



Sustainability Statement

11 Cannon Lane
Camden
On behalf of
Greenway architects

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1.0 INTRODUCTION

- 1.0.1 This Sustainability Statement, which includes a Code for Sustainable Homes (Code) pre-assessment, has been prepared by Metropolis Green to accompany the planning application submitted to the London Borough of Camden by Greenway Architects for the demolition and redevelopment of 11 Cannon Lane creating a 6 bedroom dwelling with associated garden, bicycle storage and basement level swimming pool and gym area.
- 1.0.2 This report addresses the applicable standards and issues contained within the Code assessment methodology.
- 1.0.3 This document explains the Code assessment process, describes how the Code requirements will be achieved by the proposed development and also sets out how the sustainability principles found in Camden's Core Strategy Policy CS13 are to be addressed.
- 1.0.4 The site is within a Conservation Area and it is considered that the visual impact of roof mounted photovoltaic or solar thermal panels would be unacceptable. Therefore, there is limited scope for the incorporation of renewable technologies within the development.
- 1.0.5 This report highlights where a sustainability standard can be met and how the principle will be achieved. This report assumes a basic understanding of the Code assessment process. However, for further information please refer to the Code for Sustainable Homes Technical Guide November 2010 and 2014 addendum.
- 1.0.6 A Code for Sustainable Homes Pre-Assessment has been prepared and is found in Appendix A. Section 4.0 of this report outlines how the proposed development will address the various issues found within the Code.
- 1.0.7 This report demonstrates that the design team have made significant efforts to achieve the highest standards of sustainability for this proposal. The scheme will achieve an overall Code score of 73.30%, which equates to Code Level 4.
- 1.0.8 This report should also be read alongside other supplemental reports prepared by the design team for the planning application.

2.0 SITE BACKGROUND AND PROPOSED DEVELOPMENT

2.1 Introduction

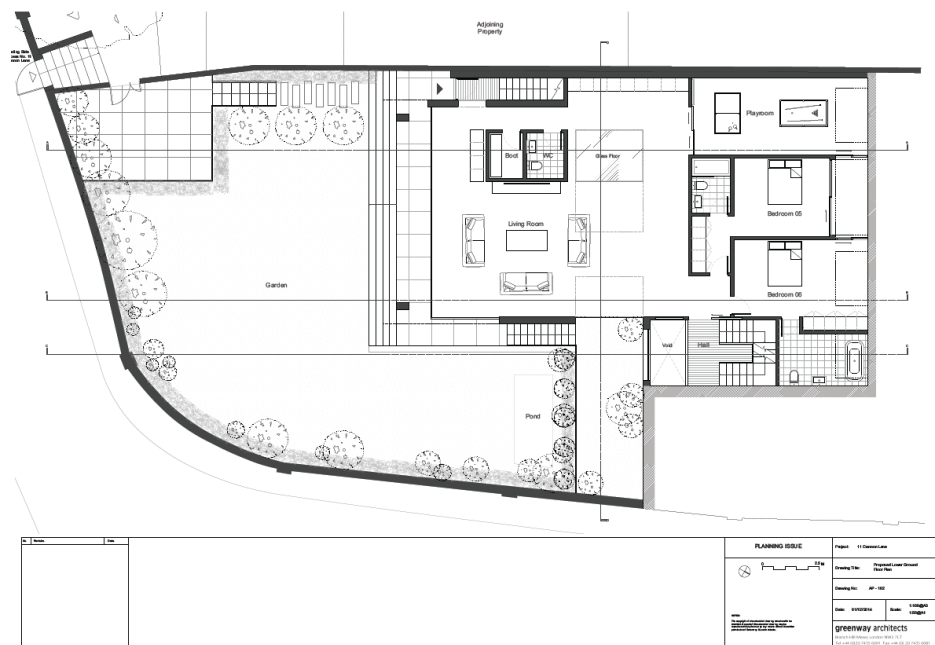
2.1.1 The site is located at 11 Cannon Lane in the Borough Camden and is situated within the Hampstead Conservation Area. The development is located near the junction of Well Road.

2.2 Proposed Development

2.2.1 The proposed development consists of the demolition of the existing building, with façade retention only. The new building will involve demolition and redevelopment of 11 Cannon Lane creating a 6 bedroom dwelling with associated garden, bicycle storage and basement level swimming pool and gym area.

2.2.2 For full details of the proposal for the dwelling please refer to the architectural drawings produced and issued by Greenway Architects.

Figure 1 – Site Location Plan and Ground Floor



3.0 POLICY CONTEXT

3.0.1 Sustainable development is the core principle underpinning planning, and has a key role to play in the creation of sustainable communities. In order to ensure the implementation of sustainable development and to determine the targets and standards to be met by the proposed development, it is necessary to review the relevant national, regional and local planning policies with respect to sustainability and the site's location. A summary of the planning policy context for the site and proposed development is provided below.

3.1 National Policy

National Planning Policy Framework, March 2012

3.1.1 The National Planning Policy Framework (NPPF) was published in March 2012 and sets out the Government's planning policies for England, and how these policies are expected to be applied. The policies in the document, taken as a whole, constitute the Government's view of what sustainable development in England means in practice for the planning system.

3.1.2 Paragraph 14 of the NPPF states that:

At the heart of the National Planning Policy Framework is a **presumption in favour of sustainable development**, which should be seen as a golden thread running through both plan-making and decision-taking.

For **decision-taking** this means:

- approving development proposals that accord with the development plan without delay

3.1.3 The NPPF outlines a set of core land-use planning principles that should underpin both plan-making and decision-taking, three of which are particularly relevant to this Sustainability Statement. Under paragraph 17, these principles are that planning should:

- support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encourage the reuse of existing resources, including conversion of existing buildings, and encourage the use of renewable resources (for example, by the development of renewable energy);
- contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this Framework; and
- encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value.

3.1.4 Design is addressed in section 7 of the NPPF, and paragraph 56 states:

The Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people.

3.1.5 Meeting the challenge of climate change is addressed in section 10 of the NPPF, and paragraph 93 notes that planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development

3.1.6 Further to the above, paragraphs 95 and 96 state:

To support the move to a low carbon future, local planning authorities should:

- plan for new development in locations and ways which reduce greenhouse gas emissions;
- actively support energy efficiency improvements to existing buildings; and
- when setting any local requirement for a building's sustainability, do so in a way consistent with the Government's zero carbon buildings policy and adopt nationally described standards.

In determining planning applications, local planning authorities should expect new development to:

- comply with adopted Local Plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and
- take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.

3.1.7 Conserving and enhancing the natural environment is addressed in section 11 of the NPPF, and excerpts from paragraph 109 state that the planning system should contribute to and enhance the natural and local environment by:

- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; and
- preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.

3.1.8 Paragraph 118 notes that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by encouraging opportunities to incorporate biodiversity in and around developments.

3.1.9 Noise is addressed under paragraph 123 which notes that Planning policies and decisions should aim to:

- avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development; and
- mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions.

3.1.10 Additionally, paragraph 125 notes that by encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity.

3.2 Regional Policy

The London Plan: Spatial Development Strategy for Greater London, July 2011

3.2.1 The London Plan was published in July 2011 and is the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London to 2031. The policies relevant to this report are found in Chapter 5 (and to a lesser extent in Chapter 7) of the London Plan.

