the use of natural resources and production of waste associated with the development. This section highlights how the development will attempt to reduce the use of natural resources through material procurement, potential re-use or recycling of materials and waste minimisation.

8.1. Materials

The materials specification will detail, where possible, materials that are A or A+ rated under BRE's Green Guide, in order to select resources with a lower environmental impacts throughout their lifecycle. In addition, all materials for the site will be responsibly sourced and the timber will be selected from Forest Stewardship Council (FCS) sources.

Materials used within the building fabric have a high impact on the energy performance of the development. Therefore, materials will be selected with good thermal performance properties. All materials used on site will aim to have low conductivity values in order to achieve high insulation standards for all building elements. In addition, emphasis will be given to thermal mass of all materials used in order to achieve high thermal comfort levels.

8.2. Water

The design of the proposed development will incorporate a range of efficiency measures for water consumption. Low flow rates will be specified to all sanitary fittings (kitchen taps, wash hand basin taps, WC's, showers, baths) in order to achieve a water consumption of 105 litres/person/day. In addition water butts are to be used to collect rainwater for garden irrigation.

8.3. Waste

The revised Waste Framework Directive provides a hierarchy of options for managing wastes (see Figure 5). The prevention of waste creation is given the top priority. If waste is created, top priority is then given to waste re-use, then to recycling and energy recovery. Disposal of any waste should only be considered when the waste minimisation options have been exhausted.

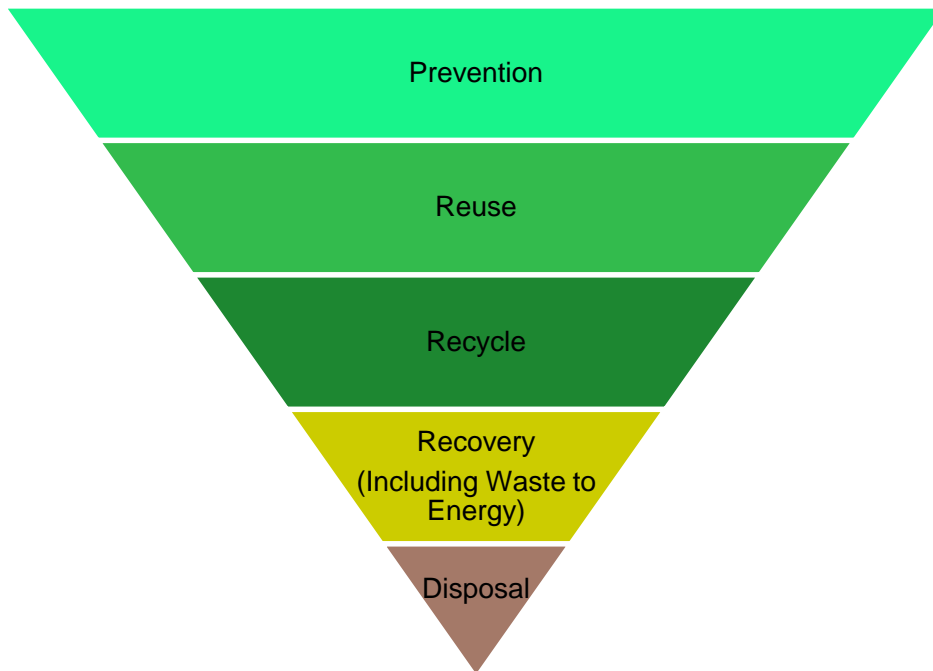


Figure 5: The Waste Hierarchy

During the construction phase of the development low levels of waste production will be targeted. This will be achieved through the development and implementation of a Site Waste Management Plan (SWMP) for the site, which will contain a benchmark for resource efficiency. The SWMP will detail how methods / practices on site will be in accordance with the waste hierarchy. A target of 80% of construction waste to be diverted from landfill will be set.

In addition, consideration has been given to the operational waste of the site, hence waste facilities will be provided, in line with Local Authority's requirements. The site will be designed to provide appropriate waste / recycling segregation storage facilities. Communal refuse storage is located on the ground floor and will include a dedicated area for recycling. Separate bins for reachable and general waste will be installed in each dwelling. Where applicable staff will collect bins from dwellings and bring to a central refuse location.