3.2.2 The London Plan contains a number of policies relevant to this report, which are not outlined in full. These policies can be found in the list below, and reference should be made to the London Plan for further information:

- Policy 5.2: Minimising Carbon Dioxide Emissions
- Policy 5.3: Sustainable Design and Construction
- Policy 5.5: Decentralised Energy Networks
- Policy 5.6: Decentralised Energy in Development Proposals
- Policy 5.7: Renewable Energy
- Policy 5.8: Innovative Energy Technologies
- Policy 5.9: Overheating and Cooling
- Policy 5.10: Urban Greening
- Policy 5.11: Green Roofs and Development Site Environs
- Policy 5.12: Flood Risk Management
- Policy 5.13: Sustainable Drainage

- Policy 5.15: Water Use and Supplies

3.3 Local Policy

Camden Core Strategy, November 2010

- 3.3.1 The London Borough of Camden's Core Strategy sets out the key elements of the Council's planning vision and strategy for the borough. It is the central part of Local Development Framework (LDF) and was adopted in November 2010.
- 3.3.2 The Core Strategy contributes to achieving the vision and objectives of Camden's Community Strategy and helps the Council's partners and other organisations deliver relevant parts of their programmes. It covers the physical aspects of location and land use but also addresses other factors that make places attractive, sustainable and successful, such as social and economic matters. It plays a key part in shaping the kind of place Camden will be in the future, balancing the needs of residents, businesses and future generations.
- 3.3.3 Within the Core Strategy, specific policies set out the Council's approach to managing Camden's growth so that it is sustainable, meeting needs for homes, jobs and services, and protecting and enhancing quality of life and the borough's many valued and high quality places. Section 3 focuses on delivering the key elements of Camden's strategy relating to:

- making Camden more sustainable and tackling climate change, in particular improving the environmental performance of buildings, providing decentralised energy and heating networks, and reducing and managing our water use;
- promoting a more attractive local environment through securing high quality places, conserving our heritage, providing parks and open spaces, and encouraging biodiversity;
- improving health and well-being;
- making Camden a safer place while retaining its vibrancy; and
- dealing with our waste and increasing recycling.

CS13: Tackling climate change through promoting higher environmental standards

- 3.3.4 Policy CS13 sets out the approach that developers should take when considering energy and carbon reductions for developments:

Reducing the effects of and adapting to climate change

The Council will require all development to take measures to minimise the effects of, and adapt to, climate change and encourage all development to meet the highest feasible environmental standards that are financially viable during construction and occupation by:

- a) ensuring patterns of land use that minimise the need to travel by car and help support local energy networks;
- b) promoting the efficient use of land and buildings;
- c) minimising carbon emissions from the redevelopment, construction and occupation of buildings by implementing, in order, all of the elements of the following energy hierarchy:
 - 1. ensuring developments use less energy,
 - 2. making use of energy from efficient sources, such as the King's Cross, Gower Street, Bloomsbury and proposed Euston Road decentralized energy networks;
 - 3. generating renewable energy on-site; and
- d) ensuring buildings and spaces are designed to cope with, and minimise the effects of, climate change.

The Council will have regard to the cost of installing measures to tackle climate change as well as the cumulative future costs of delaying reductions in carbon dioxide emissions.

Local energy generation

The Council will promote local energy generation and networks by:

- e) working with our partners and developers to implement local energy networks in the parts of Camden most likely to support them,
- f) protecting existing local energy networks where possible (e.g. at Gower Street and Bloomsbury) and safeguarding potential network routes (e.g. Euston Road).

Water and surface water flooding

The Council will make Camden a water efficient borough and minimise the potential for surface water flooding by:

- g) protecting our existing drinking water and foul water infrastructure, including Barrow Hill Reservoir, Hampstead Heath Reservoir, Highgate Reservoir and Kidderpore Reservoir;
- h) making sure development incorporates efficient water and foul water infrastructure;
- i) requiring development to avoid harm to the water environment, water quality or drainage systems and prevents or mitigates local surface water and down-stream flooding, especially in areas up-hill from, and in, areas known to be at risk from surface water flooding such as South and West Hampstead, Gospel Oak and King's Cross.

Camden's carbon reduction measures

The Council will take a lead in tackling climate change by:

- j) taking measures to reduce its own carbon emissions;
- k) trialling new energy efficient technologies, where feasible; and
- l) raising awareness on mitigation and adaptation measures.

- 3.3.5 Details of how developments are expected to take climate change into account are set out in Camden Development Policies, and discussed further below.

Camden Development Policies, November 2010

- 3.3.6 Camden Development Policies contributes towards delivering the Core Strategy by setting out detailed planning policies that the Council will use when determining applications for planning permission, to achieve the vision and objectives of the Core Strategy.

Policy DP22: Promoting sustainable design and construction

- 3.3.7 Policy DP22 has been developed to provide details on sustainability standards and states:

The Council will require development to incorporate sustainable design and construction measures. Schemes must:

- a) demonstrate how sustainable development principles, including the relevant measures set out in paragraph 22.5, have been incorporated into the design and proposed implementation; and
- b) incorporate green or brown roofs and green walls wherever suitable.

The Council will promote and measure sustainable design and construction by:

- c) expecting new build housing to meet Code for Sustainable Homes Level 3 by 2010 and Code Level 4 by 2013 and encouraging Code Level 6 (zero carbon) by 2016;
- d) expecting developments (except new build) of 500sqm of residential floorspace or above or 5 or more dwellings to achieve "very good" in EcoHomes assessments prior to 2013 and encouraging "excellent" from 2013;
- e) expecting non-domestic developments of 500sqm of floorspace or above to achieve "very good" in BREEAM assessments and "excellent" from 2016 and encouraging zero carbon from 2019.

The Council will require development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures, such as:

- f) summer shading and planting;
- g) limiting run-off;

- h) reducing water consumption;
- i) reducing air pollution; and
- j) not locating vulnerable uses in basements in flood-prone areas.

Policy DP23: Water

3.3.8 Policy DP23 contributes to the implementation of the strategy set out in Policy CS13 by seeking to reduce water consumption and limit the amount of waste water entering the combined storm water and sewer network:

The Council will require developments to reduce their water consumption, the pressure on the combined sewer network and the risk of flooding by:

- a) incorporating water efficient features and equipment and capturing, retaining and re-using surface water and grey water on-site;
- b) limiting the amount and rate of run-off and waste water entering the combined storm water and sewer network through the methods outlined in part a) and other sustainable urban drainage methods to reduce the risk of flooding;
- c) reducing the pressure placed on the combined storm water and sewer network from foul water and surface water run-off and ensuring developments in the areas identified by the North London Strategic Flood Risk Assessment and shown on Map 2 as being at risk of surface water flooding are designed to cope with the potential flooding;
- d) ensuring that developments are assessed for upstream and downstream groundwater flood risks in areas where historic underground streams are known to have been present; and
- e) encouraging the provision of attractive and efficient water features.

Camden Planning Guidance Sustainability (CPG3), September 2013

3.3.9 The Core Strategy is supported by Supplementary Planning Documents and CPG3 contains advice and guidance for developers on ways to achieve carbon reductions and more sustainable developments. It also highlights the Council's requirements and guidelines which support the relevant Local LDF policies, including DP22 as noted above.

3.3.10 Section 8 notes that developments should aim for at least 10% of the total value of materials used to be derived from recycled and reused sources. Major developments are anticipated to be able to achieve 15-20% of the total value of materials used to be derived from recycled and reused sources.

3.3.11 Section 9 covers sustainability assessment tools, with the Code being of particular relevance to this development. The key message of the document is that:

A new build dwelling will have to be designed in line with the Code for Sustainable Homes

A development of 500sqm or more of non-residential floor space will need to be designed in line with BREEAM.

3.3.12 Developers are strongly encouraged to meet the following standards in accordance with Development Policy DP22 and CPG3:

Building Type	Time period	Minimum rating	Minimum standard for categories (% of un-weighted credits)
Residential	2013 - 2015	Level 4	Energy 50% Water 50%
	2016 +	Level 6 'zero carbon'	Materials 50%
Non Residential	2013 +	Excellent	Energy 60% Water 60% Materials 40%

3.3.13 Section 10 expects all developments to incorporate brown roofs, green roofs and green walls unless it is demonstrated this is not possible or appropriate. This includes new and existing buildings.

3.3.14 Section 11 requires that developments must not increase the risk of flooding, and are required to put in place mitigation measures where there is known to be a risk of flooding.

- 3.3.15 Section 12 expects all development to consider the impact of climate change and be designed to cope with the anticipated conditions.

3.4 Code for Sustainable Homes

- 3.4.1 The Code for Sustainable Homes (Code) is an environmental assessment for rating and certifying the performance of new dwellings. It is a national standard and was published by the Department for Communities and Local Government in December 2006. The Building Research Establishment (BRE) are responsible for administering and monitoring the scheme and are also responsible for all certification and quality assurance of this national environmental standard for housing.
- 3.4.2 A recent addendum was released following the changes to Building Regulations, therefore this development will be assessed under Code for Sustainable Homes 2014 (addendum) in line with 2013 Building Regulations.
- 3.4.3 The Code measures the sustainability of a new home against 9 categories of sustainable design, rating the 'whole home' as a complete package. The Code uses a 1 to 6 star rating system to communicate the overall level of the environmental performance of the new home.
- 3.4.4 Each category consists of a number of issues, and each issue seeks to mitigate the impact of a new build element of the building against performance targets and assessment criteria.
- 3.4.5 The number of credits available for an individual assessment issue will vary and generally the higher the number there are for a given issue, the more important that issue is in terms of mitigating its impact. In most cases, where there are multiple credits available, the number awarded is based on a sliding scale or benchmark, where progressively higher standards of building performance are rewarded with a higher number of credits.
- 3.4.6 Most Code for Sustainable Homes issues are tradable, meaning that a design team or developer can choose the issues they wish to comply with, in order to build up their overall performance score. However, there are some minimum standards (also known as mandatory requirements) which need to be met in various issues in order to achieve the aspired Code for Sustainable Homes Code Level.
- 3.4.7 The Code assessment is completed in two phases – the design stage and the post construction stage (PCS), leading to a design stage certified rating, and/or post construction certified rating.

4.0 CODE FOR SUSTAINABLE HOMES PRE-ASSESSMENT SUMMARY

- 4.0.1 This section of the report describes how credits can be achieved in each of the nine Code categories at 11 Cannon Lane. It is important to note that as the project progresses some of these scores may change; however, the design team will ensure that at all times the proposed development will remain above the threshold for a Code rating of Level 4.
- 4.0.2 This pre-assessment shows that the project team has clearly demonstrated that the proposed development at 11 Cannon Lane is targeting sustainability throughout; in particular, energy, materials and water efficiency measures will be integral to the developments design and specification.
- 4.0.3 The following sections summarise the credits that have been allocated in each category.

4.1 Energy

- 4.1.1 The Energy category is arguably one of the most important impact areas of the Code. The improvement of Dwelling Emission Rate (DER) over Target Emission Rate (TER), when calculated according to Building Regulations Part L, will be achieved through high quality construction standards, high quality windows, along with high levels of insulation and high efficiency gas boilers. This will result in a very energy efficient dwelling with high fabric energy efficiency. Such methods will be implemented to achieve best practice in thermal performance and heat loss parameters achieving well beyond Building Regulations requirements.
- 4.1.2 Standard Assessment Procedure (SAP) calculations will be completed at detailed design stage in order to develop a robust Energy Strategy for the proposed development. The proposed approach is a combination of highly efficient fabric and efficient services ensuring reduced CO₂ emissions over the lifetime of the building. The DER over TER improvement target that is considered challenging but technically and viably achievable for this site has been set at $\geq 32\%$, 4.0 credits for issue Ene 1 – Dwelling Emission Rate. The Fabric Energy Efficiency (FEE) target which is considered technically and viably achievable on this site has been set in the pre assessment at ≤ 52 kWh/m²/yr, 5.0 credits for issue Ene 2 –Fabric Energy Efficiency.
- 4.1.3 The site is within a Conservation Area and it is considered that the visual impact of roof mounted photovoltaic or solar thermal panels would be unacceptable therefore renewables are unlikely to be incorporated into the development.

- 4.1.4 The design team have made a commitment to providing meters that inform occupants of their energy consumption, from space heating and electricity consumption enabling them to make decisions and manage the dwellings in a way that reduce energy consumption. This commitment ensures 2 of the 2 available credits for issue Ene 3 – Energy Display Devices.
- 4.1.5 Compliant drying space will be provided to ensure that 1 credit is achieved for issue Ene 4 – Drying Space.
- 4.1.6 The design team has committed to providing the dwellings with compliant white goods that meet the requirements set out in the Code technical guidance. As such, 2 credits are allocated for issue Ene 5 – Energy Labelled White Goods.
- 4.1.7 External Lighting is addressed by issue Ene 6 – External Lighting. The design team have committed to complying with the requirements and as such 2 credits have been allocated under issue Ene 6.
- 4.1.8 As part of the drive for more sustainable transport solutions, four Code compliant cycle storage spaces will be provided in a dedicated storage area. As a result of this provision 2 credits have been allocated under issue Ene 8 – Cycle Storage.
- 4.1.9 A Code compliant home office, with adequate ventilation, daylight and services will be provided in each dwelling; therefore 1 credit has been allocated under issue Ene 9 – Home Office.
- 4.1.10 Overall, 19 of the 31 credits available in the Energy category can be achieved, which as a result of the weighting factors contributes 22.30% to the scheme in total.
- 4.1.11 This approach complies with Policy DP22 and CPG3; requiring development to incorporate achieve 50% of available Energy credits under the Code.

4.2 Water

- 4.2.1 The Water category aims to reduce the levels of potable water from all sources in the home and to encourage grey water recycling to reduce the amount of mains potable water used for external water uses.
- 4.2.2 The scheme will aim to reduce internal water consumption through the careful specification of water efficient fixtures and fittings including taps, WCs, baths and showers that consume less potable water than standard specifications for the same type of fittings throughout the dwellings, additionally rainwater harvesting has been specified. Through the above noted measures the scheme will achieve the minimum standards for Code Level 4 with a water consumption of less

than or equal to 105 litres/person/day and as such 3 credits have been allocated under issue Wat 1 – Indoor Water Use.