9 MANAGEMENT

For Ashton Court, a commitment to delivering a development that incorporates sustainability aspects is demonstrated through the appointment of sustainability consultants, RPS, early with the design stage process. Their remit is to provide sustainability advice on a holistic scale for the development, through best practice and where feasible, by setting exemplary standards.

A BREEAM Domestic Refurbishment pre-assessment has been prepared by RPS. The report demonstrates commitment to high sustainability levels and identifies the preferred strategy to achieve BREEAM Refurbishment 'Very Good'.

A Design and Access Statement has been prepared for the development by Archadia in support of a detailed planning application for the refurbishment and reconfiguration of the existing flats at Ashton Court. The client brief and reasons for site selection are also detailed in the Statement.

The site will sign up to the Considerate Constructors Scheme (or equivalent) to ensure it adheres with construction best practice and highlight where the site goes beyond statutory requirements. Areas assessed under the current Considerate Constructors Scheme (launched in January 2013) include;

- Enhancing the Appearance.
- Respecting the Community.
- Protecting the Environment.
- Securing everyone's Safety.
- Caring for the Workforce.

General Resource Management

The development will seek to provide water and energy metering (during both construction and operation) to enable the appropriate level of monitoring and management of these resources. During the construction phase, this will be achieved through the setting of projected targets, reporting and reviewing of results.

The development will seek to encourage building users to develop a water and energy management system to minimise the use of these resources (throughout building occupation) and to improve general environmental management. As part of this, Building User Guides will be produced covering topics such as:

- Building Services Information.
- Emergency Information.
- Energy and Environmental Strategy.

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- Water Use.
- Transport Facilities.
- Materials and Waste Policy.
- Reporting Provision.
- Training.
- Links and References.

10 CONCLUSIONS

Sustainability is a broad concept, covering a wide range of environmental, social and economic considerations (known as the three pillars of sustainable development or the triple bottom line). Sustainable design and construction principles have been considered for this scheme from its conception and many of the issues referenced within this report have been considered separately and in greater depth, within further technical reports.

Sustainability aspects that have been, or will be incorporated into the design of the site include:

- A commitment that the main contractor on site will sign up to the Considerate Constructor's scheme (or equivalent) and that the score achieved will be recognised as being above best practice (24 of above).
- Maintenance / enhancement of the site's ecological value through retention of existing features of ecological value, tree protection during development and planting scheme designed to enhance the number of species on site.
- Specification of materials rated as A or above under the Green Guide where possible and use of responsibly sourced timber.
- Minimisation of construction waste stream quantities and targets for diversion of non-hazardous construction waste from landfill.
- Implementation of a Site Waste Management Plan on site.
- Reduction of water use on site through the specification of water saving sanitary items and water butts.
- Reduction of CO₂ emissions, through the incorporation of high insulation standards, very efficient building services and PV panels.

The proposed sustainability measures detailed above meet the relevant planning policy requirements at national, regional and local levels. These have been considered at an early stage of the development process, which will enhance the effectiveness of the measures proposed.

The sustainability principles detailed within this statement cover aspects from design to construction and operation of the site and ensure that best practice procedures have been incorporated.

APPENDIX A – GENERAL NOTES

RPS HEALTH, SAFETY & ENVIRONMENT

Sustainability Assessments

General Notes

General

1. The report is based on information available at the time of the writing and discussions with the client during project meetings. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by RPS for inaccuracies in the data supplied by any other party.
2. The review of local and regional policy does not constitute a detailed review. It is simply used as a guide to provide the context for the development and to determine the likely requirements of the Local Authority.
3. No site visits have been carried out as any part thereof, unless otherwise specified.
4. This report is prepared and written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in guidance may necessitate a re-interpretation of the report in whole or in part after its original submission.
5. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to the RPS Company by the client of the outstanding amounts.
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7. These terms apply in addition to the RPS Group "Standard Terms of Business" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms of Business the said Standard Terms of Business shall prevail.) In the absence of such a written contract the Standard Terms of Business will apply.