- 4.2.3 Overall, 3 of the 6 credits available in the Water category have been allocated, which as a result of the weighting factors contributes 6% to the scheme in total.
- 4.2.4 This approach complies with Policy DP22, requiring development to include appropriate climate change adaptation measures such as reducing water consumption, and Policies DP23, CPG3; requiring development to incorporate water efficient features and achieve 50% of available water credits

4.3 Materials

- 4.3.1 The Materials category of the Code promotes the sustainable procurement and use of materials, taking into account the environmental impacts of materials and the responsible sourcing of basic building and finishing elements by using the BRE Green Guide to Specification (Green Guide).
- 4.3.2 For every Code level there is a mandatory requirement of the Code to achieve an A+ to D rating for at least three out of five building elements, which include; the Roof, External Walls, Internal Walls, Upper and Ground Floors, and Windows. Thereafter the higher the Green Guide rating, the more points are awarded. This supports the selection of new materials in the proposed development to be allocated with low life cycle impacts and is rewarded under Code issue Mat 1 – Environmental Impact of Materials.
- 4.3.3 The design team have committed to achieving a high percentage of credits for this issue. Therefore, new building elements will be specified with regard to their low environmental impact and high environmental performance and should achieve an 'A' or 'A+' rating in the Green Guide. As such 10 credits have been allocated under issue Mat 1.
- 4.3.4 Issues Mat 2 – Responsible Sourcing of Materials: Basic Building Elements and Mat 3 – Responsible Sourcing of Materials: Finishing Elements target responsible sourcing of basic building materials throughout the design and construction stage. Based on the information available to the assessor 4 credits have been allocated for Mat 2. Detailed information regarding the materials to be specified during construction is required in order to assess the responsible sourcing of materials. Therefore, the credits for this issue will be reviewed at the detailed design stage when more detailed information will be available.

- 4.3.5 Overall, 14 of the 24 credits available in the Materials category can be achieved, which as a result of the weighting factors contributes 4.2% to the scheme in total.

4.4 Surface Water Run-Off

- 4.4.1 The Surface Water Run-off category of the Code deals with the increased risk of localised flooding caused by new development and addresses wider issues of flood risk associated with climate change.
- 4.4.2 In order to meet the mandatory criteria for the issue Sur 1 – Management of Surface Water Run-off from Developments, the post construction conditions can be no worse than the existing conditions. To demonstrate compliance with the criteria an appropriately qualified drainage engineer will be required to carry out calculations as prescribed in the Code and in-line with the guidance in the Sustainable Drainage Systems (SUDs) Manual (CIRIA C697, 2007) and Preliminary Rainfall Run Off Management for Developments (EA/DEFRA, 2007) or for at least the 1 year and 100 year return period events. Alternatively, if there is no increase in the man-made impermeable area as a result of the new development, then the peak rate of run-off criterion does not apply.
- 4.4.3 The site currently contains only existing buildings and hard standing surfaces. The proposed development will not increase the impermeable area on site by the inclusion of green roofs on the main building, as required by Policy DP22. As such, the development will efficiently manage its run-off and meet the mandatory requirements of Code issue Sur 1 – Management of Surface Water Run-off from.
- 4.4.4 According to the Environment Agency website the site is located in a zone with low annual probability of flooding, a detailed Flood Risk Assessment (FRA) will be required at design stage to establish compliance with the flood risk requirements. At this stage, 2 credits have been allocated under issue Sur 2 – Flood Risk. A site-specific Flood Risk Assessment (FRA) will be completed at the appropriate stage to confirm the level of flood risk.
- 4.4.5 Overall, 2 of the 4 credits available in the Surface Water Run Off category can be achieved, which as a result of the weighting factors contributes 1.1% to the scheme in total.

4.5 Waste

- 4.5.1 The Waste category of the Code deals with waste and recycling issues for both the construction stage and the occupation stage of the development.
- 4.5.2 The Borough of Camden provide a recycling collection scheme compliant with Code for Sustainable Homes requirements. The mandatory requirements for this category will be met by providing compliant external storage space for the required volume of space for external waste and recycling facilities. The design team will ensure that the development will be specified with dedicated internal storage containers for recyclable waste with a total capacity of 30 litres. As such, 4 credits have been allocated under Was 1 – Storage of Non-Recyclable Waste and Recyclable House Hold Waste.
- 4.5.3 The requirement under Was 2 – Construction Site Waste Management category for a Site Waste Management Plan (SWMP) will be met through contractual agreements with the selected construction contractor. Credits have been allocated for this issue on the basis that the SWMP will be prepared in line with best practice and will include commitments and procedures for sorting, recycling and diverting at least 85% of waste from landfill. As such, 3 credits have been allocated for this issue.
- 4.5.4 One credit is available under Issue Was 3 – Composting for the provision of a home composting facility where dwellings incorporate gardens or where the Local Authority operates a kitchen waste or composting facility. Camden provide such a scheme, it is also noted that there is sufficient external space for external composting storage. As such 1 credit has been allocated for this issue.
- 4.5.5 Overall, 8 of the 8 credits available in the Waste category can be achieved, which as a result of the weighting factors contributes 5.6% to the scheme in total.

4.6 Pollution

- 4.6.1 The pollution category aims to promote the reduction in the use of insulating materials that have a high Global Warming Potential (GWP) and to reduce the amount of nitrogen oxide (NOx) that is released into the atmosphere through the heating plant.
- 4.6.2 All new insulation materials will be specified with a GWP of less than five, which have low embodied impact relative to their thermal properties. As such 1 credit has been allocated under the issue Pol 1 – Insulant GWP.
- 4.6.3 Space heating and hot water for the proposed development will be provided by new gas boilers which will be specified with low NOx emissions of ≤ 40 mg/kWh. As such 3 credits have been allocated under Issue Pol 2 – NOx Emissions.
- 4.6.4 Overall, 4 of the 4 credits available in the Pollution category can be achieved, which as a result of the weighting factors contributes 2.8% to the scheme in total.

4.7 Health and Wellbeing

- 4.7.1 The Health and Wellbeing category of the Code covers factors that can contribute to the overall comfort and welfare of the occupants.
- 4.7.2 It is anticipated that the development will achieve the required minimum daylight factors within the kitchen, living rooms, dining rooms and studies for 3 credit under Hea 1 – Daylighting. With 80% of working plane in all rooms receiving direct light from the sky. Full daylighting calculations will be prepared at the detailed design stage to demonstrate the average daylight factor. As such, 3 credits have been allocated under issue Hea 1 at this stage.
- 4.7.3 Due to the fact that the proposals are for a detached property, 4 credits have been allocated under issue Hea 2 – Sound Insulation.
- 4.7.4 One credit is available for the provision of a private or semi-private outdoor space. As the development contains a garden, 1 credit has been allocated under issue Hea 3 – Private Space.
- 4.7.5 It is anticipated that the Lifetime Homes criteria can be achieved in the proposed units. Therefore, 4 credits have been allocated for issue Hea 4 – Lifetime Homes.
- 4.7.6 Overall, 12 of the 12 credits available in the Health and Wellbeing category can be achieved, which as a result of the weighting factors contributes 14 points to the scheme in total.

4.8 Management

- 4.8.1 The Management category of the Code targets both the construction stage and the way dwellings are managed during occupation.
- 4.8.2 A Home User Guide will be produced which will include information regarding: energy efficiency; water use; sustainable improvement recommendations, local transport facilities; materials; waste; emergency information; and local amenities, the guide will be available in alternative formats. As such 3 credits have been allocated under issue Man 1 – Home Users Guide.
- 4.8.3 It is anticipated that the main contractor for the scheme will achieve Beyond Best Practice standards of the Considerate Constructors Scheme's Code of Considerate Practice and will obtain a score between 35 and 39. As such 2 credits have been allocated under issue Man 2 – Responsible Construction Practices.
- 4.8.4 Additionally, a commitment has been made to meet the requirements of issue Man 3 – Construction Site Impacts. The contractor will be required to undertake 4 of the 6 actions, allowing for the allocation of 2 credits under Man 3:
- a. monitor, report and set targets for CO₂ production of energy use arising from site activities;
 - b. monitor, report and set targets for water consumption arising from site activities;
 - c. a main contractor with an environmental materials policy;
 - d. a main contractor that operates an Environmental Management System; and/or
 - e. 80% of site timber is reclaimed, re-used or responsibly sourced.
- 4.8.5 An Architectural Liaison Officer or Crime Prevention Design Advisor will be consulted at an appropriate time and credits for a secure design will be achieved. As such 2 credits have been allocated for Secured by Design Section 2 compliance in Man 4 - Security.
- 4.8.6 Overall, 9 of the 9 credits available in the Management category can be achieved, which as a result of the weighting factors contributes 10 points to the scheme in total.

4.9 Ecology

- 4.9.1 Ecology is an important and heavily weighted category of the Code, and as such the points available in this category are invaluable to help the scheme achieve Code Level 4.
- 4.9.2 The site contains only the existing buildings and hard standing surfaces. Therefore, it is considered that the site is of low ecological value; and 1 credit has been allocated under issues Eco 1 – Ecological Value of Site and Eco 3 - Protection of Ecological Features.
- 4.9.3 Issue Eco 4 – Change in Ecological Value rewards development which does not impact too negatively on the ecological value of the site. Due to the site being of low ecological value and consisting only of existing buildings and hard standing surfaces, 2 credits can be allocated under Eco 4 for a neutral impact.
- 4.9.4 Initial calculations regarding the density of the proposed development demonstrate that the site has the potential to achieve a Net Internal Floor Area: Net Internal Ground Floor Area ratio of greater than 3:1. As such, 1 credit has been allocated under issue Eco 5 – Building Footprint.
- 4.9.5 Overall, 6 of the 9 credits available in the Ecology category can be achieved, which as a result of the weighting factors contributes 8.00% to the scheme in total.

5.0 CONCLUSION

- 5.0.1 This report demonstrates that the proposed new building at 11 Cannon Street in the Borough of Camden has the potential to achieve the required Level 4 certification under the Code for Sustainable Homes environmental assessment scheme, implementing sustainability measures where appropriate and achieving at least 50% of the available credits under each category.
- 5.0.2 The sustainability strategy focuses on the implementation of sustainable systems for energy, water, waste management, pollution, and construction management. Much attention has been given to reducing the environmental impact throughout the lifetime of the building, during construction, refurbishment and occupation of the dwelling. Sustainability measures are proposed which go beyond the works necessary for the development of the proposed subterranean extension.
- 5.0.3 Standard Assessment Procedure (SAP) calculations will be completed at detailed design stage in order to develop a robust Energy Strategy for the proposed development. The proposed approach is a combination of highly efficient fabric and efficient services ensuring reduced CO₂ emissions over the lifetime of the building for an DER/TER improvement of $\geq 32\%$
- 5.0.4 Water consumption will be substantially reduced through the specification of water efficient fixtures and fittings, including low flow rate showers and taps and dual flush toilets, in order to achieve a water efficiency target of 105 litres/person/day. This specification will exceed the minimum requirements in the Water category for Code Level 4.
- 5.0.5 New environmentally friendly and responsibly sourced building and insulation materials will be specified to the greatest extent possible.
- 5.0.6 Waste and recycling facilities will be provided and the reuse and disposal of construction waste will be guided by a Site Waste Management Plan and following the Good Practice Waste Benchmarks. In addition, the site will be registered with the Considerate Constructors Scheme and will monitor and report on construction site impacts.
- 5.0.7 The Code for Sustainable Homes pre-assessment attached in Appendix A demonstrates that a Level 4 rating can be achieved for the proposed development with a score of 73.30%. This score allows for flexibility within various categories during the development of the detailed design for the development. It should be noted that the credits allocated in this pre-assessment are subject to change at the detailed design stage and during the construction phase; however, the design team will ensure that the dwelling is certified with a Level 4 rating.

- 5.0.8 In conclusion, this report demonstrates that the requirements of the Camden Planning Policies can be achieved and that the proposed development has carefully considered the site's potential environmental impacts and details how those impacts will be managed and mitigated.

APPENDIX A: CODE FOR SUSTAINABLE HOMES PRE-ASSESSMENT

Results

Development Name:	11 Cannon Lane
Dwelling Description:	7 Bed Residential Unit with Swimming Pool
Name of Company:	Metropolis Green LLP
Code Assessor's Name:	Miranda Pennington
Company Address:	4 Underwood Row London N1 7LQ
Notes/Comments:	

PREDICTED RATING - CODE LEVEL: 4

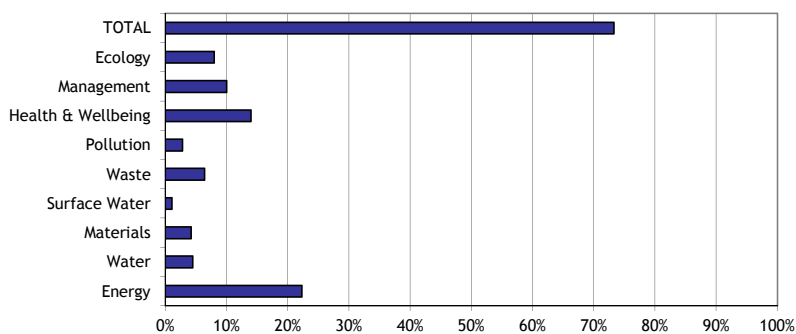
Mandatory Requirements: All Levels

% Points: 73.30% - Code Level: 4

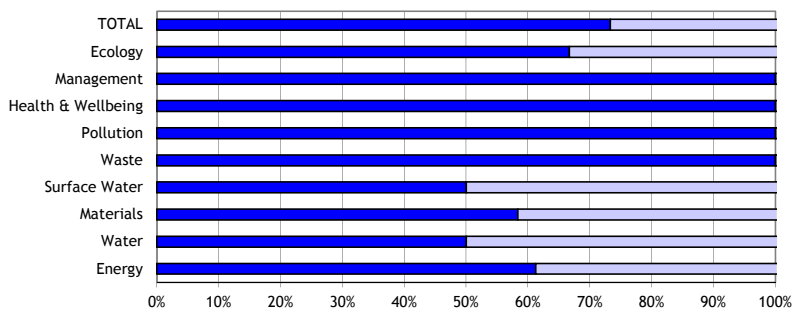
Breakdown: Energy - Code Level: 4

Water - Code Level: 4

Graph 1: Predicted contribution of individual sections to the total score and percentage of total achievable score



Graph 2: Predicted percentage of credits achievable: Total and by Category



NOTE: The rating obtained by using this Pre Assessment Estimator is for guidance only. Predicted ratings may differ from those obtained through a formal assessment, which must be carried out by a licensed Code assessor.

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CATEGORY 1 ENERGY		Overall Level: 4	Overall Score	73.30	Assumptions Made
% of Section Credits Predicted: 61.29			Credits	Level	
Contribution to Overall % Score: 22.30 points			19.0 of 31 Credits	Level 4	
Ene 1 Dwelling Emission Rate	<p>Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2012. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score.</p> <p>Enter the predicted score _____</p> <p>What is the predicted number of credits? <input type="text" value="4.0"/></p> <p>OR Are zero net CO₂ emissions achieved? <input type="checkbox"/></p>	4.0 of 10 Credits	Level 4		
Ene 2 Fabric Energy Efficiency	<p>Credits are awarded based on the Fabric Energy Efficiency (kWh/m²/yr) of the dwelling. Minimum standards apply at Code levels 5 and 6. The Code energy calculator can be used to calculate a predicted score.</p> <p>Enter the predicted score _____</p> <p>Apartment, Mid-terrace <input type="radio"/></p> <p>OR End terrace, Semi and Detached <input checked="" type="radio"/></p> <p>OR Staggered Mid terrace <input type="radio"/></p> <p>What is the predicted number of credits? <input type="text" value="5.0"/></p>	5.0 of 9 Credits	-		
Ene 3 Energy Display Devices	<p>Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption.</p> <p>Select whether the EDD monitors electricity and/or fuel</p> <p>None Specified <input type="radio"/></p> <p>Primary Heating only <input type="radio"/></p> <p>OR Electricity only <input type="radio"/></p> <p>OR Electricity and primary heating fuel <input checked="" type="radio"/></p>	2 of 2 Credits	-		
Issue	Credits	Level	Assumptions Made		
Ene 4 Drying Space	<p>One credit is awarded for the provision of either internal or external secure drying space with posts and footings or fixings capable of holding 4m+ of drying line for 1-2 bed dwellings and 6m+ for dwellings with 3 bedrooms or greater.</p> <p>Will drying space meeting the criteria be provided? _____</p> <p>Yes <input checked="" type="radio"/></p> <p>OR No <input type="radio"/></p>	1 of 1 Credits	-	<p>If internal, utility room must have controlled intermittent extract ventilation with a minimum rate of 30l/s.</p> <p>For the number of bedrooms in this dwelling, a minimum of 6m of drying line is required.</p>	
Ene 5 Energy Labelled White Goods	<p>Credits are awarded where each dwelling is provided with either information about the EU Energy Labelling Scheme, White Goods with ratings ranging from A+ to B or a combination of the previous according to the technical guide.</p> <p>Select the appropriate option below</p> <p>EU Energy labelling information <u>only</u> <input type="checkbox"/></p> <p>A+ rated appliances <input checked="" type="checkbox"/></p> <p>A rated washing machine and dishwasher <input checked="" type="checkbox"/></p> <p>B rated tumble dryer or washer dryer <input type="checkbox"/></p> <p>EU Energy labelling information provided <input checked="" type="checkbox"/></p>	2 of 2 Credits	-		
Ene 6 External Lighting	<p>Credits are awarded based on the provision of space lighting* with energy efficient light bulbs/lamps and security lighting fittings with appropriate control systems.</p> <p>Space Lighting</p> <p>None provided <input type="radio"/></p> <p>OR Non Code compliant lighting <input type="radio"/></p> <p>OR Code compliant lighting <input checked="" type="radio"/></p> <p>Security Lighting</p> <p>None provided <input type="radio"/></p> <p>OR Non Code compliant lighting <input type="radio"/></p> <p>OR Code compliant lighting and controls <input checked="" type="radio"/></p> <p>Dual lamp luminaires</p> <p>Compliant with both above criteria <input checked="" type="checkbox"/></p> <p>* Statutory safety lighting is not covered by this requirement</p>	2 of 2 Credits	-		
Issue	Credits	Level	Assumptions Made		
Ene 7 Low or Zero Carbon Technologies	<p>Credits are awarded where there is a 10% or 15% reduction in CO₂ emissions resulting from the use of low or zero carbon technologies.</p> <p>Select % contribution made by low or zero carbon technologies</p> <p>Less than 10% of demand <input checked="" type="radio"/></p> <p>OR 10% of demand or greater <input type="radio"/></p> <p>OR 15% of demand or greater <input type="radio"/></p>	0 of 2 Credits	-		
Ene 8 Cycle Storage	<p>Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements.</p> <p>Fill in the development details below</p> <p>Number of bedrooms: <input type="text" value="6"/></p> <p>Number of cycles stored per dwelling* <input type="text" value="4.0"/></p> <p>* If you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling</p>	2 of 2 Credits	-		
Ene 9 Home Office	<p>A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements.</p> <p>Will there be provision for a Home Office? _____</p> <p>Yes <input checked="" type="radio"/></p> <p>OR No <input type="radio"/></p>	1 of 1 Credits	-		

CATEGORY 2 WATER		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 50.00			Credits	Level
Contribution to Overall Score: 4.50 points			3 of 6 Credits	Level 4
Wat 1 Indoor Water Use	<p>Credits are awarded based on the predicted average household water consumption, calculated using the Code Water Calculator Tool. Minimum standards for each code level apply.</p> <p>Select the predicted water use / Mandatory Requirement</p> <div><p>greater than 120 litres/ person/ day <input type="radio"/></p><p>OR ≤ less than 120 litres/ person/ day <input type="radio"/></p><p>OR ≤ less than 110 litres/ person/ day <input type="radio"/></p><p>OR ≤ less than 105 litres/ person/ day <input checked="" type="radio"/></p><p>OR ≤ less than 90 litres/ person/ day <input type="radio"/></p><p>OR ≤ less than 80 litres/ person/ day <input type="radio"/></p></div>	3 of 5 Credits	Level 3 AND Level 4	
Wat 2 External Water Use	<p>A credit is awarded where a compliant system is specified for collecting rainwater for external irrigation purposes. Where no outdoor space is provided the credit can be achieved by default.</p> <p>Select the scenario that applies</p> <div><p>No internal or communal outdoor space <input type="radio"/></p><p>OR Outdoor space with collection system <input type="radio"/></p><p>OR Outdoor space without collection system <input checked="" type="radio"/></p></div>	0 of 1 Credits	-	

CATEGORY 3 MATERIALS		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 58.33		Credits		Level
Contribution to Overall Score: 4.20 points		14 of 24 Credits		All Levels
Mat 1 Environmental Impact of Materials	<p>Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D.</p> <p>Tradable Credits: Points are awarded on a scale based on the Green Guide Rating of the specifications. The Code Materials Calculator can be used to predict a potential score.</p> <p>Mandatory Requirement</p> <div> <div>Will the mandatory requirement be met?</div> <input checked="" type="checkbox"/> </div> <p>Enter the predicted score</p> <div> <div>What is the predicted number of credits?</div> <div>10</div> </div>	10 of 15 Credits	All Levels	
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	<p>Credits are awarded where materials used in the basic building elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score.</p> <p>Enter the predicted Score</p> <div> <div>What is the predicted number of credits?</div> <div>4</div> </div>	4 of 6 Credits	-	
Mat 3 Responsible Sourcing of Materials - Finishing Elements	<p>Credits are awarded where materials used in the finishing elements are responsibly sourced. The Code Materials Calculator can be used to predict a potential score.</p> <p>Enter the predicted Score</p> <div> <div>What is the predicted number of credits?</div> <div>0</div> </div>	0 of 3 Credits	-	

CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 50.00%			Credits	Level
Contribution to Overall Score: 1.10 points			2 of 4 Credits	All Levels
Sur 1 Management of Surface Water Run-off from developments	<p>Mandatory Requirement: Peak rate of run-off into watercourses is no greater for the developed site than it was for the pre-development site and that the additional predicted volume of rainwater discharge caused by the new development is entirely reduced as far as possible in accordance with the assessment criteria. Designing the drainage system to be able to cope with local drainage system failure. Tradable Credits: Where SUDS are used to improve water quality of the rainwater discharged or for protecting the quality of the receiving waters.</p> <p>Mandatory Requirement</p> <div><div>Will the mandatory requirement be met?</div><div><input checked="" type="checkbox"/></div></div> <p>Select the appropriate option</p> <div><div>No SUDS</div><div><input type="checkbox"/></div><div>No runoff into watercourses for the first 5 mm of rainfall</div><div><input type="checkbox"/></div><div>Runoff from hard surfaces will receive an appropriate level of treatment</div><div><input type="checkbox"/></div></div>	0 of 2 Credits	All Levels	
Sur 2 Flood Risk	<p>Credits are awarded where developments are located in areas of low flood risk or where in areas of medium or high flood risk appropriate measures are taken to prevent damage to the property and its contents in accordance with the Code criteria in the technical guide.</p> <p>Select the annual probability of flooding (from PPG*)</p> <div><div>Zone 1 - Low</div><div><input checked="" type="radio"/></div><div>OR Zone 2 - Medium</div><div><input type="radio"/></div><div>OR Zone 3 - High</div><div><input type="radio"/></div></div> <p>Select the appropriate option(s)</p> <div><div>Low risk of flooding from FRA**</div><div><input checked="" type="checkbox"/></div><div>All measures of protection are demonstrated in FRA</div><div><input type="checkbox"/></div><div>Ground floor level and access routes are 600 mm above design flood level</div><div><input type="checkbox"/></div></div>			2 of 2 Credits
<p>* Planning Practice Guidance - Planning and Flood Risk</p> <p>** FRA - Flood Risk Assessment</p>				

CATEGORY 5 WASTE		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 100.00%		Credits		Level
Contribution to Overall Score: 6.40 points		8 of 8 Credits		All Levels
Was 1	Mandatory Requirement: The space provided for waste storage should be sized to hold the larger of either all external containers provided by the Local Authority or the min capacity calculated from BS 5906. Tradable Credits are awarded for adequate internal and/ or external recycling facilities.			
Storage of non-recyclable waste and recyclable household waste	<div>Mandatory Requirement</div> <div><div>Will the minimum space be provided and be accessible to disabled people?</div><div><input checked="" type="checkbox"/></div></div>			
	<div>Internal Recyclable household waste storage</div> <div><div>Where there is no external recyclable waste storage and no Local Authority collection scheme</div><div><input type="checkbox"/></div></div>	0 of 2 Credits		
	<div>Local Authority collection Scheme</div> <div><div>Post Collection sorting</div><div><div>Internal storage (capacity 30 litres)</div><div><input checked="" type="checkbox"/></div></div><div><div>Pre-collection sorting</div><div><input type="checkbox"/></div></div><div><div>Internal storage (3 separate bins, capacity 30 litres)</div><div><input type="checkbox"/></div></div></div>	4 of 4 Credits	All Levels	
	<div>External Storage, no Local Authority collection scheme</div> <div><div>3 separate internal storage bins (capacity 30 litres)</div><div><input type="checkbox"/></div></div> <div>AND</div> <div><div>Houses</div><div><div>External Storage(capacity 180 litres)</div><div><input type="checkbox"/></div></div><div><div>Flats</div><div><input type="checkbox"/></div></div><div><div>Private recycling operator</div><div><input type="checkbox"/></div></div><div><div>3 or greater types of waste collected</div><div><input type="checkbox"/></div></div></div>	0 of 4 Credits		

Issue	Credits		Level
Was 2 Construction Site Waste Management	<p>A credit is awarded where a compliant SWMP is provided with targets and procedures to minimise construction waste. Credits are available where the SWMP include procedures and commitments for diverting either 50% or 85% of waste generated from landfill.</p> <p>SWMP details</p> <div><p>Does the SWMP include:</p><p>+ No SWMP <input type="radio"/></p><p>+ SWMP with targets and procedures to minimise waste? <input type="radio"/></p><p>+ SWMP with procedures to divert 50% of waste <input type="radio"/></p><p>+ SWMP with procedures to divert 85% of waste <input checked="" type="radio"/></p></div>	3 of 3 Credits	
Was 3 Composting	<p>A credit is awarded where individual home composting facilities are provided, or where a community/ communal composting service, either run by the Local Authority or overseen by a management plan is in operation.</p> <p>Select the facilities available</p> <div><p>No composting facilities <input type="radio"/></p><p>Individual composting facilities <input type="radio"/></p><p>OR Communal/ community composting*? <input checked="" type="radio"/></p><p>Local Authority <input checked="" type="checkbox"/></p><p>OR Private with management plan <input type="checkbox"/></p></div>	1 of 1 Credit	-
* including if an automated waste collection system is in place			

CATEGORY 6 POLLUTION		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 100.00%		Credits		Level
Contribution to Overall Score: 2.80 points		4 of 4 Credits		All Levels
Pol 1 Global Warming Potential (GWP) of Insulants	<p>A credit is awarded where <u>all</u> insulating materials only use substances (in manufacture AND installation) that have a GWP of less than 5.</p> <p>Select the most appropriate option</p> <div> <p>All insulants have a GWP less than 5 <input checked="" type="radio"/></p> <p>OR Some insulants have a GWP of less than 5 <input type="radio"/></p> <p>OR No insulants have a GWP of less than 5 <input type="radio"/></p> </div>	1 of 1 Credits	-	
Pol 2 NOx Emissions	<p>Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling.</p> <p>Select the most appropriate option</p> <div> <p>Greater than 100 mg/kWh <input type="radio"/></p> <p>OR Less than 100 mg/kWh <input type="radio"/></p> <p>OR Less than 70 mg/kWh <input type="radio"/></p> <p>OR Less than 40 mg/kWh <input checked="" type="radio"/></p> <p>OR Class 4 boiler <input type="radio"/></p> <p>OR Class 5 boiler <input type="radio"/></p> <p>OR All space and hot water energy requirements are met by systems who do not produce NOx emissions <input type="radio"/></p> </div>	3 of 3 Credits	-	

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 100.00%		Credits		Level
Contribution to Overall Score: 14.00 points		12 of 12 Credits		No level
Hea 1 Daylighting	<p>Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.</p> <p>Select the compliant areas</p> <div> <p><u>Room</u></p> <p>Kitchen: Avg DF of at least 2% <input checked="" type="checkbox"/></p> <p>Living Room*: Avg DF of at least 1.5% <input checked="" type="checkbox"/></p> <p>Dining Room*: Avg DF of at least 1.5% <input checked="" type="checkbox"/></p> <p>Study*: Avg DF of at least 1.5% <input checked="" type="checkbox"/></p> <p>80% of working plane in all above rooms receive direct light from the sky? <input checked="" type="checkbox"/></p> </div> <p>Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%.</p>	3 of 3 Credits	-	
Hea 2 Sound Insulation	<p>Credits are awarded where performance standards exceed those required in Building Regulations Part E. This can be demonstrated by carrying out pre-completion testing or through the use of Robust Details Limited.</p> <p>Select a type of property</p> <div> <p>Detached Property <input checked="" type="radio"/></p> <p>Attached Properties:</p> <p>- Separating walls and floors only exist between non habitable spaces <input type="radio"/></p> <p>- Separating walls and floors exist between habitable spaces <input type="radio"/></p> </div> <p>Select a performance standard</p> <div> <p>Performance standard not sought <input checked="" type="radio"/></p> <p>Airborne: 3db higher; Impact: 3dB lower <input type="radio"/></p> <p>OR Airborne: 5db higher; Impact: 5dB lower <input type="radio"/></p> <p>OR Airborne: 8db higher; Impact: 8dB lower <input type="radio"/></p> </div>	4 of 4 Credits	-	
Issue		Credits	Level	
Hea 3 Private Space	<p>A credit is awarded for the provision of an outdoor space that is at least partially private. The space must allow easy access to all occupants.</p> <p>Will a private/ semi-private space be provided?</p> <div> <p>Yes, private/semi-private space will be provided <input checked="" type="radio"/></p> <p>OR No private/semi-private space <input type="radio"/></p> </div>	1 of 1 Credits	-	
Hea 4 Lifetime Homes	<p><u>Mandatory Requirement:</u> Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6.</p> <p><u>Tradable credits:</u> Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme.</p> <p>Mandatory Requirement</p> <div> <p>Dwelling to achieve Code Level 6? <input type="checkbox"/></p> </div> <p>Lifetime Homes Compliance</p> <div> <p>All Lifetime Homes criteria will be met <input checked="" type="radio"/></p> <p>OR Exemption from LTH criteria 2/3 applied <input type="radio"/></p> <p>Credit not sought <input type="radio"/></p> </div>	4 of 4 Credits	No level	

CATEGORY 8 MANAGEMENT		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 100.00%		Credits		Level
Contribution to Overall Score: 10.00 points		9 of 9 Credits		All Levels
Man 1 Home User Guide	<p>Credits are awarded where a simple guide is provided to each dwelling covering information relevant to the 'non-technical' home occupier, in accordance with the Code requirements.</p> <p>Tick the topics covered by the Home User Guide</p> <div> <p>Operational Issues? <input checked="" type="checkbox"/></p> <p>Site and Surroundings? <input checked="" type="checkbox"/></p> <p>Is available in alternative formats? <input checked="" type="checkbox"/></p> </div>	3 of 3 Credits	-	
Man 2 Considerate Constructors Scheme	<p>Credits are awarded where there is a commitment to comply with best practice site management principles using either the Considerate Constructors Scheme or an alternative locally/nationally recognised scheme.</p> <p>Select the appropriate scheme and score</p> <div> <p>No scheme used <input type="radio"/></p> <p><u>Considerate Constructors</u></p> <p>OR Best Practice <input type="radio"/></p> <p>OR Significantly Beyond Best Practice <input checked="" type="radio"/></p> <p><u>Alternative Scheme*</u></p> <p>OR Mandatory + 50% optional requirements <input type="radio"/></p> <p>OR Mandatory + 80% optional requirements <input type="radio"/></p> </div> <p>* In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.</p>	2 of 2 Credits	-	
Man 3 Construction Site Impacts	<p>Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following:</p> <p>Tick the impacts that will be addressed</p> <div> <p><u>Monitor, report and set targets, where applicable, for:</u></p> <p>- CO₂/ energy use from site activities <input checked="" type="checkbox"/></p> <p>- CO₂/ energy use from site related transport <input type="checkbox"/></p> <p>- water consumption from site activities <input checked="" type="checkbox"/></p> <p><u>Adopt best practice policies in respect of:</u></p> <p>- air (dust) pollution from site activities <input checked="" type="checkbox"/></p> <p>- water (ground and surface) pollution on site <input type="checkbox"/></p> <p><u>80% of site timber</u> is reclaimed, re-used or responsibly sourced <input checked="" type="checkbox"/></p> </div>	2 of 2 Credits	-	
Issue		Credits	Level	
Man 4 Security	<p>Credits are awarded for complying with Section 2 - Physical Security from Secured by Design - New Homes. An Architectural Liaison Officer (ALO), or alternative, needs to be appointed early in the design process and their recommendations incorporated.</p> <p>Secured by Design Compliance</p> <div> <p>Credit not sought <input type="radio"/></p> <p>OR Secured by Design Section 2 Compliance <input checked="" type="radio"/></p> </div>	2 of 2 Credits	-	

CATEGORY 9 ECOLOGY		Overall Level: 4	Overall Score	73.30
% of Section Credits Predicted: 66.00%		Credits		Level
Contribution to Overall Score: 8.00 points		6 of 9 Credits		All Levels
Eco 1 Ecological Value of Site	<p>One credit is awarded for developing land of inherently low value. Select the appropriate option</p> <div> <p>Credit not sought <input type="radio"/></p> <p>OR Land has ecological value <input type="radio"/></p> <p>OR Land has low/ insignificant ecological value* <input checked="" type="radio"/></p> </div> <p>* Low ecological value is determined either a) by using Checklist Eco 1 across the whole development site; or b) where an suitably qualified ecologist is appointed and can confirm or c) produces an independent ecological report of the site, that the construction zone is of low/ insignificant value; AND the rest of the development site will remain undisturbed by the works.</p>	1 of 1 Credits	-	
Eco 2 Ecological Enhancement	<p>A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes</p> <div> <p>Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? <input type="checkbox"/></p> <p>AND Will all key recommendations be adopted? <input type="checkbox"/></p> <p>AND 30% of other recommendations be adopted? <input type="checkbox"/></p> </div>	0 of 1 Credits	-	
Eco 3 Protection of Ecological Features	<p>A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features</p> <div> <p>Site with features of ecological value? <input type="radio"/></p> <p>OR Site of low ecological value (as Eco 1)? <input checked="" type="radio"/></p> <p>AND All* existing features potentially affected by site works are maintained and adequately protected? <input type="checkbox"/></p> </div> <p>*If a suitably qualified ecologist has confirmed that a feature can be removed due to insignificant ecological value or poor health conditions, as long all the rest have been protected, then this box can be ticked.</p>	1 of 1 Credits	-	
Issue		Credits	Level	
Eco 4 Change of Ecological Value of Site	<p>Credits are awarded where the change in ecological value has been calculated in accordance with the Code requirements and is calculated to be: Change in Ecological Value</p> <div> <p>Major negative change: fewer than -9 <input type="radio"/></p> <p>Minor negative change: between -9 and -3 <input type="radio"/></p> <p>OR Neutral: between -3 and +3 <input checked="" type="radio"/></p> <p>Minor enhancement: between +3 and +9 <input type="radio"/></p> <p>Major enhancement: greater than 9 <input type="radio"/></p> </div>	2 of 4 Credits	-	
Eco 5 Building Footprint	<p>Credits are awarded where the ratio of combined floor area of all dwellings on the site to their footprint is: Ratio of Net Internal Floor Area: Net Internal Ground Floor Area</p> <div> <p>Credit Not Sought <input type="radio"/></p> <p>OR Houses: 2.5:1 OR Flats: 3:1 <input type="radio"/></p> <p>OR Houses: 3:1 OR Flats: 4:1 <input checked="" type="radio"/></p> <p>OR Houses & Flats Weighted (2.5:1 & 3:1) <input type="radio"/></p> <p>OR Houses & Flats Weighted (3:1 & 4:1) <input type="radio"/></p> </div>	2 of 2 Credits		